# EQUITY ACROSS EDUCATION & EMPLOYMENT PIPELINES

## INLAND EMPIRE/DESERT REGION

SEPTEMBER 2025

FOR LABOR MARKET RESEARCH
INLAND EMPIRE/DESERT

POWERED BY
California Community Colleges

# ACKNOWLEDGEMENTS

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An advisory committee, which included individuals from the Inland Empire/Desert Regional Consortium (IEDRC), Inland Economic Growth & Opportunity (IEGO) and subject matter experts provided input, information, and context used and cited in this report.

The COE would like to thank the following advisory committee members for supporting this project:

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Advisory committee members met to review and discuss initial findings, shared expertise and information that informed the data sources used, analysis conducted, recommendations and conclusions in the report. Please note, the analysis and recommendations in this report are those of the Inland Empire / Desert COE only and do not necessarily reflect the opinions of individual advisory committee members.

# EXECUTIVE SUMMARY

The Inland Empire/Desert (IE/D) region depends on a skilled and diverse workforce to meet the demands of its growing economy. This report examines the extent to which students in the K–12 and community college systems are equitably connected to middle-skill “quality jobs”, those that pay a living wage, offer stability and growth potential, and do not require a four-year degree.

Using a combination of labor market data from Lightcast, microdata from the U.S. Census Bureau (via IPUMS), and student records from state educational datasets, this report analyzes representation across the region’s education-to-employment pipeline. The analysis applies statistical tools, including the Proportionality Index, Proportion Gap, and P-value testing, to identify significant disparities in access, enrollment, and outcomes by race/ethnicity, gender, and age.

## Key Findings

The findings reveal multiple points of systemic leakage across the education-to-employment pipeline, with persistent underrepresentation of several key groups, most notably Hispanic or Latino, Black or African American, female, and younger students.

- Hispanic or Latino students dominate early education, comprising 68.4% of K–12 enrollment, but make up just 46.0% of quality job holders, highlighting a steep drop-off that reflects structural barriers in transition points from school to employment.
- Black or African American students engage in educational opportunities but face disparities in access to career pathways and lower completion rates. Only 4.5% of CTE pathway completers are Black, despite making up 6.6% of K–12 enrollment.
- Female students are underrepresented in 45 of the 92 community college programs aligned with quality jobs and hold just 38.3% of quality jobs despite comprising more than half of the labor force. This reflects occupational segregation and limited access to high-wage, male-dominated fields.
- Younger individuals (under 24) account for the majority of community college program enrollment but are significantly underrepresented in quality jobs. This suggests missed opportunities to support transitions through work-based learning and early career preparation.

Meanwhile, groups such as White and Asian students show patterns of steady or increasing representation along the pipeline, likely reflecting systemic advantages in access, support networks, and college-going behavior. Smaller populations, including American Indian, Pacific Islander, and students identifying as Two or More Races, show inconsistent patterns that may be masked by small sample sizes but nonetheless highlight areas needing targeted support.

The report also shows that mid-career workers (ages 35–54) are well represented in quality jobs but less so in community college programs, signaling a potential need to improve access to reskilling or upskilling pathways for this population.

## Recommendations

To address the equity gaps identified, the report offers four primary recommendations:

1. **Market Programs That Lead to Quality Jobs to Underrepresented Groups**

   Populations such as Hispanic or Latino, Black or African American, female, and younger learners remain underrepresented in both quality jobs and the quality job-aligned programs. Regional institutions should prioritize targeted outreach, culturally responsive marketing, and partnerships with community organizations to raise awareness of these opportunities. Faculty and counselors can play a key role by guiding students into these pathways and helping to reduce barriers through tailored mentorship and support.

2. **Improve Regional Collection and Use of Disaggregated Student Data**

   Current data gaps, particularly the lack of demographic information at the CTE pathway level, make it difficult to identify equity barriers and enrollment patterns across K–12 and community colleges. Improved collection and disaggregation of student-level data would allow institutions to better understand where gaps emerge and develop targeted strategies for guiding students into high-quality careers. Regional coordination across education systems would help align practices, strengthen the education-to-employment pipeline, and support equity-focused decision-making.

3. **More Research into the IE/D Education-to-Employment Pipeline Needed**

   This report provides a first step toward connecting K–12, community college, and labor market data to assess equity across the region's education-to-employment pipeline. More research is needed to understand systemic barriers, program access, and long-term employment outcomes for underrepresented students. Building on these findings through continued collaboration and inquiry can help institutions move from insight to action, ensuring that all students have supported pathways to quality employment.

4. **Create Targeted Work-Based Learning Opportunities**

   Work-based learning opportunities, such as internships and apprenticeships, are critical for helping students gain experience and employer connections. By aligning these programs with fields that both lead to quality jobs and show demographic disparities, colleges can better support underrepresented students in securing high-wage careers. This targeted approach strengthens equity while also ensuring the region's talent pipeline is well prepared to meet labor market needs.

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Together, these findings and recommendations provide a roadmap for advancing equity in the region's workforce systems. By ensuring that all students, regardless of race, gender, or background, have access to the programs and supports that lead to quality jobs, the Inland Empire/Desert (IE/D) region can build a more inclusive and economically resilient future.

# INTRODUCTION

The Inland Empire/Desert (IE/D) region's economy relies on a steady pipeline of skilled workers who begin their journey in the K–12 and community college systems. For this pipeline to be equitable, students of all races, ethnicities, genders, and ages must have access to the education and career opportunities that lead to high-quality employment.

This report examines whether the region's education-to-employment systems are providing equitable access to middle-skill jobs, those that require more than a high school diploma but less than a four-year degree and offer family-sustaining wages and opportunities for career growth. Specifically, it assesses whether students in regional K–12 career education pathways and community college CTE programs are being equitably prepared for and connected to the region's most promising quality job opportunities.

To do this, we compare demographic representation across several key points in the pipeline, K–12 enrollment, career pathway participation, community college programs, and regional workforce outcomes, to evaluate whether the system is functioning equitably for all students. This analysis uses two primary tools: the Proportionality Index and the Proportion Gap, both of which help determine whether specific groups are significantly over- or underrepresented compared to the regional labor force. To assess whether these differences are statistically meaningful, we applied Z-value calculations and P-value testing, using a 95% confidence level to ensure that the findings reflect actual disparities rather than random variation.

Throughout the report, the terms overrepresentation and underrepresentation reflect the results of this statistical analysis. These measures help identify where student and worker demographics diverge from broader population trends, revealing equity gaps that may signal barriers in access, retention, or transition into quality jobs. For example, overrepresentation in a particular program may indicate strong alignment with labor market needs, while underrepresentation may suggest missed opportunities or systemic barriers.

**Definitions for the purpose of this study:**

- "Equitable representation in Quality Jobs" means that the demographics of workers in Quality Jobs in the Inland Empire/Desert is comparable to those of the labor force in IE/D regions.
- "Equitable representation of students" means that the demographics of students enrolled in programs that train for one or more of the 89 Quality Jobs used in this study reflects the demographics of the labor force in IE/D regions.

By highlighting these patterns, the report aims to support K–12 and community college leaders, as well as workforce and community partners, in identifying where targeted efforts may be needed to ensure that all students, regardless of background, are equitably represented in the region's most promising educational and career pathways.

*Note: A full description of data sources and analytical methods used in this study can be found in Appendix A.*

The report seeks to answer four major questions:

- SECTION 1: Where do equity gaps exist, when comparing demographics of quality job workers and the regional labor force?
- SECTION 2: Where do equity gaps exist in Community College CTE programs that prepare students for quality jobs, when compared to regional labor force?
- SECTION 3: What is the alignment between K-12 Career Education Pathways with Community College CTE Programs that lead to quality jobs? How do the demographics of K12 Institutions align with Community College CTE programs and quality job occupations?
- SECTION 4: What systemic or institutional barriers limit equitable access and representation across the middle skill education-to-employment pipeline for “quality jobs” in the IE/D region, and what strategies can be developed to improve equitable access and outcomes for underrepresented groups?

# SECTION 1: WHERE DO EQUITY GAPS EXIST, WHEN COMPARING DEMOGRAPHICS OF QUALITY JOB WORKERS AND THE REGIONAL LABOR FORCE?

## 1.1: IDENTIFYING QUALITY JOBS

Middle-skill occupations, which typically require more than a high school diploma but less than a four-year degree, play a critical role in promoting economic mobility for a broad range of residents in the Inland Empire/Desert (IE/D) region. These jobs are often concentrated in high-demand industries such as construction, healthcare, manufacturing, and information technology, and they typically offer competitive wages, job stability, and clear pathways for career advancement. Community colleges are uniquely positioned to prepare students for these opportunities through accessible, affordable programs that align with local labor market needs. Understanding who holds these "quality jobs" is essential for ensuring equitable access and representation. This includes examining the demographic composition of workers in quality jobs compared to the regional labor force and community college student population.

For the purposes of this report, quality jobs in the IE/D region were identified based on the following criteria:

- **Middle skill**: Requires at least a high school diploma or equivalent and typically less than a bachelor's degree.
- **Job Availability**: Have at least 75 annual job openings in both Riverside and San Bernardino counties combined.
- **Provides a living wage**: Pays entry level wages (25th percentile) at or above the living wage of $20.76 per hour for a single adult.[1]

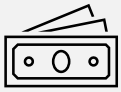
Based on the above criteria, 89 of the 798 occupations in the Standard Occupational Classification (SOC)[2] system met these criteria in the Inland Empire/Desert regions.

Here are some interesting data points for these occupations.

**385,137**
Total Jobs by 2023

**7%**
Additional Job Growth by 2028

**43,173**
Annual Job Openings through 2028



**$27.12**
Entry-level (25th Pct.) Hourly Earnings

[1] The UW self-sufficiency standard is currently used by the CO and other COEs to represent the living wage for an adult with single child living in 2024 is a $20.76 in Riverside County and $20.07 in San Bernadino County. Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California 2024. http://www.selfsufficiencystandard.org/California.

[2] "Standard Occupational Classification," Bureau of Labor Statistics, bls.gov/soc/

The following Exhibit 1.1.1 lists the 89 occupations that met the quality jobs definition for this study and grouped by the 2-Digit major group category.

## Exhibit 1.1.1: Quality Jobs in the Inland Empire Region (2023 - 2028)

| Occupations | 2023 Jobs | Job Growth – 2028 | Annual Job Openings | Entry-Level Wage |
|---|---|---|---|---|
| **Management Occupations** | | | | |
| General and Operations Managers (11-1021) | 22,953 | 13% | 2,579 | $35.56 |
| Administrative Services Managers (11-3012) | 2,441 | 14% | 282 | $39.13 |
| Facilities Managers (11-3013) | 1,588 | 13% | 180 | $37.55 |
| Transportation, Storage, and Distribution Managers (11-3071) | 4,509 | 13% | 499 | $37.06 |
| Food Service Managers (11-9051) | 6,186 | 0% | 761 | $22.61 |
| Property, Real Estate, and Community Association Managers (11-9141) | 4,115 | 6% | 408 | $22.33 |
| **Business and Financial Operations Occupations** | | | | |
| Claims Adjusters, Examiners, and Investigators (13-1031) | 1,751 | -4% | 121 | $34.82 |
| Cost Estimators (13-1051) | 2,850 | -4% | 243 | $28.56 |
| Loan Officers (13-2072) | 1,993 | -20% | 118 | $23.29 |
| **Computer and Mathematical Occupations** | | | | |
| Computer User Support Specialists (15-1232) | 3,812 | 9% | 327 | $24.97 |
| Network and Computer Systems Administrators (15-1244) | 1,633 | 12% | 133 | $37.82 |
| Computer Occupations, All Other (15-1299) | 3,593 | -1% | 258 | $28.25 |
| **Architecture and Engineering Occupations** | | | | |
| Architectural and Civil Drafters (17-3011) | 845 | 5% | 78 | $26.39 |
| Civil Engineering Technologists and Technicians (17-3022) | 729 | 15% | 90 | $30.25 |
| **Life, Physical, and Social Science Occupations** | | | | |
| Forest and Conservation Technicians (19-4071) | 578 | 12% | 91 | $28.00 |
| **Legal Occupations** | | | | |
| Paralegals and Legal Assistants (23-2011) | 2,384 | 23% | 384 | $23.64 |
| **Educational Instruction and Library Occupations** | | | | |
| Library Technicians (25-4031) | 1,212 | -1% | 215 | $23.57 |
| **Healthcare Practitioners and Technical Occupations** | | | | |
| Respiratory Therapists (29-1126) | 1,975 | 24% | 198 | $37.07 |
| Dental Hygienists (29-1292) | 1,652 | 2% | 138 | $50.55 |
| Clinical Laboratory Technologists and Technicians (29-2018) | 1,492 | 22% | 169 | $23.92 |
| Diagnostic Medical Sonographers (29-2032) | 806 | 23% | 81 | $40.28 |
| Radiologic Technologists and Technicians (29-2034) | 1,951 | 16% | 168 | $39.39 |
| Pharmacy Technicians (29-2052) | 4,592 | 13% | 569 | $22.02 |
| Psychiatric Technicians (29-2053) | 974 | 17% | 125 | $20.86 |
| Surgical Technologists (29-2055) | 1,115 | 13% | 96 | $30.19 |
| Veterinary Technologists and Technicians (29-2056) | 842 | 31% | 146 | $21.75 |
| Licensed Practical and Licensed Vocational Nurses (29-2061) | 8,646 | 8% | 836 | $31.30 |
| Medical Records Specialists (29-2072) | 1,462 | 4% | 123 | $21.90 |
| **Healthcare Support Occupations** | | | | |
| Orderlies (31-1132) | 712 | 16% | 134 | $21.15 |
| Physical Therapist Assistants (31-2021) | 794 | 20% | 158 | $35.36 |

| | | | | |
|---|---|---|---|---|
| Dental Assistants (31-9091) | 6,111 | 10% | 974 | $22.21 |
| Medical Equipment Preparers (31-9093) | 768 | 21% | 144 | $23.04 |
| Phlebotomists (31-9097) | 1,364 | 13% | 218 | $21.52 |
| Healthcare Support Workers, All Other (31-9099) | 1,976 | 8% | 301 | $21.64 |
| **Protective Services Occupations** | | | | |
| First-Line Supervisors of Police and Detectives (33-1012) | 1,073 | 48% | 194 | $65.92 |
| First-Line Supervisors of Firefighting and Prevention Workers (33-1021) | 491 | 41% | 77 | $47.08 |
| First-Line Supervisors of Security Workers (33-1091) | 929 | 12% | 119 | $22.33 |
| Firefighters (33-2011) | 2,816 | 16% | 311 | $29.15 |
| Correctional Officers and Jailers (33-3012) | 4,606 | 15% | 588 | $36.11 |
| Police and Sheriff's Patrol Officers (33-3051) | 6,617 | 11% | 660 | $38.70 |
| **Food Preparation and Serving Related Occupations** | | | | |
| Chefs and Head Cooks (35-1011) | 2,930 | 3% | 396 | $22.11 |
| **Sales and Related Occupations** | | | | |
| Insurance Sales Agents (41-3021) | 5,558 | 8% | 555 | $20.99 |
| Real Estate Brokers (41-9021) | 1,779 | -30% | 117 | $21.24 |
| Real Estate Sales Agents (41-9022) | 5,792 | 5% | 564 | $19.13 |
| **Building and Grounds Cleaning and Maintenance Occupations** | | | | |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012) | 2,804 | -1% | 301 | $18.57 |
| **Office and Administrative Support Occupations** | | | | |
| First-Line Supervisors of Office and Administrative Support Workers (43-1011) | 15,419 | 3% | 1,570 | $28.01 |
| Billing and Posting Clerks (43-3021) | 3,899 | -6% | 401 | $20.89 |
| Bookkeeping, Accounting, and Auditing Clerks (43-3031) | 15,695 | -3% | 1,769 | $21.17 |
| Payroll and Timekeeping Clerks (43-3051) | 1,900 | -9% | 185 | $24.05 |
| Court, Municipal, and License Clerks (43-4031) | 1,727 | 16% | 238 | $25.75 |
| Eligibility Interviewers, Government Programs (43-4061) | 3,233 | 6% | 317 | $22.01 |
| Interviewers, Except Eligibility and Loan (43-4111) | 2,229 | 8% | 318 | $20.79 |
| Human Resources Assistants, Except Payroll and Timekeeping (43-4161) | 1,470 | -7% | 158 | $23.51 |
| Information and Record Clerks, All Other (43-4199) | 2,059 | -2% | 249 | $23.10 |
| Public Safety Telecommunicators (43-5031) | 916 | 8% | 120 | $30.06 |
| Postal Service Mail Carriers (43-5052) | 3,139 | 2% | 247 | $22.06 |
| Production, Planning, and Expediting Clerks (43-5061) | 5,059 | 6% | 568 | $21.18 |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping (43-5111) | 2,442 | -8% | 298 | $22.38 |
| Executive Secretaries and Executive Administrative Assistants (43-6011) | 3,596 | 8% | 439 | $29.36 |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014) | 16,170 | 3% | 1,926 | $20.79 |
| Word Processors and Typists (43-9022) | 1,052 | -16% | 111 | $22.43 |
| Insurance Claims and Policy Processing Clerks (43-9041) | 1,817 | -14% | 146 | $21.05 |
| **Construction and Extraction Occupations** | | | | |
| Electricians (47-2111) | 9,059 | 9% | 986 | $23.46 |
| Glaziers (47-2121) | 911 | 10% | 107 | $24.23 |
| Operating Engineers and Other Construction Equipment Operators (47-2073) | 4,792 | 15% | 579 | $29.31 |
| Plumbers, Pipefitters, and Steamfitters (47-2152) | 5,178 | 16% | 647 | $22.32 |
| Carpenters (47-2031) | 20,225 | 4% | 1,758 | $23.60 |

| | | | | |
|---|---|---|---|---|
| Sheet Metal Workers (47-2211) | 991 | -2% | 98 | $23.27 |
| Structural Iron and Steel Workers (47-2221) | 1,293 | 12% | 145 | $21.44 |
| Solar Photovoltaic Installers (47-2231) | 944 | 32% | 164 | $24.24 |
| Construction and Building Inspectors (47-4011) | 1,481 | 10% | 193 | $29.17 |
| **Installation, Maintenance, and Repair Occupations** | | | | |
| First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011) | 6,102 | 5% | 569 | $31.42 |
| Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022) | 1,431 | 10% | 180 | $26.43 |
| Security and Fire Alarm Systems Installers (49-2098) | 880 | -3% | 93 | $22.66 |
| Aircraft Mechanics and Service Technicians (49-3011) | 2,283 | -3% | 196 | $29.24 |
| Automotive Service Technicians and Mechanics (49-3023) | 10,091 | 8% | 1,017 | $18.73 |
| Bus and Truck Mechanics and Diesel Engine Specialists (49-3031) | 5,072 | -1% | 471 | $24.03 |
| Mobile Heavy Equipment Mechanics, Except Engines (49-3042) | 2,709 | 15% | 324 | $27.29 |
| Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021) | 6,424 | 4% | 626 | $23.96 |
| Industrial Machinery Mechanics (49-9041) | 3,181 | 4% | 304 | $27.15 |
| Electrical Power-Line Installers and Repairers (49-9051) | 1,742 | 17% | 206 | $39.53 |
| Telecommunications Line Installers and Repairers (49-9052) | 1,235 | -9% | 109 | $28.61 |
| Maintenance and Repair Workers, General (49-9071) | 15,203 | 10% | 1,734 | $21.26 |
| Installation, Maintenance, and Repair Workers, All Other (49-9099) | 3,505 | 6% | 389 | $20.33 |
| **Production Occupations** | | | | |
| First-Line Supervisors of Production and Operating Workers (51-1011) | 5,248 | 8% | 594 | $25.76 |
| Water and Wastewater Treatment Plant and System Operators (51-8031) | 1,494 | 15% | 194 | $31.70 |
| **Transportation and Material Moving Occupations** | | | | |
| First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1047) | 9,697 | 17% | 1,364 | $24.60 |
| Heavy and Tractor-Trailer Truck Drivers (53-3032) | 48,447 | 9% | 6,095 | $21.95 |
| Bus Drivers, Transit and Intercity (53-3052) | 2,114 | -18% | 247 | $23.02 |

Source: Lightcast 2025.3 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

In the following section, we compare the demographic characteristics of workers employed in 89 identified quality jobs to those of the broader Inland Empire labor force, which includes individuals who are employed, unemployed, or actively seeking work. This comparison helps reveal potential disparities in who is accessing and benefiting from these quality job opportunities. By using the labor force as a baseline, we can assess whether certain demographic groups are under- or overrepresented among current workers in quality jobs. This same baseline will also be used in a subsequent section to compare demographics of students enrolled in community college programs that lead to these occupations, helping to identify structural inequities and barriers that may exist at multiple stages of the education-to-employment pipeline.

### 1.2: Quality Jobs Equity Analysis

For the purposes of this section, equitable representation is defined as the demographic distribution of workers in quality jobs that closely reflects the demographic distribution of individuals in the IE/D labor

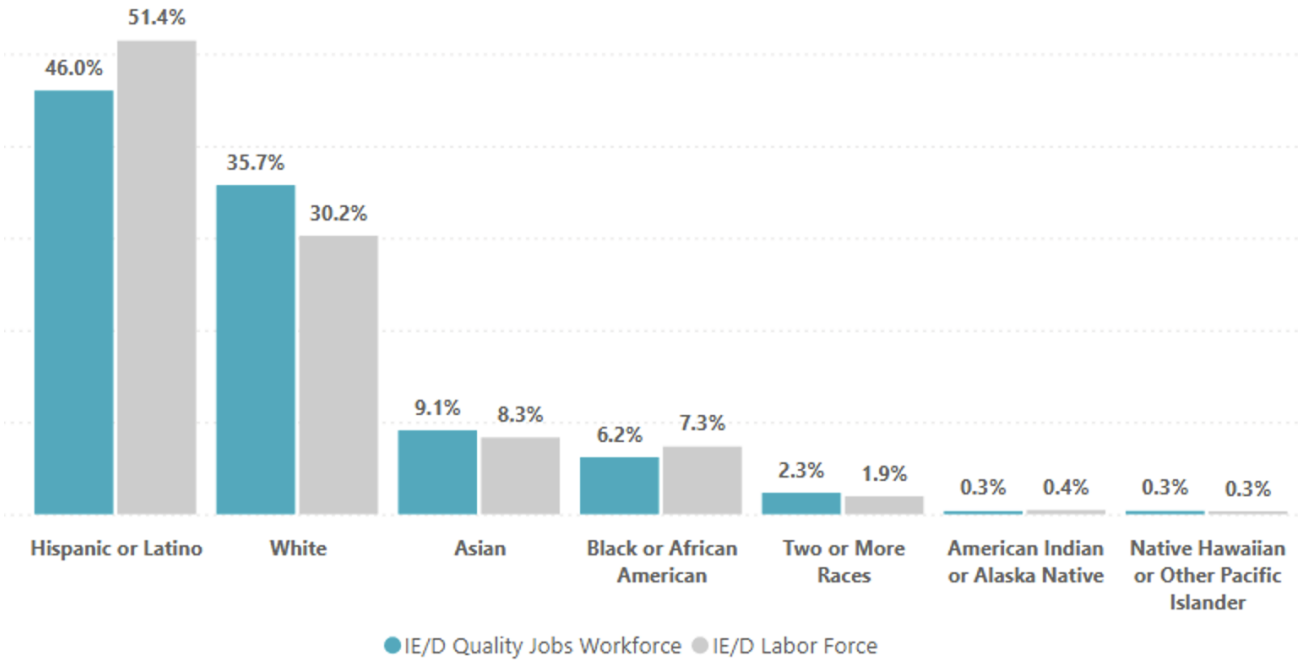
force. Our research will provide a comparison between these two cohorts to identify any potential disparities in who is accessing and benefiting from these quality job opportunities in the IE/D region.

Exhibit 1.2.1 compares the racial and ethnic makeup of the Inland Empire/Desert (IE/D) labor force with that of workers currently employed in quality jobs. The data highlights several notable disparities. Hispanic or Latino individuals, who make up the majority of the regional labor force (51.4%), are underrepresented in quality jobs, comprising only 46.0% of that workforce. Similarly, Black or African American workers represent 7.3% of the labor force but only 6.2% of quality job holders.

In contrast, White workers are overrepresented in quality jobs, accounting for 35.7% of that workforce compared to 30.2% of the labor force. Asian individuals appear slightly overrepresented as well, with 9.1% of quality job workers versus 8.3% in the labor force. Other groups, including individuals who identify as Two or More Races, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander, show relatively small differences, though they collectively make up a small share of the regional labor force.

These differences suggest that racial and ethnic disparities persist in access to and advancement within quality jobs. Underrepresentation of certain groups may point to broader structural barriers in the education-to-employment pipeline, such as unequal access to training programs, credentialing, job placement networks, or workplace inclusion. Understanding where these gaps occur helps inform strategies to ensure that all communities are equitably represented in occupations that offer living wages, career growth, and economic security.

### Exhibit 1.2.1: IE/D Quality Job Workforce and Labor Force - Race & Ethnicity Distribution (2023)




Source: Lightcast (2023). Version 2025.2. Retrieved from https://lightcast.io/ in July 2025.

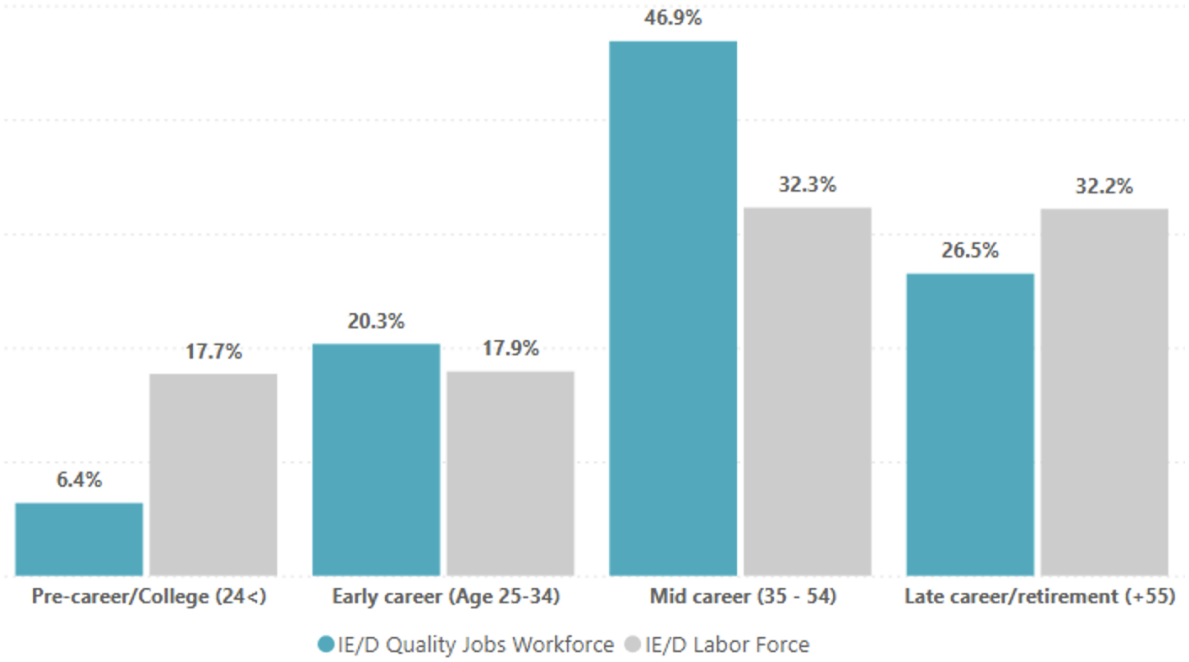
Exhibit 1.2.2 compares the age distribution of the Inland Empire/Desert (IE/D) labor force with that of workers employed in quality jobs across the region. Workers in the mid-career age group (35–54) are significantly overrepresented in quality jobs, making up 46.9% of the quality job workforce compared to

just 32.3% of the regional labor force, a difference of 14.6 percentage points. Conversely, younger workers in the pre-career/college age group (under 24) are notably underrepresented, accounting for only 6.4% of quality job holders despite comprising 17.7% of the labor force. Early career workers (ages 25–34) are slightly overrepresented, with 20.3% of quality job workers compared to 17.9% of the labor force.

Late career workers (ages 55 and over) appear to be proportionally represented, comprising 26.5% of the quality job workforce and 32.2% of the labor force, which is a modest gap of 5.7 percentage points.

These patterns suggest that quality jobs in the IE/D region are currently concentrated among workers in their prime working years, and younger individuals may face barriers to entering these roles, such as lack of experience, credentials, or access to career pathways. The underrepresentation of younger workers raises important questions about the accessibility of quality jobs to new entrants in the labor market and points to the need for intentional strategies to prepare and connect early career individuals to these opportunities.

### Exhibit 1.2.2: IE/D Labor Force and Quality Job Workforce Age Category Distribution (2023)



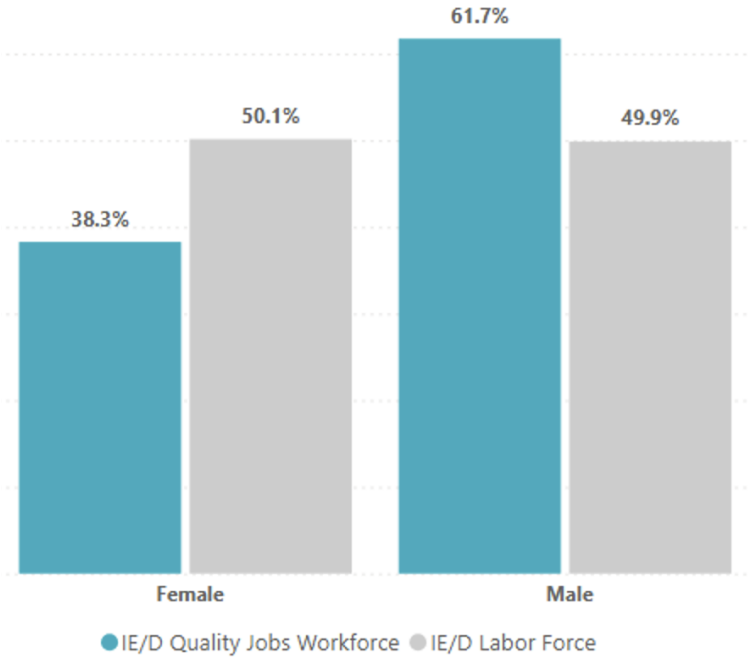

Source: Lightcast (2023). Version 2025.2. Retrieved from https://lightcast.io/ in July 2025.

Exhibit 1.2.3 presents the gender distribution of the Inland Empire/Desert (IE/D) labor force compared to that of workers employed in quality jobs. Male workers are significantly overrepresented in quality jobs, making up 61.7% of the quality job workforce, despite comprising only 49.9% of the regional labor force. Conversely, female workers are substantially underrepresented, accounting for just 38.3% of quality job holders, compared to 50.1% of the labor force.

This 11.8 percentage point gap in representation suggests that women in the IE/D region may face persistent barriers in accessing or advancing into quality jobs. These disparities may reflect broader systemic issues such as occupational segregation, unequal access to training and career advancement opportunities, or family-care constraints that limit entry into full-time or higher-paying roles. This

imbalance is particularly important to understand in the context of career education and workforce development, where community colleges and other institutions can play a critical role in promoting more equitable access to middle-skill, high-wage careers for all genders.

### Exhibit 1.2.3: IE/D Labor Force and Quality Job Workforce Gender Distribution (2023)




Source: Lightcast (2023). Version 2025.2. Retrieved from https://lightcast.io/ in July 2025.

## 1.3 Quality Jobs Disproportional Impact Analysis

The previous section provided a snapshot of how different demographic groups are represented in quality jobs compared to the overall labor force in the Inland Empire/Desert region. While these visual comparisons highlight meaningful differences, it's important to go a step further to understand whether those differences are statistically significant or potentially due to chance. In the next section, we use two tools to assess the extent of disproportionate representation across race/ethnicity, gender, and age groups: the Proportionality Index, which shows whether a group is over- or underrepresented relative to its share of the labor force, and P-value testing, which tells us whether these differences are large enough to be considered statistically significant. Together, these tools provide a more rigorous way to identify patterns of inequity and help distinguish between small variations and meaningful disparities that may indicate systemic barriers.

Exhibit 1.3.1 shows the number of quality jobs (out of 89 total) where there is either highly underrepresentation or highly overrepresentation of specific demographic groups—based on comparisons between workers in quality jobs and the broader IE/D labor force. To ensure the analysis focuses on meaningful disparities, we filtered out cases where the difference was not statistically significant at the 95% confidence level (P-value > 0.05). This step is critical in a disproportionate impact

study because it helps distinguish between real, systemic patterns and random variations, allowing for more accurate identification of equity gaps that may require targeted intervention.

### Exhibit 1.3.1: Quality Jobs with Significant Under/Over-Representation

| Demographic Category | Quality Jobs with Underrepresentation | Quality Jobs with Overrepresentation |
|---|---|---|
| Hispanic or Latino | 49 | 5 |
| White | 14 | 54 |
| Black or African American | 12 | 9 |
| Asian | 8 | 31 |
| Two or More Races | | 7 |
| Female | 42 | 39 |
| Male | 39 | 42 |
| Pre-career/College (24<) | 70 | 2 |
| Early career (Age 25-34) | 11 | 49 |
| Mid-career (35 - 54) | | 84 |
| Late career/retirement (+55) | 64 | 8 |

Based on the results shown in Exhibit 1.3.1, the following section will analyze the highest under and highest over representation in the following demographic categories:

- **Hispanic or Latino individuals** are highly underrepresented in 49 of the 89 quality jobs.
    - This reflects a sizable and consistent equity gap, especially given that Hispanic or Latino individuals make up more than half of the IE/D labor force. The volume of underrepresentation across many occupations suggests structural barriers affecting access to quality employment.
- **Females** are highly underrepresented in 42 of the 89 quality jobs.
    - This pattern is consistent with known gender-based disparities in middle-skill and technical fields and highlights the need to explore access to training programs and advancement pathways for women in the region.
- **Black or African American individuals** are highly underrepresented in 12 of the 89 quality jobs.
    - While fewer in number, these occupations remained statistically significant even after removing less confident records (P-value > 0.05), suggesting persistent, measurable inequities that warrant focused attention.
- **Pre-career/College (under 24) individuals** are highly underrepresented in 70 of the 89 quality jobs.
    - This substantial gap highlights the difficulty younger workers face in accessing quality jobs, likely due to experience requirements or misalignment between education and workforce entry points. It underscores the importance of early exposure and work-based learning opportunities.
- **White individuals** are highly overrepresented in 54 of the 89 quality jobs.
    - This trend, while not an equity gap affecting White individuals themselves, is an important indicator of systemic imbalance. Their overrepresentation in quality jobs suggests that other groups may be encountering structural barriers that prevent equitable access to these occupations.
- **Male individuals** are highly overrepresented in 42 of the 89 quality jobs.

- Similar to White individuals, males appear disproportionately concentrated in many quality jobs, which points to possible barriers in program recruitment, occupational culture, or advancement opportunities for non-male populations.

After identifying key demographic groups with disproportionate representation in the region's quality jobs, it is important to examine these patterns in greater depth. The following section provides focused narratives for five groups, Hispanic or Latino, Females, Black or African American, Pre-career and White individuals, that stood out based on the scale and consistency of their under/over-representation across quality job occupations. These examples illustrate how structural barriers may limit access to high-wage, high-growth employment and underscore the importance of equity-focused strategies that address gaps across workforce systems and occupational sectors.

### Hispanic or Latino individuals are highly underrepresented in 49 of the 89 quality jobs

Despite comprising more than half of the Inland Empire/Desert (IE/D) labor force, Hispanic or Latino individuals are underrepresented in over half (49) of the region's quality jobs, highlighting a persistent and systemic equity gap.

As shown in Exhibit 1.3.2, the largest concentrations of underrepresentation occur in five major occupational sectors: Healthcare Practitioners and Technical, and Office and Administrative Support (9 occupations each), Protective Services (6), Management (5), and Business and Financial Operations (3). These sectors typically offer middle-skill, living-wage employment and align closely with community college training programs.

This widespread disparity suggests barriers in access, education, or hiring, and underscores the need for targeted outreach, culturally responsive supports, and expanded training opportunities. Increasing Hispanic or Latino representation in these occupations is vital to building a workforce that reflects the region's diversity.

#### Exhibit 1.3.2: Count of Quality Jobs with Significant Underrepresentation by Occupational Sector – Hispanic or Latino Individuals

| Occupational Category | Quality Jobs with Underrepresented |
|---|---|
| Healthcare Practitioners and Technical Occupations | 9 |
| Office and Administrative Support Occupations | 9 |
| Protective Service Occupations | 6 |
| Management Occupations | 5 |
| Business and Financial Operations Occupations | 3 |

### Females are highly underrepresented in 42 of the 89 quality jobs

Although women make up roughly half of the Inland Empire/Desert (IE/D) labor force, they are significantly underrepresented in 42 of the region's 89 quality jobs, particularly in occupations traditionally dominated by men.

As shown in Exhibit 1.3.3, the largest gaps occur in five major occupational sectors: Installation, Maintenance, and Repair (13 occupations); Construction and Extraction (8); Protective Services (6); Computer and Mathematical (3); and Management (3). These fields offer strong wages, benefits, and advancement potential, yet continue to lack gender diversity.

National data reinforces this trend. According to the U.S. Department of Labor (2022), women remain concentrated in lower-wage, undervalued roles and are underrepresented in skilled trades and technical fields.[3] Apprenticeship data further shows that women comprise less than 10% of participants in many high-wage, nontraditional trades.[4]

To address this persistent gender gap, community colleges can expand inclusive career education pathways by improving outreach, mentorship, childcare access, and culturally responsive instruction. Ensuring more women can access and succeed in these fields is not only key to equity, but also to maximizing the region's full workforce potential.

### Exhibit 1.3.3: Count of Quality Jobs with Significant Underrepresentation by Occupational Sector – Female Workers

| Occupational Category | Quality Jobs with Underrepresented |
|---|---|
| Installation, Maintenance, and Repair Occupations | 13 |
| Construction and Extraction Occupations | 8 |
| Protective Service Occupations | 6 |
| Computer and Mathematical Occupations | 3 |
| Management Occupations | 3 |

**Black or African American individuals are highly underrepresented in 12 of the 89 quality jobs**

Black or African American workers are significantly underrepresented in 12 of the region's 89 quality jobs, based on results that remained statistically significant at the 95% confidence level. While this number is smaller than for other demographic groups, the persistence of these disparities points to structural barriers in access to high-quality employment.

As shown in Exhibit 1.3.4, underrepresentation is concentrated in five major occupational sectors: Construction and Extraction (3 occupations); Installation, Maintenance, and Repair (3); Management (2); Office and Administrative Support (2); and Healthcare Support (1). These sectors include many middle-skill jobs offering stability, growth, and living wages yet remain less accessible to Black workers.

Research from the American Council on Education (2022) emphasizes that achieving racial equity in education and employment requires more than access, it calls for equity-minded practices that

[3] Bearing the Cost: How Overrepresentation in Undervalued Jobs Disadvantaged Women During the Pandemic. US Department of Labor. March 15, 2022. www.dol.gov/sites/dolgov/files/WB/media/BearingTheCostReport.pdf

[4] "Discover Apprenticeship: Women in Apprenticeship." U.S. Department of Labor, apprenticeship.gov, February 2021. Accessed February 2022. https://www.apprenticeship.gov/sites/default/files/women-in-apprenticeship-fact-sheet_0.pdf.

acknowledge and address the impacts of structural racism and historical exclusion.[5] To close these gaps, community colleges and workforce partners in the IE/D region can expand culturally responsive instruction, mentorship, and targeted support programs that improve access and outcomes for Black learners and workers. A more inclusive workforce begins with equitable pathways into quality jobs.

### Exhibit 1.3.4: Count of Quality Jobs with Significant Underrepresentation by Occupational Sector – Black or African American Individuals

| Occupational Category | Quality Jobs with Underrepresented |
|---|---|
| Construction and Extraction Occupations | 3 |
| Installation, Maintenance, and Repair Occupations | 3 |
| Management Occupations | 2 |
| Office and Administrative Support Occupations | 2 |
| Healthcare Support Occupations | 1 |

**Pre-career/College (Under 24) individuals are highly underrepresented in 70 of the 89 quality jobs**

Individuals under the age of 24 are highly underrepresented in 70 of the 89 quality jobs across the Inland Empire/Desert (IE/D) region. While some underrepresentation is expected, since many in this age group are still completing their education or just entering the workforce, the magnitude and consistency of this gap raise important questions about the accessibility of early career pathways.

As shown in Exhibit 1.3.5, underrepresentation is most concentrated in five major occupational categories: Office and Administrative Support (16 occupations), Installation, Maintenance, and Repair (11), Healthcare Practitioners and Technical (10), Construction and Extraction (6), and Management (6). These sectors include many middle-skill, living-wage jobs that are well-aligned with the training and credentialing programs offered through community colleges.

This pattern suggests that younger workers may lack early exposure to these careers or access to the training needed to enter them, particularly through work-based learning, dual enrollment, or stackable credential pathways. Strengthening connections between education and employment through pre-apprenticeships, internships, and early college programs can help students transition more effectively into quality jobs. Expanding these opportunities is key to ensuring that young adults are not left behind at a pivotal stage in their career development, and to building a more robust, future-ready regional workforce.

[5] American Council on Education. (2022). Equity-minded practices to support Black students and faculty. https://www.equityinhighered.org/resources/spotlights/equity-minded-practices-to-support-black-students-and-faculty/

### Exhibit 1.3.5: Count of Quality Jobs with Significant Underrepresentation by Occupational Sector – Pre-career or college-aged individuals (under age 24)

| Occupational Category | Quality Jobs with Underrepresented |
|---|---|
| Office and Administrative Support Occupations | 16 |
| Installation, Maintenance, and Repair Occupations | 11 |
| Healthcare Practitioners and Technical Occupations | 10 |
| Construction and Extraction Occupations | 6 |
| Management Occupations | 6 |

**White individuals are highly overrepresented in 54 of the 89 quality jobs**

White individuals are highly overrepresented in 54 of the 89 quality jobs in the Inland Empire/Desert (IE/D) region. Although White workers make up a smaller share of the IE/D labor force than Hispanic or Latino individuals, they are disproportionately represented in quality jobs across a broad range of occupational sectors.

As shown in Exhibit 1.3.6, the greatest concentrations of overrepresentation appear in five key sectors: Office and Administrative Support (10 occupations), Installation, Maintenance, and Repair (9), Construction and Extraction (5), Management (5), and Protective Services (5). These fields represent many of the region's high-wage, middle-skill opportunities, suggesting patterns of occupational access and advantage.

While overrepresentation does not constitute an equity gap for White workers, it may signal the presence of structural advantages, such as stronger access to professional networks, credentialing pathways, or hiring practices, that can contribute to disparities for other groups. As emphasized in earlier findings, understanding where overrepresentation occurs is critical to diagnosing how and why certain populations face barriers to entry, persistence, or advancement in quality jobs.

Community colleges and workforce partners can use these insights to evaluate recruitment pipelines, program design, and training environments to ensure that access to high-quality employment pathways is equitable and inclusive across all racial and ethnic groups. Promoting equity requires not only supporting underrepresented populations but also examining and addressing the systemic factors that perpetuate uneven access to opportunity.

### Exhibit 1.3.6: Count of Quality Jobs with Significant Over-Representation by Occupational Sector – White Individuals

| Occupational Category | Quality Jobs with Underrepresented |
|---|---|
| Office and Administrative Support Occupations | 10 |
| Installation, Maintenance, and Repair Occupations | 9 |
| Construction and Extraction Occupations | 5 |
| Management Occupations | 5 |

| | |
|---|---|
| Protective Service Occupations | 5 |

**Male individuals are highly overrepresented in 42 of the 89 quality jobs**

Although men make up just under half of the regional labor force, they hold a disproportionately large share of quality jobs, particularly in technical, skilled trades, and physically intensive occupations.

As shown in Exhibit 1.3.7, the highest concentrations of overrepresentation are found in five key occupational categories: Installation, Maintenance, and Repair (13 occupations), Construction and Extraction (8), Protective Services (6), Computer and Mathematical (3), and Management (3). These fields are among the most stable and well-compensated in the region, yet they continue to reflect long-standing gender imbalances.

This overrepresentation does not signal an equity gap for men, but it does point to structural patterns that limit access for women and other gender-diverse individuals. As noted by the U.S. Department of Labor (2022), women remain significantly underrepresented in many apprenticeship and skilled trade programs, due in part to gender bias, cultural norms, and lack of support structures within nontraditional fields.[6]

Addressing these disparities will require community colleges and workforce systems to proactively design more inclusive education and employment pathways. This includes expanding outreach to female and nonbinary students, building mentorship networks, and fostering training environments that challenge occupational stereotypes. Enhancing gender diversity in traditionally male-dominated sectors is essential not only for equity, but also for addressing labor shortages and maximizing the full talent potential of the region.

### Exhibit 1.3.7: Count of Quality Jobs with Significant Over-Representation by Occupational Sector – Male Individuals

| Occupational Category | Quality Jobs with Underrepresented |
|---|---|
| Installation, Maintenance, and Repair Occupations | 13 |
| Construction and Extraction Occupations | 8 |
| Protective Service Occupations | 6 |
| Computer and Mathematical Occupations | 3 |
| Management Occupations | 3 |

## 1.4 Intersectionality of Race/Ethnicity and Gender in Quality Jobs

The previous sections highlighted disparities in representation across key demographic groups, such as race/ethnicity, gender, and age, revealing where workers are underrepresented in quality jobs across the Inland Empire/Desert region. While these findings point to important equity gaps, a more complete understanding requires examining how these identities intersect. The following section takes a closer

[6] Bearing the Cost: How Overrepresentation in Undervalued Jobs Disadvantaged Women During the Pandemic. US Department of Labor. March 15, 2022. www.dol.gov/sites/dolgov/files/WB/media/BearingTheCostReport.pdf

look at the combined effects of race/ethnicity and gender to reveal where disparities are most pronounced. This deeper analysis helps identify specific populations, such as Hispanic women or Asian men, who may face compounded barriers in accessing quality jobs. For faculty, counselors, and community partners, these insights can inform more intentional outreach, program design, and student support strategies to ensure equitable preparation for and connection to high-quality career pathways.

Exhibit 1.4.1 displays the demographic distribution of workers in quality jobs, disaggregated by both race/ethnicity and gender. For context, the exhibit also includes comparative demographic proportions for the overall IE/D population, the regional labor force, and the combined workforce across all 89 quality job occupations.

## Exhibit 1.4.1: Race & Ethnicity and Gender Distribution

| | Hispanic or Latino | | White | | Black or African American | | Asian | |
|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male |
| **IE/D Population** | 26.7% | 27.1% | 13.9% | 14.1% | 3.6% | 3.6% | 4.2% | 3.8% |
| **IE/D Labor Force** | 25.6% | 25.8% | 15.0% | 15.2% | 3.7% | 3.6% | 4.4% | 3.9% |
| **Quality Jobs Workforce** | 20.2% | 25.8% | 10.3% | 19.8% | 4.5% | 3.2% | 1.3% | 1.5% |
| | | | | | | | | |
| **Occupational Sectors of Quality Jobs (89)** | | | | | | | | |
| Architecture and Engineering | 10.6% | 46.1% | 4.5% | 22.5% | | 1.4% | 0.7% | 2.8% |
| Business and Financial Operations | 20.1% | 4.5% | 16.4% | 40.4% | | 7.0% | 1.9% | |
| Computer and Mathematical | 10.2% | 11.0% | 10.2% | 29.5% | 18.6% | 11.4% | | 2.1% |
| Construction and Extraction | 10.2% | 72.1% | | 10.5% | | 3.5% | | |
| Healthcare Practitioners and Technical | 19.5% | 12.2% | 20.0% | 3.5% | 11.3% | 0.2% | 2.2% | 1.0% |
| Healthcare Support | 45.5% | 7.0% | 10.3% | 6.6% | 15.5% | 3.0% | 1.6% | 1.8% |
| Installation, Maintenance, and Repair | 3.5% | 48.5% | 0.8% | 33.0% | 0.3% | 1.9% | | 0.1% |
| Life, Physical, and Social Science | 9.5% | 32.5% | | 28.6% | | 10.3% | | |
| Management | 14.8% | 22.6% | 10.6% | 24.8% | 4.1% | 5.4% | 2.0% | 2.3% |
| Office and Administrative Support | 39.8% | 7.6% | 22.6% | 5.8% | 2.9% | 2.0% | 1.8% | 1.5% |

Source: U.S. Census Bureau's American Community Survey (ACS), accessed via IPUMS USA, a project of the Minnesota Population Center at the University of Minnesota. Retrieved July 2025

- Looking back at the original insight from Exhibit 1.3.1, Hispanic or Latino individuals are highly underrepresented in 49 of the 89 quality jobs.

This reflects a sizable and consistent equity gap, especially given that Hispanic or Latino individuals make up more than half of the IE/D labor force. The volume of underrepresentation across many occupations suggests structural barriers affecting access to quality employment.

A closer look at the intersection of race/ethnicity and gender reveals that Hispanic women experience the most pronounced drop in representation between the labor force and the quality jobs workforce. While they make up 25.6% of the regional labor force, they account for only 20.2% of quality job holders, a decline of 5.4%, the largest among all demographic subgroups analyzed. In contrast, Hispanic men maintain nearly equal representation in the labor force and quality jobs (25.8% in both), highlighting a gender-based gap within the same ethnic group.

This suggests that the broader underrepresentation of Hispanic or Latino individuals in quality jobs is being driven disproportionately by outcomes for women. This insight emphasizes the need for equity strategies that are not only culturally responsive but also gender-conscious, ensuring that Hispanic female students and workers are actively recruited, supported, and retained in middle-skill programs and pathways that lead to quality employment. Faculty, counselors, and community partners can use this data to better tailor outreach, mentorship, and wraparound services to address the unique barriers faced by this population.

- Looking back at the original insight from Exhibit 1.3.1, Females are highly underrepresented in 42 of the 89 quality jobs.

This pattern is consistent with known gender-based disparities in middle-skill and technical fields and highlights the need to explore access to training programs and advancement pathways for women in the region.

When disaggregated by race/ethnicity, the data reveals that White and Hispanic women experience the largest gaps in representation between the labor force and quality jobs. White women drop from 15.0% of the labor force to just 10.3% of quality job holders, a 4.7 percentage point decline, while Hispanic women drop 5.4 points. Asian women also show a substantial drop, from 4.4% to 1.3% (–3.1 percentage points), despite generally high levels of educational attainment.

These findings suggest that gender disparities in quality job access are not uniform across racial and ethnic groups. Tailored strategies are needed to ensure women of all backgrounds, particularly those from historically marginalized communities, have equitable access to training, credentials, and supportive learning environments. Faculty and workforce partners should consider culturally responsive, identity-conscious interventions that address the intersecting challenges of gender and race in career education.

- Looking back at the original insight from Exhibit 1.3.1, Black or African American individuals are highly underrepresented in 12 of the 89 quality jobs.

While fewer in number, these occupations remained statistically significant even after removing less confident records (P-value > 0.05), suggesting persistent, measurable inequities that warrant focused attention.

A closer look at representation by gender reveals that Black women are slightly overrepresented in quality jobs relative to their labor force share, increasing from 3.7% to 4.5%. In contrast, Black men are underrepresented, declining from 3.6% of the labor force to just 3.2% in the quality jobs workforce. Though the numerical difference appears small, this underrepresentation is concentrated in specific high-wage occupational categories, such as Construction, Installation, and Management, which are critical to upward mobility.

These findings underscore the importance of using nuanced, identity-informed approaches to equity, recognizing that barriers and opportunities may differ significantly even within the same racial or ethnic group. Faculty, counselors, and institutional partners can respond by investing in targeted support for Black male students, including mentorship, culturally responsive teaching practices, and stronger connections to high-opportunity sectors where they are currently underrepresented.

- Looking back at the original insight from Exhibit 1.3.1, Pre-Career/College-Aged individuals are highly overrepresented in 70 of the 89 quality jobs.

This substantial gap highlights the difficulty younger workers face in accessing quality jobs, likely due to experience requirements or misalignment between education and workforce entry points. It underscores the importance of early exposure and work-based learning opportunities.

The underrepresentation of individuals under age 24 is evident across nearly all occupational categories examined in this study. Despite comprising 17.7% of the regional labor force, they make up just 6.4% of the quality jobs workforce, a gap of over 11 percentage points. This disparity is particularly visible in sectors such as Office and Administrative Support, Construction, and Healthcare, which traditionally serve as entry points to career advancement.

While some level of underrepresentation is expected due to this group's early stage in the education-to-employment pipeline, the scale of the gap suggests missed opportunities to better prepare and transition young people into quality jobs. For K–12 and community college partners, this highlights the need to strengthen early career exposure, dual enrollment, industry-aligned training, and paid work-based learning experiences that allow students to build experience and credentials before age 24.

- Looking back at the original insight from Exhibit 1.3.1, White individuals are highly overrepresented in 54 of the 89 quality jobs.

This trend, while not an equity gap in the traditional sense, is an important reference point for understanding overrepresentation. It can help identify where systemic advantages may be reinforcing unequal access for other groups.

The overrepresentation is most concentrated among White males, whose share of the quality jobs workforce (19.8%) exceeds their share of the regional labor force (15.2%) by 4.6 percentage points. In contrast, White women are underrepresented, with a 4.7 percentage point drop from the labor force to quality jobs.

This divergence highlights how systemic advantages tend to benefit White men most strongly, particularly in middle-skill roles that offer stability and upward mobility. These patterns reinforce the importance of examining overrepresentation not as an isolated outcome, but as a reflection of hiring pipelines, institutional culture, and structural access that may limit opportunities for others. For educators and regional partners, this means identifying where program entry points or pathways may implicitly favor certain populations and reworking them to ensure fair access for all.

- Looking back at the original insight from Exhibit 1.3.1, Males are highly overrepresented in 42 of the 89 quality jobs.

Similar to White individuals, males appear disproportionately concentrated in many quality jobs, which points to possible barriers in program recruitment, occupational culture, or advancement opportunities for non-male populations.

Disaggregated data confirms that male overrepresentation is particularly concentrated in traditionally male-dominated sectors, such as Installation, Maintenance, and Repair (48.5% of quality job holders), Construction (72.1%), and Protective Services (more than 60%). These sectors offer strong wages and stability but continue to reflect gender-based occupational segregation that limits access for women and nonbinary individuals.

This pattern reinforces the need to design more inclusive pathways into technical, mechanical, and protective service careers. Increasing gender diversity in these fields requires intentional strategies, such as female-centered outreach, mentorship programs, and supportive training environments, that challenge stereotypes and lower barriers to entry. Community colleges and K–12 systems have a

central role to play in reshaping the gender dynamics of these industries by normalizing female participation and leadership in high-wage, middle-skill careers.

The preceding analysis highlights key equity gaps in access to quality jobs across the Inland Empire/Desert region, revealing where specific racial, ethnic, gender, and age groups are underrepresented, even in occupations that offer stability, livable wages, and upward mobility. These disparities are not isolated workforce outcomes; they are deeply connected to how individuals move through the education system and into employment.

To better understand where inequities begin and how they might be addressed, the next section shifts focus to the education side of the pipeline, examining whether students enrolled in community college programs that prepare workers for quality jobs reflect the diversity of the broader labor force. This education-to-employment connection is essential for designing programs, student support, and policies that ensure all students, regardless of background, have equitable pathways into high-quality careers.

## SECTION 2: WHERE DO EQUITY GAPS EXIST IN COMMUNITY COLLEGE CTE PROGRAMS THAT PREPARE STUDENTS FOR QUALITY JOBS, WHEN COMPARED TO THE REGIONAL LABOR FORCE?

### 2.1: Identifying Quality Job-Aligned Programs

Following the equity assessment of workers in quality jobs, this section turns attention to the community college programs that prepare students for those occupations. Using a statewide crosswalk developed collaboratively by the California Community Colleges Chancellor's Office and the regional Centers of Excellence (COEs), each program has been aligned to one or more quality job occupations identified in Section 1. This crosswalk allows for a more accurate understanding of how well community college career education programs are equitably preparing students for the regional labor market.

To assess equitable representation in these programs, the demographic composition of students enrolled in quality job-aligned programs is compared to the overall IE/D labor force. This comparison helps identify where disparities may be forming within the education-to-employment pipeline, particularly across race/ethnicity, gender, and age groups. Identifying these equity gaps is essential to ensuring that all student populations have access to the training and credentials needed to compete for quality jobs in high-growth, high-wage industries.

All program and enrollment data used in this section reflects the 2023 academic year, consistent with labor force and workforce data presented in Section 1. A complete list of the 92 community college programs identified in this study can be viewed in Appendix B. By examining the demographics of those currently working in quality jobs and those students enrolled in programs that lead to these quality jobs, this analysis offers a more comprehensive view of where structural barriers may emerge within the education-to-employment pipeline, and where targeted outreach, program design, and student support can help advance equity.

### 2.2: Quality Job-Aligned Program Equity Analysis

For the purposes of this section, equitable representation is defined as the demographic composition of students enrolled in quality job-aligned programs is compared to the overall IE/D labor force. Our research will provide a comparison between these two cohorts to identify any potential disparities in students who are accessing and benefiting from the training for these quality job opportunities in the IE/D region.

Exhibit 2.2.1 compares the racial and ethnic distribution of Inland Empire/Desert (IE/D) community college students enrolled in programs aligned with quality jobs to the demographic makeup of both the regional labor force and the current workforce employed in those jobs. The data reveals important differences in representation across these three stages of the education-to-employment pipeline.

Hispanic or Latino students represent a significantly larger share of enrollment in quality job-aligned programs (64.3%) than their share of the labor force (51.4%) or the quality job workforce (46.0%). While this reflects strong participation among Hispanic students at the educational level, the lower representation at the employment stage suggests potential barriers in program completion, credential attainment, or labor market entry. Guided Pathways emphasizes the importance of clear, supported transitions from education to employment, and this drop-off underscores the need for stronger alignment between programs and workforce connections for Hispanic or Latino learners.[7]

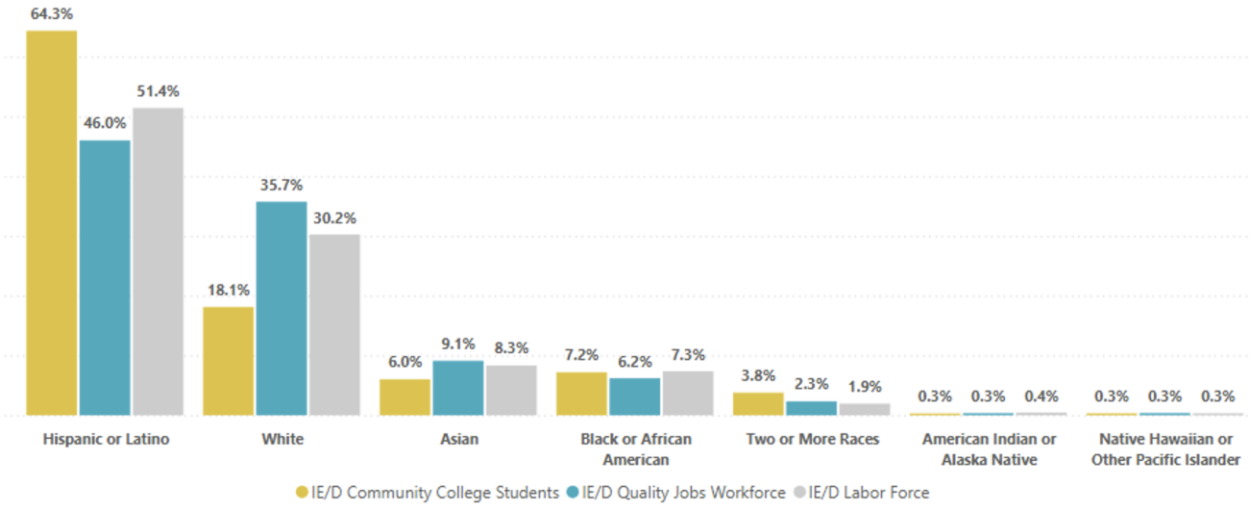
In contrast, White students account for only 18.1% of enrollment in quality job-aligned programs, despite making up 30.2% of the labor force and 35.7% of quality job holders. This underrepresentation in the education pipeline raises questions about outreach, access, or interest in these programs among White populations, particularly as it relates to regional workforce needs.

Asian and Black or African American students each show fairly consistent representation across education, labor force, and employment, though small variances may still warrant attention. These patterns affirm the importance of tracking progress and outcomes through an equity lens, not just at the point of enrollment, but across each stage of a student's academic and career journey. Using a Guided Pathways approach, institutions can strengthen advising, contextualized learning, and employment supports to ensure all student groups are equitably served from entry to career.

These findings offer valuable insights into how different racial and ethnic groups engage with career education and transition into the regional workforce. Where overrepresentation in college enrollment does not carry through to employment, particularly in the case of Hispanic or Latino students, it signals potential equity gaps in program completion, credential attainment, or hiring and retention. Understanding these patterns is critical for designing more effective, inclusive strategies that bridge education and employment in ways that serve all communities equitably.

[7] California Community Colleges Chancellor's Office. (2021). Guided Pathways: Implementing the California Guided Pathways Model. https://www.cccco.edu/College-Professionals/Guided-Pathways

## Exhibit 2.2.1: IE/D Students in Quality Job-Aligned Programs and Labor Force - Race & Ethnicity Distribution (2023)




Student Data Source: Lightcast (2023). Version 2025.2. Retrieved from https://lightcast.io/ in July 2025 & California Community Colleges Chancellor's Office. (n.d.). Full Time Equivalent Students (FTES) Summary Report. Data Mart. Retrieved July 2025

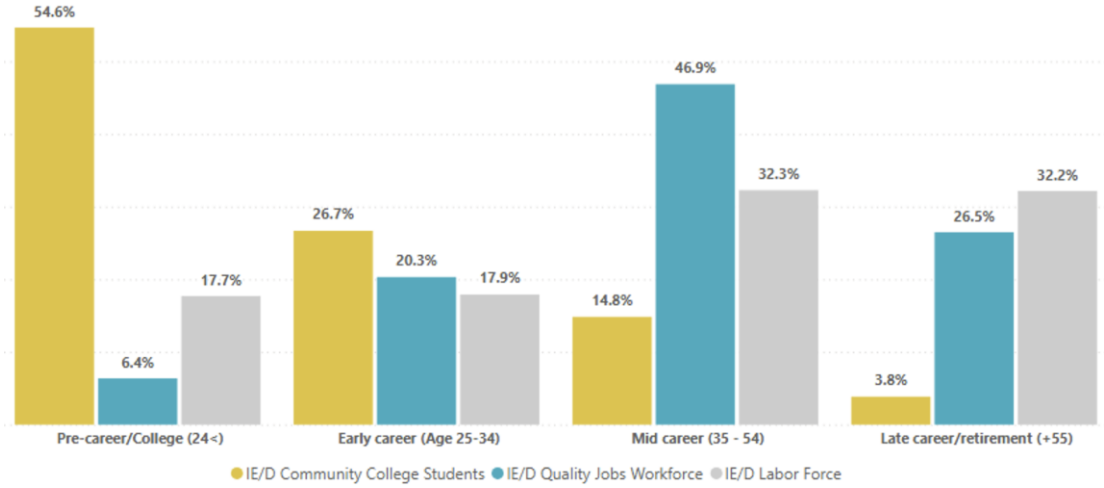
Exhibit 2.2.2 illustrates the age distribution of students enrolled in quality job-aligned programs compared to the IE/D labor force and quality jobs workforce. The data shows clear age-based imbalances that reflect both the current role of community colleges and areas of opportunity for deeper Guided Pathways implementation.

Students under 24 make up more than half (54.6%) of enrollment, while they represent only 17.7% of the labor force and just 6.4% of workers in quality jobs. While this overrepresentation at the education stage is expected due to the traditional college-going age, the substantial drop in employment representation highlights a critical equity issue: young learners are not yet accessing quality jobs at the rate needed to support upward mobility. This reinforces the importance of work-based learning, structured internships, and strong employer connections, all emphasized within the Guided Pathways framework as key to smoothing the transition from education into living-wage employment.

Meanwhile, mid-career adults (35–54) and late-career learners (55+) are significantly underrepresented in enrollment compared to their strong presence in the workforce. These gaps suggest that community colleges may not be reaching or retaining adult learners who could benefit from reskilling or advancement opportunities. Guided Pathways calls for flexible program design and proactive supports that meet the needs of working learners, which could improve access and outcomes for these underrepresented age groups.

Together, these age-based trends highlight the importance of designing programs that not only attract students across all life stages but also equip them to move seamlessly into quality jobs, whether they are just entering the workforce or looking to advance or change careers later in life.

## Exhibit 2.2.2: IE/D Students in Quality Job-Aligned Programs and Labor Force – Age Demographic Distribution (2023)




Student data source: Lightcast (2023). Version 2025.2. Retrieved from https://lightcast.io/ in July 2025 & California Community Colleges Chancellor's Office. (n.d.). Full Time Equivalent Students (FTES) Summary Report. Data Mart. Retrieved July 2025

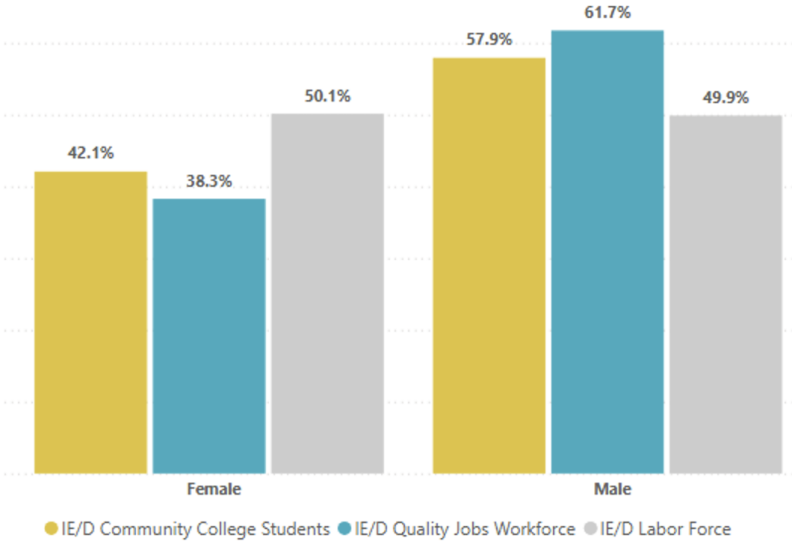
Exhibit 2.2.3 illustrates the gender distribution of Inland Empire/Desert (IE/D) community college students enrolled in quality job-aligned programs, alongside the regional labor force and the quality jobs workforce. The comparison reveals persistent gender-based disparities and points to critical junctures where equity gaps are emerging or widening.

Male students account for 57.9% of enrollment in quality job-aligned programs, compared to 49.9% of the labor force and 61.7% of the quality jobs workforce. This pattern suggests that men are both entering these educational pathways in greater numbers and transitioning into related occupations at higher rates than their female peers. In contrast, female students, who make up 42.1% of enrollment and 50.1% of the labor force, represent just 38.3% of workers in quality jobs, highlighting a consistent drop in representation across the pipeline from education to employment.

This disparity aligns with long-standing patterns of occupational gender segregation, where women are underrepresented in fields such as construction, advanced manufacturing, and transportation, industries that often define "quality jobs" in regional economies. Guided Pathways reforms call for institutions to identify and address such gaps by embedding equity-minded practices into program design, advising, and employer partnerships.

To close these gaps, colleges and partners may consider gender-targeted recruitment into high-demand fields, mentorship initiatives, and support structures that challenge occupational stereotypes and make quality job pathways more accessible to women. Increasing female representation in these programs is not only a matter of equity, but also essential for building a more inclusive and resilient regional workforce.

### Exhibit 2.2.3: IE/D Students in Quality Job-Aligned Programs and Labor Force – Gender Distribution (2023)




Student data source: Lightcast (2023). Version 2025.2. Retrieved from https://lightcast.io/ in July 2025 & California Community Colleges Chancellor's Office. (n.d.). Full Time Equivalent Students (FTES) Summary Report. Data Mart. Retrieved July 2025

## 2.3 Quality Job-Aligned Program Disproportionate Impact Analysis

The previous section provided a snapshot of how students from different demographic groups are represented in community college programs aligned with quality jobs, compared to the Inland Empire/Desert (IE/D) labor force. While these visual comparisons reveal important trends, it's essential to take a closer look to determine whether those differences reflect true disparities or could simply be due to chance. In this section, we apply two tools to assess disproportionate representation across student race/ethnicity, gender, and age in quality job–aligned programs: the Proportionality Index (PI), which measures whether a group is over- or underrepresented relative to its share of the labor force, and P-value testing, which assesses whether those differences are statistically significant.

Together, these tools offer a rigorous method for identifying patterns of inequity and distinguishing between small fluctuations and meaningful disparities that may reflect structural barriers in student access, program alignment, or labor market transitions. However, due to the smaller size of the student dataset compared to labor force data, many valid differences, particularly among smaller demographic groups, do not reach statistical significance thresholds. For this reason, and because this data is routinely used across the California Community Colleges system for equity planning and accountability, we did not filter out records based on P-value in this portion of the analysis.

By including all proportional differences, regardless of statistical confidence level, this approach ensures that equity patterns are not masked by sample size limitations, and that all groups remain visible in the analysis. It also aligns with institutional and statewide practices that use proportional representation to surface potential equity gaps and guide ongoing efforts to improve access and outcomes across programs. This broader lens allows educators and college leaders to see where student enrollment may not align with labor market opportunities and to use that information to strengthen pathways, advising, and program support strategies.

### Exhibit 2.3.1: Quality Job-Aligned Programs with Significant Under/Over-Representation

| Demographic Category | Quality Jobs-Aligned Programs with Underrepresentation | Quality Jobs-Aligned Programs with Overrepresentation |
|---|---|---|
| White | 81 | 6 |
| Asian | 58 | 23 |
| Black or African American | 40 | 38 |
| American Indian or Alaska Native | 30 | 15 |
| Native Hawaiian or Other Pacific Islander | 20 | 26 |
| Hispanic or Latino | 8 | 66 |
| Two or More Races | 7 | 75 |
| Female | 45 | 34 |
| Male | 33 | 45 |
| Late career/retirement (+55) | 91 | |
| Mid-career (35 - 54) | 82 | 3 |
| Early career (Age 25-34) | 7 | 71 |

Based on the results shown in Exhibit 2.3.1, the following section will analyze the highest under and highest over representation in the following demographic categories:

- **Asian students** are underrepresented in 58 of the 92 quality job–aligned programs and overrepresented in 23.
    - Although Asian individuals account for 8.3% of the labor force and 9.1% of the quality jobs workforce, representation among students varies widely across programs.
- **Black or African American students** are underrepresented in 40 of the 92 quality job–aligned programs and overrepresented in 38.
    - Black individuals make up 7.3% of the IE/D labor force and 6.2% of the quality jobs workforce. This relatively balanced pattern in program representation stands in contrast to the consistent underrepresentation in the workforce.
- **Female students** are underrepresented in 45 of the 92 quality job–aligned programs and overrepresented in 34.
    - While women make up 50.1% of the IE/D labor force, they hold 38.3% of quality jobs. Representation across programs shows both under- and overrepresentation, depending on the field.

- **Mid-career adult students** (ages 35–54) are underrepresented in 82 of the 92 quality job–aligned programs.
    - This age group comprises 32.3% of the labor force and 46.9% of the quality jobs workforce, making their underrepresentation in programs notable when compared to their presence in the labor market and workforce outcomes.

The previous section highlighted several demographic groups with notable patterns of underrepresentation or uneven access across the 92 quality job–aligned community college programs. While summary-level data helps identify where gaps exist, deeper analysis is needed to understand the underlying context. The following section provides focused narratives for four student groups examples from above, Asian, Black or African American, Female, and Mid-career students, that emerged as key

examples based on the magnitude of their underrepresentation and their alignment (or misalignment) with regional labor force and workforce participation. These deep dives explore where the most persistent disparities occur and set the stage for identifying opportunities to strengthen the education-to-employment pipeline.

**Asian students are underrepresented in 58 of the 92 quality job–aligned programs and overrepresented in 23.**

This finding contrasts with their representation in the labor market, where Asian individuals make up 8.3% of the regional labor force and a slightly higher 9.1% of the region's quality jobs workforce. The upward trend from labor force to workforce suggests that Asian workers are successfully accessing high-wage, high-growth employment opportunities. Yet, their lower representation in many of the programs that lead to these quality jobs points to a potential disconnect earlier in the education pipeline.

As shown in Exhibit 2.3.2, program sectors where underrepresentation is most concentrated include:

### Exhibit 2.3.2: Count of Quality Job-Aligned Programs with Significant Underrepresentation by Sector – Asian students

| Program Sector | Quality Job-Aligned Programs with Underrepresented |
|---|---|
| Energy, Construction and Utilities | 10 |
| Information and Communication Technologies - Digital Media | 8 |
| Public Safety | 8 |
| Advanced Transportation and Logistics | 7 |
| Business and Entrepreneurship | 7 |
| Health | 5 |

Several of these program sectors, including Business and Entrepreneurship and Health, are directly tied to quality job occupations where Asian individuals are already well represented in the workforce. For example, Asian workers in the IE/D region appear more concentrated in occupations within healthcare, business and finance, and computer and mathematical fields. This raises important questions about why fewer Asian students are enrolling in the programs that clearly connect to areas of workforce success for their communities.

Although Asian Americans are not traditionally considered an underrepresented group in higher education, disaggregated research has shown that Southeast Asian, Pacific Islander, and first-generation Asian American students often face structural barriers to access and success. More recent research highlights how racialized perceptions of "fit" in STEM fields may reinforce success in certain disciplines while masking barriers in others. [8]

To ensure that all Asian subpopulations have equitable access to career pathways, community colleges and K–12 partners should consider strategies such as culturally responsive advising, inclusive

[8] Park, J. J., & Lin, M. H. (2024). *STEM Asianization: Racialization, stratification, and the limits of equity in higher education*. Wisconsin Center for Education Research. https://wcer.wisc.edu/docs/working-papers/WCER_Working_Paper_No.*2024-2*.pdf

marketing, and earlier exposure to nontraditional fields. This can help improve representation not only where gaps currently exist, but also in areas where students are well-positioned to succeed based on labor market trends.

**Black or African American students are underrepresented in 40 of the 92 quality job–aligned programs and overrepresented in 38.**

This underrepresentation in nearly one-third of all programs raises concerns about access to and engagement with pathways leading to high-wage, high-growth careers. When viewed alongside workforce data, the disparity becomes more pronounced: Black or African American individuals represent 7.3% of the Inland Empire/Desert (IE/D) labor force but only 6.2% of those currently employed in quality jobs, suggesting that barriers persist not only in education but also in workforce outcomes.

As shown in Exhibit 2.3.3, the program sectors with the highest concentration of underrepresentation for Black or African American students include:

### Exhibit 2.3.3: Count of Quality Job-Aligned Programs with Significant Underrepresentation by Sector – Black or African American students

| Program Sectors | Quality Job-Aligned Programs with Underrepresented |
|---|---|
| Energy, Construction and Utilities | 9 |
| Health | 9 |
| Public Safety | 6 |
| Advanced Manufacturing | 4 |
| Advanced Transportation and Logistics | 4 |

Many of these sectors align with quality job occupations that offer stability, competitive wages, and upward mobility. The gaps in program enrollment point to missed opportunities in connecting Black students to these high-opportunity fields.

This pattern reflects broader national research that emphasizes the role of structural inequities in shaping both educational and employment outcomes. For example, disparities in access to rigorous high school coursework, early career exposure, culturally relevant support systems, and inclusive advising practices can all contribute to the lower participation of Black students in career education programs.[9]

To promote greater equity, community colleges and K–12 partners should consider efforts that address barriers at multiple points along the education-to-career pipeline. Strategies may include culturally responsive outreach, improved alignment with high schools serving diverse student populations, and enhanced transition support for students entering technical or CTE programs.

**Female students are underrepresented in 45 of the 92 quality job–aligned programs and overrepresented in 34.**

[9] American Council on Education. (2022). Race and ethnicity in higher education: A status report. https://www.equityinhighered.org/resources/report-downloads/

This pattern mirrors disparities seen across the regional workforce, where female workers make up 50.1% of the Inland Empire/Desert (IE/D) labor force, but only 38.3% of those employed in quality jobs. The underrepresentation at both the program and employment levels suggests persistent structural barriers that limit women's participation in career pathways leading to high-wage, high-growth occupations.

As shown in Exhibit 2.3.4, the program sectors with the highest concentration of underrepresentation for Female students include:

### Exhibit 2.3.4: Count of Quality Job-Aligned Programs with Significant Underrepresentation by Sector – Female students

| Program Sectors | Quality Job-Aligned Programs with Underrepresented |
|---|---|
| Energy, Construction and Utilities | 12 |
| Information and Communication Technologies - Digital Media | 9 |
| Advanced Manufacturing | 6 |
| Advanced Transportation and Logistics | 6 |
| Public Safety | 6 |

These sectors represent a large share of middle-skill, high-demand jobs with strong wages and pathways to upward mobility. The data suggest that despite the presence of these opportunities, fewer women are entering the pipelines that lead to them.

Intersectionality data from the IE/D quality jobs workforce (Exhibit 1.4.1) show that this underrepresentation persists well into employment particularly for women of color. For example:

- Hispanic or Latina women represent roughly 10.2% in Construction and Extraction occupations versus 72.1% male representation.
- In Install/Maintain/Repair fields, women of color constitute merely 3.8%, compared to 48.5% male representation.

National statistics reinforce these trends: women currently earned approximately 84% of what men earned weekly in 2023 when working full-time.[10] Deferred access to training and employment in male-dominated sectors may contribute to persistent wage gaps and limited opportunities for career advancement. By intentionally investing in equity-minded program design and support, institutions can help ensure that women, who make up half of the region's labor force, have opportunities to train for and transition into well-paying, high-growth occupations.

### Mid-career students (ages 35–54) are underrepresented in 82 of the 92 quality job–aligned programs.

Despite comprising 32.3% of the IE/D labor force and an even larger 46.9% share of the quality jobs workforce, mid-career individuals are not enrolling in these programs at levels that reflect their

[10] U.S. Bureau of Labor Statistics. (2023). *Highlights of women's earnings in 2023*. https://www.bls.gov/opub/reports/womens-earnings/2023/home.htm

presence in the labor market. This gap suggests a potential misalignment between existing training pathways and the needs or realities of mid-career adults seeking to transition, upskill, or remain competitive in a rapidly evolving economy.

As shown in Exhibit 2.3.5, the program sectors with the highest concentration of underrepresentation for Mid-career students include:

### Exhibit 2.3.5: Count of Quality Job-Aligned Programs with Significant Underrepresentation by Sector – Mid-career students

| Program Sectors | Quality Job-Aligned Programs with Underrepresented |
|---|---|
| Health | 18 |
| Energy, Construction and Utilities | 12 |
| Information and Communication Technologies - Digital Media | 12 |
| Business and Entrepreneurship | 10 |
| Public Safety | 8 |

These sectors represent stable, high-growth opportunities for regional workers, making it especially concerning that mid-career adults may be missing access points. For individuals navigating job changes, economic shifts, or automation risks, the lack of representation in these programs could signal not only structural barriers, such as scheduling inflexibility, limited financial aid eligibility, or family responsibilities, but also a lack of targeted outreach and program design tailored to the needs of mid-career adults seeking to retrain or upskill.

Community colleges and their partners play a critical role in reducing these barriers by offering evening and weekend classes, credit for prior learning, short-term credentials, and tailored advising for adult learners. These efforts align with California's Guided Pathways framework and the state's broader adult education priorities, which emphasize supporting learners at every stage of their educational and career journey.

By better supporting mid-career adults, colleges can help ensure this experienced segment of the labor force remains connected to the high-quality jobs that sustain regional economic resilience.

## 2.4 Intersectionality of Race/Ethnicity and Gender in Quality Jobs-Aligned Programs

The previous sections explored disparities in student representation by race/ethnicity, gender, and age across programs aligned with quality jobs in the Inland Empire/Desert region. These findings identified where underrepresentation is most pronounced and which student groups may not be equitably accessing pathways to high-wage, high-opportunity careers. However, achieving meaningful equity requires moving beyond single demographic dimensions to understand how identities intersect.

The following section provides a deeper, intersectional analysis of student enrollment in quality job–aligned programs by both race/ethnicity and gender. This approach allows for the identification of student groups, such as Asian men, Black women, or Hispanic women, who may face compounded barriers in the education pipeline. For faculty, counselors, and institutional leaders, these insights can help inform more targeted outreach, support strategies, and program design that consider the unique needs of specific student populations.

Importantly, this work begins well before students reach community college. Strengthening equity in career education pathways requires early exposure and alignment starting in K–12. Initiatives such as the K–12 Strong Workforce Program emphasize the need for seamless transitions between high school and postsecondary education, particularly in career technical education (CTE) fields that lead to quality employment opportunities. Understanding which student groups are underrepresented at the intersection of race/ethnicity and gender can support more intentional collaboration across K–12 and community college systems to ensure equitable preparation for and connection to the regional labor market.

Exhibit 2.4.1 displays the demographic distribution of students enrolled in quality job–aligned programs, disaggregated by both race/ethnicity and gender. For context, it also includes comparative demographic data from the regional population, labor force, and quality job workforce.

## Exhibit 2.4.1: Race & Ethnicity and Gender Distribution

| | Hispanic or Latino | | White | | Black or African American | | Asian | |
|---|---|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male | Female | Male |
| **IE/D Population** | 26.7% | 27.1% | 13.9% | 14.1% | 3.6% | 3.6% | 4.2% | 3.8% |
| **IE/D Labor Force** | 25.6% | 25.8% | 15.0% | 15.2% | 3.7% | 3.6% | 4.4% | 3.9% |
| **Quality Job-Aligned Program Students** | 25.7% | 36.8% | 6.2% | 11.6% | 3.6% | 4.2% | 2.6% | 4.6% |
| | | | | | | | | |
| **Program Sectors (92 Programs)** | | | | | | | | |
| Advanced Manufacturing | 7.1% | 63.7% | 1.0% | 14.0% | 0.6% | 4.0% | 0.8% | 4.8% |
| Advanced Transportation and Logistics | 8.2% | 67.7% | 2.4% | 11.5% | 0.6% | 3.5% | 0.3% | 2.7% |
| Agriculture, Water and Environmental Technologies | 31.4% | 24.7% | 13.6% | 15.6% | 2.1% | 2.9% | 1.6% | 2.1% |
| Business and Entrepreneurship | 33.6% | 28.3% | 8.4% | 8.7% | 5.1% | 4.8% | 3.2% | 3.0% |
| Education and Human Development | 50.8% | 25.9% | 6.2% | 6.1% | 1.7% | 1.3% | 3.1% | 1.7% |
| Energy, Construction and Utilities | 12.5% | 60.7% | 3.3% | 13.2% | 0.7% | 3.1% | 1.0% | 2.3% |
| Global Trade | 31.1% | 24.3% | 7.6% | 12.7% | 2.1% | 5.8% | 5.3% | 7.9% |
| Health | 48.7% | 14.0% | 11.3% | 5.2% | 4.9% | 1.9% | 5.6% | 4.4% |
| Information and Communication Technologies - Digital Media | 20.9% | 39.6% | 5.2% | 11.3% | 3.3% | 4.7% | 2.9% | 7.0% |
| Public Safety | 26.5% | 36.9% | 5.7% | 18.6% | 2.7% | 2.9% | 0.7% | 1.4% |
| Retail, Hospitality and Tourism | 36.2% | 28.9% | 6.4% | 7.4% | 5.8% | 5.6% | 2.4% | 2.6% |

- Looking back at the insight from Exhibit 2.3.1, Black or African American students are highly underrepresented in 40 of the 92 quality job–aligned programs, while being overrepresented in 38 programs.

This variation suggests that access and enrollment differ significantly by program area. Rather than a consistent trend, these mixed patterns reveal the need for a more nuanced, disaggregated approach, particularly one that considers gender and program sector, to better understand where equity gaps exist and how they can be addressed.

A closer look at gender-specific representation reveals that Black women make up 3.6% of students in quality job-aligned programs, which is nearly identical to their share of the labor force (3.7%) and closely aligns with their 4.5% share of the quality jobs workforce. This relative consistency across the

education-to-employment pipeline suggests that Black women, while still underrepresented in absolute terms, are progressing more evenly into high-quality jobs.

In contrast, Black men, who also comprise 3.6% of the labor force, represent 4.2% of students in these programs, but only 3.2% of the quality jobs workforce. This pattern, stronger participation in education but weaker employment outcomes, may point to barriers in job placement, credential completion, or employment transitions.

As Exhibit 2.2.6 shows, the programs where Black students are most underrepresented include high-demand sectors such as Energy, Construction and Utilities; Health; Public Safety; Advanced Manufacturing; and Transportation and Logistics fields that are historically associated with higher wages and career advancement.

- Energy, Construction and Utilities – 9 programs
- Health – 9
- Public Safety – 6
- Advanced Manufacturing – 4
- Advanced Transportation and Logistics – 4

This breakdown highlights the need for intentional and identity-conscious strategies. While overall program access appears somewhat balanced, ensuring that Black male students transition successfully into well-paying roles requires deeper attention to factors such as work-based learning opportunities, employer partnerships, bias in hiring, and culturally responsive academic and career supports. Without targeted attention to these transition points, equity gaps may persist even when enrollment appears proportional on the surface.

➢ Looking back at the insight from Exhibit 2.3.1, Female students are underrepresented in 45 of the 92 quality job–aligned programs and overrepresented in 34.

This disparity mirrors patterns in the regional labor market, where women make up 50.1% of the IE/D labor force but only 38.3% of the workforce in quality jobs. These figures point to ongoing structural barriers, not only in transitioning into high-wage, high-opportunity careers but also in accessing the educational pathways that lead there.

Exhibit 2.2.7 shows that underrepresentation is concentrated in program sectors aligned with traditionally male-dominated occupations:

- Energy, Construction and Utilities – 12 programs
- Information and Communication Technologies (Digital Media) – 9
- Advanced Manufacturing – 6
- Advanced Transportation and Logistics – 6
- Public Safety – 6

These sectors are closely aligned with many of the region's middle-skill quality jobs, yet women remain significantly underrepresented in both program enrollment and workforce participation. According to the Center for American Progress (2024), women face both structural and cultural barriers in accessing male-dominated industries, including bias in hiring and training, limited access to mentorship, and unsupportive workplace norms.[11] Many of these challenges begin in education, where programs may

[11] Center for American Progress. (2024). *Expanding women's access to male-dominated jobs.* In Playbook for the Advancement of Women in the Economy. https://www.americanprogress.org/article/playbook-for-the-advancement-of-women-in-the-economy/expanding-womens-access-to-male-dominated-jobs/

lack gender-inclusive design or where women receive limited early exposure to high-opportunity career pathways.

Research shows that gender stereotypes begin shaping career trajectories as early as elementary school, with girls internalizing messages that technical and trade fields are better suited for boys. A study published in the *Proceedings of the National Academy of Sciences (PNAS)* found that even by age six, girls are less likely to choose computer science activities if told boys prefer them, pointing to early, stereotype-based deterrence to STEM engagement.[12]

This early socialization contributes to pervasive gender segregation in both educational and workforce settings. Women remain significantly underrepresented in fields such as construction, manufacturing, transportation, and public safety, even in contexts where women hold strong academic credentials. These trends perpetuate narrower access to quality jobs and reinforce systemic inequities over time.[13]

For example, men hold the vast majority of roles in sectors aligned with the programs where women are underrepresented. In the IE/D quality jobs workforce, men comprise 72.1% of Construction and Extraction occupations and 48.5% of Installation, Maintenance, and Repair jobs, while women hold just 10.2% and 3.5%, respectively.

This alignment between program and workforce disparities reinforces the importance of addressing gender equity along the full education-to-employment pipeline. The underrepresentation of female students in key career education programs is not just an issue of academic access; it is a leading indicator of future inequities in the labor market.

- Looking back at the insight from Exhibit 2.3.1, Asian students are underrepresented in 49 of the 92 quality job–aligned programs.

This is notable given their strong presence in the workforce: Asian individuals make up 8.3% of the regional labor force and an even higher 9.1% of the region's quality job workforce. The upward trend from labor force to workforce suggests that Asian workers are succeeding in accessing high-quality employment. However, their lower enrollment in programs that train for these roles suggests potential disconnects earlier in the pipeline.

As shown in Exhibit 2.2.5, underrepresentation among Asian students is most concentrated in the following program sectors:

- Energy, Construction and Utilities – 10 programs
- Information and Communication Technologies/Digital Media – 8
- Public Safety – 8
- Advanced Transportation and Logistics – 7
- Business and Entrepreneurship – 7
- Health – 5

Many of these sectors align with occupations where Asian workers are already thriving. For example, in the regional workforce, Asian individuals are well represented in healthcare, business and finance, and computer and mathematical occupations. The gap in program participation, especially in sectors that directly lead to these jobs, raises important questions about outreach, access, and student support within these fields.

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[12] University of Washington I-Labs. (2022). Research reveals how gender stereotypes steer girls away from STEM starting in first grade. https://ilabs.uw.edu

[13] American Progress. (2022). *Occupational segregation in America: How gender, race, & ethnicity remain drivers of economic inequality*. https://www.americanprogress.org/article/occupational-segregation-in-america/

Research shows that while Asian Americans are often perceived as a well-served population in higher education, this perception masks the experiences of specific subgroups such as Southeast Asian, Pacific Islander, and first-generation Asian American students, who face unique cultural, economic, and structural barriers.[14] More recent work introduces the concept of STEM Asianization, which describes how racialized assumptions about Asian students' fit in STEM fields obscure disparities and limit access to other fields.[15]

Community colleges and K–12 systems can address these challenges by adopting strategies such as disaggregated data practices, culturally responsive advising, and inclusive program design. Doing so can help ensure that all Asian subgroups are equitably represented in career education programs that connect to high-opportunity, high-wage careers.

- Looking back at the insight from Exhibit 2.3.1, Mid-career students are underrepresented in 82 of the 92 quality job–aligned programs.

This is particularly noteworthy given that this age group makes up 32.3% of the regional labor force and an even greater share (46.9%) of the region's quality jobs workforce (see Exhibit 1.2.2). These figures show that mid-career adults are not only active in the labor force but also disproportionately represented in the highest-quality jobs in the region.

The gap between workforce success and program enrollment suggests that mid-career adults are not participating in community college programs at levels that align with their presence in the labor market.

As shown in Exhibit 2.2.8, underrepresentation is concentrated in the following program sectors:

- Health – 18 programs
- Energy, Construction and Utilities – 12
- Information and Communication Technologies – Digital Media – 12
- Business and Entrepreneurship – 10
- Public Safety – 8

These sectors offer strong wages, career stability, and upward mobility, making them particularly relevant for adults navigating career transitions, automation risk, or economic displacement. Yet, mid-career adults may face barriers such as inflexible scheduling, limited financial aid eligibility, caregiving responsibilities, or lack of targeted outreach. The absence of age-responsive design may further deter adults who are balancing work and family while pursuing reskilling or upskilling.

Moreover, the lack of targeted re-entry and career transition pathways may contribute to this underrepresentation. Research from the Urban Institute emphasizes the need for adult learners to access "on-ramps" into postsecondary training that are tailored to their work histories, career goals, and life circumstances.[16]

To support equitable participation, institutions and workforce partners should consider developing more flexible, accelerated, and modular learning options, as well as wraparound supports that address the distinct needs of mid-career learners. Aligning program design with the realities of adult learners can

[14] Teranishi, R. T. (2010). Asians in the ivory tower: Dilemmas of racial inequality in American higher education. Teachers College Press.
[15] Mok, T. A., Kanagala, V., & Teranishi, R. T. (2021). Rethinking Asian American access and equity in STEM: The role of stereotypes and structural barriers. Rutgers University, Center for Minority Serving Institutions.

16 Bragg, D., Taylor, J., Kirby, C., & Grothe, M. (2021). Designing pathways for adult learners: How guided pathways can help nontraditional students succeed. Urban Institute. https://www.urban.org/research/publication/designing-pathways-adult-learners

help ensure that more working-age adults are able to reskill for high-quality careers in sectors where they are already succeeding or wish to gain a foothold.

## 2.5: Quality Job-Aligned Work-Based Learning Program Equity Analysis

### Identifying Work-Based Learning Programs

Work-based learning is a broad category of experience that includes internships, cooperative work experiences, apprenticeships, clinical/practicums, preceptorships, and work-study programs. These courses equip students with the workplace and occupation-specific skills needed to enter the workforce[17] and encourage students to explore, learn, and grow within the occupational field of their choice.[18] Work-based learning courses enhance the quality of community college education by allowing students to apply the knowledge learned in the classroom into practice.[19] Furthermore, work-based learning completers may be more desirable candidates in the labor market, as employers can be assured that these students possess the qualifications needed to be successful in the job.[20] Additionally, work-based learning opportunities connect students to employers and potential employment opportunities, increasing the likelihood that a student finds a job after program completion. The work-based learning courses included in this analysis do not include apprenticeship programs.

The California Community College Chancellor's Office Curriculum Inventory (COCI) is a repository of all the courses and programs offered by California community colleges. An analysis of COCI course and program-level data yielded the inventory analyzed in this report. The inventory reveals that each type of work-based learning model is provided by community colleges in the Inland Empire/Desert Region. Course titles were used to identify internships, clinical/practicums, and preceptorships, while cooperative work experiences (CWE) are uniquely flagged in the inventory. This report analyzes work-based learning courses classified as internships, cooperative work experiences, clinicals/practicums, and preceptorships. Federal work study programs are not addressed in this report, as these campus-based jobs do not align with student educational goals.

Exhibit 2.5.1 displays the work-based learning courses offered by regional community colleges, organized by the California Community College Chancellor's Office (CCCCO) priority sectors. The Health sector offers the most work-based learning opportunities available to community college students, likely a product of the inclusion of practicums in the program curriculum. Of the 460 community college work-based learning courses, 99 are offered by College of the Desert, primarily as cooperative work experiences. Chaffey College and Victor Valley College offer the next most work-based learning course, also driven by cooperative work experiences.

17 The Academic Senate for California Community Colleges. Work Based Learning in California Community Colleges. (2019). Retrieved from: https://www.asccc.org/sites/default/files/Work_Based_Learning.pdf
18 Lightcast. A First Step or a Summer Fling? A Closer Look at Internships. (2024). Retrieved from: https://lightcast.io/resources/blog/on-the-job-interns-july-30
19 Indeed. Education vs. Experience: What's More Valuable and Why? (2024). Retrieved from: https://ca.indeed.com/career-advice/finding-a-job/education-vs-experience
20 Kaplan, Soren. Harvard Business Review. How Important is a College Degree Compared to Experience? (2023). Retrieved from: https://hbr.org/2023/02/how-important-is-a-college-degree-compared-to-experience

## Exhibit 2.5.1: IE/D Community College Work-based Learning Courses by CCCCO Sector (2024)

| Colleges | Advanced Manufacturing | Advanced Transportation and Logistics | Agriculture, Water and Environmental Technologies | Business and Entrepreneurship | Education and Human Development | Energy, Construction and Utilities | Health | Information and Communication Technologies - Digital Media | Public Safety | Retail, Hospitality and Tourism | Unassigned |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barstow College | | | | | 1 | | 2 | | | | |
| Chaffey College | 4 | | | 4 | 2 | | 31 | 7 | 4 | 5 | 15 |
| Copper Mountain College | | | | 5 | 1 | | 1 | | 4 | 4 | |
| Crafton Hills College | | | | | 1 | | 21 | 5 | 1 | | |
| College of the Desert | 1 | 2 | 6 | 4 | 7 | 10 | 34 | 18 | 5 | 6 | 6 |
| Moreno Valley College | | | | 5 | 6 | | 24 | 3 | 3 | | 3 |
| Mt. San Jacinto College | | 1 | 2 | 3 | 2 | 1 | 11 | 10 | 2 | | 2 |
| Norco College | 5 | | | 5 | 3 | 2 | | 4 | 1 | | 1 |
| Palo Verde College | | | | | 1 | | 19 | | | | |
| Riverside City College | 1 | 2 | | 5 | 6 | 2 | 3 | 3 | 1 | | 4 |
| San Bernardino Valley College | 4 | 2 | | 1 | 2 | 3 | 10 | 6 | | 1 | 4 |
| Victor Valley College | 5 | 2 | 3 | 11 | 6 | 5 | 21 | 3 | 3 | 2 | 3 |
| **Grand Total** | **20** | **9** | **11** | **43** | **38** | **23** | **177** | **59** | **24** | **18** | **38** |

Data source: COE Analysis of Data from the California Community College Chancellor's Office Curriculum Inventory (COCI). Retrieved from: https://coci2.ccctechcenter.org/courses

### Community College Work-Based Learning Course Demographics

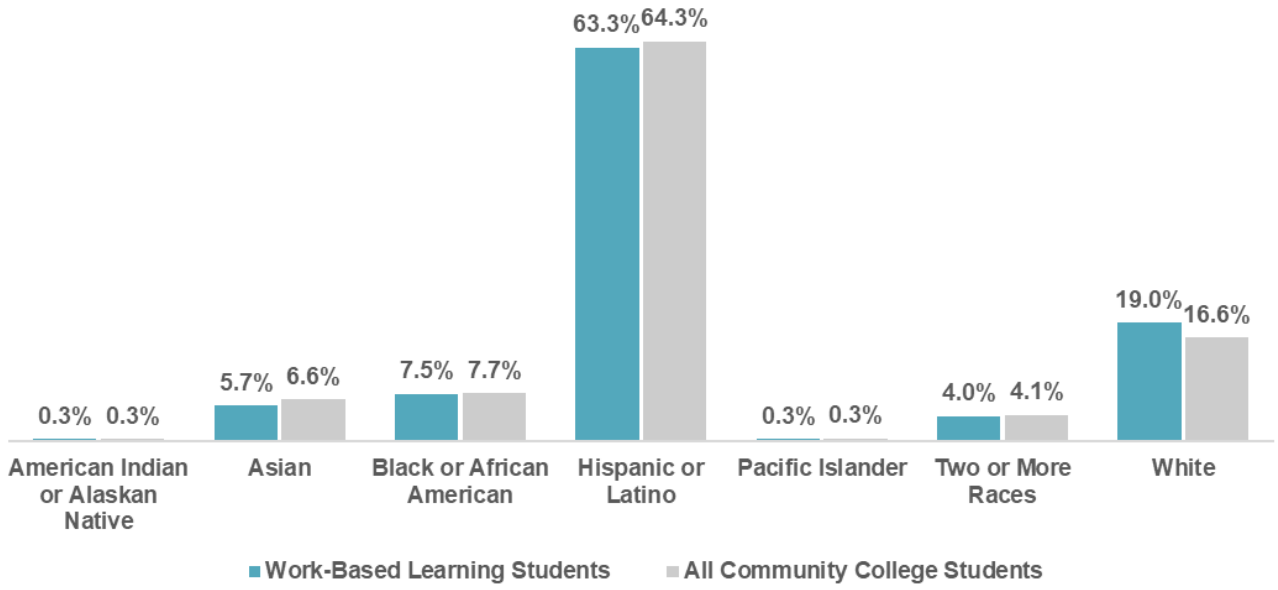
For the purposes of this section, equitable representation is defined as the demographic distribution of students in community college programs that have work-based learning courses closely reflects the demographic distribution of individuals enrolled in all community college programs. Our research will provide a comparison between these two cohorts to identify any potential disparities in who is accessing and benefiting from work-based learning opportunities in the IE/D region. Since work-based learning courses can increase a student's employability following graduation, demographic disparities in students participating in these opportunities could signal equity concerns.

The demographic composition of work-based learning students was determined by merging the work-based learning course inventory with student demographics by TOP code. Each work-based learning course has an assigned TOP code, which was then aligned with a community college program that shared that code. It is assumed that a student enrolled within a given TOP code has the opportunity to engage in a work-based learning course within the same TOP code. Due to the absence of student-level data at the course level, this analysis focuses on the demographic distribution of students with access to work-based learning opportunities, rather than the demographic distribution of students who participate in them.

Exhibit 2.5.2 displays the race/ethnicity of students in work-based learning programs compared to all community college students. The data highlights several notable disparities. Hispanic or Latino students, who make up the majority of the community college student population (64.3%), are underrepresented in programs that offer work-based learning opportunities. Similarly, Asian students represent 6.6% of all community college students, but only 5.7% are enrolled in programs that may offer work-based learning experiences. In contrast, White students are overrepresented in work-based learning programs (19.0%), compared to 16.6% of White students enrolled across all programs.

Underrepresentation of certain groups may point to unequal access to these training programs. Differences may suggest that racial and ethnic disparities exist in student participation in work-based learning opportunities. However, students identifying as American Indian or Alaska Native, Native Hawaiian, Black or African American, Pacific Islander, and Two or More Races, show relatively small differences between work-based learning and all programs, indicating these students do not appear to face barriers in accessing work-based learning opportunities.

### Exhibit 2.5.2: IE/D Community College Student and Work-Based Learning Student – Race & Ethnicity Distribution (2024)

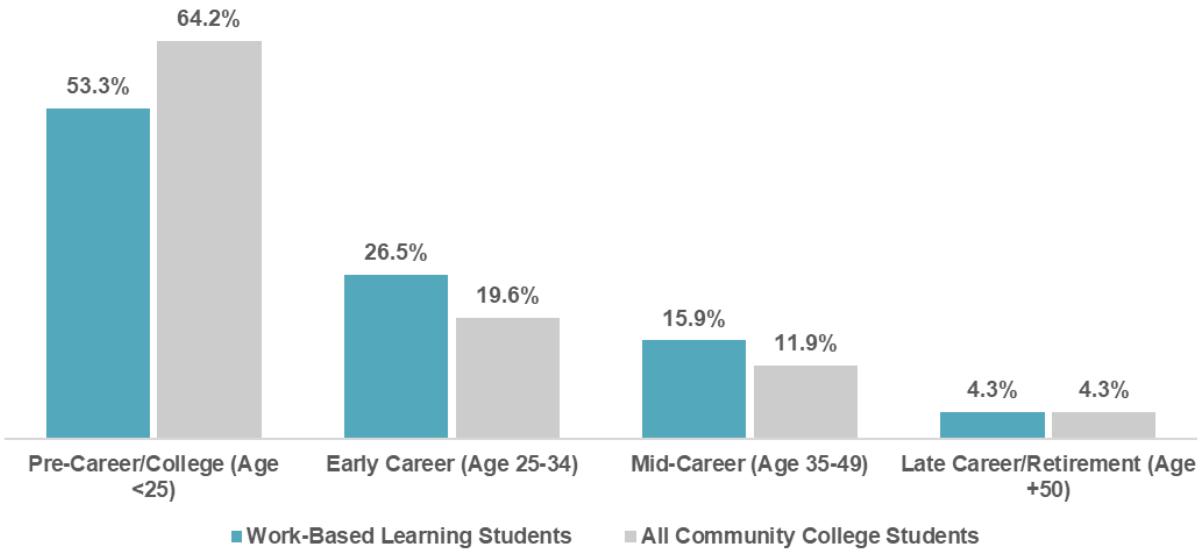



Data source: COE Analysis of Data from the California Community College Chancellor's Office Curriculum Inventory (COCI). Retrieved from: https://coci2.ccctechcenter.org/courses. California Community Chancellor's Office Management Information Systems Data Mart. Enrollment Status Summary Report. Retrieved from: https://datamart.cccco.edu/students/enrollment_status.aspx

Exhibit 2.5.3 compares the age distribution of all community college students to students enrolled in programs that may have work-based learning experiences. Students in the pre-career/college age group (<25) are highly underrepresented in work-based learning programs, making up 53.3% of students compared to 64.2% across all community college programs. Conversely, students in the early career age group (age 25-34) are highly overrepresented in work-based learning programs, accounting for 26.5% of students in these programs compared to 19.6% of students overall. Mid-career age group students (age 35-49) are also highly overrepresented in work-based learning programs, with 15.9% of students in work-based learning programs compared to 11.9% of all students. Late career workers (ages 50+) appear to be proportionally represented, comprising 4.3% of students in all programs and work-based learning programs.

These patterns suggest that the students most likely to enroll in work-based learning opportunities are in the early- to mid-career age groups. The underrepresentation of younger workers raises questions about work-based learning opportunities and the types of courses taken by the younger cohort of students. For example, general education courses, such as Mathematics and English, are less likely to contain work-based learning elements than occupationally focused programs. Students in the pre-career/college cohort are more likely to have limited previous work experience, indicating that these students are the most likely to benefit from the work experience provided by work-based learning courses.

### Exhibit 2.5.3: IE/D Community College Student and Work-Based Learning Student – Age Category Distribution (2024)



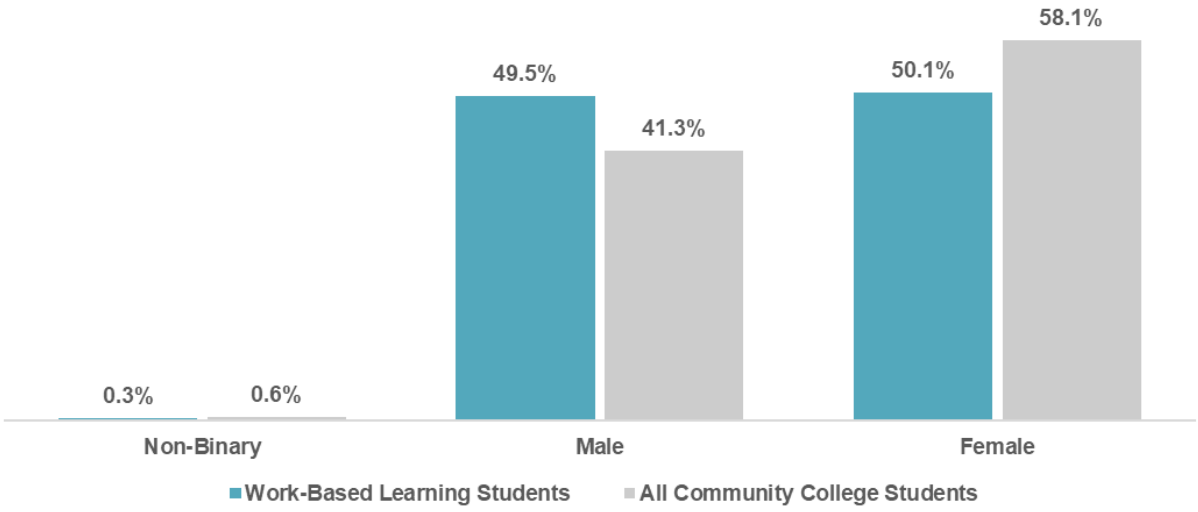

Data source: COE Analysis of Data from the California Community College Chancellor's Office Curriculum Inventory (COCI). Retrieved from: https://coci2.ccctechcenter.org/courses. California Community Chancellor's Office Management Information Systems Data Mart. Enrollment Status Summary Report. Retrieved from: https://datamart.cccco.edu/students/enrollment_status.aspx

Exhibit 2.5.4 presents the gender distribution of community college students compared to students enrolled in work-based learning programs. There is a near-even distribution of male and female students enrolled in work-based learning programs, with 0.3% of work-based learning students identifying as non-binary. Male students are significantly overrepresented in work-based learning programs, making up 49.5% of work-based learning enrollments compared to 41.3% of students across all community college programs. Conversely, despite comprising 50.1% of work-based learning enrollments, female students are underrepresented in these programs, as they account for 58.1% of all enrollments across all community college programs. Non-Binary students are underrepresented in work-based learning programs, accounting for 0.3% of work-based learning enrollments, compared to 0.6% of students enrolled across all programs.

This eight-percentage point gap in representation suggests that female students enrolled in regional community colleges may face barriers in accessing work-based learning opportunities. This imbalance is particularly important to understand in the context of career education and workforce development, where community colleges and other institutions can play a critical role in promoting more equitable access to middle-skill, high-wage careers for all genders. However, disparities in work-based learning

representation may be attributable to the types of programs that typically contain work-based learning elements and differences in student preferences across programs.

### Exhibit 2.5.4: IE/D Community College Student and Work-Based Learning Student – Gender Distribution (2024)




Data source: COE Analysis of Data from the California Community College Chancellor's Office Curriculum Inventory (COCI). Retrieved from: https://coci2.ccctechcenter.org/courses. California Community Chancellor's Office Management Information Systems Data Mart. Enrollment Status Summary Report. Retrieved from: https://datamart.cccco.edu/students/enrollment_status.aspx

**Work-Based Learning Disproportionate Impact Analysis**

The previous section provided a snapshot of how different demographic groups are represented in work-based learning programs compared to all community college students in the Inland Empire/Desert region. While these visual comparisons highlight meaningful differences, it's important to go a step further to understand whether those differences are statistically significant or potentially due to chance. In the next section, we use two tools to assess the extent of disproportionate representation across race/ethnicity, gender, and age groups: the Proportionality Index, which shows whether a group is over- or underrepresented relative to its share of the overall student population, and P-value testing, which tells us whether these differences are large enough to be considered statistically significant. Together, these tools provide a more rigorous way to identify patterns of inequity and help distinguish between small variations and meaningful disparities that may indicate systemic barriers.

Exhibit 2.5.5 shows where there is either underrepresentation or overrepresentation of specific demographic groups—based on comparisons between students in work-based learning programs and the broader community college student population. To ensure the analysis focuses on meaningful disparities, we filtered out cases where the difference was not statistically significant at the 95% confidence level (P-value > 0.05). This step is critical in a disproportionate impact study because it helps distinguish between real, systemic patterns and random variations, allowing for more accurate identification of equity gaps that may require targeted intervention.

## Exhibit 2.5.5: IE/D Community College Student Under/Over- Representation in Work-Based Learning Programs (2024)

| Demographic Category | Underrepresented in Work-based Learning | Overrepresented in Work-based Learning |
|---|---|---|
| American Indian or Alaska Native | | |
| Asian | | |
| Black or African American | | |
| Hispanic or Latino | | |
| Pacific Islander | | |
| White | | X |
| Two or More Races | | |
| Female | X | |
| Male | | X |
| Non-Binary | | |
| Pre-career/College (Age <25) | X | |
| Early-career (Age 25-34) | | X |
| Mid-career (Age 35-50) | | X |
| Late career/retirement (Age 50+) | | |

Based on the results shown in Exhibit 2.5.5, the following section analyzes the highest under- and highest over-representation in the following demographic categories:

- **White** students are overrepresented in work-based learning courses offered by regional community colleges. White students account for 19.0% of enrollments in work-based learning courses, compared to 16.6% of students across all programs offered by regional community colleges. White student overrepresentation in work-based learning programs may be perpetuating existing White individual overrepresentation in the workforce, as these experiences may increase the opportunity for students to find employment following program completion.
- **Male** students are highly overrepresented in work-based learning courses offered by regional community colleges. Male students account for 49.5% of work-based learning course enrollments despite comprising only 41.3% of enrollments across all programs. Similarly to White individuals, the overrepresentation of Male students in work-based learning programs may perpetuate existing inequities.
- **Female** students are underrepresented in work-based learning courses offered by regional community colleges. Despite comprising a larger share of enrollments than Male students at 50.1%, Female students account for 58.1% of total community college enrollments, indicating a lack of representation in work-based learning programs which may further underrepresentation in the quality job workforce.
- **Pre-Career/College (Age <25)** students are highly underrepresented in work-based learning programs, making up 53.3% of students compared to 64.2% across all community college programs. Since work-based learning programs provide the greatest value to students with limited previous work experience, increasing pre-career/college age student participation in work-based learning programs may increase their representation in the quality job workforce.
- **Early Career (Age 25-34)** students are highly overrepresented in work-based learning programs, accounting for 26.5% of students in these programs compared to 19.6% of students overall.

- **Mid-Career (Age 35-49**) students are also highly overrepresented in work-based learning programs, with 15.9% of students in work-based learning programs compared to 11.9% of all students.

**Quality Occupations Not Trained by Programs with Work-Based Learning**

Based on the data presented in Exhibit 2.5.5, White, Male, and early- to mid-career students are overrepresented in work-based learning programs. Work-based learning programs offer students the opportunity to engage with employers and acquire valuable workplace skills, thereby increasing their likelihood of employment after program completion. Work-based learning programs may be furthering the equity gaps in the workforce by providing greater opportunities for employment in quality jobs to overrepresented groups. However, through the expansion of focused work-based learning and increased marketing efforts targeting underrepresented groups, work-based learning programs can be utilized as a tool to address equity issues in the workforce.

Exhibit 2.5.6 displays the quality occupations that are not currently trained by community college programs with work-based learning components. Of the 89 quality occupations identified in this report, 57 are trained by regional programs that may contain work-based learning programs, indicating that 32 quality occupations are not trained by work-based learning programs. Please note that the lack of work-based learning courses associated with these quality occupations does not indicate a lack of training programs in general. Furthermore, certain occupations represent better candidates for work-based learning program development than others.

### Exhibit 2.5.6: Quality Occupations Without IE/D Work-Based Learning Training Programs (2024)

| SOC | Occupation Title | SOC | Occupation Title |
|---|---|---|---|
| 13-1031 | Claims Adjusters, Examiners, and Investigators | 43-5031 | Public Safety Telecommunicators |
| 13-2072 | Loan Officers | 43-5052 | Postal Service Mail Carriers |
| 29-2018 | Clinical Laboratory Technologists and Technicians | 43-5061 | Production, Planning, and Expediting Clerks |
| 29-2053 | Psychiatric Technicians | 43-5111 | Weighers, Measurers, Checkers, and Samplers, Recordkeeping |
| 29-2055 | Surgical Technologists | 47-2111 | Electricians |
| 29-2056 | Veterinary Technologists and Technicians | 47-2121 | Glaziers |
| 29-2081 | Opticians, Dispensing | 47-2152 | Plumbers, Pipefitters, and Steamfitters |
| 31-1132 | Orderlies | 47-2211 | Sheet Metal Workers |
| 31-9093 | Medical Equipment Preparers | 47-2221 | Structural Iron and Steel Workers |
| 33-1091 | First-Line Supervisors of Security Workers | 49-2098 | Security and Fire Alarm Systems Installers |
| 41-3021 | Insurance Sales Agents | 49-9051 | Electrical Power-Line Installers and Repairers |
| 43-3021 | Billing and Posting Clerks | 49-9071 | Maintenance and Repair Workers, General |
| 43-4031 | Court, Municipal, and License Clerks | 51-1011 | First-Line Supervisors of Production and Operating Workers |
| 43-4061 | Eligibility Interviewers, Government Programs | 53-1047 | First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors |

| | | | |
|---|---|---|---|
| 43-4111 | Interviewers, Except Eligibility and Loan | 53-3032 | Heavy and Tractor-Trailer Truck Drivers |
| 43-4199 | Information and Record Clerks, All Other | 53-3052 | Bus Drivers, Transit and Intercity |

The previous section explored equity in enrollment across community college programs that prepare students for quality jobs, identifying key gaps in access for various demographic groups. Yet these disparities often begin well before students reach postsecondary education. To understand how the education-to-employment pipeline can be more equitable, it's critical to examine the earliest entry points namely, the K–12 career education pathways that serve as feeders into community college programs.

The next section shifts focus to this upstream alignment, asking whether students in K–12 institutions, particularly those enrolled in career technical education (CTE) programs, reflect the diversity of the region and whether their participation aligns with postsecondary programs and occupational fields that lead to Quality Jobs. By looking at the demographic composition of students across these systems, we can better assess how well the pipeline supports equitable preparation, access, and opportunity from early education through employment.

## SECTION 3: WHAT IS THE ALIGNMENT BETWEEN K-12 CAREER EDUCATION PATHWAYS WITH COMMUNITY COLLEGE CTE PROGRAMS THAT LEAD TO QUALITY JOBS? HOW DO THE DEMOGRAPHICS OF K-12S INSTITUTIONS ALIGN WITH COMMUNITY COLLEGE CTE PROGRAMS AND QUALITY JOB OCCUPATIONS?

### 3.1: K-12 Student Demographics by Career Education Pathway

This section examines the alignment between K–12 career education programs and community college CTE programs that lead to quality jobs. Specifically, it focuses on the demographic composition of students in school districts offering career and technical education (CTE) pathways that lead to high-quality jobs, identifying equity gaps in program availability by race/ethnicity compared to the region's overall student population.

K–12 institutions provide career education training per California Education Code Section 51226, which requires school districts with grades 7–12 to offer opportunities for students to attain entry-level employment skills in business or industry upon graduation.[21] The Career Technical Education (CTE) Model Curriculum Standards support California districts and schools in developing high-quality curriculum and instruction to ensure students are college and career ready. These standards provide clear guidelines for course content development. K–12 career education programs are organized into 58 career pathways, embedded within 15 California Department of Education industry sectors. These standards were developed to facilitate a smooth transition from K–12 education to postsecondary education and employment in the workforce.

[21] California Career Technical Education Model Curriculum Standards. Retrieved from: https://www.cde.ca.gov/ci/ct/sf/documents/ctestdfrontpages.pdf

Career education pathways are occupationally focused, similar to the Taxonomy of Programs (TOP) system used by California Community Colleges. While this similarity facilitates comparison between the two systems, the alignment is not perfect. However, regional K–12 institutions partnered with community colleges for early college credit programs maintain a list of career pathways offered by regional K–12 institutions along with the associated TOP codes used by community colleges, providing evidence of alignment between these systems. This alignment enables the assessment of career education pathways that prepare students for employment in quality jobs.

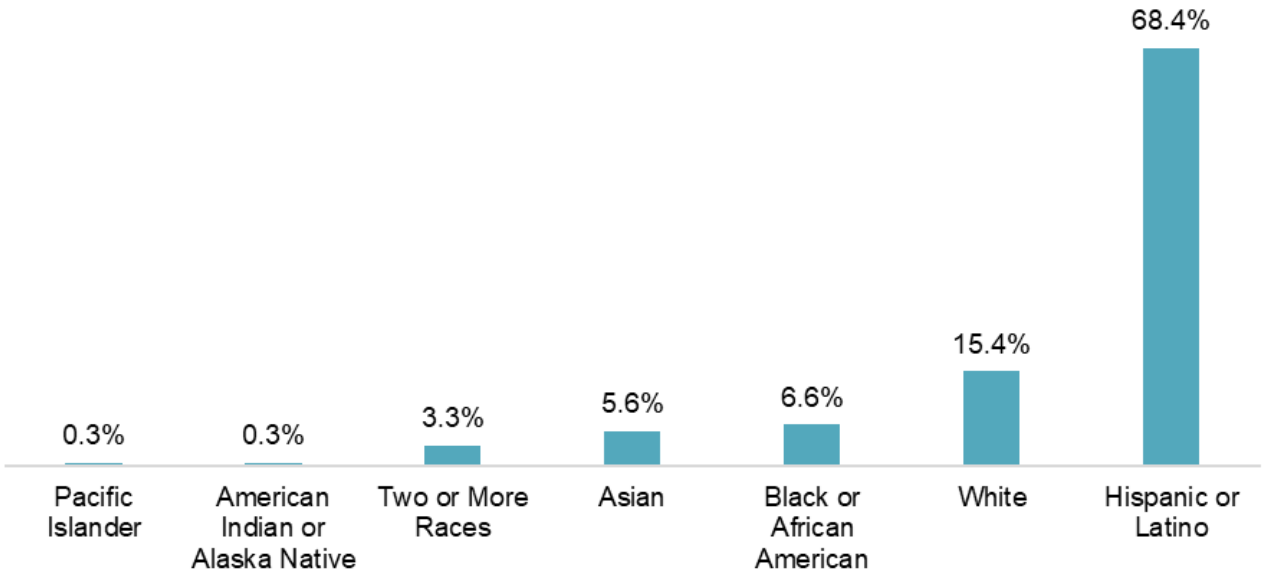
**Regional K-12 Demographics**

Before analyzing career pathway availability by race/ethnicity, it is important to understand the overall K–12 student population. The overall K–12 student cohort serves as the baseline for measuring career education pathway availability, CTE completion rates, and alignment with community colleges. For this report, the K-12 student population includes all students enrolled in transitional kindergarten through 12th grade at regional public and charter schools during the Fall semester in the 2023-2024 academic year. Therefore, this analysis does not include the approximately 33,000 students enrolled in regional private K-12 institutions in the 2023-2024 academic year.[22] In the 2023-2024 academic year, there were 809,733 students enrolled in public and charter schools in the Inland Empire. The student data used in this report comes from the California Department of Education's Fall Census Day enrollment, which provides an unduplicated count of students at the state, county, district, and school levels.[23]

Exhibit 3.1.1 displays the racial/ethnic composition of students enrolled at K-12 schools in the Inland Empire. More than two-thirds (68.4%) of students at regional K-12 schools are Hispanic or Latino, the largest ethnic group in the IE/D. White students comprise 15.4% of K-12 enrollments in the region, followed by Black or African American students (6.6%), and Asian students (5.6%). The three smallest racial/ethnic groups comprise less than five percent of the total student population.

[22] California Department of Education (CDE). Private School Data. Retrieved from: https://www.cde.ca.gov/ds/si/ps/index.asp
[23] California Department of Education (CDE). 2023-2024 Enrollment by Ethnicity. Retrieved from: https://dq.cde.ca.gov/dataquest/dqcensus/EnrEthLevels.aspx?cds=33&agglevel=county&year=2023-24

## Exhibit 3.1.1: IE/D Students in K-12 Institutions – Race and Ethnicity Distribution (2024)




Data source: California Department of Education (CDE). Data Quest. 2023-24 Enrollment by Ethnicity. Retrieved from: https://dq.cde.ca.gov/dataquest/dqcensus/EnrEthLevels.aspx?cds=33&agglevel=county&year=2023-24 July 2025

**K-12 Career Education Pathway Demographic Analysis**

For the purposes of this section, equitable representation is defined as the demographic composition of students with CTE pathways available compared to the overall K-12 student population in the IE/D region. Our research will provide a comparison between these two cohorts to identify any potential disparities in students who have access to and benefit from CTE pathways at K-12 institutions in the region. By combining the demographics of K–12 students with the CTE pathway inventory, developed by K-12 Pathway Coordinators, we can determine the demographics of students with access to each career education pathway.

In this section, we apply two tools to assess disproportionate representation across student race/ethnicity, gender, and age in quality job–aligned career pathways: the Proportionality Index (PI), which measures whether a group is over- or underrepresented relative to its share of the K-12 student population, and P-value testing, which assesses whether those differences are statistically significant. Together, these tools offer a rigorous method for identifying patterns of inequity and distinguishing between small fluctuations and meaningful disparities that may reflect structural barriers in student access and pathway alignment. However, due to the smaller size of the career education student dataset compared to overall K-12 population data, many valid differences, particularly among smaller demographic groups, do not reach statistical significance thresholds. For this reason, we did not filter out records based on P-value in this portion of the analysis. By including all proportional differences, regardless of statistical confidence level, this approach ensures that equity patterns are not masked by sample size limitations, and that all groups remain visible in the analysis.

Exhibit 3.1.2 displays the demographic composition of K-12 students by career education pathway compared to the overall K-12 student population. Regional K–12 institutions offer 53 career pathways across all 15 industry sectors that provide students with access to career education courses that prepare them for further education or employment. Despite offering courses in all 15 sectors, K-12

institutions do not offer career education programs in five career education pathways. The pathway race and ethnicity data displayed in Exhibit 3.1.2 is color-coded relative to the overall student population, with red cells indicating a demographic group that is underrepresented compared to all K-12 students, while green cells indicate overrepresentation. Pathways marked with an asterisk (*) are aligned with community college programs that prepare students for employment in quality jobs.

The data bolded in the table below identifies results that are statistically significant at the 95% confidence level (p-value < 0.05), highlighting strong over- and underrepresentation by pathway. This distinction is essential for identifying equity gaps likely driven by systemic issues, helping institutions target interventions more effectively. Because of how significance is calculated, findings with the greatest significance tend to involve larger regional populations, such as Hispanic, White, Black, and Asian students.

## Exhibit 3.1.2: IE/D K-12 Students by Career Education Pathway – Race and Ethnicity Distribution (2024)

| CTE Pathway | American Indian or Alaska Native | Asian | Black or African American | Hispanic or Latino | Two or More Races | Pacific Islander | White | School Count |
|---|---|---|---|---|---|---|---|---|
| **All K-12 Enrollment** | **0.3%** | **5.6%** | **6.6%** | **68.4%** | **3.3%** | **0.3%** | **15.4%** | - |
| **Agriculture and Natural Resources** | | | | | | | | |
| Agricultural Business* | 0.3% | **2.2%** | **4.0%** | **70.9%** | 2.0% | 0.3% | **20.3%** | 8 |
| Agricultural Mechanics* | 0.3% | **2.2%** | **4.9%** | **70.7%** | 2.3% | 0.4% | **19.2%** | 10 |
| Agriscience* | 0.4% | **2.5%** | **5.2%** | **74.0%** | 2.6% | 0.4% | 14.9% | 17 |
| Animal Science* | 0.4% | **2.0%** | **4.3%** | **70.9%** | 2.3% | 0.3% | **19.8%** | 11 |
| Ornamental Horticulture | 0.4% | **2.1%** | **4.0%** | **77.7%** | 2.1% | 0.3% | **13.5%** | 10 |
| Plant and Soil Science* | 0.3% | 2.7% | 7.3% | 67.7% | 4.6% | 0.5% | 16.9% | 2 |
| **Arts, Media, and Entertainment** | | | | | | | | |
| Design, Visual, and Media Arts | 0.3% | 5.3% | 6.6% | **68.8%** | 3.0% | 0.4% | 15.5% | 71 |
| Performing Arts | 0.3% | **3.3%** | 6.7% | **77.3%** | **2.0%** | 0.2% | **10.2%** | 23 |
| Production and Managerial Arts | 0.3% | **6.5%** | 6.4% | **67.8%** | 3.1% | 0.4% | 15.5% | 66 |
| Game Design and Integration | 0.3% | **7.3%** | 6.6% | **60.8%** | 3.9% | 0.4% | **20.7%** | 15 |
| **Building and Construction Trades** | | | | | | | | |
| Cabinetry, Millwork, and Woodworking* | 0.5% | 6.1% | 6.1% | **70.4%** | 2.1% | 0.4% | **14.3%** | 17 |
| Mechanical Systems Installation and Repair* | 0.0% | 2.7% | 5.7% | **78.2%** | 0.8% | 0.2% | 12.4% | 1 |
| Residential and Commercial Construction* | 0.4% | **6.8%** | 7.0% | 68.4% | **2.4%** | 0.3% | 14.7% | 43 |
| **Education, Child Development, and Family Services** | | | | | | | | |
| Child Development | 0.5% | 4.8% | **10.1%** | **63.4%** | 4.2% | 0.6% | 16.4% | 12 |
| Education* | 0.4% | **2.7%** | 6.5% | **73.7%** | 2.5% | 0.4% | **13.8%** | 14 |
| Family and Human Services* | 0.4% | 5.5% | 6.4% | **55.1%** | **5.4%** | 0.4% | **26.9%** | 3 |
| **Energy, Environment, and Utilities** | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Environmental Resources* | 0.6% | 1.1% | 5.3% | **85.4%** | 1.8% | 0.2% | **5.7%** | 2 |
| Energy and Power Technology* | 0.3% | 1.9% | 6.3% | **84.8%** | 1.4% | 0.4% | **4.9%** | 4 |
| **Engineering and Architecture** | | | | | | | | |
| Architectural Design* | 0.2% | **11.4%** | **5.3%** | **59.0%** | 2.4% | 0.3% | **21.4%** | 10 |
| Engineering Design* | 0.3% | **8.8%** | **5.3%** | **63.1%** | 3.8% | 0.3% | **18.3%** | 28 |
| Engineering Technology* | 0.2% | **4.0%** | **8.3%** | **70.0%** | 2.4% | 0.3% | 14.6% | 15 |
| Environmental Engineering | 0.3% | 7.9% | 1.8% | **50.2%** | 3.7% | 0.1% | **35.8%** | 1 |
| **Fashion and Interior Design** | | | | | | | | |
| Fashion Design and Merchandising | 0.5% | 1.2% | 4.8% | **71.4%** | 1.2% | 0.4% | **20.5%** | 2 |
| Personal Services | 0.3% | **2.6%** | 7.6% | **74.4%** | 1.8% | 0.5% | **12.7%** | 10 |
| **Information and Communication Technologies** | | | | | | | | |
| Information Support and Services* | 0.3% | **7.7%** | **8.5%** | **69.2%** | **2.3%** | 0.3% | **11.6%** | 30 |
| Networking* | 0.3% | 5.4% | **5.8%** | **67.0%** | 3.6% | 0.4% | **17.6%** | 23 |
| Software and Systems Development* | 0.4% | **9.2%** | 6.9% | **64.4%** | 3.4% | 0.4% | 15.3% | 40 |
| Games and Simulations* | 0.3% | **10.2%** | 6.6% | **64.3%** | **2.0%** | 0.4% | **16.3%** | 16 |
| **Business and Finance** | | | | | | | | |
| Financial Services* | 0.5% | 5.3% | 7.0% | **76.0%** | 2.1% | 0.4% | **8.8%** | 11 |
| International Business* | 0.3% | 7.2% | **9.1%** | **64.0%** | 2.5% | 0.6% | 16.4% | 4 |
| Business Management* | 0.4% | **8.6%** | **7.8%** | **67.3%** | 2.5% | 0.4% | **13.2%** | 37 |
| **Health Science and Medical Technology** | | | | | | | | |
| Mental and Behavioral Health* | 0.3% | 1.8% | 5.3% | **79.5%** | 2.1% | 0.4% | **10.6%** | 4 |
| Biotechnology* | 0.3% | **8.7%** | 6.4% | **61.1%** | 3.6% | 0.3% | **19.7%** | 14 |
| Healthcare Administrative Services* | 0.4% | 4.2% | 5.9% | **75.4%** | 3.5% | 0.3% | **10.3%** | 6 |
| Health Care Operational Support Services | 0.2% | 4.1% | **11.3%** | **75.8%** | 2.7% | 0.4% | **5.4%** | 2 |
| Patient Care* | 0.4% | 6.0% | 6.5% | **65.7%** | 3.3% | 0.3% | **17.9%** | 92 |
| Public and Community Health* | 0.2% | 3.6% | 4.8% | **80.3%** | 2.0% | 0.4% | **8.7%** | 7 |
| **Hospitality, Tourism, and Recreation** | | | | | | | | |
| Food Science, Dietetics, and Nutrition* | 0.1% | 3.0% | 3.5% | **85.5%** | 1.0% | 0.4% | **6.5%** | 3 |
| Food Service and Hospitality* | 0.4% | 6.0% | 6.1% | **66.0%** | 3.3% | 0.4% | **17.8%** | 50 |
| Hospitality, Tourism, and Recreation* | 0.3% | **7.0%** | **5.0%** | **59.8%** | **4.8%** | 0.3% | **22.7%** | 8 |
| **Manufacturing and Product Development** | | | | | | | | |
| Graphic Production Technologies* | 0.3% | **7.3%** | 7.8% | **65.7%** | 2.7% | 0.3% | 15.9% | 8 |
| Machining and Forming Technologies* | 0.3% | 4.9% | 6.8% | **66.6%** | 1.7% | 0.3% | **19.3%** | 7 |
| Welding and Materials Joining | 0.3% | **3.1%** | 5.6% | **77.5%** | 2.2% | 0.5% | **10.8%** | 16 |
| Product Innovation and Design* | 0.3% | **9.8%** | 6.5% | **66.5%** | 3.2% | 0.2% | **13.4%** | 13 |
| **Transportation** | | | | | | | | |
| Structural Repair and Refinishing* | 0.2% | 1.5% | **11.3%** | **79.0%** | 2.9% | 0.2% | **4.9%** | 2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Systems Diagnostics, Service, and Repair* | 0.3% | **3.9%** | 6.3% | 68.6% | 3.2% | 0.4% | **17.3%** | 44 |
| Operations* | 0.4% | **2.4%** | **3.7%** | **69.9%** | 3.6% | 0.3% | **19.8%** | 11 |
| **Public Services** | | | | | | | | |
| Legal Practices* | 0.2% | **7.9%** | 6.3% | **72.8%** | 1.9% | 0.4% | **10.6%** | 8 |
| Public Safety* | 0.3% | **4.7%** | 7.0% | **67.9%** | 3.0% | 0.4% | **16.6%** | 41 |
| Emergency Response* | 0.3% | **3.3%** | **4.6%** | **61.7%** | 3.9% | 0.3% | **26.0%** | 15 |
| **Marketing, Sales, and Service** | | | | | | | | |
| Entrepreneurship/Self-Employment* | 0.4% | **7.2%** | 6.4% | **62.6%** | 3.7% | 0.4% | **19.3%** | 23 |
| Professional Sales* | 0.2% | 5.2% | 5.7% | 68.5% | 2.8% | 0.2% | **17.4%** | 7 |
| Marketing | 0.1% | 6.3% | 5.1% | **71.6%** | 1.7% | 0.3% | 14.9% | 3 |
| **Other** | | | | | | | | |
| Multiple Pathways | 0.2% | 1.3% | **2.6%** | **73.4%** | 1.2% | 0.1% | **21.2%** | 5 |

*K-12 pathway is aligned with a community college program that prepares students for employment in quality jobs.

Data source: California Department of Education (CDE). Data Quest. 2023-24 Enrollment by Ethnicity. Retrieved from: https://dq.cde.ca.gov/dataquest/dqcensus/EnrEthLevels.aspx?cds=33&agglevel=county&year=2023-24 July 2025. IEDRC 2023-24 K-12 CTE Pathway Inventory

Exhibit 3.1.3 shows the number of pathways where there is under/over- representation of specific demographic groups, based on comparisons between students with access to career education pathways and K-12 student enrollment in the region. This information includes all K-12 program pathways, not only those that prepare students for further education and employment in quality jobs. Furthermore, the data below accounts for all evidence of under/over-representation, regardless of statistical significance. By including all proportional differences, regardless of statistical confidence level, this approach ensures that equity patterns are not masked by sample size limitations, and that all groups remain visible in the analysis. This facilitates an analysis of differences among the region's small demographic groups. Exhibit 3.1.4 focuses on statistically significant disparities in representation across career education pathways that prepare students for employment in quality occupations.

## Exhibit 3.1.3: IE/D K-12 Student Under/Over- Representation in Career Education Pathways (2024)

| Demographic Category | Highly Under-represented | Under-represented | Over-represented | Highly Over-represented |
|---|---|---|---|---|
| American Indian or Alaska Native | 15 | 18 | 10 | 10 |
| Asian | 26 | 6 | 4 | 17 |
| Black or African American | 18 | 19 | 8 | 8 |
| Hispanic or Latino | 2 | 22 | 23 | 6 |
| Pacific Islander | 30 | 9 | 7 | 7 |
| Two or More Races | 9 | 8 | 15 | 21 |
| White | 15 | 10 | 11 | 17 |

Based on the results shown in Exhibit 3.1.3, the following section analyzes the highest under/over-representation in the following demographic categories:

- **American Indian or Alaskan Native** students are underrepresented at institutions providing career education across 33 career education pathways and overrepresented in institutions provide 20 career education pathways.
    - Only one K-12 institution in the region offers students career education in the mechanical systems installation and repair pathway, in which no American Indian or Alaskan Native student enrollments were recorded. American Indian or Alaskan Native students are overrepresented at the two K-12 schools that provide career education in the environmental resources pathway, accounting for 0.6% of students, despite accounting for 0.3% of students across all schools.
- **Asian** students are underrepresented at schools that offer 32 career education pathways. There are 21 career education pathways offered by institutions in which Asian students are overrepresented.
    - Despite accounting for 5.6% of the student population, these students account for 1.1% of the student population at the two institutions that provide environmental resources career education. Asian students are highly overrepresented in architectural design pathways, accounting for 11.4% of students at the 10 schools that offer this pathway.
- **Black or African American** students are underrepresented or highly underrepresented in access to 37 of the 53 career education pathways offered by regional K-12 institutions. Black or African American students are the most unrepresented group at schools that offer career education pathways, following students who identify as Two or More Races. Black or African American students are overrepresented at schools that provide 16 career education pathways.
    - Black or African American students are overrepresented at the two schools that provide career education in the health care operational support services pathway, accounting for only 11.3% of students. Only 1.8% of students at the one institution that provides students with an environmental engineering career education pathway are Black or African American, despite accounting for 6.6% of the K-12 student population.
- **Hispanic or Latino** students are overrepresented in 29 pathways and underrepresented in 24 pathways.
    - Hispanic or Latino students comprise 68.4% of enrollments at regional K-12 institutions, making them the largest racial/ethnic group. Hispanic or Latino student representation at institutions that offer career education pathways varies considerably. These students account for 85.5% of students with access to food science, dietetics, and nutrition pathways and for 50.2% of students with access to environmental engineering pathways.
- **Two or More Races** students are the most underrepresented demographic group in access to career education programs, with these students underrepresented in 39 of the 53 career education pathways offered by regional K-12s. These students are overrepresented or highly overrepresented in 14 career education pathways offered by K-12 institutions.
    - Students identified as Two or More Races are overrepresented at the three institutions that provide the family and human services career education pathway, accounting for 5.5% of students, despite comprising only 3.3% of the K-12 student population. These students are underrepresented at the one school that offers the mechanical systems installation and repair career education pathway, accounting for 0.8% of students
- **Pacific Islander** students are the most overrepresented group when assessing career education pathway availability. These students are overrepresented at schools offering 36

career education pathways. Pacific Islander students are underrepresented at institutions providing 17 career education pathways.
    - This group is most underrepresented at the one institution that provides environmental engineering career education. Pacific Islander students are most overrepresented at the four schools that offer students with access to international business career education.
- **White** students have the closest split between under/over- representation within career education pathways, being overrepresented in 28 of pathways and under-represented in 25 pathways. The under/over- representation of White students is most similar to those of Hispanic or Latino students as the region's largest demographic groups.
    - The one K-12 institution that provides environmental engineering career education is composed of 35.8% White students. White students account for 4.9% of students at the four institutions that provide energy and power technology career education, despite account for 15.4% of all students.

Exhibit 3.1.4 shows the number of pathways that lead to high-quality jobs and where there is under/over- representation of specific demographic groups, based on comparisons between workers in all K-12 enrollment and enrollment at schools that offer career education pathways. Additionally, this is another presentation of the information displayed in Exhibit 3.1.2 but focused on those pathways marked with an asterisk and are statistically significant.

K-12 institutions in the region provide students opportunities to engage with career education instruction across 53 career education pathways. However, career education pathway availability varies by school, suggesting that some students may be under- or over-represented in schools that offer career education pathways preparing students for quality occupation employment. Furthermore, only 41 of the 53 career education pathways provided by K-12 institutions prepare students for further education and employment in quality jobs. For example, pathways in the Arts, Media, and Entertainment and Fashion and Interior Design sectors do not prepare students for quality occupations. Statistically significant under- or over-representation in quality career pathways could not be determined for American Indian or Alaskan Native and Pacific Islander students, due to their relatively small populations in regional K-12 institutions.

### Exhibit 3.1.4: IE/D K-12 Student Under/Over- Representation by Career Education Pathway Toward Quality Jobs (2024)

| Demographic Category | Highly Under-represented | Under-represented | Over-represented | Highly Over-represented |
|---|---|---|---|---|
| American Indian or Alaska Native | | | | |
| Asian | 10 | | | 13 |
| Black or African American | 9 | 1 | | 5 |
| Hispanic or Latino | 1 | 17 | 13 | 6 |
| Pacific Islander | | | | |
| Two or More Races | 3 | | | 2 |
| White | 10 | 4 | 5 | 14 |

Based on the results shown in Exhibit 3.1.4, the following section analyzes the highest under and highest over-representation in the following demographic categories:

- **Asian** students are highly underrepresented at institutions that offer 10 career education pathways that prepare students for further education or employment in quality jobs. There are 13 career education pathways offered by institutions in which Asian students are highly underrepresented.
    - Asian students are highly overrepresented in architectural design pathways, accounting for 11.4% of students at the 10 schools that offer this pathway, despite accounting for 5.6% of all K-12 students. Asian students are highly underrepresented at the 11 schools that provide animal science career education, comprising only 2.0% of these schools' student population.
- **Black or African American** students are highly underrepresented in their access to nine career education pathways that prepare students for quality jobs. However, Black or African American students are highly overrepresented at institutions providing 5 career education pathways.
    - Black or African American students are highly underrepresented at the 11 schools that provide students with the opportunity to participate in career education in the operations pathway, accounting for 3.7% of students despite comprising 6.6% of the K-12 student population. Black or African American students are overrepresented at the two schools that provide structural repair and refinishing career education, accounting for 11.3% of the student population.
- **Hispanic or Latino** students are underrepresented at institutions providing 18 career education pathways that prepare students for employment in quality occupations and overrepresented at 19 institutions providing career education.
    - Hispanic students account for 85.5% of students at the three K-12 institutions that provide career education in the food science, dietetics, and nutrition pathway, despite accounting for 68.4% of students overall. These students are highly underrepresented at the three schools providing career education in the family and human services pathway, accounting for 55.1% of students.
- **Two or More Races** students are highly overrepresented in their access to two career education pathways and are highly underrepresented in access to three programs.
    - Despite accounting for 3.3% of the regional population, students identified as two or more races are significantly overrepresented at the three institutions that provide career education in the family and human services pathway (5.4%) and significantly underrepresented at the 16 institutions that provide career education in the games and simulations pathway (2.0%).
- **White** students are underrepresented in access to 14 career education pathways that lead to quality employment and overrepresented in 19 career education pathways.
    - White students are highly overrepresented at the three institutions that provide family and human services career education (26.9%), despite comprising only 15.4% of the student population. White students account for 4.9% of students at the four institutions that provide energy and power technology career education, indicating significant underrepresentation.

### 3.2: K-12 Career Education Program Completers Demographic Analysis

This section provides an overview of the demographic shares of students completing CTE pathways at regional K-12 institutions, identifying equity gaps in CTE pathway completion. For the purposes of this

section, equitable representation is defined as the demographic distribution of students of students that completed a CTE pathway and met the College/Career Indicator (CCI) definition of “prepared” compared to all K-12 students. Our research will provide a comparison between these two cohorts to identify any potential disparities in the types of students who successfully completed CTE pathways and are prepared for college/career in 2024.

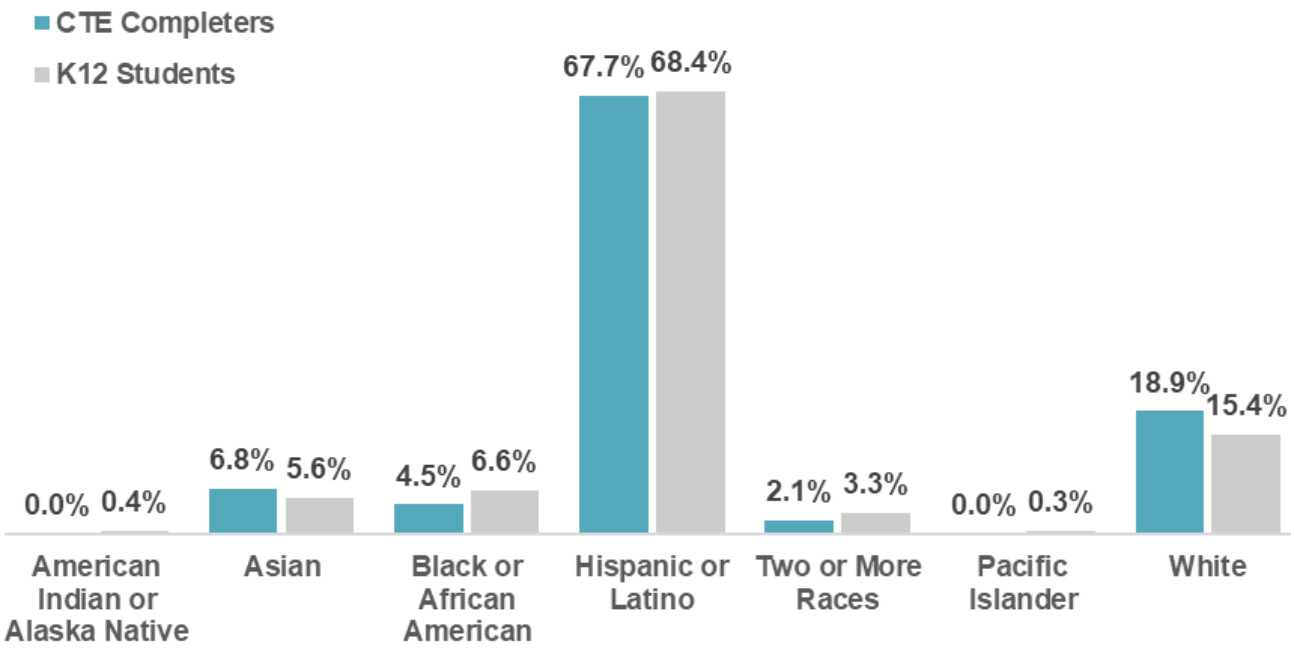
For this report, CTE pathway completions data were sourced from the California Department of Education (CDE) College/Career Indicator. The CDE collects College/Career Indicator (CCI) measures how well-prepared high school students are for success after graduation, whether in postsecondary education or in a career.[24] The CTE completers included in this analysis are those that completed a CTE pathway and were identified as prepared for college/career. A CTE pathway is considered complete for students who completed one CTE pathway with a grade of C- or better (or Pass) in the capstone course.[25] Graduates classified as "prepared" met at least one criterion specific to career preparation or college readiness. See the Appendix for a full list of criteria that may qualify a student as prepared in the CCI.

Since this data is specific to individuals who completed a CTE pathway and met the CGI prepared-criteria, individuals who completed a CTE pathway, but did not meet the CGI prepared-criteria are not included in this analysis. In 2024, there were 6,866 students considered “Prepared” for college or a career who also completed a CTE pathway in the Inland Empire. Exhibit 3.2.1 displays the demographic composition of CTE program completers and K-12 students in the region. While all of the differences between these data may not be statistically significant, the differences may provide insight into the demographic composition of CTE completers compared to all students in the K-12 system.

[24] [24] https://www.cde.ca.gov/ta/ac/cm/documents/ccicollege.pdf

[25] California Department of Education (CDE). Met UC/CSU Requirements and CTE Pathway Completion Report. Retrieved from: https://www6.cde.ca.gov/californiamodel/ccireportuc_csu_cte?&year=2024&cdcode=0000000&scode=&reporttype=schools

## Exhibit 3.2.1: IE/D K-12 Student CTE Completers – Race and Ethnicity Distribution Compared to All K-12 Students (2024)




Data source: California Department of Education (CDE). Met UC/CSU Requirements and CTE Pathway Completion Report. Retrieved from: https://www6.cde.ca.gov/californiamodel/ccireportuc_csu_cte?&year=2024&cdcode=0000000&scode=&reporttype=schools

Based on the results shown in Exhibit 3.2.1, the following section analyzes the composition of students who successfully completed a CTE pathway and are prepared for career/college:

- **American Indian or Alaska Native** students in the region who completed a CTE pathway in 2024 did not meet the CCI definition of "prepared".
- **Asian** students are overrepresented in the cohort of CTE pathway completers when compared to the overall K-12 student population. Asian students successfully complete CTE programs at a greater rate than their regional concentration, with Asian students accounting for 6.8% of CTE pathway completers despite comprising only 5.6% of all K-12 students.
- **Black or African American** students are underrepresented in the cohort of 2024 pathway completers, accounting for only 4.5% of completers, despite accounting for 6.6% of the K-12 student population.
- **Hispanic or Latino** students are underrepresented in CTE pathway completers compared to all K-12 students.
- **Pacific Islander** students did not complete a CTE pathway and also met the CCI "prepared" criteria in 2024.
- **Two or More Races** students are underrepresented in their CTE pathway completions (2.1%) when compared to all K-12 students (3.3%).
- **White** students are highly overrepresented in the 2024 cohort of CTE pathway completers, comprising 18.9% of completers despite accounting for only 15.4% of all students. White student overrepresentation in college prep and CTE programs is the only data that is statistically significant.

## 3.3: K-12 Student Matriculation by Community College Service Area

This section analyzes the demographic composition of community colleges compared to the K-12 institutions within the college's service area. For the purposes of this section, equitable representation is defined as the demographic distribution of students at regional community colleges closely reflecting the demographic distribution of K-12 students in the college's service area. Our research will provide a comparison between these two cohorts to identify any potential disparities in who is matriculating from regional K-12s to regional community colleges. College service area-level analysis provides a more nuanced perspective, as the demographics of the region vary by each community served.

Exhibit 3.3.1 displays the demographic composition of regional community college students by community college. There is considerable variation in the demographics of students at regional community colleges. For example, while each of the regional colleges meets the definition of a Hispanic Serving Institution (HIS)[26], Hispanic or Latino student enrollment differs by college, with Hispanic students comprising 42.5% of students at College of the Desert and Hispanic students comprising 76.3% of students at Copper Mountain College.

### Exhibit 3.3.1: IE/D Students in Community Colleges – Race and Ethnicity Distribution (2024)

| Colleges | American Indian or Alaska Native | Asian | Black or African American | Hispanic | Pacific Islander | Two or More Races | White |
|---|---|---|---|---|---|---|---|
| Barstow College | 0.6% | 4.7% | 18.8% | 45.0% | 0.9% | 7.1% | 23.0% |
| Chaffey College | 0.2% | 9.8% | 6.9% | 64.3% | 0.2% | 3.3% | 15.3% |
| College of the Desert | 0.4% | 5.0% | 7.3% | 42.5% | 0.6% | 6.7% | 37.4% |
| Copper Mountain College | 0.3% | 3.3% | 2.4% | 76.3% | 0.1% | 2.5% | 15.1% |
| Crafton Hills College | 0.3% | 7.2% | 4.5% | 54.0% | 0.2% | 5.4% | 28.5% |
| Moreno Valley College | 0.2% | 5.5% | 9.6% | 68.1% | 0.3% | 4.0% | 12.3% |
| Mt. San Jacinto College | 0.4% | 8.6% | 6.2% | 55.8% | 0.5% | 5.5% | 23.0% |
| Norco College | 0.2% | 12.8% | 6.5% | 59.3% | 0.3% | 4.2% | 16.6% |
| Palo Verde College | 1.2% | 3.5% | 11.4% | 53.8% | 0.0% | 2.9% | 26.6% |
| Riverside City College | 0.2% | 6.8% | 7.3% | 67.4% | 0.3% | 4.2% | 13.7% |
| San Bernardino Valley College | 0.2% | 4.6% | 10.2% | 71.1% | 0.4% | 3.6% | 10.0% |
| Victor Valley College | 0.3% | 2.2% | 9.8% | 64.7% | 0.3% | 4.5% | 18.3% |
| **Grand Total** | **0.3%** | **6.6%** | **7.7%** | **64.1%** | **0.3%** | **4.1%** | **16.9%** |

Data source: California Community Chancellor's Office Management Information Systems Data Mart. Enrollment Status Summary Report. Retrieved from: https://datamart.cccco.edu/students/enrollment_status.aspx

**Community College Service Area Demographic Analysis**

[26] The Higher Education Act defines HSIs as not-for-profit colleges and universities where at least 25% of the full-time equivalent (FTE) undergraduate enrollment is Hispanic. Retrieved from: https://hacu.net/research/hsi-definition/

Exhibit 3.3.2 displays the over- and underrepresentation of the demographic categories of community college students compared to the demographics of the K-12 institutions within the college's service area. The information displayed below displays all evidence of under/over- representation of demographic cohort at the regional community colleges, regardless of statistical significance. By not filtering for statistical significance, we can see all evidence of under/over- representation. See the Appendix to view the demographic composition of K-12 students with each community college's service area.

### Exhibit 3.3.2: IE/D Community College Student Under/Over- Representation Compared to K-12 Students in the Community College Service Area (2024)

| Demographic Category | Highly Under-represented | Under-represented | Over-represented | Highly Over-represented |
|---|---|---|---|---|
| American Indian or Alaska Native | 7 | 2 | 1 | 2 |
| Asian | 1 | 2 | 1 | 8 |
| Black/African American | 1 | 3 | 2 | 6 |
| Hispanic or Latino | 2 | 8 | 1 | 1 |
| Pacific Islander | 5 | 2 | 1 | 4 |
| White | 1 | 3 | 4 | 4 |
| Two or More Races | 1 | 2 | 1 | 8 |

Based on the results shown in Exhibit 3.3.2, the following section analyzes the highest under/over-representation in the following demographic categories:

- **American Indian or Alaska Native** students are underrepresented at two community colleges and highly underrepresented at seven regional community colleges when compared to the K-12 service area that feeds into the community colleges. Conversely, American Indian or Alaska Native students are overrepresented at three regional community colleges.
    - Statistically significant disparities in American Indian or Alaskan Native student representation at regional community colleges could not be determined due to the small size of this group in the region.
- **Asian** students are underrepresented at three community colleges compared to the K-12 student population in the community colleges' service area. Asian students are overrepresented at nine community colleges. Asian student overrepresentation is evident from a regional perspective, in which 5.6% of K-12 students are Asian compared to 6.6% of Asian students at community colleges.
    - Asian students comprise 8.6% of students at Mt. San Jacinto College, despite Asian students accounting for 5.5% of enrollments at K-12 institutions in the Mt. San Jacinto College service area.
- **Black or African American** students are underrepresented at three regional community colleges and highly underrepresented at one community college. Black or African American students are highly overrepresented at six regional community colleges and overrepresented at two community colleges.
    - Black or African American students comprise 7.3% of the College of the Desert's student population, which is significantly more than the 2.0% of Black or African American students enrolled at K-12 institutions within the college service area.

- **Hispanic or Latino** students are underrepresented at 10 regional community colleges. Hispanic or Latino student underrepresentation at regional community colleges is visible from the regional perspective, in which 64.1% of community college students are Hispanic or Latino, which is significantly less than the 68.4% of K-12 students identified as Hispanic. Hispanic students are overrepresented at two community colleges.
    - Hispanic or Latino students are significantly underrepresented at the College of the Desert, accounting for 42.5% of community college students despite comprising 83.3% of K-12 students in the college's service area.
- **Pacific Islander** students are highly underrepresented at five regional community colleges and underrepresented at two colleges compared to the K-12 student population. Pacific Islander students are highly overrepresented at four community colleges and overrepresented at one college.
    - Statistically significant disparities in Pacific Islander student representation at regional community colleges could not be determined due to the small size of this group in the region.
- **White** students are highly underrepresented at one regional community college. White students are underrepresented at three community colleges. White students are overrepresented at four community colleges and highly overrepresented at four regional community colleges. Nearly 17% of community college students in the region are White, compared to 15.4% of regional K-12 students.
    - White students are significantly overrepresented at the College of the Desert, comprising 37.4% of students, while the K-12 schools in the college's service area are 9.7% White. White students are significantly underrepresented at Copper Mountain College (15.1%), despite the service area containing 43.8% White students
- **Two or More Races** students are highly overrepresented at nine regional community colleges and underrepresented at three community colleges.
    - Approximately 6.7% of students at the College of the Desert identified as Two or More Races, while the college's service area is comprised of 1.9% K-12 students of Two or More Races.

### 3.4 College-Going Rate by Demographic Group

Differences between K-12 and community college enrollment demographics may be evidence of broader systemic issues affecting postsecondary education in the region. College-going rate information may provide additional context for over- and underrepresentation at regional community colleges compared to their service areas.

The College-Going Rate (CGR) is defined as the percentage of California public high school students who completed high school in a given year and subsequently enrolled in any public or private postsecondary institution (in-state or out-of-state) in the United States within 12 months of completing high school.[27] As a result, students participating in a gap year will not be represented in this data.

The most recent CGR data is for the 2021-2022 academic year. In the 2021-2022 academic year, nearly 54% of high school completers in the region attended college in the following 12 months,

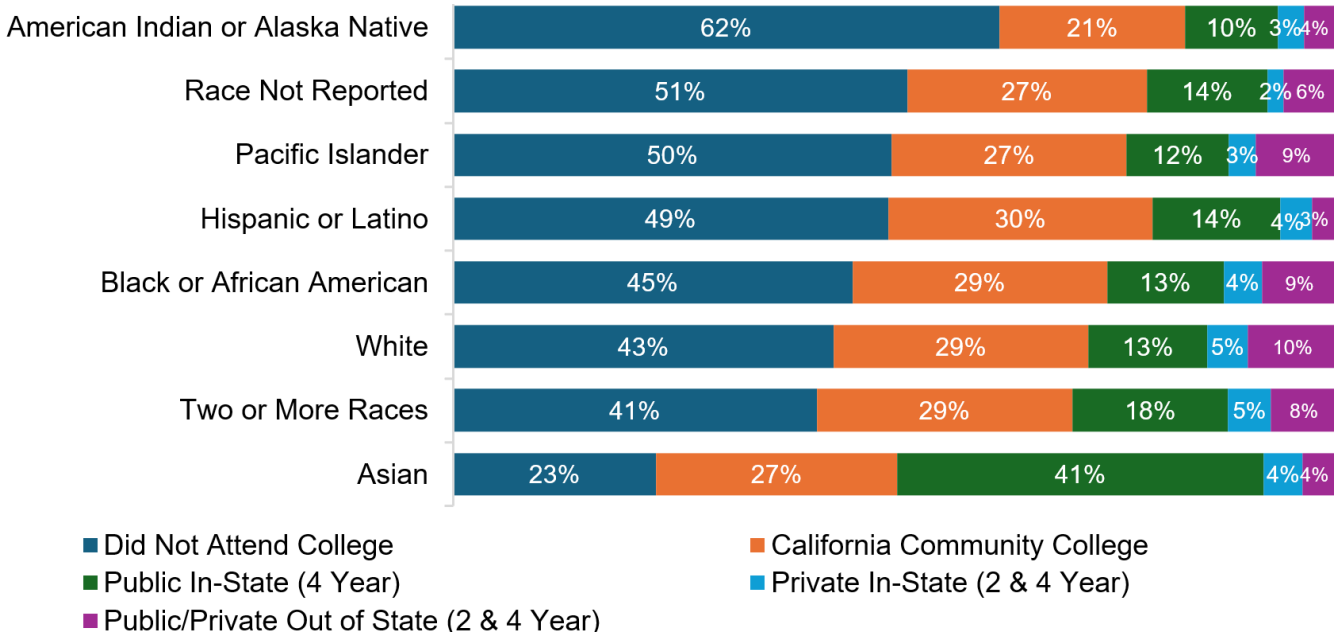
[27] California Department of Education. Information about the College-Goin Rate (CGR). Retrieved from: https://www.cde.ca.gov/ds/ad/cgrinfo.asp

significantly less than the college-going rate of students throughout California at 62%. Exhibit 3.4.1 displays the college-going rate by race/ethnicity in the Inland Empire.

The college-going rate reveals large differences in the shares of students attending postsecondary education by race/ethnicity. The CGR can also provide insight into the types of institutions students attend following the completion of high school, such as two-year public colleges in-state, also known as California Community Colleges.

The public in-state four-year colleges displayed in Exhibit 3.4.1 include the University of California (UC) system and California State University (CSU) system. Two- and four-year private colleges, those not supported by public funds, comprise a small share of college enrollments for students across demographic groups. All institutions outside of California are combined into one group in Exhibit 3.4.1. Understanding where students matriculate following high school may yield insight into student success beyond the community college system.

### Exhibit 3.4.1: IE/D College-Going Rate by Race/Ethnicity (2021-22)




Data source: California Department of Education (CDE). College-Going Rate (CGR). Retrieved from: https://www.cde.ca.gov/ds/ad/cgrinfo.asp

Based on the results shown in Exhibit 3.4.1, the following section analyzes the college-going rate and postsecondary institution types by demographic categories:

- **American Indian or Alaskan Native** students, who comprise 0.4% of students, have the lowest share of high school completers attending postsecondary education one year after graduation, at 38%, indicating 62% of students do not attend college within the year following high school. This may indicate system barriers to postsecondary education for American Indian or Alaskan Native individuals in the region.
- **Asian** students have the highest college-going rate, with 77% of students enrolled in college 12 months following high school completion. Asian students are less represented in community colleges than would be expected due to the exceptionally high share of Asian students who attend CSUs and UCs following graduation.

- The majority of **Black or African American** students who completed high school in the 2021-2022 academic year attended a postsecondary institution within one year of graduation, indicating that 45% of completers did not. However, these students appear well-represented at regional community colleges, accounting for 8.4% of students, compared to 6.6% students at the K-12s.
- Just under half of **Hispanic or Latino** high school completers continue to higher education in the Inland Empire. However, Hispanic and Latino students have the highest share of students who go to community college following high school graduation of any race/ethnicity group at 30%.
- Half of **Pacific Islander** high school completers did not enroll in college within 12 months of completion, resulting in only 27% of students attending community college after high school.
- Approximately 43% of **White** students do not attend college within one year following high school graduation. However, White students are well-represented at community colleges, with 29% of high school completers attending. White students also have the highest share of students attending private institutions and colleges in other states.
- Students who are **Two or More Races** have the second-highest college-going rate, with 59% of students attending college one year after graduation. Approximately 29% of students identifying as Two or More Races attended community college one year after high school graduation.

The college-going rate reveals interesting insights into college participation disparities by gender. Exhibit 3.4.2 displays the college-going rate by gender in the Inland Empire in the 2021-2022 academic year. The distribution of high school completers by gender is nearly equally split between males and females, with slightly more male students completing high school than female students in the Inland Empire. However, male students are underrepresented in the CGR, indicating that these students are not matriculating to postsecondary education at the same rates as female students. Female high school completers enroll in college at much greater rates than male completers, at 56.2% and 43.8%, respectively.

Overall, 53.9% of high school completers enrolled in college within a year, indicating that 46.1% of students in the Inland Empire who completed high school did not attend college within a year after finishing high school. Most students going to college directly after high school enrolled in two- and four-year institutions in the state, with only 8.9% of regional students attending college in another state in the 2021-2022 academic year.

### Exhibit 3.4.2: IE/D College-Going Rate by Gender (2021-22)

| Gender | High School Completers | College-Going Rate | Enrolled In College (In-State) | Enrolled In College (Out of State) | No Record of College Enrollment |
|---|---|---|---|---|---|
| Female | 49.6% | 56.2% | 90.7% | 9.2% | 38.9% |
| Male | 50.4% | 43.8% | 91.6% | 8.4% | 53.3% |
| **Total** | **100.0%** | **53.9%** | **91.1%** | **8.9%** | **46.1%** |

Data source: California Department of Education (CDE). College-Going Rate (CGR). Retrieved from: https://www.cde.ca.gov/ds/ad/cgrinfo.asp

Whether matriculating at a community college, four-year college, or joining the workforce directly after postsecondary education, the K-12 CTE system provides students with the foundation of their career development. Regardless of their demographic identities, all students deserve access to the same opportunities on their career journey. The following section will summarize the key findings across all stages of the K-12 and community college system, as well as provide recommendations to help ensure its outcomes are as equitable as possible.

## SECTION 4: WHAT SYSTEMIC OR INSTITUTIONAL BARRIERS LIMIT EQUITABLE ACCESS AND REPRESENTATION ACROSS THE MIDDLE SKILL EDUCATION-TO-EMPLOYMENT PIPELINE FOR "QUALITY JOBS" IN THE IE/D REGION, AND WHAT STRATEGIES CAN BE DEVELOPED TO IMPROVE EQUITABLE ACCESS AND OUTCOMES FOR UNDERREPRESENTED GROUPS?

### 4.1: Key Findings

This report has examined the current state of equity and access for students in the middle-skill education pipeline that runs through the K-12 CTE programs in regional school districts, into local community colleges, and ultimately leading to employment, while also determining to what degree this pipeline helps ensure the region's workforce reflects the region's diversity.

The following sections explore how each of the core demographics engages with the education-to-employment pipeline and is represented within the regional workforce.

**Hispanic or Latino Residents**

Hispanic or Latino residents are a vital part of the Inland Empire economy, making up 51.4% of the region's labor force. Despite this, they remain consistently underrepresented in quality jobs. Although Hispanic students make up a majority of the early education pipeline, their representation steadily declines as they progress toward the labor market. They account for 68.4% of K-12 enrollments, 67.7% of career education pathway completers, 64.3% of community college enrollments, 63.3% of students in work-based learning programs, but only 46.0% of quality job holders. This gap is not just a quantifiable demographic observation; it's a structural inequity that limits economic mobility for the region's largest community.

This pattern illustrates a systemic leakage in the education-to-employment pipeline, where early representation does not translate into equitable workforce outcomes. For example, only 51% of Hispanic students in the region pursue postsecondary education following high school graduation. Affordability challenges, first-generation status, and limited access to culturally responsive advising may contribute to lower college-going rates among Hispanic students. Similarly, underrepresentation in work-based learning programs, a bridge to employment, further restricts opportunities to transition into quality jobs.

To address these representation gaps, institutions may consider evidence-informed strategies most likely to affect Hispanic and Latino students. Expanding access to paid work-based learning opportunities, incorporating transportation and childcare supports into career education programs, and building stronger partnerships with Hispanic-serving community organizations are among the approaches that could improve enrollment, retention, and transition into quality jobs. These efforts not only enhance equity but also strengthen the region's workforce pipeline by ensuring its largest student population is fully supported from education to employment.

**Black or African American Residents**

Black or African American students face persistent barriers throughout the education-to-employment pipeline, resulting in underrepresentation in quality jobs despite engagement in educational opportunities. While they make up 6.6% of K-12 enrollment and 7.3% of the regional labor force, their share drops to 6.2% of workers in quality jobs. At the community college level, representation is relatively balanced, and enrollment across CTE programs is mixed, with underrepresentation in 40 programs and overrepresentation in 38.
Early stages of the pipeline present more pronounced equity gaps. Black students are underrepresented in 37 of 53 pathways, limiting access to early opportunities for career exploration and preparation.

Completion rates reinforce the issue, with Black students accounting for just 4.5% of CTE completers despite representing 6.6% of K-12 enrollment. College-going rates are also below average, as 45% of Black students do not enroll in postsecondary education within a year of high school completion.

These patterns reflect systemic filtering, not a lack of engagement. Black students are participating, but inequities in early access, program completion, and employment transitions constrain long-term opportunity. Institutions may consider strengthening culturally responsive advising, expanding access to paid internships and dual enrollment in underrepresented sectors, and improving transitions between K–12, college, and employment.

**White Residents**

White residents may experience systemic advantages that support stronger outcomes across the education-to-employment pipeline, contributing to their overrepresentation in quality jobs. White student representation increases steadily along the pipeline, accounting for 15.4% of K-12 enrollments, 18.9% of career education pathway completions, 18.1% of enrollments in CTE programs that lead to quality jobs, and 35.7% of quality job holders.

Participation in work-based learning programs reflects a similar trend. White students represent 19.0% of WBL participants, exceeding their share of the broader student population (16.6%), which may further support their transition into stable quality jobs.

While not an equity gap in the traditional sense, these patterns highlight how systemic advantages, such as earlier exposure to career opportunities, access to support networks, and familiarity and support with navigating educational systems, can shape outcomes. Recognizing these dynamics is essential to understanding where disparities originate and ensuring that all student groups receive equitable opportunities to succeed along the education-to-employment pipeline.

**Asian Residents**

Asian students demonstrate upward mobility across the education-to-employment pipeline, with representation steadily increasing from early education into the regional quality jobs workforce. They comprise 5.6% of K–12 enrollment, rise to 6.6% in community college CTE programs, and ultimately make up 9.1% of quality job holders across the Inland Empire/Desert region.

This growth occurs despite early access barriers. Asian students are underrepresented in 32 of the region’s 53 K–12 career education pathways. However, they consistently complete those pathways at higher rates, representing 6.8% of CTE completers, which is a full percentage point above their enrollment share. Their strong academic momentum continues after high school, as Asian students

have the highest college-going rate of any group in the region: 77% enroll in postsecondary education within a year of graduation.

Many Asian students opt for four-year institutions, particularly CSUs and UCs, which helps explain why community college representation, while strong, is not even higher. Nonetheless, those who do enroll in community college programs appear well-positioned to transition into quality jobs.

Overall, this pattern suggests that while Asian students face some access gaps early in the pipeline, they benefit from strong academic preparation and higher education transitions that support quality job attainment. Ensuring equitable access to K–12 pathways, particularly in career fields aligned with regional labor market demand, can help address early disparities and further strengthen outcomes for this group.

**American Indian or Alaska Native Residents**

American Indian or Alaska Native students represent the smallest share of the regional population, and their outcomes reveal persistent inequities across the pipeline. They are underrepresented in 33 K-12 pathways, face the lowest college-going rate of any group (38% attend within a year of graduation), and did not meet the state's definition of "prepared" for CTE pathways completers in 2024.

Their presence at community colleges varies, with underrepresentation at some institutions and overrepresentation at others, but their small regional population makes statistical analysis difficult. These patterns suggest that these residents may face systemic barriers resulting in the weakest connection to quality jobs.

**Pacific Islander Residents**

Pacific Islander students face inconsistent access and outcomes across the education-to-career pipeline, reflecting their small but highly variable population in the region. While they are overrepresented in access to 36 K-12 pathways and underrepresented in 17, this variability suggests inconsistent access to opportunities across schools. However, none completed a CTE pathway or met the CCI definition of prepared in 2024, signaling barriers in persistence and completion.

Their postsecondary transition is also lagging as half did not enroll in college within a year of graduation, and only 27% entered community colleges. Representation at community colleges varies widely, with both underrepresentation and overrepresentation across institutions, indicating this group may be geographically concentrated in certain community college service areas. These findings reveal instability in the education pipeline and highlight the need for more consistent support to ensure Pacific Islander students successfully transition into quality jobs.

**Two or More Races Residents**

Students identifying as Two or More Races encounter mixed outcomes across the education-to-career system. They are the most underrepresented group in K-12 pathways, with inequities in 39 of 53 programs, and their representation in CTE completions is lower than expected (2.1% vs. 3.3% enrollment). However, they demonstrate resilience in higher education, with strong college-going rates (59%) and overrepresentation at nine regional community colleges.

This group's trajectory suggests that while early inequities shrink the pipeline, those who reach postsecondary education are more likely to persist and succeed. Despite comprising 1.9% of the

regional labor force, residents identified as two or more races comprise 2.3% of the Quality Jobs workforce.

**Residential Gender**

Gender disparities persist throughout the education-to-career pipeline, with women underrepresented in the programs and occupations that lead to employment in quality jobs. While women make up just over half of the labor force (50.1%), they represent 38.3% of quality job holders. At the education stage, they are similarly underrepresented in CTE programs (42.1%) and in work-based learning opportunities (50.1% vs. 58.1% of overall enrollment). These data suggest that women are not equitably accessing or being retained in programs train for quality jobs.

In contrast, men are consistently overrepresented, making up 61.7% of quality job holders, 57.9% of CTE program enrollment, and 49.5% of work-based learning participation. Together, these disparities point to systemic filters that limit women's participation in high-opportunity fields. Gendered norms, limited exposure to nontraditional careers, and lack of targeted support may be contributing to these outcomes. Addressing these barriers is essential to ensuring that women can fully participate in the regional economy and access career pathways that offer stability, mobility, and living wages.

**Residential Age**

Age disparities reinforce inequities across the system. Younger workers under 24 are heavily concentrated in education, representing more than half of CTE program enrollment (54.6%), but they account for only 6.4% of quality job holders despite making up 17.7% of the labor force. Their underrepresentation in work-based learning programs highlights a missed opportunity to connect them to employment pathways.

Mid-career workers (35–54), by contrast, are strongly represented in quality jobs (46.9% vs. 32.3% of the labor force) but are underrepresented in community college programs, suggesting limited access to reskilling or advancement opportunities. They do, however, show higher participation in work-based learning programs. Overall, young learners are not being transitioned effectively into quality jobs, while adults already in the workforce have fewer structured pathways to re-engage with career education.

## 4.2: Recommendations

**Market Programs That Lead to High Quality Jobs to Underrepresented Groups**

The findings in this report demonstrate that certain populations, particularly Hispanic or Latino, Black or African American, female, and younger learners, remain underrepresented in both the occupations defined as quality jobs and the programs that train for those jobs. To close these gaps, regional institutions should prioritize targeted outreach and marketing strategies to increase participation in quality job pathways. This includes tailoring recruitment messaging, highlighting opportunities in these fields, and possibly showcasing the success stories of alumni from similar backgrounds.

Improving visibility of these programs and pathways can help ensure that underrepresented groups are equitably informed and encouraged to pursue quality job opportunities. Aligning marketing efforts with community-based organizations, workforce boards, and culturally responsive outreach partners can extend the reach and relevance of these efforts. Faculty and counselors play a critical role in supporting this work by educating students about quality career paths and guiding them toward opportunities. These insights can inform more intentional outreach, program design, and student support strategies that strengthen equitable preparation for and connection to high-quality career pathways. In practice,

faculty, counselors, and community partners can use this data to better tailor outreach, mentorship, and wraparound services to address the unique barriers faced by underrepresented populations.

**Improve Regional Collection and use of Disaggregated Student Data**

This report draws on publicly available data sources to examine student outcomes across K–12 and community college systems. While these sources provide valuable insights, efforts to create a cohesive picture of the regional education-to-employment pipeline are limited by significant data gaps. In particular, demographic data is not currently available at the CTE pathway level within the K–12 system, making it difficult to assess whether students from different backgrounds are equitably represented in programs that lead to quality jobs.

The absence of this level of disaggregation hinders the ability to identify potential biases, barriers to access, and enrollment patterns across CTE pathways. Without it, institutions and researchers cannot determine which students are being guided, or not guided, into specific career pathways, nor can they assess the effectiveness of equity-focused outreach and program design.

Improved collection, disaggregation, and reporting of student demographic data at the CTE pathway level would support more precise and actionable analyses. It would also allow institutions to better understand where equity gaps emerge and develop data-informed strategies to guide students toward high-wage, high-growth careers. Regional coordination across school districts, county offices of education, and the Chancellor's Office could help ensure consistency in data practices and enable more effective alignment between K–12 and community college systems.

The need for improved student-level data extends beyond the K-12 system, as community colleges also lack information on the pipelines that feed students into their institutions. Access to such data would make it possible to better identify linkages between K-12 and community colleges, thereby strengthening the education-to-employment pipeline that leads to quality jobs. Moreover, community college demographic data is reported only at the program level, which limits the ability to analyze the characteristics of students participating in specific courses, such as work-based learning courses.

**More Research into the IE/D Education-to-Employment Pipeline Needed**

As the first IE/D COE report in recent years to include disaggregated K–12 equity data, this study was designed to offer a more holistic view of the Inland Empire/Desert's education-to-employment pipeline. By connecting K–12, community college, and labor market data, the report highlights critical equity gaps and transition points that impact student success. However, this analysis represents only the beginning. Further research is needed to better understand the systemic barriers and biases that shape students' trajectories through career education and into the workforce. Key questions remain around program selection, access to work-based learning, and the long-term employment outcomes of students from underrepresented backgrounds.

This report is intended to serve as a foundation for continued inquiry, collaboration, and discussion across institutions. It is hoped that these findings will spark regional dialogue about how best to integrate existing data systems, identify meaningful metrics, and build a shared understanding of equity across the full education and workforce continuum. Expanding this research can help institutions move from insight to action, ensuring that every student, regardless of background, has a clear, supported pathway into high-quality employment.

**Create Targeted Work-Based Learning Programs**

Work-based learning (WBL) opportunities, such as internships, apprenticeships, and cooperative education, are critical tools for helping students gain hands-on experience and improve their chances of securing employment in their chosen field. These experiences not only build technical and professional skills but also create essential connections between students and employers.

Given that institutional resources are often limited, this research can help community college faculty and staff prioritize expansion efforts by identifying where WBL programs are most likely to support equitable access to quality jobs. Specifically, the findings can be used to guide the development or scaling of WBL opportunities in high-quality programs, those with strong wage and growth potential, where underrepresented students are most likely to benefit.

By intentionally aligning work-based learning efforts with programs that both lead to quality jobs and exhibit demographic disparities, colleges can increase the likelihood that students from historically marginalized groups have direct pathways into the workforce. This targeted approach not only addresses equity gaps but also strengthens the region's overall talent pipeline by ensuring that all students are better prepared and more connected to high-opportunity careers.

# APPENDICES

## A: Research Definitions and Methodologies

This equity report presents demographic data related to the education-to-employment pipeline leading to quality jobs in the Inland Empire/Desert region. Demographic information, including gender, age, and race and ethnicity, help frame the quality job workforce aside from the regional demographic composition.

Occupation data is presented in this report to identify the occupational characteristics most impactful to workforce planners and community colleges. This report exclusively displays occupational information for those occupations that meet the quality job criteria. These are the jobs most likely to focus decision-makers on making investments that provide the best opportunities for residents.

The California Community College Chancellor's Office Curriculum Inventory (COCI), as a repository for community college programs, illuminated the programs that community colleges currently offer in the subregion. By comparing active programs to related occupations, as identified in the CCCCO and COE TOP-SOC crosswalk, the quality jobs occupations trained by existing programs could be highlighted.

**Definitions**

**Labor market information** was pulled from Lightcast, a labor market analytics firm that specializes in providing insights for workforce development, economic planning, and education. Lightcast compiles its regional and occupational datasets from a variety of federal and state sources. Among these are the Quarterly Census of Employment and Wages (QCEW), which offers detailed industry employment and wage data, and other critical sources such as the U.S. Census Bureau's American Community Survey (ACS) and Quarterly Workforce Indicators, the Bureau of Labor Statistics' Occupational Employment and Wage Statistics and Current Population Survey, and data from the Bureau of Economic Analysis.[28] These combined resources provide comprehensive insights into employment trends, wage patterns, and quality job workforce characteristics. The baseline year of 2023 was used to offer the maximum comparability with the student data available, and the projected data was through 2028.

**Annual job openings** include the projected growth (new jobs) and replacement needs of an occupation annually. This figure is often used to assess the expected employer demand for an occupation, providing a number of job openings that will require new workers to fill.

**Educational attainment** is the highest level of education attained by workers aged 25 years or older. This information may illuminate mismatches between resident skills and employment needs.

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.

**SOC code:** The Standard Occupational Classification system is a federally defined system used to classify workers into occupational categories that are grouped together according to job duties.[29]

[28] Lightcast (2025). Version 2025.1. Retrieved from https://lightcast.io/ in April 2025.
[29] "Standard Occupational Classification," Bureau of Labor Statistics, bls.gov/soc/

**TOP code:** The Taxonomy of Programs is a system of codes used by the State of California to compare differently named academic programs with similar outcomes across community colleges.[30] Each course offered by California Community Colleges is assigned to a TOP code.

**Living wage:** The living wage for this study is based on the University of Washington's Self-Sufficiency Standards, which measures the minimum income necessary for an individual (under age 65 and without disability) or family to afford basic expenses in the Inland Empire/Desert Region.[31] The living wage is $20.76 in Riverside County and $20.07 in San Bernardino County. This report uses the higher rate of $20.76 as the benchmark to identify Quality Jobs that provide workers with high-quality employment opportunities.

**Quality job:** A middle-skill job that requires at least a high school diploma and typically less than a bachelor's degree; entry-level earnings are above the living wage for a single adult in the Inland Empire/Desert regions; and has at least 75 projected annual job openings in Inland Empire/Desert between 2023 and 2028.

**Methodologies and Sources**

The data sources used in this study include data from Lightcast, a labor market analytics firm that specializes in providing insights for workforce development, economic planning, and education. Lightcast compiles its regional and occupational datasets from a variety of federal and state sources. Among these are the Quarterly Census of Employment and Wages (QCEW), which offers detailed industry employment and wage data, and other critical sources such as the U.S. Census Bureau's American Community Survey (ACS) and Quarterly Workforce Indicators, the Bureau of Labor Statistics' Occupational Employment and Wage Statistics and Current Population Survey, and data from the Bureau of Economic Analysis.[32] These combined resources provide comprehensive insights into employment trends, wage patterns, and industry-specific workforce characteristics across the Inland Empire/Desert regions.

Additionally, this report utilizes data from IPUMS USA, which preserves and harmonizes U.S. Census microdata, specifically using 2023 ACS data. This dataset provides granular, disaggregated information, which is crucial for producing detailed reports on workforce demographics. It allows for the breakdown of occupational workforce characteristics by race, gender, age, and education level, enabling deeper analysis of equity gaps and workforce diversity.[33] Together, these complementary data sources provide both broad and detailed insights for this report.

To analyze the demographic distribution of these groups, two types of statistical analyses were used: the Proportionality Index and Proportion Gap.[34] These methods allowed us to compare the representation of different demographic groups within each population. The analysis was conducted with a 95% confidence level, which means there is high confidence that the results reflect actual trends rather than random chance, and that there was enough data to support our conclusions.

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[30] ""Taxonomy of Programs," California Community Colleges, https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513

[31] Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California 2024. http://www.selfsufficiencystandard.org/California

[32] Lightcast (2025). Version 2025.3. Retrieved from https://lightcast.io/ in July 2025.

[33] IPUMS USA (ACS), University of Minnesota. (n.d.). IPUMS USA dataset. live.usa.datadownload.ipums.org/web/extracts/usa/2601829/usa_00028.cbk

[34] California Community Colleges Chancellor's Office. (2017). *Disproportionate impact, equity, and placement*. https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Digital-Innovation-and-Infrastructure/Network-Operations/Accountability/Files/Disproportionate_Impact_Equity_and_Placement-201701051.pdf

In this analysis, the percentages of gender, age, and race/ethnicity in the labor force within the IE/D region served as a baseline to assess equity gaps of worker demographics in Quality Jobs. Similarly, the demographic percentages for the labor force within the Inland Empire/Desert served as a baseline when assessing equity gaps among students enrolled in CTE programs that prepare workers for Quality Jobs.

Throughout the report, the terms ‘overrepresentation’ and ‘underrepresentation’ are referencing the results of these statistical methods to quantify how significantly a demographic group’s percentage in a particular group, like the workers in Quality Jobs or students in either the K-12 CTE or community college programs, deviates from that group’s percentage in a broader baseline, such as the regional labor force. As an example, understanding these terms helps us recognize that overrepresentation, such as more Hispanics or Males in specific educational programs, is not inherently negative but reflects the program’s alignment with labor force and demographic trends.

## B: Quality Jobs-Aligned Community College Program Demographics

| Quality Aligned Programs TOP Title – TOP Code | Pre-Career/ College (Age <25) | Early Career (Age 25-34) | Mid-Career (Age 35-54) | Late Career/ Retirement (Age 55+) | Males | Females | Non-Binary/ Unknown | American Indian or Alaskan Native | Asian | Black or African American | Hispanic or Latino | Pacific Islander | Two or More Races | White | Unknown Race |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Accounting-050200 | 55.2% | 23.6% | 16.7% | 4.6% | 43.5% | 55.2% | 1.3% | 0.3% | 7.7% | 7.8% | 60.9% | 0.3% | 4.2% | 16.8% | 2.0% |
| Administration of Justice-210500 | 63.2% | 23.0% | 11.5% | 2.3% | 48.0% | 50.9% | 1.1% | 0.2% | 2.2% | 6.7% | 68.1% | 0.3% | 3.5% | 17.3% | 1.7% |
| Administrative Medical Assisting-120820 | 53.3% | 26.8% | 14.4% | 5.4% | 9.6% | 90.1% | 0.4% | 0.0% | 8.5% | 9.5% | 60.7% | 0.0% | 3.1% | 13.2% | 5.0% |
| Aeronautical and Aviation Technology-095000 | 68.1% | 21.1% | 9.3% | 1.5% | 86.1% | 13.2% | 0.7% | 0.0% | 4.8% | 4.7% | 65.0% | 0.1% | 3.6% | 20.6% | 1.2% |
| Agriculture Business, Sales and Service-011200 | 55.6% | 29.6% | 14.8% | 0.0% | 81.5% | 18.5% | 0.0% | 0.0% | 3.7% | 0.0% | 79.6% | 0.0% | 3.7% | 13.0% | 0.0% |
| Aircraft Fabrication-095050 | 29.9% | 46.7% | 16.7% | 6.7% | 90.1% | 9.9% | 0.0% | 0.0% | 10.0% | 9.9% | 70.0% | 0.0% | 6.7% | 3.3% | 0.0% |
| Alternative Fuels and Advanced Transportation Technology-094840 | 64.4% | 18.4% | 12.6% | 4.6% | 90.8% | 8.6% | 0.6% | 1.7% | 1.4% | 1.7% | 80.0% | 0.0% | 2.6% | 11.9% | 0.6% |
| Architectural Drafting-095310 | 56.6% | 19.1% | 15.6% | 8.7% | 67.1% | 32.4% | 0.5% | 0.0% | 7.8% | 2.6% | 62.7% | 0.5% | 4.3% | 21.3% | 0.7% |
| Architecture and Architectural Technology-020100 | 65.1% | 20.5% | 12.3% | 2.1% | 53.2% | 44.8% | 2.0% | 1.0% | 3.3% | 2.8% | 70.9% | 0.2% | 2.2% | 18.2% | 1.4% |
| Automotive Technology-094800 | 79.8% | 12.4% | 5.6% | 2.2% | 87.7% | 11.7% | 0.6% | 0.4% | 2.4% | 3.2% | 76.3% | 0.1% | 2.6% | 13.3% | 1.8% |
| Aviation Airframe Mechanics-095010 | 59.8% | 27.6% | 11.6% | 1.0% | 85.7% | 14.3% | 0.0% | 0.0% | 6.2% | 3.8% | 65.8% | 0.3% | 3.9% | 19.4% | 0.6% |
| Aviation Powerplant Mechanics-095020 | 55.2% | 33.4% | 8.8% | 2.7% | 89.6% | 10.4% | 0.0% | 0.0% | 4.9% | 2.5% | 69.9% | 0.0% | 4.0% | 18.2% | 0.7% |
| Banking and Finance-050400 | 42.1% | 22.3% | 20.7% | 14.8% | 61.8% | 37.5% | 0.8% | 0.6% | 5.8% | 9.6% | 57.0% | 0.6% | 3.9% | 22.0% | 0.6% |
| Business Administration-050500 | 58.2% | 22.3% | 15.1% | 4.4% | 45.1% | 53.6% | 1.2% | 0.2% | 7.3% | 9.0% | 59.1% | 0.4% | 4.2% | 17.2% | 2.7% |
| Business and Commerce, General-050100 | 65.0% | 19.0% | 12.6% | 3.4% | 47.1% | 51.4% | 1.4% | 0.2% | 5.9% | 8.4% | 62.0% | 0.2% | 4.0% | 16.5% | 2.8% |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Business Management-050600 | 41.6% | 27.1% | 23.9% | 7.4% | 51.9% | 46.9% | 1.2% | 0.5% | 4.0% | 12.8% | 58.4% | 0.6% | 4.2% | 17.3% | 2.1% |
| Carpentry-095210 | 69.9% | 4.5% | 15.5% | 10.1% | 71.6% | 26.7% | 1.7% | 0.0% | 0.9% | 5.1% | 67.8% | 0.0% | 2.8% | 21.1% | 2.3% |
| Civil and Construction Management Technology-095700 | 57.2% | 14.9% | 22.2% | 5.7% | 66.0% | 32.7% | 1.2% | 0.0% | 1.0% | 3.3% | 73.0% | 0.0% | 0.3% | 22.4% | 0.0% |
| Computer Information Systems-070200 | 61.6% | 24.6% | 10.9% | 2.9% | 61.9% | 36.5% | 1.6% | 0.2% | 9.6% | 8.4% | 60.2% | 0.3% | 4.9% | 15.2% | 1.3% |
| Computer Infrastructure and Support-070800 | 36.1% | 43.2% | 16.5% | 4.2% | 74.0% | 24.8% | 1.2% | 0.3% | 5.2% | 9.2% | 58.8% | 0.5% | 3.8% | 19.7% | 2.5% |
| Computer Networking-070810 | 50.0% | 33.6% | 11.8% | 4.7% | 76.4% | 22.2% | 1.4% | 0.1% | 6.5% | 7.6% | 65.4% | 0.1% | 3.3% | 14.7% | 2.3% |
| Computer Programming-070710 | 66.4% | 24.9% | 6.7% | 1.9% | 75.1% | 23.2% | 1.7% | 0.2% | 12.9% | 6.3% | 55.3% | 0.3% | 4.5% | 18.0% | 2.4% |
| Computer Support-070820 | 49.3% | 35.0% | 12.5% | 3.1% | 73.6% | 24.5% | 1.9% | 0.0% | 6.8% | 9.6% | 62.8% | 0.0% | 2.7% | 16.9% | 1.1% |
| Construction Crafts Technology-095200 | 59.8% | 19.8% | 12.5% | 7.9% | 85.8% | 14.1% | 0.1% | 0.2% | 1.0% | 7.0% | 71.3% | 0.2% | 3.9% | 12.5% | 3.8% |
| Construction Inspection-095720 | 42.2% | 26.3% | 24.0% | 7.5% | 84.0% | 15.7% | 0.4% | 0.0% | 2.2% | 5.2% | 75.2% | 0.0% | 1.3% | 15.4% | 0.8% |
| Corrections-210510 | 46.3% | 39.5% | 11.6% | 2.6% | 64.7% | 34.7% | 0.6% | 0.0% | 2.1% | 5.3% | 71.4% | 0.1% | 3.5% | 16.5% | 1.1% |
| Culinary Arts-130630 | 66.7% | 16.9% | 11.8% | 4.6% | 46.6% | 51.0% | 2.4% | 0.7% | 5.2% | 9.9% | 64.0% | 0.1% | 3.8% | 13.2% | 3.0% |
| Dental Assistant-124010 | 69.1% | 28.3% | 2.6% | 0.0% | 9.1% | 90.9% | 0.0% | 0.0% | 12.9% | 5.3% | 71.5% | 0.0% | 0.0% | 7.8% | 2.6% |
| Dental Hygienist-124020 | 30.4% | 49.9% | 19.7% | 0.0% | 2.9% | 97.1% | 0.0% | 0.0% | 15.6% | 2.8% | 59.0% | 0.0% | 2.8% | 16.8% | 2.8% |
| Diagnostic Medical Sonography-122700 | 31.0% | 45.8% | 9.5% | 13.7% | 6.4% | 93.6% | 0.0% | 0.0% | 17.0% | 6.4% | 40.1% | 0.0% | 0.0% | 29.7% | 6.9% |
| Diesel Technology-094700 | 65.7% | 19.5% | 12.1% | 2.7% | 90.9% | 4.1% | 5.0% | 0.8% | 4.6% | 7.8% | 74.6% | 0.0% | 0.4% | 9.7% | 2.2% |
| Dietetic Services and Management-130620 | 0.0% | 25.0% | 50.0% | 25.0% | 0.0% | 100.0% | 0.0% | 0.0% | 25.0% | 0.0% | 75.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Drafting Technology-095300 | 61.0% | 20.7% | 11.9% | 6.4% | 70.0% | 27.3% | 2.7% | 0.2% | 7.2% | 2.8% | 65.6% | 0.0% | 3.5% | 18.7% | 2.1% |
| E-Commerce (Business emphasis)-050970 | 58.3% | 27.8% | 5.6% | 8.3% | 36.1% | 63.9% | 0.0% | 0.0% | 0.0% | 5.6% | 77.8% | 0.0% | 5.6% | 11.1% | 0.0% |

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| E-Commerce (Technology emphasis)-070910 | 40.9% | 40.9% | 18.2% | 0.0% | 77.3% | 18.2% | 4.5% | 0.0% | 13.6% | 0.0% | 40.9% | 0.0% | 13.6% | 27.3% | 4.5% |
| Electrical Systems and Power Transmission-093440 | 43.1% | 33.2% | 20.6% | 3.1% | 93.2% | 5.4% | 1.4% | 0.0% | 4.8% | 2.4% | 80.4% | 0.0% | 1.7% | 9.0% | 1.7% |
| Electrical-095220 | 38.5% | 46.3% | 13.3% | 2.0% | 95.4% | 4.3% | 0.4% | 0.3% | 1.2% | 3.1% | 69.1% | 0.3% | 3.4% | 20.6% | 2.0% |
| Electronics and Electric Technology-093400 | 56.9% | 23.2% | 16.1% | 3.8% | 91.7% | 5.1% | 3.2% | 0.2% | 4.4% | 3.6% | 72.3% | 0.6% | 3.0% | 14.4% | 1.4% |
| Energy Systems Technology-094610 | 54.4% | 20.2% | 20.0% | 5.4% | 91.8% | 8.0% | 0.2% | 0.0% | 2.4% | 6.9% | 72.9% | 0.5% | 3.0% | 13.1% | 1.3% |
| Engineering Technology, General (requires Trigonometry)-092400 | 64.7% | 21.1% | 10.0% | 4.2% | 79.0% | 19.1% | 1.9% | 0.5% | 10.0% | 4.7% | 68.3% | 0.2% | 1.8% | 13.4% | 1.0% |
| Environmental Control Technology-094600 | 58.3% | 20.3% | 17.1% | 4.4% | 97.0% | 2.7% | 0.4% | 0.0% | 3.0% | 2.8% | 81.3% | 0.2% | 1.7% | 9.7% | 1.3% |
| Escrow-051110 | 48.9% | 20.0% | 22.2% | 8.9% | 37.8% | 61.1% | 1.1% | 0.0% | 3.3% | 15.6% | 60.0% | 0.0% | 7.8% | 10.0% | 3.3% |
| Fire Academy-213350 | 54.4% | 29.0% | 13.5% | 3.1% | 92.7% | 6.4% | 0.9% | 0.5% | 0.7% | 4.1% | 52.0% | 0.4% | 4.0% | 37.4% | 0.8% |
| Fire Technology-213300 | 36.4% | 25.9% | 30.4% | 7.3% | 91.2% | 8.0% | 0.7% | 0.7% | 1.4% | 2.9% | 46.2% | 0.5% | 4.4% | 42.1% | 1.8% |
| Forensics, Evidence, and Investigation-210540 | 66.3% | 18.0% | 13.0% | 2.7% | 28.8% | 70.1% | 1.0% | 0.3% | 2.7% | 9.1% | 66.1% | 0.4% | 3.9% | 16.7% | 0.8% |
| Forestry-011400 | 30.8% | 26.9% | 34.6% | 7.7% | 73.1% | 26.9% | 0.0% | 0.0% | 0.0% | 11.5% | 30.8% | 0.0% | 0.0% | 57.7% | 0.0% |
| Geographic Information Systems-220610 | 31.0% | 33.3% | 25.0% | 10.8% | 52.7% | 43.9% | 3.4% | 0.0% | 4.3% | 9.0% | 48.3% | 0.4% | 6.1% | 29.0% | 2.9% |
| Health Information Coding-122310 | 41.1% | 26.8% | 23.7% | 8.3% | 12.3% | 85.6% | 2.1% | 0.0% | 5.2% | 10.2% | 58.8% | 0.0% | 5.1% | 15.6% | 5.1% |
| Health Information Technology-122300 | 67.7% | 22.9% | 8.1% | 1.3% | 22.0% | 76.6% | 1.4% | 0.2% | 9.5% | 6.0% | 69.1% | 0.2% | 2.9% | 10.2% | 1.9% |
| Hospitality-130700 | 56.6% | 22.6% | 14.9% | 5.9% | 42.3% | 56.3% | 1.4% | 0.0% | 7.4% | 10.7% | 57.2% | 0.3% | 1.3% | 22.0% | 1.1% |
| Industrial and Transportation Security-210530 | 47.1% | 19.8% | 24.0% | 9.1% | 50.0% | 49.6% | 0.4% | 0.0% | 4.1% | 12.8% | 41.3% | 0.4% | 2.1% | 36.8% | 2.5% |
| Industrial Systems Technology and Maintenance-094500 | 52.4% | 22.8% | 22.8% | 2.0% | 95.1% | 4.2% | 0.6% | 0.0% | 0.0% | 14.8% | 66.7% | 5.0% | 9.4% | 4.1% | 0.0% |

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| Information Technology, General-070100 | 60.6% | 24.5% | 10.5% | 4.4% | 64.1% | 34.1% | 1.8% | 0.3% | 5.2% | 9.2% | 64.5% | 0.4% | 3.9% | 15.3% | 1.2% |
| International Business and Trade-050800 | 55.4% | 21.0% | 18.5% | 5.0% | 52.1% | 47.9% | 0.0% | 0.5% | 12.5% | 7.5% | 52.7% | 0.0% | 2.5% | 19.3% | 5.0% |
| Legal Office Technology-051410 | 25.0% | 28.6% | 35.7% | 10.7% | 14.3% | 85.7% | 0.0% | 0.0% | 10.7% | 10.7% | 46.4% | 0.0% | 7.1% | 25.0% | 0.0% |
| Library Technician (Aide)-160200 | 28.5% | 33.4% | 30.3% | 7.8% | 15.5% | 84.2% | 0.3% | 0.0% | 2.1% | 2.9% | 76.0% | 0.0% | 2.2% | 13.0% | 3.8% |
| Licensed Vocational Nursing-123020 | 28.3% | 44.7% | 23.6% | 3.4% | 12.6% | 87.4% | 0.0% | 0.0% | 10.2% | 9.5% | 67.1% | 0.9% | 2.5% | 9.6% | 0.3% |
| Lodging Management-130720 | 33.3% | 14.3% | 38.1% | 14.3% | 19.0% | 76.2% | 4.8% | 0.0% | 23.8% | 9.5% | 42.9% | 0.0% | 4.8% | 14.3% | 4.8% |
| Logistics and Materials Transportation-051000 | 28.1% | 29.4% | 31.4% | 11.0% | 54.2% | 44.0% | 1.9% | 0.1% | 5.3% | 14.5% | 44.3% | 0.9% | 3.9% | 25.9% | 4.9% |
| Management Development and Supervision-050630 | 39.8% | 29.8% | 24.7% | 5.7% | 34.7% | 64.6% | 0.8% | 0.4% | 4.7% | 10.3% | 63.9% | 0.3% | 2.6% | 16.2% | 1.6% |
| Manufacturing and Industrial Technology-095600 | 44.8% | 30.5% | 18.8% | 5.9% | 90.7% | 3.9% | 5.5% | 0.5% | 3.2% | 4.7% | 67.7% | 1.3% | 4.9% | 16.6% | 1.1% |
| Medical Assisting-120800 | 53.2% | 22.1% | 17.2% | 7.5% | 6.1% | 93.6% | 0.3% | 0.0% | 2.0% | 7.0% | 77.8% | 0.0% | 3.1% | 8.9% | 1.1% |
| Medical Office Technology-051420 | 36.0% | 37.8% | 21.9% | 4.3% | 14.1% | 84.6% | 1.3% | 0.0% | 7.4% | 12.4% | 65.2% | 0.6% | 2.7% | 11.2% | 0.5% |
| Natural Resources-011500 | 61.7% | 23.9% | 10.9% | 3.5% | 44.5% | 53.9% | 1.6% | 2.5% | 2.6% | 4.7% | 61.1% | 0.0% | 3.8% | 25.0% | 0.3% |
| Nursing-123000 | 32.8% | 41.4% | 24.6% | 1.2% | 19.6% | 79.9% | 0.5% | 0.0% | 11.8% | 4.6% | 56.7% | 0.1% | 4.6% | 20.9% | 1.2% |
| Nutrition, Foods, and Culinary Arts-130600 | 58.7% | 23.2% | 14.7% | 3.4% | 27.9% | 71.1% | 1.0% | 0.6% | 7.1% | 8.2% | 54.9% | 0.2% | 4.5% | 18.5% | 6.0% |
| Office Management-051440 | 17.7% | 29.9% | 38.5% | 13.9% | 13.1% | 86.9% | 0.0% | 0.9% | 4.7% | 3.7% | 58.9% | 0.0% | 3.8% | 24.3% | 3.7% |
| Office Technology/Office Computer Applications-051400 | 34.4% | 31.0% | 26.3% | 8.3% | 31.8% | 67.3% | 0.9% | 0.4% | 5.0% | 9.4% | 61.9% | 0.3% | 3.3% | 18.1% | 1.6% |
| Other Health Occupations-129900 | 61.4% | 25.3% | 10.2% | 3.1% | 27.3% | 71.9% | 0.8% | 0.0% | 3.4% | 2.1% | 78.0% | 0.1% | 2.7% | 13.0% | 0.6% |

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| Other Public and Protective Services-219900 | 76.6% | 13.4% | 7.1% | 2.9% | 66.2% | 32.8% | 1.0% | 0.0% | 13.4% | 3.1% | 64.5% | 0.0% | 2.1% | 17.0% | 0.0% |
| Paralegal-140200 | 27.1% | 30.8% | 30.3% | 11.8% | 20.0% | 78.3% | 1.6% | 0.2% | 3.7% | 8.9% | 54.5% | 0.4% | 3.7% | 24.1% | 4.5% |
| Pharmacy Technology-122100 | 69.0% | 19.7% | 9.8% | 1.5% | 18.2% | 75.5% | 6.3% | 0.1% | 5.5% | 7.3% | 78.9% | 0.3% | 1.6% | 5.6% | 0.7% |
| Phlebotomy-120510 | 48.3% | 20.7% | 21.1% | 9.9% | 7.7% | 92.3% | 0.0% | 0.0% | 9.9% | 4.5% | 65.4% | 0.0% | 4.0% | 16.2% | 0.0% |
| Physical Therapist Assistant-122200 | 35.2% | 52.6% | 12.0% | 0.2% | 67.7% | 32.3% | 0.0% | 0.5% | 6.0% | 3.8% | 74.1% | 0.6% | 0.8% | 13.6% | 0.7% |
| Plumbing, Pipefitting and Steamfitting-095230 | 60.4% | 15.1% | 15.4% | 9.1% | 87.9% | 12.1% | 0.0% | 0.0% | 0.0% | 10.6% | 72.9% | 0.0% | 1.8% | 14.6% | 0.0% |
| Police Academy-210550 | 36.5% | 55.4% | 8.1% | 0.1% | 82.6% | 16.6% | 0.8% | 0.0% | 3.7% | 2.8% | 68.1% | 0.6% | 3.6% | 20.3% | 0.9% |
| Probation and Parole-210520 | 41.7% | 25.0% | 29.2% | 4.2% | 37.5% | 62.5% | 0.0% | 0.0% | 0.0% | 33.3% | 33.3% | 0.0% | 4.2% | 29.2% | 0.0% |
| Psychiatric Technician-123900 | 35.3% | 39.9% | 19.4% | 5.4% | 42.6% | 56.8% | 0.6% | 0.0% | 15.4% | 22.6% | 51.9% | 0.5% | 5.7% | 3.1% | 0.7% |
| Radiologic Technology-122500 | 36.8% | 49.9% | 12.3% | 1.0% | 35.0% | 62.5% | 2.5% | 0.0% | 11.8% | 5.1% | 52.5% | 0.0% | 3.5% | 27.1% | 0.0% |
| Real Estate-051100 | 46.0% | 24.1% | 21.0% | 8.9% | 37.7% | 61.4% | 1.0% | 0.1% | 4.8% | 15.7% | 59.6% | 0.1% | 5.0% | 12.0% | 2.6% |
| Recreation Assistant-083610 | 79.0% | 11.1% | 8.9% | 1.0% | 36.3% | 62.9% | 0.9% | 0.2% | 4.7% | 2.9% | 76.4% | 0.0% | 3.2% | 12.6% | 0.0% |
| Respiratory Care/Therapy-121000 | 34.1% | 50.8% | 13.8% | 1.3% | 35.7% | 61.0% | 3.3% | 0.0% | 12.5% | 3.5% | 62.9% | 0.0% | 4.8% | 15.7% | 0.5% |
| Restaurant and Food Services and Management-130710 | 72.7% | 12.4% | 7.9% | 7.0% | 44.2% | 53.8% | 2.0% | 0.2% | 2.7% | 17.1% | 60.7% | 0.3% | 3.9% | 14.4% | 0.8% |
| Retail Store Operations and Management-050650 | 66.7% | 18.2% | 13.6% | 1.5% | 45.5% | 53.0% | 1.5% | 0.0% | 6.1% | 10.6% | 60.6% | 0.0% | 1.5% | 21.2% | 0.0% |
| Small Business and Entrepreneurship-050640 | 49.7% | 23.1% | 20.0% | 7.2% | 38.2% | 60.6% | 1.1% | 0.1% | 6.5% | 20.0% | 48.0% | 0.7% | 6.5% | 16.2% | 2.0% |
| Software Applications-070210 | 40.1% | 26.3% | 23.8% | 9.8% | 41.7% | 57.3% | 1.0% | 0.2% | 6.4% | 9.5% | 56.9% | 0.5% | 4.8% | 21.2% | 0.6% |
| Telecommunications Technology-093430 | 48.0% | 33.8% | 15.8% | 2.4% | 78.7% | 21.3% | 0.0% | 1.3% | 5.1% | 5.2% | 40.5% | 0.0% | 9.5% | 38.3% | 0.0% |

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| Truck and Bus Driving-094750 | 28.8% | 29.4% | 29.2% | 12.6% | 82.3% | 15.3% | 2.3% | 0.0% | 1.4% | 16.7% | 56.5% | 0.1% | 2.7% | 20.0% | 2.7% |
| Viticulture, Enology, and Wine Business-010400 | 20.9% | 21.9% | 26.5% | 30.6% | 58.4% | 40.7% | 0.9% | 0.0% | 10.0% | 3.6% | 24.4% | 0.0% | 5.4% | 44.9% | 11.7% |
| Water and Wastewater Technology-095800 | 28.1% | 34.8% | 29.1% | 8.0% | 79.5% | 17.0% | 3.6% | 0.3% | 2.3% | 5.9% | 60.1% | 0.3% | 3.6% | 22.7% | 4.8% |
| Wildland Fire Technology-213310 | 51.1% | 37.8% | 9.3% | 1.8% | 85.1% | 14.0% | 0.9% | 2.7% | 2.6% | 5.3% | 56.2% | 0.0% | 5.2% | 24.4% | 3.6% |
| World Wide Web Administration-070900 | 49.8% | 30.5% | 16.7% | 3.0% | 63.3% | 34.0% | 2.7% | 0.0% | 11.5% | 12.2% | 53.6% | 0.2% | 3.5% | 17.8% | 1.2% |

## C: Quality Occupation Demographics

| Occupation Title (SOC) | Pre-Career/ College (Age <25) | Early Career (Age 25-34) | Mid-Career (Age 35-54) | Late Career/ Retirement (Age 55+) | Males | Females | American Indian or Alaska Native | Asian | Black or African American | Hispanic or Latino | Pacific Islander | Two or More Races | White |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General and Operations Managers (11-1021) | 2.0% | 18.4% | 54.7% | 24.9% | 66.3% | 33.7% | 0.3% | 9.5% | 3.9% | 35.3% | 0.3% | 2.2% | 48.5% |
| Administrative Services Managers (11-3012) | 2.0% | 12.6% | 51.4% | 34.0% | 43.9% | 56.1% | 0.3% | 10.2% | 6.0% | 38.3% | 0.5% | 3.6% | 41.2% |
| Facilities Managers (11-3013) | 2.0% | 10.9% | 50.1% | 37.0% | 66.9% | 33.1% | 0.4% | 7.4% | 6.0% | 36.0% | 0.4% | 2.9% | 47.0% |
| Transportation, Storage, and Distribution Managers (11-3071) | 4.6% | 22.2% | 49.3% | 23.9% | 72.1% | 27.9% | 0.3% | 10.1% | 6.3% | 45.1% | 0.6% | 1.8% | 35.8% |
| Food Service Managers (11-9051) | 7.4% | 19.1% | 46.2% | 27.3% | 54.8% | 45.2% | 0.2% | 20.6% | 3.6% | 39.3% | 0.3% | 2.5% | 33.5% |
| Property, Real Estate, and Community Association Managers (11-9141) | 2.4% | 13.8% | 41.6% | 42.3% | 44.7% | 55.3% | 0.3% | 8.8% | 4.5% | 33.5% | 0.2% | 2.8% | 49.8% |
| Claims Adjusters, Examiners, and Investigators (13-1031) | 2.4% | 20.6% | 51.7% | 25.3% | 40.9% | 59.1% | 0.3% | 12.0% | 10.0% | 33.7% | 0.2% | 3.5% | 40.3% |
| Cost Estimators (13-1051) | 3.7% | 16.6% | 39.3% | 40.4% | 77.8% | 22.2% | 0.2% | 8.2% | 1.3% | 30.0% | 0.2% | 1.4% | 58.8% |
| Loan Officers (13-2072) | 4.3% | 20.9% | 52.2% | 22.6% | 47.7% | 52.3% | 0.2% | 9.6% | 6.0% | 43.6% | 0.2% | 2.1% | 38.4% |
| Computer User Support Specialists (15-1232) | 7.9% | 26.4% | 47.6% | 18.1% | 71.3% | 28.7% | 0.3% | 19.8% | 6.2% | 32.5% | 0.3% | 3.5% | 37.4% |
| Network and Computer Systems Administrators (15-1244) | 4.5% | 25.1% | 54.6% | 15.9% | 79.2% | 20.8% | 0.2% | 20.4% | 5.2% | 29.4% | 0.2% | 3.3% | 41.3% |

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| Computer Occupations, All Other (15-1299) | 8.3% | 23.3% | 49.5% | 18.8% | 70.5% | 29.5% | 0.4% | 23.6% | 7.2% | 28.0% | 0.2% | 4.1% | 36.6% |
| Architectural and Civil Drafters (17-3011) | 9.4% | 23.8% | 41.6% | 25.2% | 75.7% | 24.3% | 0.4% | 11.0% | 2.7% | 39.1% | 0.3% | 1.9% | 44.7% |
| Civil Engineering Technologists and Technicians (17-3022) | 10.5% | 20.7% | 44.6% | 24.2% | 77.5% | 22.5% | 0.4% | 17.6% | 5.4% | 35.8% | 0.3% | 4.0% | 36.5% |
| Forest and Conservation Technicians (19-4071) | 26.7% | 26.7% | 30.6% | 15.9% | 54.2% | 45.8% | 1.1% | 23.2% | 5.0% | 27.8% | 0.3% | 5.5% | 37.2% |
| Paralegals and Legal Assistants (23-2011) | 7.9% | 24.2% | 43.5% | 24.3% | 15.9% | 84.1% | 0.3% | 6.7% | 4.8% | 44.3% | 0.2% | 3.1% | 40.5% |
| Library Technicians (25-4031) | 17.6% | 13.3% | 32.9% | 36.2% | 17.2% | 82.8% | 0.3% | 24.2% | 5.5% | 28.3% | 0.3% | 4.8% | 36.7% |
| Respiratory Therapists (29-1126) | 2.1% | 22.5% | 53.4% | 22.0% | 42.8% | 57.2% | 0.3% | 21.2% | 7.8% | 35.8% | 0.2% | 2.5% | 32.3% |
| Dental Hygienists (29-1292) | 3.9% | 25.2% | 49.9% | 21.1% | 8.9% | 91.1% | 0.2% | 14.2% | 2.2% | 35.0% | 0.2% | 2.1% | 46.1% |
| Clinical Laboratory Technologists and Technicians (29-2018) | 8.5% | 26.9% | 43.1% | 21.5% | 31.1% | 68.9% | 0.2% | 26.9% | 7.7% | 35.6% | 0.3% | 2.5% | 26.7% |
| Diagnostic Medical Sonographers (29-2032) | 3.7% | 26.4% | 51.1% | 18.8% | 32.1% | 67.9% | 0.2% | 18.3% | 4.2% | 38.3% | 0.2% | 2.3% | 36.5% |
| Radiologic Technologists and Technicians (29-2034) | 4.4% | 25.8% | 51.3% | 18.6% | 36.4% | 63.6% | 0.2% | 15.8% | 5.1% | 39.8% | 0.3% | 2.5% | 36.4% |
| Pharmacy Technicians (29-2052) | 17.7% | 31.7% | 38.7% | 11.9% | 22.0% | 78.0% | 0.3% | 14.6% | 6.9% | 47.0% | 0.3% | 2.4% | 28.4% |
| Psychiatric Technicians (29-2053) | 25.9% | 33.4% | 30.8% | 9.9% | 28.6% | 71.4% | 0.3% | 13.6% | 10.6% | 49.2% | 0.4% | 3.5% | 22.4% |
| Surgical Technologists (29-2055) | 7.1% | 30.9% | 48.5% | 13.5% | 31.0% | 69.0% | 0.3% | 15.1% | 9.1% | 45.2% | 0.3% | 3.1% | 26.9% |
| Veterinary Technologists and Technicians (29-2056) | 18.0% | 40.4% | 33.1% | 8.4% | 21.7% | 78.3% | 0.3% | 7.4% | 4.5% | 40.8% | 0.3% | 3.3% | 43.3% |
| Licensed Practical and Licensed Vocational Nurses (29-2061) | 5.4% | 21.7% | 48.6% | 24.3% | 13.2% | 86.8% | 0.4% | 14.7% | 16.2% | 39.1% | 0.3% | 2.2% | 27.1% |
| Medical Records Specialists (29-2072) | 6.0% | 18.1% | 48.1% | 27.8% | 13.0% | 87.0% | 0.5% | 14.8% | 9.3% | 43.2% | 0.5% | 1.9% | 29.8% |
| Opticians, Dispensing (29-2081) | 9.7% | 25.4% | 42.0% | 22.9% | 26.0% | 74.0% | 0.3% | 9.9% | 4.6% | 48.7% | 0.3% | 2.0% | 34.2% |
| Health Technologists and Technicians, All Other (29-2099) | 6.7% | 24.9% | 51.2% | 17.3% | 41.1% | 58.9% | 0.3% | 23.1% | 11.9% | 40.8% | 0.4% | 2.3% | 21.2% |
| Orderlies (31-1132) | 12.1% | 26.5% | 42.4% | 19.1% | 39.3% | 60.7% | 0.3% | 12.5% | 18.8% | 46.5% | 0.5% | 2.7% | 18.7% |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Physical Therapist Assistants (31-2021) | 18.5% | 29.9% | 40.1% | 11.5% | 33.2% | 66.8% | 0.2% | 16.6% | 6.2% | 38.9% | 0.2% | 1.9% | 36.0% |
| Dental Assistants (31-9091) | 15.5% | 31.0% | 41.7% | 11.7% | 10.1% | 89.9% | 0.2% | 11.1% | 2.8% | 61.2% | 0.2% | 1.7% | 22.8% |
| Medical Equipment Preparers (31-9093) | 11.8% | 24.5% | 43.0% | 20.7% | 32.1% | 67.9% | 0.3% | 13.5% | 11.9% | 48.2% | 0.5% | 2.5% | 23.1% |
| Phlebotomists (31-9097) | 13.3% | 31.5% | 42.7% | 12.4% | 17.0% | 83.0% | 0.3% | 10.2% | 9.0% | 56.1% | 0.2% | 2.3% | 21.9% |
| Healthcare Support Workers, All Other (31-9099) | 13.4% | 24.3% | 41.2% | 21.1% | 27.6% | 72.4% | 0.5% | 12.6% | 12.2% | 45.2% | 0.5% | 3.3% | 25.7% |
| First-Line Supervisors of Police and Detectives (33-1012) | 1.6% | 11.1% | 71.3% | 15.9% | 79.6% | 20.4% | 0.5% | 5.8% | 10.0% | 29.2% | 0.4% | 4.7% | 49.5% |
| First-Line Supervisors of Firefighting and Prevention Workers (33-1021) | 0.2% | 6.8% | 72.9% | 20.1% | 93.7% | 6.3% | 0.8% | 5.0% | 5.0% | 23.0% | 0.5% | 6.4% | 59.3% |
| First-Line Supervisors of Security Workers (33-1091) | 3.6% | 19.9% | 49.4% | 27.2% | 74.1% | 25.9% | 0.4% | 4.2% | 16.4% | 39.6% | 0.4% | 2.3% | 36.6% |
| Firefighters (33-2011) | 5.6% | 32.2% | 55.0% | 7.2% | 94.0% | 6.0% | 0.6% | 5.6% | 6.9% | 32.0% | 0.6% | 6.5% | 47.8% |
| Correctional Officers and Jailers (33-3012) | 7.6% | 27.5% | 50.8% | 14.2% | 65.8% | 34.2% | 0.4% | 4.6% | 16.8% | 40.3% | 0.7% | 4.5% | 32.7% |
| Police and Sheriff's Patrol Officers (33-3051) | 5.5% | 31.4% | 53.3% | 9.7% | 81.0% | 19.0% | 0.4% | 8.8% | 9.1% | 39.0% | 0.5% | 5.1% | 37.1% |
| Chefs and Head Cooks (35-1011) | 6.2% | 21.0% | 49.9% | 23.0% | 76.4% | 23.6% | 0.2% | 28.6% | 4.7% | 41.3% | 0.4% | 2.6% | 22.2% |
| Insurance Sales Agents (41-3021) | 3.8% | 17.3% | 43.8% | 35.1% | 48.2% | 51.8% | 0.3% | 11.8% | 4.1% | 36.2% | 0.1% | 2.9% | 44.7% |
| Real Estate Brokers (41-9021) | 1.9% | 8.9% | 39.4% | 49.8% | 40.8% | 59.2% | 0.1% | 13.5% | 2.4% | 21.0% | 0.1% | 3.8% | 59.1% |
| Real Estate Sales Agents (41-9022) | 2.2% | 10.4% | 40.0% | 47.4% | 39.7% | 60.3% | 0.1% | 12.0% | 2.8% | 24.1% | 0.1% | 3.3% | 57.5% |
| First-Line Supervisors of Office and Administrative Support Workers (43-1011) | 3.3% | 18.3% | 51.1% | 27.3% | 29.8% | 70.2% | 0.3% | 9.2% | 6.4% | 44.5% | 0.4% | 2.1% | 37.2% |
| Billing and Posting Clerks (43-3021) | 5.9% | 21.1% | 48.1% | 25.0% | 10.3% | 89.7% | 0.3% | 10.7% | 6.4% | 48.6% | 0.4% | 1.9% | 31.8% |
| Bookkeeping, Accounting, and Auditing Clerks (43-3031) | 3.8% | 12.2% | 42.4% | 41.5% | 9.4% | 90.6% | 0.4% | 10.8% | 4.2% | 36.2% | 0.3% | 2.3% | 45.7% |
| Payroll and Timekeeping Clerks (43-3051) | 4.1% | 17.4% | 47.7% | 30.9% | 9.7% | 90.3% | 0.4% | 9.2% | 6.3% | 42.7% | 0.4% | 1.9% | 39.2% |
| Court, Municipal, and License Clerks (43-4031) | 3.1% | 15.9% | 49.0% | 32.1% | 13.3% | 86.7% | 0.6% | 10.4% | 10.1% | 38.2% | 0.3% | 4.9% | 35.4% |
| Eligibility Interviewers, Government Programs (43-4061) | 2.2% | 21.1% | 51.4% | 25.3% | 17.3% | 82.7% | 0.6% | 17.8% | 9.5% | 49.2% | 0.5% | 3.7% | 18.7% |

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| Interviewers, Except Eligibility and Loan (43-4111) | 11.5% | 25.0% | 39.9% | 23.6% | 20.2% | 79.8% | 0.3% | 8.0% | 11.0% | 51.4% | 0.3% | 2.6% | 26.4% |
| Human Resources Assistants, Except Payroll and Timekeeping (43-4161) | 11.1% | 25.3% | 43.1% | 20.5% | 15.9% | 84.1% | 0.5% | 10.6% | 10.3% | 45.8% | 0.6% | 2.8% | 29.6% |
| Information and Record Clerks, All Other (43-4199) | 9.4% | 18.8% | 41.6% | 30.2% | 21.7% | 78.3% | 0.8% | 12.2% | 8.4% | 44.0% | 0.5% | 3.2% | 30.9% |
| Public Safety Telecommunicators (43-5031) | 7.6% | 29.6% | 47.3% | 15.5% | 28.3% | 71.7% | 0.5% | 5.4% | 9.8% | 38.4% | 0.5% | 6.0% | 39.4% |
| Postal Service Mail Carriers (43-5052) | 3.1% | 19.4% | 47.8% | 29.6% | 66.2% | 33.8% | 0.4% | 24.0% | 11.1% | 36.2% | 0.4% | 4.8% | 23.1% |
| Production, Planning, and Expediting Clerks (43-5061) | 7.6% | 23.3% | 45.6% | 23.5% | 36.4% | 63.6% | 0.3% | 9.7% | 6.1% | 43.4% | 0.4% | 2.2% | 38.0% |
| Weighers, Measurers, Checkers, and Samplers, Recordkeeping (43-5111) | 13.8% | 23.8% | 39.3% | 23.1% | 37.0% | 63.0% | 0.3% | 7.6% | 6.2% | 60.3% | 0.1% | 1.3% | 24.1% |
| Executive Secretaries and Executive Administrative Assistants (43-6011) | 5.2% | 15.0% | 44.8% | 34.9% | 4.1% | 95.9% | 0.4% | 7.9% | 6.1% | 38.9% | 0.3% | 3.0% | 43.3% |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014) | 6.1% | 14.5% | 43.7% | 35.7% | 4.0% | 96.0% | 0.4% | 6.7% | 5.2% | 39.5% | 0.3% | 2.5% | 45.6% |
| Word Processors and Typists (43-9022) | 8.3% | 16.2% | 44.3% | 31.1% | 8.8% | 91.2% | 0.3% | 16.6% | 8.9% | 35.4% | 0.4% | 2.9% | 35.4% |
| Insurance Claims and Policy Processing Clerks (43-9041) | 5.9% | 23.3% | 47.3% | 23.5% | 15.5% | 84.5% | 0.2% | 6.8% | 8.6% | 47.3% | 0.2% | 2.1% | 34.9% |
| Carpenters (47-2031) | 8.5% | 19.7% | 46.3% | 25.5% | 95.8% | 4.2% | 0.4% | 3.3% | 2.4% | 59.6% | 0.2% | 1.5% | 32.7% |
| Electricians (47-2111) | 9.9% | 24.7% | 44.9% | 20.5% | 96.5% | 3.5% | 0.3% | 3.6% | 3.4% | 52.5% | 0.3% | 1.8% | 38.2% |
| Glaziers (47-2121) | 10.2% | 21.7% | 44.1% | 24.0% | 95.2% | 4.8% | 0.2% | 3.4% | 2.4% | 54.6% | 0.3% | 1.2% | 37.9% |
| Plumbers, Pipefitters, and Steamfitters (47-2152) | 8.6% | 24.1% | 46.1% | 21.2% | 97.6% | 2.4% | 0.3% | 2.6% | 3.1% | 57.4% | 0.3% | 1.6% | 34.7% |
| Sheet Metal Workers (47-2211) | 8.7% | 22.9% | 44.9% | 23.5% | 94.3% | 5.7% | 0.3% | 4.1% | 3.4% | 48.2% | 0.2% | 1.5% | 42.3% |
| Structural Iron and Steel Workers (47-2221) | 8.6% | 21.4% | 48.9% | 21.2% | 94.5% | 5.5% | 0.8% | 3.7% | 4.2% | 49.3% | 0.5% | 1.3% | 40.2% |
| Solar Photovoltaic Installers (47-2231) | 18.3% | 35.2% | 37.5% | 9.1% | 93.4% | 6.6% | 0.6% | 3.3% | 5.2% | 62.9% | 1.9% | 1.7% | 24.4% |
| Construction and Building Inspectors (47-4011) | 2.3% | 12.4% | 43.7% | 41.7% | 85.2% | 14.8% | 0.4% | 9.0% | 5.2% | 34.9% | 0.4% | 3.7% | 46.4% |

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| First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011) | 2.3% | 14.4% | 52.7% | 30.6% | 92.2% | 7.8% | 0.4% | 4.2% | 4.5% | 42.3% | 0.4% | 2.2% | 46.0% |
| Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022) | 8.2% | 20.0% | 51.4% | 20.5% | 91.4% | 8.6% | 0.3% | 6.8% | 8.2% | 47.7% | 0.4% | 2.3% | 34.3% |
| Security and Fire Alarm Systems Installers (49-2098) | 13.1% | 29.7% | 38.9% | 18.3% | 96.9% | 3.1% | 0.2% | 4.2% | 11.9% | 49.5% | 0.4% | 2.4% | 31.4% |
| Aircraft Mechanics and Service Technicians (49-3011) | 21.1% | 29.1% | 33.8% | 16.1% | 93.2% | 6.8% | 0.4% | 9.3% | 7.0% | 37.5% | 1.3% | 4.0% | 40.6% |
| Automotive Service Technicians and Mechanics (49-3023) | 12.4% | 22.4% | 43.0% | 22.2% | 98.0% | 2.0% | 0.2% | 6.1% | 2.9% | 60.8% | 0.4% | 1.8% | 27.7% |
| Bus and Truck Mechanics and Diesel Engine Specialists (49-3031) | 9.5% | 23.1% | 44.3% | 23.1% | 98.2% | 1.8% | 0.3% | 4.9% | 4.3% | 53.2% | 0.4% | 1.9% | 34.9% |
| Mobile Heavy Equipment Mechanics, Except Engines (49-3042) | 6.6% | 21.1% | 46.2% | 26.1% | 98.2% | 1.8% | 0.4% | 3.1% | 2.6% | 46.0% | 0.4% | 1.6% | 46.0% |
| Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021) | 9.8% | 25.4% | 45.4% | 19.4% | 97.8% | 2.2% | 0.2% | 3.9% | 3.4% | 52.3% | 0.2% | 1.7% | 38.3% |
| Industrial Machinery Mechanics (49-9041) | 4.2% | 16.6% | 46.4% | 32.8% | 96.2% | 3.8% | 0.3% | 5.2% | 3.4% | 51.0% | 0.2% | 1.5% | 38.3% |
| Electrical Power-Line Installers and Repairers (49-9051) | 8.5% | 28.9% | 48.7% | 13.9% | 96.7% | 3.3% | 0.4% | 2.0% | 4.5% | 45.6% | 0.4% | 2.0% | 45.2% |
| Telecommunications Line Installers and Repairers (49-9052) | 7.3% | 25.3% | 51.9% | 15.5% | 95.0% | 5.0% | 0.2% | 4.0% | 7.0% | 55.0% | 0.4% | 1.8% | 31.6% |
| Maintenance and Repair Workers, General (49-9071) | 5.4% | 15.7% | 45.3% | 33.6% | 95.5% | 4.5% | 0.4% | 5.9% | 5.3% | 50.2% | 0.3% | 2.4% | 35.4% |
| Installation, Maintenance, and Repair Workers, All Other (49-9099) | 9.7% | 21.9% | 41.2% | 27.3% | 92.8% | 7.2% | 0.3% | 5.3% | 3.5% | 52.0% | 0.4% | 1.8% | 36.7% |
| First-Line Supervisors of Production and Operating Workers (51-1011) | 2.6% | 15.8% | 51.5% | 30.1% | 76.0% | 24.0% | 0.3% | 6.6% | 4.5% | 52.8% | 0.2% | 1.3% | 34.3% |
| Water and Wastewater Treatment Plant and System Operators (51-8031) | 3.5% | 19.2% | 50.4% | 26.9% | 92.9% | 7.1% | 1.0% | 6.2% | 6.3% | 34.1% | 0.7% | 4.7% | 47.0% |
| First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft | 5.5% | 24.1% | 48.1% | 22.3% | 70.0% | 30.0% | 0.4% | 6.6% | 8.3% | 52.7% | 0.5% | 1.8% | 29.8% |

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| Cargo Handling Supervisors (53-1047) | | | | | | | | | | | | | |
| Heavy and Tractor-Trailer Truck Drivers (53-3032) | 4.7% | 18.8% | 47.1% | 29.4% | 91.8% | 8.2% | 0.3% | 7.4% | 8.3% | 58.4% | 0.4% | 1.2% | 24.0% |
| Bus Drivers, Transit and Intercity (53-3052) | 1.5% | 9.7% | 46.4% | 42.4% | 53.2% | 46.8% | 0.5% | 9.4% | 20.4% | 43.7% | 0.6% | 3.4% | 21.9% |

## D: K-12 Districts in each Community College Service Area

| Community College | K-12 Districts |
|---|---|
| Barstow College | Baker Valley Unified School District, Barstow Unified School District, Silver Valley Unified School District, Trona Joint Unified School District |
| Chaffey College | Baldy View Elementary School, Chaffey Joint Union High School District, Chino Valley Unified School District, Fontana Unified School District, Upland Unified School District |
| College of the Desert | Charter School District, Coachella Valley Unified School District, Desert Sands Unified School District, Palm Springs Unified School District |
| Copper Mountain College | Morongo Unified School District |
| Crafton Hills College | Redlands Unified School District, Yucaipa-Calimesa Joint Unified School District |
| Moreno Valley College | Charter School District, Moreno Valley Unified School District, Val Verde Unified School District |
| Mt. San Jacinto College | Banning Unified School District, Beaumont Unified School District, Charter School District, Hemet Unified School District, Hemet Unified School District, Lake Elsinore Unified School District, Murrieta Valley Unified School District, Perris Union High School District, San Jacinto Unified School District, Temecula Valley Unified School District |
| Norco College | Colton Joint Unified School District, Corona-Norco Unified School District |
| Palo Verde College | Needles Unified School District, Palo Verde Unified School District |
| Riverside City College | Alvord Unified School District, California School for the Deaf, Charter School District, Jurupa Unified School District, Riverside County Office of Ed, Riverside Preparatory, Riverside Unified School District |
| San Bernardino Valley College | Bear Valley Unified School District, Charter School District, Public Safety Academy Charter, Rialto Unified School District, Rim of the World Unified School District, San Bernardino City Unified School District |
| Victor Valley College | Apple Valley Unified School District, Helendale School District, Hesperia Unified School District, Lucerne Valley Unified School District, Snowline Joint Unified School District, Victor Valley Union High School District |

## E: Community College Demographics and K-12 Service Area

| College Demographics<br>Service Area Demographics | American Indian or Alaska Native | Asian | Black or African American | Hispanic or Latino | Pacific Islander | Two or More Races | White |
|---|---|---|---|---|---|---|---|
| Barstow College (Students) | 0.6% | 4.7% | 18.8% | 45.0% | 0.9% | 7.1% | 23.0% |
| Barstow College Service Area (K-12 Students) | 0.6% | 1.3% | 15.8% | 53.1% | 1.3% | 6.7% | 21.1% |
| Chaffey College (Students) | 0.2% | 9.8% | 6.9% | 64.3% | 0.2% | 3.3% | 15.3% |
| Chaffey College Service Area (K-12 Students) | 0.3% | 11.4% | 5.8% | 68.9% | 0.3% | 2.7% | 10.6% |
| College of the Desert (Students) | 0.4% | 5.0% | 7.3% | 42.5% | 0.6% | 6.7% | 37.4% |
| College of the Desert Service Area (K-12 Students) | 0.3% | 2.7% | 2.0% | 83.3% | 0.1% | 1.9% | 9.7% |
| Copper Mountain College (Students) | 0.3% | 3.3% | 2.4% | 76.3% | 0.1% | 2.5% | 15.1% |
| Copper Mountain College Service Area (K-12 Students) | 0.6% | 2.3% | 6.9% | 42.3% | 0.9% | 3.2% | 43.8% |
| Crafton Hills College (Students) | 0.3% | 7.2% | 4.5% | 54.0% | 0.2% | 5.4% | 28.5% |
| Crafton Hills College Service Area (K-12 Students) | 0.3% | 6.9% | 4.6% | 55.9% | 0.3% | 4.2% | 27.8% |
| Moreno Valley College (Students) | 0.2% | 5.5% | 9.6% | 68.1% | 0.3% | 4.0% | 12.3% |
| Moreno Valley College Service Area (K-12 Students) | 0.2% | 2.9% | 10.9% | 77.4% | 0.5% | 2.4% | 5.7% |
| Mt San Jacinto College (Students) | 0.4% | 8.6% | 6.2% | 55.8% | 0.5% | 5.5% | 23.0% |
| Mt San Jacinto College Service Area (K-12 Students) | 0.5% | 5.5% | 5.7% | 58.9% | 0.3% | 5.8% | 23.3% |
| Norco College (Students) | 0.2% | 12.8% | 6.5% | 59.3% | 0.3% | 4.2% | 16.6% |
| Norco College Service Area (K-12 Students) | 0.3% | 12.8% | 5.5% | 63.1% | 0.3% | 2.0% | 16.1% |
| Palo Verde College (Students) | 1.2% | 3.5% | 11.4% | 53.8% | 0.6% | 2.9% | 26.6% |
| Palo Verde College Service Area (K-12 Students) | 2.7% | 2.0% | 10.0% | 55.7% | 0.2% | 3.4% | 26.0% |
| Riverside City College (Students) | 0.2% | 6.8% | 7.3% | 67.4% | 0.3% | 4.2% | 13.7% |
| Riverside City College Service Area (K-12 Students) | 0.3% | 3.9% | 4.9% | 74.0% | 0.3% | 2.3% | 14.3% |
| San Bernardino Valley College (Students) | 0.2% | 4.6% | 10.2% | 71.1% | 0.4% | 3.6% | 10.0% |
| San Bernardino Valley College Service Area (K-12 Students) | 0.3% | 1.6% | 8.6% | 80.3% | 0.3% | 1.9% | 7.1% |
| Victor Valley College (Students) | 0.3% | 2.2% | 9.8% | 64.7% | 0.3% | 4.5% | 18.3% |
| Victor Valley College Service Area (K-12 Students) | 0.3% | 2.8% | 9.8% | 64.3% | 0.3% | 3.7% | 18.7% |
| **Community College Student Total** | 0.3% | 6.6% | 7.7% | 64.1% | 0.3% | 4.1% | 16.9% |

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|---|---|---|---|---|---|---|---|
| **K-12 Student Total** | **0.3%** | **5.6%** | **6.6%** | **68.4%** | **0.3%** | **3.3%** | **15.4%** |

### F: College/Career Indicator Criteria

Students are defined as prepared for college/career if they have completed one of the following criteria:

### College Readiness Criteria[35]

- **Smarter Balanced Summative Assessments**
  - Receive a score of Level 3 "Standard Met" or higher on both English language arts/literacy (ELA) and mathematics
- **Advanced Placement (AP)**
  - Complete two AP courses with a grade of C− or better;
  - Receive a score of 3 or higher on two AP exams; or
  - Complete one AP course with a grade of C− or better and receive a score of 3 or higher on an AP exam. The qualifying AP course and qualifying AP exam topics cannot match.
- **International Baccalaureate (IB)**
  - Receive a score of 4 or higher on two IB exams
- **College Credit Courses**
  - Complete two semesters, three quarters, or three trimesters of college coursework within high school with a grade of C− or better in academic/Career Technical Education (CTE) subjects where college credits are awarded
- **State Seal of Biliteracy (SSB)**
  - Receive the SSB and a score of Level 3 or higher in ELA on the Smarter Balanced Summative Assessments
- **Met University of California (UC) and California State University (CSU) Requirements:** Meet all requirements for admission to a UC or CSU school and meet one of the additional criteria below:
  - Smarter Balanced Summative Assessments: receive a score of Level 3 or higher in one subject area (ELA or mathematics) and a score of Level 2 in the other area
  - Complete one semester, two quarters, or two trimesters of College Credit Courses within high school with a grade of C− or better in academic/CTE subjects where college credits are awarded for each course
  - Complete one AP course with a grade of C- or better or receive a score of 3 or higher on one AP exam
  - Receive a score of 4 or higher on one IB exam
  - Complete a CTE Pathway

[35] California Department of Education (CDE). College/Career Indicator: Measures of College Readiness. Retrieved from: https://www.cde.ca.gov/ta/ac/cm/documents/ccicollege25.pdf

**Career Readiness Criteria**[36]

- **Leadership/Military Science**
  - Complete two years of Leadership/Military Science and receive a score of Level 3 or higher in either the English language arts/literacy (ELA) or the mathematics Smarter Balanced Summative Assessment and a score of Level 2 "Standard Nearly Met" or higher in the other assessment
- **Career Technical Education (CTE) Pathway:** Complete a CTE Pathway with a grade of C− or better in the capstone course and meet one of the additional criteria below:
  - Smarter Balanced Summative Assessments: receive a score of Level 3 or higher in one subject area (ELA or mathematics) and a score of Level 2 or higher in the other
  - Complete one semester, two quarters, or two trimesters of College Credit Courses, outside of the completed CTE Pathway, with a grade of C− or better in academic/CTE subjects where college credits are awarded for each course
- **Registered Pre-Apprenticeship**
  - Complete a registered pre-apprenticeship
- **State and Federal Job Programs (Dashboard Alternative School Status [DASS] schools only)**
  - Complete one semester, two quarters, or two trimesters of a CTE course with a C− or better and complete one of the following programs: Workforce Innovation and Opportunity Act (WIOA), Job Corps, YouthBuild, or California Conservation Corps (CCC)
- **Transition Classroom and Work-Based Learning Experiences (available only to students who earn an alternative pathway diploma through Education Code [EC] sections 51225.31 and 51225.32)**
  - Complete at least 100 hours of work experience and the equivalent of four semester courses of college and career exploration/preparation designed to prepare a student with an individualized education program (IEP) for employment and independent living

[36] California Department of Education (CDE). College/Career Indicator: Measures of Career Readiness. Retrieved from: https://www.cde.ca.gov/ta/ac/cm/documents/ccicareer25.pdf