

January 2025

PRIORITY JOBS AND PROGRAMS

Addressing Equity Gaps
for a Diverse Workforce

SAN DIEGO COUNTY

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Executive Summary

Identifying high-demand, high-wage middle-skill jobs is vital for promoting career stability and economic mobility in San Diego County. In 2023, the county had over 1.8 million jobs, with 40 percent (723,468 jobs) classified as “middle-skill jobs.” These priority jobs are defined as middle-skill occupations that:

- Have at least 60 projected annual job openings between 2023 and 2028 in San Diego County;
- Pay at or above the living wage of \$26.01 per hour for a single adult in San Diego County;¹ and
- Typically require fewer than five years of work experience at entry.

The San Diego & Imperial Community Colleges Center of Excellence (COE) analyzed labor market and postsecondary education data to 1) identify priority jobs and training programs in San Diego County; 2) evaluate equity gaps related to age, gender, and race/ethnicity; and 3) assess where equity gaps have improved or persisted in priority jobs and programs. Across 50 priority jobs, the San Diego & Imperial COE found an underrepresentation of females in 34 occupations, males in 16 occupations, and Black, Indigenous, and People of Color (BIPOC) in 22 occupations, as well as an overrepresentation of workers nearing retirement age in 22 occupations. Of the 72 priority programs that train for at least one occupation on the priority jobs list, there was an underrepresentation of females in 27 programs, males in eight programs, students aged 19 and younger in 37 programs, and BIPOC in 11 programs. Based on these findings, the San Diego & Imperial COE encourages employers and community colleges to consider the following:

1

The region should promote the priority jobs identified in this study to help students understand which careers are in high demand and provide economic stability.

2

Employers should partner with community colleges to actively recruit underrepresented groups into priority jobs, which not only addresses equity gaps but also future workforce shortages.

3

Building on the equity gaps in enrollments identified in this study, the community colleges should evaluate other student outcomes and conduct further research with specific groups to create targeted workforce development strategies.

4

Employers and community colleges should review the improvements in equity gaps identified in this study and share successful strategies to close gaps in other priority jobs and programs.

As demand for priority jobs increases, the community colleges are essential in ensuring employers have a diverse talent pipeline. Ultimately, the San Diego & Imperial COE encourages employers and community colleges to use this study to promote more equitable representation in the region’s workforce.

¹ Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California, 2024. selfsufficiencystandard.org/California

Introduction

In 2023, there were over 1.8 million jobs in San Diego County, with 40 percent (723,468 jobs) categorized as “middle-skill jobs.” Middle-skill jobs are traditionally defined as occupations that require education beyond a high school diploma, but less than a bachelor’s degree, such as some college, an associate degree, or apprenticeship training. In recent years, however, the definition has expanded to include occupations that historically required an associate degree but now often require a bachelor’s degree (e.g., registered nurses) as well as other jobs trainable by community colleges.² Given the wide range of middle-skill jobs, this report prioritizes high-demand and high-wage careers that provide students with stability and pathways for economic mobility. These “priority jobs” are defined as middle-skill occupations that:

- Have at least 60 projected annual job openings between 2023 and 2028 in San Diego County;
- Pay at or above the living wage of \$26.01 per hour for a single adult in San Diego County;³ and
- Typically require fewer than five years of work experience at entry.

Based on these criteria, the San Diego & Imperial Center of Excellence (COE) found 50 priority jobs out of 798 occupations in the Standard Occupational Classification (SOC)⁴ system for San Diego County. Correspondingly, “priority programs” are training programs that the community colleges offer for these priority jobs. To identify priority programs, the San Diego & Imperial COE found 72 Taxonomy of Programs (TOP) codes⁵ associated with one or more priority job. Within these codes, there were 370 active for-credit programs across community colleges in San Diego County as of April 2024. For more information, see the Appendix, Methodology.

By aligning educational programs with high-demand, high-wage employment, community colleges can support workforce needs while also providing students with meaningful opportunities for economic mobility. These are priorities stated in Vision 2030 for California Community Colleges,⁶ which emphasizes equity by increasing the number of students who earn living wages, expanding access to education, and improving outcomes for all students. This report reflects these priorities by examining equity gaps within priority jobs and programs and comparing these gaps with those found in a previous report⁷ published in February 2023. Specifically, the San Diego & Imperial COE analyzed labor market and postsecondary education data to:

- 1. Identify priority jobs and programs in San Diego County;**
- 2. Evaluate equity gaps related to age, gender, and race/ethnicity; and**
- 3. Assess where equity gaps have improved or persisted in priority jobs and programs.**

By understanding equity gaps in priority jobs and programs, employers and community colleges can leverage this information to develop workforce strategies with equity in mind.

² Definition also includes occupations that 1) have more than one-third of their existing labor force with an educational attainment of some college or associate degree and 2) require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs

³ Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California, 2024. selfsufficiencystandard.org/California.

⁴ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. The report will use these titles to match those defined by this system. bls.gov/soc

⁵ California Community Colleges assign Taxonomy of Programs (TOP) codes to academic programs in the community college system.

⁶ “Vision 2030: A Roadmap for California Community Colleges,” California Community Colleges Chancellor's Office, September 2023, accessed November 1, 2024, cocco.edu/About-Us/Vision-2030.

⁷ “Equity Gaps in Priority Jobs and Programs: San Diego County,” San Diego & Imperial COE, February 2023, accessed November 1, 2024, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

Priority Jobs in San Diego County

The following table lists the 50 SOC occupations identified as priority jobs⁸ in this study (Table 1). For labor market information for each job, see Appendix, Table 13 and Table 14. The San Diego & Imperial COE also published a report on priority jobs in February 2023;⁹ however, the methodologies differed slightly. Out of the 50 priority jobs in this study, 37 also met the criteria in the prior report and are marked with an asterisk (*) below. For a list of SOC codes included in the previous study but not this study, refer to the Appendix, Table 15.

Table 1. Priority Jobs in San Diego County

SOC Occupational Title (SOC Code)
Administrative Services Managers (11-3012)
Air Traffic Controllers (53-2021)
Aircraft Mechanics and Service Technicians (49-3011)*
Architectural and Civil Drafters (17-3011)*
Avionics Technicians (49-2091)
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)*
Buyers and Purchasing Agents (13-1028)
Civil Engineering Technologists and Technicians (17-3022)*
Claims Adjusters, Examiners, and Investigators (13-1031)*
Commercial Pilots (53-2012)
Computer Network Support Specialists (15-1231)*
Correctional Officers and Jailers (33-3012)*
Cost Estimators (13-1051)
Dental Hygienists (29-1292)*
Detectives and Criminal Investigators (33-3021)*
Electrical and Electronic Engineering Technologists and Technicians (17-3023)*
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)
Electrical Power-Line Installers and Repairers (49-9051)*
Engineering Technologists and Technicians, Except Drafters, All Other (17-3029)*
Executive Secretaries and Executive Administrative Assistants (43-6011)*
Facilities Managers (11-3013)

*PRIORITY JOB IN 2023 REPORT

⁸ Priority jobs: are middle-skill jobs; have at least 60 projected annual job openings between 2023 and 2028 in San Diego County; pay at or above the living wage of \$26.01 per hour for a single adult in San Diego County; and typically require fewer than five years of work experience at entry.

⁹ "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, accessed November 1, 2024, coeccc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

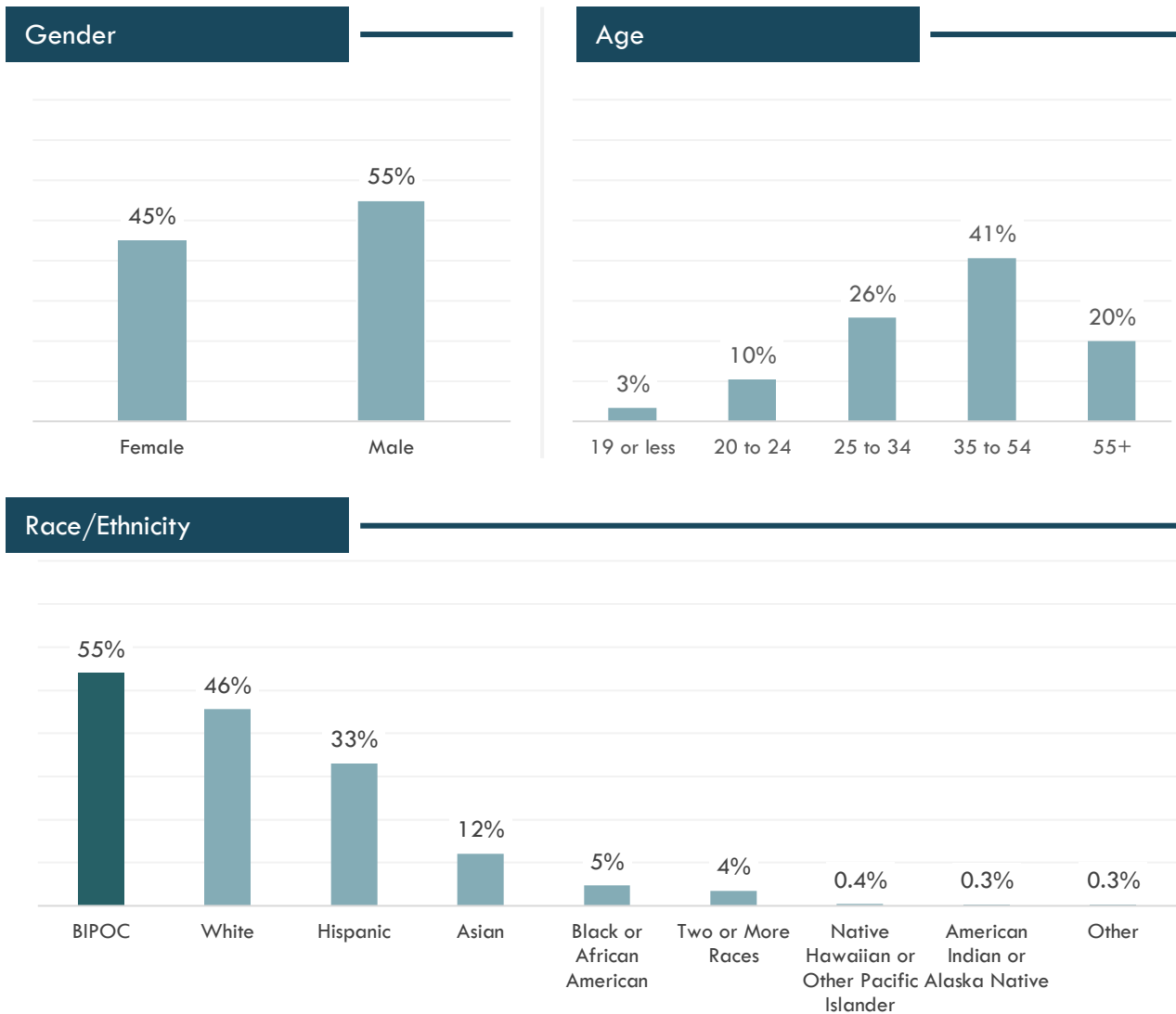
SOC Occupational Title (SOC Code)
Firefighters (33-2011)*
First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)*
First-Line Supervisors of Office and Administrative Support Workers (43-1011)*
First-Line Supervisors of Police and Detectives (33-1012)
First-Line Supervisors of Production and Operating Workers (51-1011)*
Flight Attendants (53-2031)*
Industrial Engineering Technologists and Technicians (17-3026)*
Licensed Practical and Licensed Vocational Nurses (29-2061)*
Logisticians (13-1081)
Mobile Heavy Equipment Mechanics, Except Engines (49-3042)*
Network and Computer Systems Administrators (15-1244)
Occupational Therapy Assistants (31-2011)*
Operating Engineers and Other Construction Equipment Operators (47-2073)*
Paralegals and Legal Assistants (23-2011)*
Physical Therapist Assistants (31-2021)*
Police and Sheriff's Patrol Officers (33-3051)*
Property Appraisers and Assessors (13-2028)
Public Safety Telecommunicators (43-5031)*
Radiologic Technologists and Technicians (29-2034)*
Registered Nurses (29-1141)
Respiratory Therapists (29-1126)*
Sheet Metal Workers (47-2211)*
Structural Iron and Steel Workers (47-2221)*
Surgical Technologists (29-2055)*
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)*
Telecommunications Line Installers and Repairers (49-9052)*
Water and Wastewater Treatment Plant and System Operators (51-8031)*
Web and Digital Interface Designers (15-1255)*
Web Developers (15-1254)*

*PRIORITY JOB IN 2023 REPORT

Examining Equity Gaps in Priority Jobs

This section outlines the demographic composition of labor force participants in San Diego County, including gender, age, and race/ethnicity. The percentages shown below serve as benchmarks for identifying equity gaps in priority jobs. This study utilized the American Community Survey (ACS) to estimate the labor force in 2021 (the most recent data available for all race and ethnic categories. For additional details, see Appendix, Methodology). San Diego County’s labor force consisted of nearly 1.8 million workers in 2021,¹⁰ with 55 percent identifying as male and 45 percent as female (Exhibit 1). Two-thirds (66 percent) were of “prime working-age” (25 to 54 years old),¹¹ while 20 percent were aged 55 and over. Additionally, Black, Indigenous, and People of Color (BIPOC) represented 55 percent of the labor force. Additional details about demographics are available in the Appendix, Table 16.

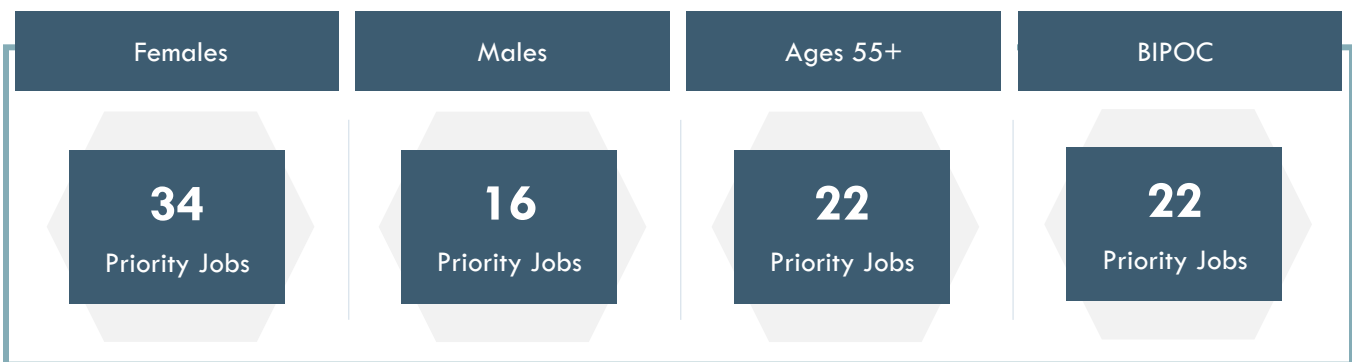
Exhibit 1. Labor Force Participants in San Diego County by Demographics, 2021



¹⁰ 2021 was the most recent year with data available for all race and ethnic categories. U.S. Census Bureau. "Sex by Age by Employment Status for the Population 16 Years and Over, 2021." American Community Survey, ACS 5-Year Estimates Selected Population Detailed Tables. data.census.gov.
¹¹ U.S. Bureau of Labor Statistics, bls.gov/opub/btn/volume-8/male-nonworkers-nlsy.htm.

In this study, equitable representation suggests that the demographic composition of workers in priority jobs closely mirrors San Diego County’s overall labor force. The San Diego & Imperial COE conducted z-tests to evaluate differences between proportions, with a threshold for statistical significance set at $p < .05$. For additional information about this analysis, see the Appendix, *Equity Analysis*. Exhibit 2 summarizes the number of jobs with statistically significant under- or overrepresentation of a demographic group. Across the 50 priority jobs, the analysis revealed equity gaps and underrepresentation of females in 34 occupations, males in 16 occupations, and BIPOC¹² in 22 occupations. To identify jobs with a retiring workforce, the analysis also examined the overrepresentation of workers aged 55 and over, revealing significant overrepresentation of a workforce nearing retirement in 22 occupations. These findings highlight key equity gaps in the labor market, offering employers and community colleges valuable insights into where disparities exist in priority jobs.

Exhibit 2. Number of Priority Jobs with Equity Gaps by Demographic Group



Priority Jobs Underrepresented by Females

In San Diego County, females represented 45 percent of workers in the labor force. Statistical comparisons showed that females were significantly underrepresented in 34 priority jobs, with 32 occupations being more than 10 percentage points below the overall labor force (Table 2). Programs with the lowest representation of female workers were occupations in Advanced Transportation & Logistics, including “Bus and Truck Mechanics and Diesel Engine Specialists” and “Mobile Heavy Equipment Mechanics, Except Engines,” and Advanced Manufacturing, including “Structural Iron and Steel Workers.” A summary of priority jobs by gender can be found in the Appendix, Table 18.

Table 2. Priority Jobs Significantly Underrepresented by Females, 2023¹³

SOC	Occupational Title	% Female
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	2%*
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	2%*
47-2221	Structural Iron and Steel Workers	3%*
47-2073	Operating Engineers and Other Construction Equipment Operators	3%*
49-9051	Electrical Power-Line Installers and Repairers	3%*

*+10 percentage points below the labor force

¹² BIPOC was calculated using the following race/ethnicity categories: American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Pacific Islander, and two or more races.

¹³ Demographics in Occupation, 2023. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

SOC	Occupational Title	% Female
47-2211	Sheet Metal Workers	4%*
49-9052	Telecommunications Line Installers and Repairers	5%*
33-2011	Firefighters	6%*
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	7%*
49-3011	Aircraft Mechanics and Service Technicians	7%*
51-8031	Water and Wastewater Treatment Plant and System Operators	7%*
53-2012	Commercial Pilots	7%*
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	8%*
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	9%*
49-2091	Avionics Technicians	11%*
17-3023	Electrical and Electronic Engineering Technologists and Technicians	16%*
13-1051	Cost Estimators	17%*
33-3051	Police and Sheriff's Patrol Officers	17%*
17-3022	Civil Engineering Technologists and Technicians	18%*
33-1012	First-Line Supervisors of Police and Detectives	18%*
15-1244	Network and Computer Systems Administrators	19%*
53-2021	Air Traffic Controllers	19%*
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	20%*
17-3026	Industrial Engineering Technologists and Technicians	21%*
51-1011	First-Line Supervisors of Production and Operating Workers	22%*
17-3011	Architectural and Civil Drafters	23%*
15-1231	Computer Network Support Specialists	27%*
33-3021	Detectives and Criminal Investigators	27%*
11-3013	Facilities Managers	30%*
33-3012	Correctional Officers and Jailers	31%*
13-1081	Logisticians	34%*
15-1254	Web Developers	34%*
13-2028	Property Appraisers and Assessors	38%
15-1255	Web and Digital Interface Designers	38%

*+10 percentage points below the labor force

Priority Jobs Underrepresented by Males

In San Diego County, males represented 55 percent of workers in the labor force. Statistical comparisons showed that males were significantly underrepresented in 16 priority jobs, with 14 occupations being more than 10 percentage points below the overall labor force (Table 3). Priority jobs with the lowest representation were in Business & Entrepreneurship (“Executive Secretaries and Executive Administrative Assistants”), and in Health, such as “Dental Hygienists,” “Registered Nurses,” and “Licensed Practical and Licensed Vocational Nurses.” A summary of priority jobs by gender can be found in the Appendix, Table 18.

Table 3. Priority Jobs Significantly Underrepresented by Males

SOC	Occupational Title	% Male
43-6011	Executive Secretaries and Executive Administrative Assistants	5%*
29-1292	Dental Hygienists	7%*
29-1141	Registered Nurses	12%*
29-2061	Licensed Practical and Licensed Vocational Nurses	13%*
23-2011	Paralegals and Legal Assistants	16%*
31-2011	Occupational Therapy Assistants	17%*
53-2031	Flight Attendants	20%*
29-2055	Surgical Technologists	29%*
43-5031	Public Safety Telecommunicators	30%*
31-2021	Physical Therapist Assistants	33%*
43-1011	First-Line Supervisors of Office and Administrative Support Workers	33%*
29-2034	Radiologic Technologists and Technicians	35%*
29-1126	Respiratory Therapists	39%*
13-1031	Claims Adjusters, Examiners, and Investigators	41%*
13-1028	Buyers and Purchasing Agents	45%
11-3012	Administrative Services Managers	49%

*+10 percentage points below the labor force



Priority Jobs Overrepresented by Ages 55+ (Retiring Workforce)

In San Diego County, workers aged 55 and over comprised 20 percent of the labor force. However, this group was significantly overrepresented in 22 priority jobs, with eight occupations exceeding the overall labor force by more than 10 percentage points (Table 4). Occupations with the greatest overrepresentation were in the Business & Entrepreneurship sector, in roles such as “Property Appraisers and Assessors,” “Cost Estimators,” and “Facilities Managers.” A summary of priority jobs by age can be found in the Appendix, Table 19.

Table 4. Priority Jobs Significantly Overrepresented by Age 55+¹⁴

SOC	Occupational Title	% Age 55+
13-2028	Property Appraisers and Assessors	43%*
13-1051	Cost Estimators	40%*
11-3013	Facilities Managers	36%*
53-2031	Flight Attendants	35%*
43-6011	Executive Secretaries and Executive Administrative Assistants	34%*
11-3012	Administrative Services Managers	32%*
17-3023	Electrical and Electronic Engineering Technologists and Technicians	32%*
13-1028	Buyers and Purchasing Agents	31%*
17-3026	Industrial Engineering Technologists and Technicians	28%
47-2073	Operating Engineers and Other Construction Equipment Operators	28%
51-1011	First-Line Supervisors of Production and Operating Workers	28%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	27%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	26%
17-3011	Architectural and Civil Drafters	25%
29-1141	Registered Nurses	25%
29-2061	Licensed Practical and Licensed Vocational Nurses	25%
51-8031	Water and Wastewater Treatment Plant and System Operators	25%
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	24%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	24%
13-1031	Claims Adjusters, Examiners, and Investigators	23%
29-1126	Respiratory Therapists	23%
23-2011	Paralegals and Legal Assistants	22%

*+10 percentage points above the labor force

¹⁴ Demographics in Occupation, 2023. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

Priority Jobs Underrepresented by Race/Ethnicity (BIPOC)

In San Diego County, BIPOC workers made up 55 percent of the labor force. However, they were significantly underrepresented in 22 priority jobs, with four occupations falling more than 10 percentage points below the overall labor force (Table 5). Occupations with the lowest representation of BIPOC were in Advanced Transportation & Logistics (“Commercial Pilots”), and Business & Entrepreneurship, including “Property Appraisers and Assessors” and “Cost Estimators.” A summary of priority jobs by BIPOC can be found in the Appendix, Table 20.

Table 5. Priority Jobs Significantly Underrepresented by BIPOC¹⁵

SOC	Occupational Title	% BIPOC
53-2012	Commercial Pilots	24%*
13-2028	Property Appraisers and Assessors	32%*
13-1051	Cost Estimators	35%*
29-1292	Dental Hygienists	43%*
11-3013	Facilities Managers	44%
15-1254	Web Developers	44%
53-2031	Flight Attendants	45%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	46%
33-1012	First-Line Supervisors of Police and Detectives	47%
43-6011	Executive Secretaries and Executive Administrative Assistants	47%
11-3012	Administrative Services Managers	48%
17-3011	Architectural and Civil Drafters	48%
31-2011	Occupational Therapy Assistants	48%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	48%
49-9051	Electrical Power-Line Installers and Repairers	48%
13-1028	Buyers and Purchasing Agents	49%
15-1255	Web and Digital Interface Designers	49%
23-2011	Paralegals and Legal Assistants	50%
33-2011	Firefighters	50%
51-8031	Water and Wastewater Treatment Plant and System Operators	50%
15-1244	Network and Computer Systems Administrators	51%
47-2073	Operating Engineers and Other Construction Equipment Operators	51%

*+10 percentage points below the labor force

¹⁵ Demographics in Occupation, 2023. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.



Table 6 shows the five priority jobs with the lowest representation of each race/ethnic category. Table 21 in the Appendix summarizes the 15 priority jobs with the lowest representation by race/ethnicity.

Table 6. Priority Jobs by Race/Ethnicity¹⁶

Race/Ethnicity	%	Race/Ethnicity	%
White		Black or African American	
Correctional Officers and Jailers	33%*	Cost Estimators	1%
Surgical Technologists	35%*	Commercial Pilots	2%
Licensed Practical and Licensed Vocational Nurses	35%*	Dental Hygienists	2%
Logisticians	38%	Structural Iron and Steel Workers	3%
Telecommunications Line Installers and Repairers	39%	Property Appraisers and Assessors	3%
Hispanic or Latino		Native Hawaiian or Other Pacific Islander	
Commercial Pilots	12%*	Occupational Therapy Assistants	0.0%
Web Developers	16%*	Web and Digital Interface Designers	0.2%
Property Appraisers and Assessors	16%*	First-Line Supervisors of Police and Detectives	0.2%
Registered Nurses	18%*	Web Developers	0.2%
Flight Attendants	18%*	Property Appraisers and Assessors	0.2%
Asian		American Indian or Alaska Native	
Operating Engineers and Other Construction Equipment Operators	1%*	Occupational Therapy Assistants	0.0%
Electrical Power-Line Installers and Repairers	2%	Flight Attendants	0.1%
Mobile Heavy Equipment Mechanics, Except Engines	3%	Physical Therapist Assistants	0.1%
Structural Iron and Steel Workers	3%	Logisticians	0.2%
Commercial Pilots	4%	Commercial Pilots	0.2%

*+10 percentage points below the labor force

¹⁶ Demographics in Occupation, 2023. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

Priority Programs in San Diego County

Priority programs train for at least one SOC occupation on the priority jobs list (Table 1). Based on this definition, there were 72 TOP codes, or priority programs (Table 7). When comparing TOP codes analyzed in the report published in February 2023,¹⁷ 48 TOP codes met the criteria in both studies and are noted with an asterisk (*) below. For a list of TOP codes that did not meet the criteria in the current study, refer to the Appendix, Table 22.

Table 7. Priority Programs in San Diego County

TOP Title (TOP Code)
Administration of Justice (TOP 2105.00)*
Aeronautical and Aviation Technology (TOP 9500.00)*
Agricultural Power Equipment Technology (TOP 1160.00)
Air Traffic Control (TOP 3020.30)
Aircraft Electronics (Avionics) (TOP 9504.40)
Aircraft Fabrication (TOP 9505.50)
Architectural Drafting (TOP 9531.10)
Architecture and Architectural Technology (TOP 2010.00)*
Automotive Technology (TOP 9480.00)
Aviation Airframe Mechanics (TOP 9501.10)*
Aviation Powerplant Mechanics (TOP 9502.20)*
Business Management (TOP 5060.00)
Civil and Construction Management Technology (TOP 9570.00)*
Civil Drafting (TOP 9532.20)
Computer Electronics (TOP 9341.10)
Computer Information Systems (TOP 7020.00)*
Computer Infrastructure and Support (TOP 7080.00)*
Computer Networking (TOP 7081.10)*
Computer Programming (TOP 7071.10)*
Computer Software Development (TOP 7070.00)*
Computer Support (TOP 7082.20)*
Computer Systems Analysis (TOP 7073.30)*
Construction Crafts Technology (TOP 9520.00)*
Corrections (TOP 2105.10)*
Dental Hygienist (TOP 1240.20)*
Diesel Technology (TOP 9470.00)*
Digital Media (TOP 6140.00)*
Display (TOP 5096.60)*
Drafting Technology (TOP 9530.00)*
Electrical (TOP 9522.20)*
Electrical Systems and Power Transmission (TOP 9344.40)*
Electronics and Electric Technology (TOP 9340.00)*

*PRIORITY PROGRAM IN 2023 REPORT

¹⁷ "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

TOP Title (TOP Code)
Escrow (TOP 5111.10)
Fire Academy (TOP 2133.50)*
Fire Technology (TOP 2133.00)*
Flight Attendant (TOP 3020.40)
Heavy Equipment Maintenance (TOP 9472.20)*
Heavy Equipment Operation (TOP 9473.30)
Industrial Electronics (TOP 9342.20)
Industrial Systems Technology and Maintenance (TOP 9450.00)
Instrumentation Technology (TOP 9430.00)
Insurance (TOP 5120.00)*
Licensed Vocational Nursing (TOP 1230.20)*
Logistics and Materials Transportation (TOP 5100.00)
Management Development and Supervision (TOP 5063.30)*
Manufacturing and Industrial Technology (TOP 9560.00)*
Marketing and Distribution (TOP 5090.00)*
Occupational Therapy Technology (TOP 1218.00)*
Office Management (TOP 5144.40)
Office Technology/Office Computer Applications (TOP 5140.00)*
Other Engineering and Related Industrial Technologies (TOP 9990.00)*
Other Public and Protective Services (TOP 2199.00)*
Paralegal (TOP 1402.00)*
Physical Therapist Assistant (TOP 1222.00)*
Piloting (TOP 3020.20)
Police Academy (TOP 2105.50)*
Probation and Parole (TOP 2105.20)*
Public Works (TOP 2102.10)
Purchasing (TOP 5092.20)
Radiologic Technology (TOP 1225.00)*
Real Estate (TOP 5110.00)*
Registered Nursing (TOP 1230.10)
Respiratory Care/Therapy (TOP 1210.00)*
Retail Store Operations and Management (TOP 5065.50)
Sheet Metal and Structural Metal (TOP 9564.40)
Software Applications (TOP 7021.10)*
Surgical Technician (TOP 1217.00)*
Telecommunications Technology (TOP 9343.30)
Water and Wastewater Technology (TOP 9580.00)*
Website Design and Development (TOP 6143.30)*
Wildland Fire Technology (TOP 2133.10)*
World Wide Web Administration (TOP 7090.00)*

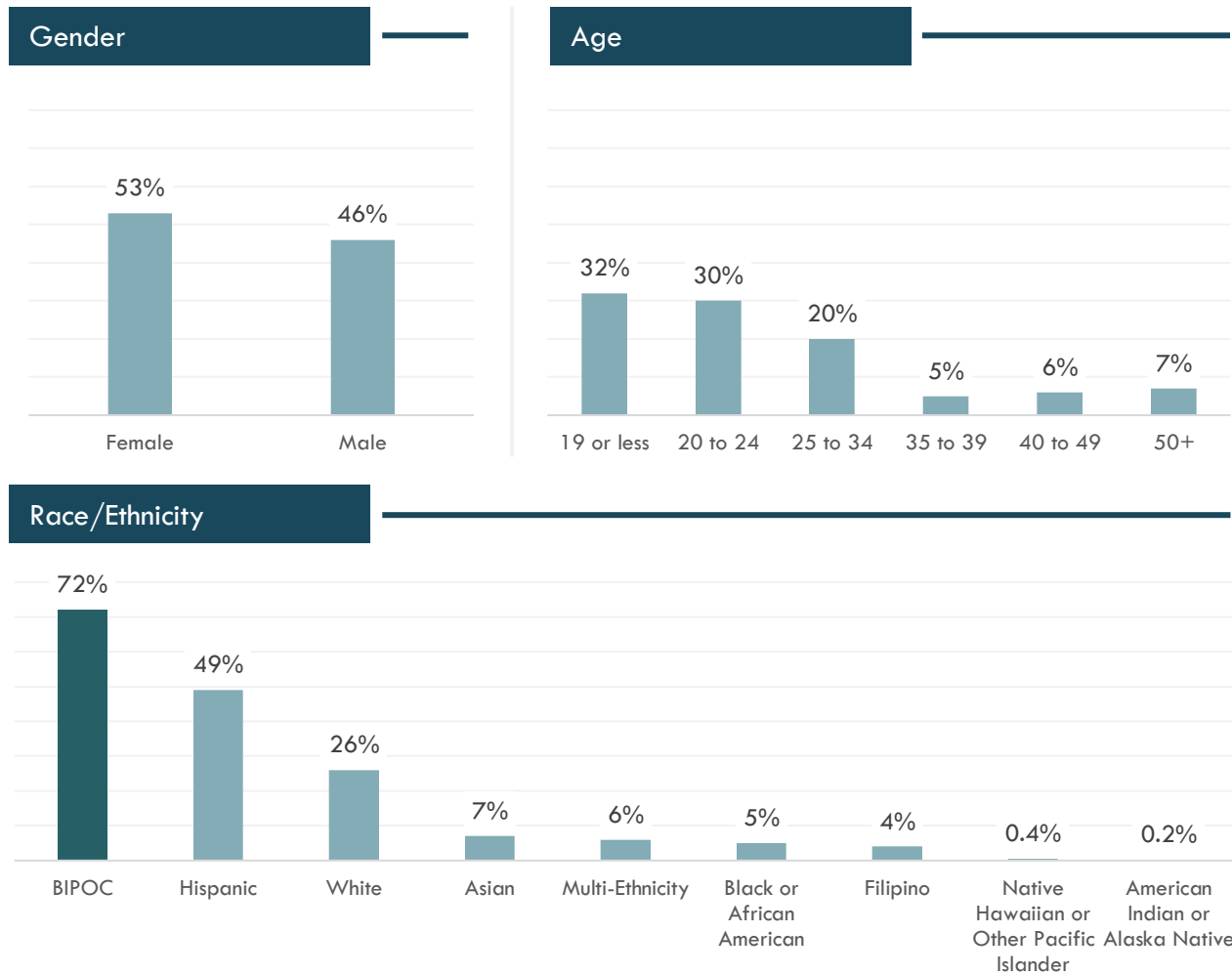
*PRIORITY PROGRAM IN 2023 REPORT

Examining Equity Gaps in Priority Programs

This section outlines the demographic composition of full-time equivalent students (FTES)¹⁸ in the San Diego & Imperial Community Colleges. These colleges include: Cuyamaca College, Grossmont College, Imperial Valley College, MiraCosta College, Palomar College, San Diego City College, San Diego College of Continuing Education (SDCCE), San Diego Mesa College, San Diego Miramar College, and Southwestern College. The percentages shown below serve as benchmarks for identifying equity gaps.

In program year (PY) 2023-24, approximately 107,526 FTES enrolled across community colleges in the San Diego-Imperial region.¹⁹ Of these students, 53 percent identified as female and 46 percent as male (Exhibit 3). More than half of students were under 24 years old (62 percent), with 32 percent aged 19 or younger. In terms of race/ethnicity, the majority (72 percent) identified as BIPOC,²⁰ including 49 percent as Hispanic or Latino. Additional details about demographics are available in the Appendix, Table 23.

Exhibit 3. San Diego & Imperial Community Colleges FTES Enrollments by Demographics, PY 2023-24²¹



¹⁸ Data Mart Glossary of Terms, Data Mart, datamart.cccco.edu/App_Doc/Data_Definition_Glossary.doc.

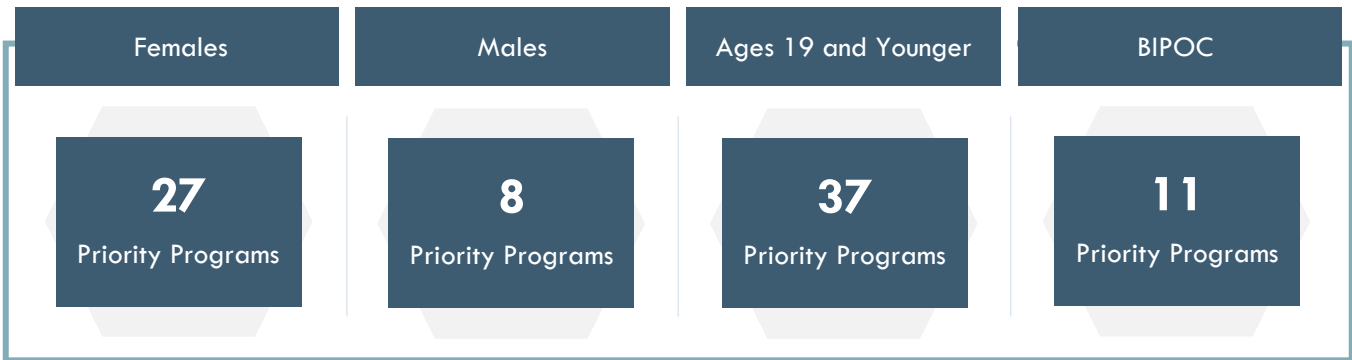
¹⁹ FTES student enrollments by demographics for community colleges in the San Diego-Imperial region for Program Year 2023-24, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

²⁰ Black, Indigenous, and People of Color (BIPOC) included: Hispanic; Asian; Black or African American; Multi-Ethnicity; Filipino; Native Hawaiian or Other Pacific Islander; American Indian or Alaska Native.

²¹ "Unknown" was not included. The total may not equal 100 percent due to rounding.

In this study, equitable representation suggests that the demographic composition of student enrollments in priority programs closely reflect enrollments across the San Diego & Imperial Community Colleges. The San Diego & Imperial COE conducted z-tests to evaluate differences between proportions, using a significance threshold of $p < .05$. Exhibit 4 summarizes the number of programs with statistically significant underrepresentation of a demographic group. Out of 72 priority programs, females were underrepresented in 27 priority programs, males in eight priority programs, students aged 19 and younger in 37 programs, and BIPOC in 11 programs. These results reveal significant equity gaps in these programs when comparing them to the community colleges overall. These findings provide community colleges with critical insights to develop targeted strategies and initiatives that promote greater diversity and inclusion in priority programs.

Exhibit 4. Number of Priority Programs with Equity Gaps by Demographic Group



Priority Programs Underrepresented by Females

Females accounted for 53 percent of FTES enrollments across all community colleges in the San Diego-Imperial region. Statistical comparisons revealed that females were significantly underrepresented in 27 priority programs, with 24 programs being more than 10 percentage points below the community colleges overall (Table 8). Programs with the lowest female representation were in Electrical Systems and Power Transmission (TOP 0934.40), Construction Crafts Technology (TOP 0952.00), and Heavy Equipment Maintenance (TOP 0947.20). A summary of FTES enrollment in programs by gender can be found in the Appendix, Table 25.

Table 8. Priority Programs Underrepresented by Females

TOP	Program Title	Total FTES Enrolled	% Female
0934.40	Electrical Systems and Power Transmission	19	1%*
0952.00	Construction Crafts Technology	72	2%*
0947.20	Heavy Equipment Maintenance	6	3%*
0952.20	Electrical	337	4%*
2133.50	Fire Academy	224	4%*
0956.40	Sheet Metal and Structural Metal	25	4%*
0947.00	Diesel Technology	107	7%*
2133.00	Fire Technology	607	9%*

TOP	Program Title	Total FTES Enrolled	% Female
2133.10	Wildland Fire Technology	7	10%*
0950.10	Aviation Airframe Mechanics	54	11%*
0950.20	Aviation Powerplant Mechanics	47	11%*
0958.00	Water and Wastewater Technology	97	13%*
0948.00	Automotive Technology	1,085	14%*
0950.00	Aeronautical and Aviation Technology	82	17%*
2105.50	Police Academy	1,540	17%*
0934.00	Electronics and Electric Technology	221	19%*
0707.00	Computer Software Development	125	21%*
3020.20	Piloting	71	22%*
0953.00	Drafting Technology	224	22%*
0708.10	Computer Networking	39	24%*
0708.00	Computer Infrastructure and Support	448	25%*
0707.10	Computer Programming	1,047	27%*
0956.00	Manufacturing and Industrial Technology	53	27%*
0708.20	Computer Support	115	28%*
0506.00	Business Management	917	38%*
0702.00	Computer Information Systems	637	38%*
0201.00	Architecture and Architectural Technology	383	45%

*+10 percentage points below the community colleges overall



Priority Programs Underrepresented by Males

Males accounted for 46 percent of FTES enrollments across all community colleges in the San Diego-Imperial region. Statistical comparisons showed that males were significantly underrepresented in eight priority programs, and all of those programs were more than 10 percentage points below the community colleges overall (Table 9). Programs with the lowest representation of males were in the following programs: Dental Hygienist (TOP 1240.20), Licensed Vocational Nursing (TOP 1230.20), and Paralegal (1402.00). A summary of FTES enrollment in programs by gender can be found in the Appendix, Table 25.

Table 9. Priority Programs Underrepresented by Males

TOP	Program Title	Total FTES Enrolled	% Male
1240.20	Dental Hygienist	95	9%*
1230.20	Licensed Vocational Nursing	146	15%*
1402.00	Paralegal	297	19%*
1210.00	Respiratory Care/Therapy	62	22%*
1230.10	Registered Nursing	580	23%*
1217.00	Surgical Technician	56	25%*
1218.00	Occupational Therapy Technology	32	28%*
0514.00	Office Technology/Office Computer Applications	664	30%*

*+10 percentage points below the community colleges overall

Priority Programs Underrepresented by 19 and Younger

Across all community college FTES enrollments in the San Diego-Imperial region, students 19 and younger accounted for 32 percent of students enrolled. Statistical comparisons showed that these students were significantly underrepresented in 37 priority programs, with 35 programs of those programs being more than 10 percentage points below the community colleges overall and seven of them did not have any students from this age group enrolled (Table 10). More specifically, despite high enrollment, younger students were not enrolled in: Police Academy (TOP 2105.50), Radiologic Technology (TOP 1225.00), and Dental Hygienist (TOP 1240.20). A summary of FTES enrollment in programs by age can be found in the Appendix, Table 26.

Table 10. Priority Programs Underrepresented by 19 and Younger

TOP	Program Title	Total FTES Enrolled	% 19 and Younger
2105.50	Police Academy	1,540	0%*
1225.00	Radiologic Technology	136	0%*
1240.20	Dental Hygienist	95	0%*
1210.00	Respiratory Care/Therapy	62	0%*
1217.00	Surgical Technician	56	0%*

TOP	Program Title	Total FTES Enrolled	% 19 and Younger
1218.00	Occupational Therapy Technology	32	0%*
0934.40	Electrical Systems and Power Transmission	19	0%*
1230.10	Registered Nursing	580	1%*
0950.20	Aviation Powerplant Mechanics	47	1%*
0956.40	Sheet Metal and Structural Metal	25	2%*
0957.00	Civil and Construction Management Technology	11	2%*
1222.00	Physical Therapist Assistant	103	2%*
0708.20	Computer Support	115	3%*
0952.20	Electrical	337	3%*
1230.20	Licensed Vocational Nursing	146	4%*
1402.00	Paralegal	297	4%*
0614.30	Website Design and Development	276	5%*
0506.30	Management Development and Supervision	30	5%*
2133.50	Fire Academy	224	5%*
0934.00	Electronics and Electric Technology	221	5%*
0958.00	Water and Wastewater Technology	97	5%*
0702.10	Software Applications	72	6%*
0514.00	Office Technology/Office Computer Applications	664	7%*
0950.10	Aviation Airframe Mechanics	54	7%*
0952.00	Construction Crafts Technology	72	7%*
0708.00	Computer Infrastructure and Support	448	8%*
0708.10	Computer Networking	39	8%*
0707.30	Computer Systems Analysis	115	9%*
0950.00	Aeronautical and Aviation Technology	82	9%*
0506.00	Business Management	917	15%*
0614.00	Digital Media	115	16%*
2133.00	Fire Technology	607	17%*
3020.20	Piloting	71	19%*
0702.00	Computer Information Systems	637	20%*
0511.00	Real Estate	254	20%*
0953.00	Drafting Technology	224	22%
0201.00	Architecture and Architectural Technology	383	25%

*+10 percentage points below the community colleges overall

Priority Programs Underrepresented by BIPOC

Across all community college FTES enrollments, BIPOC students accounted for 72 percent of students enrolled. Statistical comparisons showed that BIPOC students were significantly underrepresented in 11 priority programs, with eight of those programs being more than 10 percentage points below the community colleges overall (Table 11). Programs with the lowest representation of BIPOC were in the following programs: Fire Technology (TOP 2133.00), Fire Academy (TOP 2133.50), and Aeronautical and Aviation Technology (TOP 0950.00). A summary of FTES enrollment in programs by BIPOC can be found in the Appendix, Table 27.

Table 11. Priority Programs Underrepresented by BIPOC

TOP	Program Title	Total FTES Enrolled	% BIPOC
2133.00	Fire Technology	607	46%*
2133.50	Fire Academy	224	49%*
0950.00	Aeronautical and Aviation Technology	82	52%*
0956.40	Sheet Metal and Structural Metal	25	54%*
0958.00	Water and Wastewater Technology	97	54%*
0950.10	Aviation Airframe Mechanics	54	56%*
1222.00	Physical Therapist Assistant	103	58%*
3020.20	Piloting	71	60%*
0953.00	Drafting Technology	224	63%
2105.50	Police Academy	1,540	66%
0506.00	Business Management	917	67%

*+10 percentage points below the community colleges overall





Table 12 shows the five priority programs with the lowest representation of each race/ethnic category. Table 28 in the Appendix summarizes the 15 priority programs with the lowest representation by race/ethnicity.

Table 12. Priority Programs by Race/Ethnicity, PY 2023-24^{22,23}

Race/Ethnicity	%	Race/Ethnicity	%
White		Black or African American	
Surgical Technician	11%*	Wildland Fire Technology	0%
Construction Crafts Technology	13%*	Fire Academy	1%
Licensed Vocational Nursing	14%*	Corrections	1%
Automotive Technology	18%	Diesel Technology	1%
Respiratory Care/Therapy	20%	Fire Technology	2%
Hispanic or Latino		Native Hawaiian or Other Pacific Islander	
Occupational Therapy Technology	25%*	Paralegal	0%
Wildland Fire Technology	27%*	Website Design and Development	0%
Aviation Airframe Mechanics	29%*	Fire Academy	0%
Aeronautical and Aviation Technology	31%*	Electronics and Electric Technology	0%
Aviation Powerplant Mechanics	31%*	Computer Software Development	0%
Asian		American Indian or Alaska Native	
Construction Crafts Technology	0%	Drafting Technology	0%
Water and Wastewater Technology	1%	Radiologic Technology	0%
Diesel Technology	1%	Computer Software Development	0%
Management Development and Supervision	1%	Digital Media	0%
Fire Academy	2%	Computer Systems Analysis	0%

*+10 percentage points below the community colleges overall

²² California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu

²³ Filipino was also included as a separate race/ethnic category and these percentages can be found in the Appendix, Table 28.

Key Findings and Recommendations

The purpose of this report was to examine equity gaps in priority jobs and programs by analyzing demographic data from both the labor market and postsecondary education. This section highlights key findings from the analyses and offers recommendations to support the community colleges' diversity, equity, inclusion, and belonging²⁴ strategies, particularly their targeted recruitment and retention efforts.

The region should promote the priority jobs identified in this study to help students understand which careers are in high demand and provide economic stability.

The current study focuses on priority jobs among middle-skill occupations, defined as those with at least 60 projected annual job openings between 2023 and 2028 in San Diego County, high wages (at or above the living wage of \$26.01 per hour for a single adult in San Diego County), and typically requiring fewer than five years of work experience at entry. Based on these criteria, the San Diego & Imperial COE identified 50 priority jobs in San Diego County with a total of 14,193 projected annual job openings between 2023 and 2028.

In February 2023, the San Diego & Imperial COE published a similar report identifying 91 priority jobs in San Diego County.²⁵ A comparison of the findings revealed that 37 jobs (74 percent of the 50 priority jobs) met the criteria in both studies despite slight variations in methods (Table 1), highlighting the consistency and continued opportunity among these occupations in San Diego County. Additionally, the San Diego & Imperial COE compared these priority jobs to those that demonstrated resilience and growth during the Great Recession (2007-2010) and the COVID-19 pandemic (2020-2023) (Table 29). The analysis revealed that 12 priority jobs were recession-resilient and/or pandemic-resilient. Notably, four priority jobs—"Registered Nurses," "First-Line Supervisors of Office and Administrative Support Workers," "Licensed Practical and Licensed Vocational Nurses," and "Network and Computer Systems Administrators"—were resilient and grew during both economic downturns. By leveraging these insights, community colleges can equip students with valuable information about stable, high-demand, and high-wage career opportunities, aligning workforce development efforts with regional economic needs.

Employers should partner with community colleges to actively recruit underrepresented groups into priority jobs, which not only addresses equity gaps but also future workforce shortages.

The equity analyses in this study revealed that all 50 priority jobs had significant under- or overrepresentation of at least one demographic group (Table 17). Among females, equity gaps were identified in 34 occupations across multiple sectors, with the most notable gaps in Advanced Transportation & Logistics ("Bus and Truck Mechanics and Diesel Engine Specialists," "Mobile Heavy Equipment Mechanics, Except Engines," and "First-Line Supervisors of Mechanics, Installers, and Repairers"). Not only have women been historically underrepresented in this sector,²⁶ the pandemic exacerbated the challenges they experienced in returning to these roles.²⁷ Yet this sector is projected to grow across California, driven in part by state legislation aimed at achieving zero emissions

²⁴ Also known as Equity, Diversity, Inclusion, and Belonging (EDIB). developingchild.harvard.edu/equity-diversity-inclusion-and-belonging.

²⁵ "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, accessed November 1, 2024, coeccc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

²⁶ highways.dot.gov/public-roads/marchapril-2010/women-transportation.

²⁷ "Unemployment in Transportation Remains Above Pre-Pandemic Levels; Women Experiencing Higher Rates Than Men," Bureau of Transportation Statistics, October 10, 2023, accessed November 1, 2024, bts.gov/data-spotlight/unemployment-transportation-remains-above-pre-pandemic-levels-women-experiencing.

goals,²⁸ which would create a critical need for workers in this sector.²⁹ Efforts are already underway to connect high school pathway programs to these opportunities,³⁰ but these findings illustrate the importance of actively recruiting and including women in initiatives to address workforce shortages and meet future labor demands.

This study also highlighted disparities in male representation across priority jobs. Results showed that males were significantly underrepresented in 16 priority jobs, with the lowest representation in “Executive Secretaries and Executive Administrative Assistants.” Administrative roles offer numerous advantages including networking opportunities, the development of both technical and soft skills, and employment opportunities across various industries³¹—factors that can be leveraged to attract interest in these positions. Males were also underrepresented in several occupations in Health, such as “Dental Hygienists,” “Registered Nurses,” and “Licensed Practical and Licensed Vocational Nurses.” While the number of men entering healthcare and nursing roles is steadily increasing, persistent stereotypes that nursing is a female-dominated profession remain a barrier.³² Addressing these stereotypes by improving representation and enhancing recruitment efforts can help attract more males to programs that train for these occupations. These findings provide valuable insights for community colleges and employers to develop targeted strategies to attract and recruit males into these specific roles, promoting greater diversity in these priority jobs.

This report also identifies 22 priority jobs with a significant overrepresentation of workers nearing retirement age (i.e., 55+ years old). Understanding the workforce composition in these occupations is crucial for developing strategies to fill these positions in the near future, with community colleges playing a key role in training the workforce needed to replace these retiring workers. Several occupations in the Business & Entrepreneurship sector, including “Property Appraisers and Assessors,” “Cost Estimators,” and “Facilities Managers,” are particularly affected by an aging workforce. While workers are retiring later,³³ the growing number of individuals nearing retirement age can still lead to significant labor shortages, gaps in skills and experience, among other challenges.³⁴ This report offers employers and community colleges valuable insights into where these gaps are expected, helping to guide efforts in filling these critical roles and creating future opportunities for workers. Interestingly, “Property Appraisers and Assessors” and “Cost Estimators” also had the lowest representation of BIPOC workers. This overlap highlights the importance of understanding the intersection of equity gaps, featured in the Appendix, [Table 17](#), as BIPOC workers can serve as a valuable talent pool that can address labor shortages in the future.

Overall, results showed that BIPOC were underrepresented in 22 occupations, numerous of which were in Business & Entrepreneurship. According to the U.S. Department of Commerce, empowering and investing in minority-owned firms and Minority Business Enterprises (MBEs) is critical to the future economic prosperity of the nation.³⁵

²⁸ “Governor Newsom’s Zero-Emission by 2035 Executive Order (N-79-20),” California Air Resources Board, accessed November 1, 2024, arb.ca.gov/resources/fact-sheets/governor-newsoms-zero-emission-2035-executive-order-n-79-20.

²⁹ “Workforce Impacts of Achieving Carbon-Neutral Transportation in California,” UCLA Luskin Center for Innovation, September 2022, accessed November 1, 2024, innovation.luskin.ucla.edu/wp-content/uploads/2022/09/Workforce-Impacts-of-Achieving-Carbon-Neutral-Transportation-in-California.pdf.

³⁰ “Advanced Transportation & Logistics Statewide Report 2020,” ATL (formerly CETI, ATRE, Advanced Transportation and Renewable Energy, California Community Colleges, 2020, accessed November 1, 2024, atleducation.org/faculty/atl-statewide-report-2020.

³¹ “The Rise of the Male Personal Assistant (PA),” Institute of Executive Assistants and Administrators, May 2017, accessed November 1, 2024, executive-assistants.org/the-rise-of-the-male-pa.

³² “Male Nurses in Healthcare: Breaking Stereotypes and Expanding Horizons,” Relias, July 2024, accessed November 1, 2024, nurse.com/blog/growing-presence-male-nurses-healthcare-nsp.

³³ “More in U.S. Retiring, or Planning to Retire, Later,” Gallup, July 2022, accessed November 1, 2024, news.gallup.com/poll/394943/retiring-planning-retire-later.aspx.

³⁴ “What Will Happen To The Labor Market When Boomers Retire—Or Yet, Don’t Leave The Workforce?,” Forbes, February 2024, accessed November 1, 2024, forbes.com/sites/jackkelly/2024/02/26/what-will-happen-to-the-labor-market-when-boomers-retire-or-yet-dont-leave-the-workforce.

³⁵ Minority Business Development Agency, United States Department of Commerce, mbda.gov.

Community colleges can play a crucial role not only in providing training for business operations and growth, but also connecting students to regional support systems promoting entrepreneurship, such as the REC Innovation Lab,³⁶ Small Business Development Center (SBDC),³⁷ San Diego Entrepreneurs Exchange (SDEE),³⁸ or SCORE San Diego,³⁹ to name a few. By leveraging these resources, community colleges can help bridge diversity gaps and foster inclusivity in business operations and entrepreneurship. Furthermore, results showed that “Commercial Pilots” had the lowest representation of BIPOC workers. Efforts to support minority students in aviation include institution-employer partnerships that provide students with career paths and financial support, including organizations like *Sister of the Sky*⁴⁰ who provide black female pilots support through mentorship and professional development and the *Latino Pilots Association*,⁴¹ a nonprofit organization offering financial support and mentorship for Latino students interested in aerospace and aviation. These examples highlight ways in which this study can be used to understand where equity gaps exist and explore strategies to better support underrepresented students. By expanding access to resources, mentorship, and partnerships, community colleges and employers can collaboratively address these disparities in an effort to cultivate a more diverse and inclusive workforce.

>> Reflection Questions for Employers

- Do you plan to hire for any of the priority jobs listed in Table 1?
- Does your organization demonstrate similar equity gaps among demographic groups? What strategies does your organization employ to recruit workers from underrepresented groups?
- What programs or initiatives can your organization develop to attract individuals from diverse backgrounds? Do you offer support or professional development opportunities to promote long-term success and retention?
- How could you partner with the community colleges to develop and diversify your talent pipeline, particularly in priority jobs with underrepresented groups?
- Which of your jobs have a retiring workforce? How is your organization preparing for potential labor shortages as workers near retirement age? Do you have a priority job that this study noted is at risk of a retiring workforce?



³⁶ sdmiramar.edu/programs/entrepreneurship/rec.

³⁷ sdivsbdc.org

³⁸ sdentrepreneurs.org.

³⁹ score.org/sandiego.

⁴⁰ sistersoftheskies.org.

⁴¹ latinopilot.org.

Building on the equity gaps in enrollments identified in this study, the community colleges should evaluate other student outcomes and conduct further research with specific groups to create targeted workforce development strategies.

The San Diego & Imperial COE identified 72 TOP codes (priority programs) that train for priority jobs. Out of 72 priority programs, 23 reported no FTES enrolled during the 2023-24 academic year. Among the remaining programs, statistical analyses revealed that 42 had at least one underrepresented demographic based on age, gender, or race/ethnicity (Table 24). Specifically, females were underrepresented in 27 programs and males in eight programs. For age, the analysis focused on students aged 19 and younger and revealed underrepresentation in 37 programs. Community colleges could use these insights to focus on creating career pathways, expanding dual enrollment opportunities, and enhancing the appeal of these programs to students entering postsecondary education. Additionally, given that priority jobs in this report have at least 60 annual job openings, these findings may suggest potential opportunities for program development among TOP codes without existing programs in a community college (Table 24). **Disclaimer:** Please note that these findings are focused on student enrollment data, not supply (i.e., degrees awarded). These findings should serve as a starting point, but should not be used as the sole basis for program development.

Many of the equity gaps observed in community college programs closely mirror those found in the labor market, also highlighting the critical link between training programs and eventual employment outcomes. For instance, only one percent of students enrolled in Electrical Systems and Power Transmission (TOP 0934.40) identified as female, aligning with the fact that females only comprise three percent of “Electrical Power-Line Installers and Repairers” in the workforce. Similarly, males were underrepresented in numerous Health occupations, making up only nine percent and 15 percent of students in Dental Hygienist (TOP 1240.20) and Licensed Vocational Nursing (TOP 1230.20), respectively, and accounting for just seven percent of “Dental Hygienists” and 13 percent of “Licensed Practical and Licensed Vocational Nurses.” These findings illustrate how disparities can persist along the education-to-employment trajectory, reinforcing the importance of addressing these disparities early within educational programs. Therefore, proactively tackling these inequities is essential for promoting equitable access to career opportunities and mitigating long-term economic disparities.

Equity is a key component of the California Community Colleges Chancellor’s Office’s Vision 2030,⁴² a framework aiming to enhance student success and outcomes for individuals from all backgrounds. This report provides vital data to help community colleges focus their efforts on increasing diverse representation in programs, but it is important to note that it only focuses on one student indicator of equity—student enrollment. Other student outcomes like course retention, degree completion, or transfer rate, for example, are also important as they illustrate whether students have the support they need to succeed once they are enrolled.

To support efforts in examining other student outcomes data, the San Diego & Imperial Counties Community Colleges Regional Consortium and COE kicked off the third cohort for the Strong Workforce Faculty Institute in Fall 2024.⁴³ This professional development program empowers faculty to examine their course data with equity in mind, reflect on practices that impact the student experience, and develop data-informed action plans for student retention and success. Since its inception in 2020, the institute will have served 500 faculty from Career

⁴² “Vision 2030: A Roadmap for California Community Colleges,” California Community Colleges Chancellor’s Office, September 2023, accessed October 1, 2024, cocco.edu/About-Us/Vision-2030.

⁴³ sdiregionalconsortium.org/resource/faculty/faculty-institute.

Technical Education and other disciplines. The Counselor Institute,⁴⁴ another professional development program for community college counselors in the region, encourages counselors to work collaboratively with researchers on campus to analyze data and integrate insights into practice. These initiatives are a few examples of how institutions can participate in efforts to advance and drive equity across the region.

While these data literacy efforts have proven to impact instructors' teaching and learning practices,⁴⁵ the community colleges should also conduct focus groups and interviews with specific demographic groups to gather qualitative data, providing essential context for understanding the trends observed in the quantitative analysis. For example, the San Diego & Imperial COE published a report that examined the experiences and barriers faced by Black students to help the region develop strategies that address their unique challenges.⁴⁶ Continuous research like this is vital for identifying the specific ways that students are impacted and for developing strategies to close equity gaps. This study provides the community colleges with a starting point for meaningful discussions, but continued support, removing barriers, addressing students' diverse needs, are all important factors that must be addressed to strengthen and improve student outcomes that ultimately lead to workforce participation in priority jobs.

>> Reflection Questions for Community Colleges

- What are some ways a marketing campaign could help community colleges increase enrollments of underrepresented groups in priority programs?
- Does your college offer a course or program in any of the TOP codes listed in Table 7? If so, does your college have similar underrepresented groups as shown in Table 24?
- Besides enrollments, do you observe any equity gaps in terms of retention and completion of courses or programs with the TOP codes listed in Table 7?
- What efforts has your college made to support underrepresented populations and promote completion and retention in priority programs?
- How could your college design programs to recruit and retain underrepresented groups?
- What successes has your college experienced with targeted marketing campaigns for specific demographic groups (e.g., women, BIPOC)? How could you apply those strategies to promote priority programs to underrepresented groups?
- Has your college worked with industry and local employers to promote hiring of underrepresented groups?

⁴⁴ sdiregionalconsortium.org/resource/community-colleges/counselor-institute.

⁴⁵ proquest.com/openview/d597a037f1a5e460605ff0755b1bcddd/1?pq-origsite=gscholar&cbl=18750&diss=y

⁴⁶ "Vision 2030: A Roadmap for California Community Colleges," California Community Colleges Chancellor's Office, September 2023, accessed October 1, 2024, <https://www.cccco.edu/About-Us/Vision-2030>.

Employers and community colleges should review the improvements in equity gaps identified in this study and share successful strategies to close gaps in other priority jobs and programs.

In February 2023, the San Diego & Imperial COE published a report identifying 91 priority jobs.⁴⁷ In an effort to evaluate progress made to address equity gaps in these priority jobs, [Table 30](#) compares equity gaps from the previous study (2020 demographic data) with findings from the current study (2023 demographic data).⁴⁸ Results revealed slight improvements for “Aircraft Mechanics and Service Technicians,” which increased in representation of females from five to seven percent and decreased in representation of workers ages 55 and over from 19 to 10 percent. For males, the most notable improvements were for “Flight Attendant,” which increased in representation from 16 percent to 20 percent. For BIPOC, “Water and Wastewater Treatment Plant and System Operators” increased from 42 to 50 percent, while “Computer Network Support Specialists” increased from 48 to 55 percent. These insights provide employers with opportunities to assess their progress towards equity within these occupations and evaluate effective strategies and solutions for recruiting underrepresented groups. These findings highlight the ongoing need to address equity gaps in priority jobs, as certain occupations continue to show persistent disparities, with some gaps even widening, especially among occupations with a large proportion of workers nearing retirement age.

In February 2023, the San Diego & Imperial COE identified 98 priority programs, and 48 (67 percent) were priority programs in both studies.⁴⁹ In an effort to evaluate progress made to address equity gaps within these programs, [Table 31](#) compares equity gaps identified in the previous study with FTES enrollment in this study.⁵⁰ Results revealed notable improvements for female students in Digital Media (TOP 0614.00), which rose in representation by 19 percentage points from 34 percent (PY 2016-17) to 53 percent (PY 2023-24), and Corrections (TOP 2105.10) which increased from 18 to 35 percent. For male students, the only notable difference in representation was in Radiologic Technology (TOP 1225.00), which increased in representation from 34 to 46 percent. Among students ages 19 and younger, Marketing and Distribution (TOP 0509.00) increased from 11 to 42 percent, while Computer Software Development (TOP 0707.00) increased from 5 percent to 33 percent. These insights provide community colleges with opportunities to assess their progress in addressing underrepresentation, share any effective strategies and solutions with other programs for actively recruiting underrepresented groups, and evaluate the effectiveness of their current efforts to promote inclusivity. These findings also demonstrate the importance of continued efforts to address equity gaps in priority programs, as most of these programs only saw minimal changes or demonstrated persistent gaps.

⁴⁷ “Equity Gaps in Priority Jobs and Programs: San Diego County,” San Diego & Imperial COE, February 2023, accessed November 1, 2024, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

⁴⁸ Please note that different metrics were used in both studies.

⁴⁹ “Equity Gaps in Priority Jobs and Programs: San Diego County,” San Diego & Imperial COE, February 2023, accessed November 1, 2024, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

⁵⁰ Please note that different metrics were used in both studies.

Conclusion and Limitations

As labor market demand for priority jobs rises, the community colleges are essential in ensuring employers have a diverse talent pipeline by eliminating equity gaps in priority programs. Knowing the demographics (gender, age, race/ethnicity) within priority jobs and programs can help the region build a more representative workforce. The San Diego & Imperial COE conducted this analysis with the expectation that more equitable enrollment in priority programs would result in more equitable representation in priority jobs. Due to data limitations, this study should be used to prioritize targeted recruitment and retention strategies that address equity gaps in programs. **The San Diego and Imperial Counties Community Colleges should not use this report as the sole basis for program development.**



Appendix

Table 13. Labor Market Information for Priority Jobs in San Diego County, 2023-2028⁵¹

SOC	Description	Avg. Annual Openings	25 th Percentile Earnings	Median Earnings	Typical Entry Level Education	Work Experience Required	Typical On-the-Job Training (OJT)
11-3012	Administrative Services Managers	242	\$38.82	\$53.08	Bachelor's	< 5 yrs	None
53-2021	Air Traffic Controllers	73	\$61.75	\$79.24	Associate	None	Long OJT
49-3011	Aircraft Mechanics and Service Technicians	365	\$31.41	\$38.36	Postsecondary	None	None
17-3011	Architectural and Civil Drafters	134	\$29.60	\$36.61	Associate	None	None
49-2091	Avionics Technicians	129	\$40.32	\$40.32	Associate	None	None
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	212	\$26.20	\$31.07	HS or equivalent	None	Long OJT
13-1028	Buyers and Purchasing Agents	462	\$29.27	\$37.47	Bachelor's	None	Moderate OJT
17-3022	Civil Engineering Technologists and Technicians	98	\$29.14	\$35.92	Associate	None	None
13-1031	Claims Adjusters, Examiners, and Investigators	231	\$29.48	\$37.72	HS or equivalent	None	Long OJT
53-2012	Commercial Pilots	135	\$32.17	\$47.14	HS or equivalent	None	Moderate OJT
15-1231	Computer Network Support Specialists	102	\$29.91	\$34.62	Associate	None	None
33-3012	Correctional Officers and Jailers	211	\$32.45	\$38.95	HS or equivalent	None	Moderate OJT
13-1051	Cost Estimators	235	\$29.88	\$39.85	Bachelor's	None	Moderate OJT
29-1292	Dental Hygienists	230	\$51.81	\$52.15	Associate	None	None
33-3021	Detectives and Criminal Investigators	251	\$48.13	\$55.65	HS or equivalent	< 5 yrs	Moderate OJT
17-3023	Electrical and Electronic Engineering Technologists and Technicians	289	\$30.24	\$36.81	Associate	None	None
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	86	\$28.58	\$35.86	Postsecondary	None	Long OJT
49-9051	Electrical Power-Line Installers and Repairers	67	\$34.92	\$46.96	HS or equivalent	None	Long OJT
17-3029	Engineering Technologists and Technicians	192	\$30.56	\$39.20	Associate	None	None

⁵¹ Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

SOC	Description	Avg. Annual Openings	25 th Percentile Earnings	Median Earnings	Typical Entry Level Education	Work Experience Required	Typical On-the-Job Training (OJT)
43-6011	Executive Secretaries and Executive Administrative Assistants	579	\$32.05	\$37.95	HS or equivalent	< 5 yrs	None
11-3013	Facilities Managers	164	\$36.64	\$49.64	Bachelor's	< 5 yrs	None
33-2011	Firefighters	299	\$26.06	\$33.06	Postsecondary	None	Long OJT
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	466	\$31.00	\$38.27	HS or equivalent	< 5 yrs	None
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1,486	\$26.83	\$31.73	HS or equivalent	< 5 yrs	None
33-1012	First-Line Supervisors of Police and Detectives	83	\$65.72	\$79.61	HS or equivalent	< 5 yrs	Moderate OJT
51-1011	First-Line Supervisors of Production and Operating Workers	493	\$27.07	\$34.87	HS or equivalent	< 5 yrs	None
53-2031	Flight Attendants	147	\$33.06	\$44.64	HS or equivalent	< 5 yrs	Moderate OJT
17-3026	Industrial Engineering Technologists and Technicians	68	\$28.29	\$31.38	Associate	None	None
29-2061	Licensed Practical and Licensed Vocational Nurses	710	\$30.91	\$35.66	Postsecondary	None	None
13-1081	Logisticians	522	\$37.07	\$48.05	Bachelor's	None	None
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	122	\$28.28	\$33.29	HS or equivalent	None	Long OJT
15-1244	Network and Computer Systems Administrators	201	\$40.39	\$49.82	Bachelor's	None	None
31-2011	Occupational Therapy Assistants	67	\$35.35	\$38.87	Associate	None	None
47-2073	Operating Engineers and Other Construction Equipment Operators	308	\$30.28	\$38.49	HS or equivalent	None	Moderate OJT
23-2011	Paralegals and Legal Assistants	581	\$26.18	\$29.74	Associate	None	None
31-2021	Physical Therapist Assistants	177	\$35.28	\$40.15	Associate	None	None
33-3051	Police and Sheriff's Patrol Officers	677	\$39.78	\$52.64	HS or equivalent	None	Moderate OJT
13-2028	Property Appraisers and Assessors	78	\$27.61	\$37.76	Bachelor's	None	Long OJT
43-5031	Public Safety Telecommunicators	85	\$26.46	\$32.21	HS or equivalent	None	Moderate OJT
29-2034	Radiologic Technologists and Technicians	128	\$36.43	\$49.54	Associate	None	None
29-1141	Registered Nurses	2,023	\$51.15	\$63.59	Bachelor's	None	None
29-1126	Respiratory Therapists	88	\$39.32	\$49.11	Associate	None	None
47-2211	Sheet Metal Workers	194	\$27.32	\$36.32	HS or equivalent	None	Apprenticeship

SOC	Description	Avg. Annual Openings	25 th Percentile Earnings	Median Earnings	Typical Entry Level Education	Work Experience Required	Typical On-the-Job Training (OJT)
47-2221	Structural Iron and Steel Workers	90	\$28.19	\$36.85	HS or equivalent	None	Apprenticeship
29-2055	Surgical Technologists	80	\$31.45	\$39.12	Postsecondary	None	None
49-2022	Telecommunications Equipment Installers and Repairers	138	\$27.75	\$33.03	Postsecondary	None	Moderate OJT
49-9052	Telecommunications Line Installers and Repairers	92	\$27.00	\$38.86	HS or equivalent	None	Long OJT
51-8031	Water and Wastewater Treatment Plant and System Operators	97	\$27.37	\$35.25	HS or equivalent	None	Long OJT
15-1255	Web and Digital Interface Designers	134	\$33.50	\$48.48	Bachelor's	None	None
15-1254	Web Developers	72	\$27.04	\$41.00	Bachelor's	None	None

Table 14. Labor Market Information for Priority Jobs in San Diego County, 2023-2028⁵²

SOC	Description	Priority Job in 2023 ⁵³	2023 Jobs	2028 Jobs	2023 - 2028 % Change	Automation Index	Sector
11-3012	Administrative Services Managers		2,636	2,812	7%	81	Business & Entrepreneurship
53-2021	Air Traffic Controllers		771	798	3%	91	Advanced Transportation & Logistics
49-3011	Aircraft Mechanics and Service Technicians	•	4,648	4,779	3%	101	Advanced Manufacturing
17-3011	Architectural and Civil Drafters	•	1,321	1,370	4%	89	Energy, Construction and Utilities
49-2091	Avionics Technicians		1,412	1,437	2%	100	Advanced Transportation & Logistics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	•	2,276	2,375	4%	115	Advanced Transportation & Logistics
13-1028	Buyers and Purchasing Agents		5,042	5,043	0%	93	Business & Entrepreneurship
17-3022	Civil Engineering Technologists and Technicians	•	951	1,001	5%	92	Advanced Manufacturing
13-1031	Claims Adjusters, Examiners, and Investigators	•	3,421	3,280	-4%	89	Business & Entrepreneurship
53-2012	Commercial Pilots		1,098	1,146	4%	90	Advanced Transportation & Logistics
15-1231	Computer Network Support Specialists	•	1,283	1,357	6%	87	ICT and Digital Media
33-3012	Correctional Officers and Jailers	•	2,018	2,172	8%	91	Government/ or Public Safety
13-1051	Cost Estimators		2,556	2,662	4%	97	Business & Entrepreneurship
29-1292	Dental Hygienists	•	2,573	2,848	11%	97	Health Care
33-3021	Detectives and Criminal Investigators	•	3,020	3,153	4%	95	Government/ or Public Safety
17-3023	Electrical and Electronic Engineering Technologists and Technicians	•	2,800	2,879	3%	99	Advanced Manufacturing
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment		926	962	4%	97	Advanced Manufacturing
49-9051	Electrical Power-Line Installers and Repairers	•	858	870	1%	114	ICT and Digital Media
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	•	1,964	2,027	3%	92	Advanced Manufacturing

⁵² Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

⁵³ Priority jobs in 2023 report published by the San Diego & Imperial COE. "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

SOC	Description	Priority Job in 2023 ⁵³	2023 Jobs	2028 Jobs	2023 - 2028 % Change	Automation Index	Sector
43-6011	Executive Secretaries and Executive Administrative Assistants	•	5,787	5,463	-6%	92	Business & Entrepreneurship
11-3013	Facilities Managers		1,789	1,914	7%	81	Business & Entrepreneurship
33-2011	Firefighters	•	3,174	3,451	9%	101	Government/ or Public Safety
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	•	4,861	5,144	6%	94	Advanced Transportation & Logistics
43-1011	First-Line Supervisors of Office and Administrative Support Workers	•	14,836	15,122	2%	92	Business & Entrepreneurship
33-1012	First-Line Supervisors of Police and Detectives		978	1,063	9%	85	Government/ or Public Safety
51-1011	First-Line Supervisors of Production and Operating Workers	•	4,652	4,903	5%	89	Advanced Manufacturing
53-2031	Flight Attendants	•	760	942	24%	97	Advanced Transportation & Logistics
17-3026	Industrial Engineering Technologists and Technicians	•	624	672	8%	94	Advanced Manufacturing
29-2061	Licensed Practical and Licensed Vocational Nurses	•	6,772	7,603	12%	85	Health Care
13-1081	Logisticians		5,309	5,746	8%	82	Advanced Transportation & Logistics
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	•	1,258	1,335	6%	110	Advanced Transportation & Logistics
15-1244	Network and Computer Systems Administrators		3,121	3,248	4%	87	ICT and Digital Media
31-2011	Occupational Therapy Assistants	•	251	374	49%	87	Health Care
47-2073	Operating Engineers and Other Construction Equipment Operators	•	3,066	3,275	7%	120	Energy, Construction and Utilities
23-2011	Paralegals and Legal Assistants	•	4,851	5,221	8%	89	Other
31-2021	Physical Therapist Assistants	•	708	1,015	43%	88	Health Care
33-3051	Police and Sheriff's Patrol Officers	•	7,256	7,796	7%	95	Government/ or Public Safety
13-2028	Property Appraisers and Assessors		882	840	-5%	89	Business & Entrepreneurship
43-5031	Public Safety Telecommunicators	•	692	759	10%	91	Government/ or Public Safety
29-2034	Radiologic Technologists and Technicians	•	1,546	1,760	14%	94	Health Care
29-1141	Registered Nurses		25,792	28,591	11%	85	Health Care

SOC	Description	Priority Job in 2023 ⁵³	2023 Jobs	2028 Jobs	2023 - 2028 % Change	Automation Index	Sector
29-1126	Respiratory Therapists	•	1,227	1,352	10%	93	Health Care
47-2211	Sheet Metal Workers	•	1,852	1,953	5%	118	Advanced Manufacturing
47-2221	Structural Iron and Steel Workers	•	872	938	8%	132	Advanced Manufacturing
29-2055	Surgical Technologists	•	890	1,010	13%	89	Health Care
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	•	1,381	1,330	-4%	105	ICT and Digital Media
49-9052	Telecommunications Line Installers and Repairers	•	1,075	978	-9%	117	ICT and Digital Media
51-8031	Water and Wastewater Treatment Plant and System Operators	•	935	976	4%	104	Agriculture, Water and Environmental Technologies
15-1255	Web and Digital Interface Designers	•	1,565	1,672	7%	88	ICT and Digital Media
15-1254	Web Developers	•	907	978	8%	88	ICT and Digital Media

Table 15. 56 Priority Jobs in 2023 Report⁵⁴ That Did Not Meet the Criteria in the Current Study

SOC Occupational Title (SOC Code)
Actors (27-2011)
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)
Bookkeeping, Accounting, and Auditing Clerks (43-3031)
Brokerage Clerks (43-4011)
Calibration Technologists and Technicians and Engineering Technologists and Technicians (17-3098)
Carpenters (47-2031)
Cement Masons and Concrete Finishers (47-2051)
Chemical Equipment Operators and Tenders (51-9011)
Computer User Support Specialists (15-1232)
Control and Valve Installers and Repairers, Except Mechanical Door (49-9012)
Court, Municipal, and License Clerks (43-4031)
Drywall and Ceiling Tile Installers (47-2081)
Electricians (47-2111)
Eligibility Interviewers, Government Programs (43-4061)
Environmental Science and Protection Technicians, Including Health (19-4042)
First-Line Supervisors of Housekeeping and Janitorial Workers (37-1011)
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers (37-1012)
First-Line Supervisors of Non-Retail Sales Workers (41-1012)
First-Line Supervisors of Transportation and Material Moving Workers (53-1047)
First-Line Supervisors, Protective Service Workers (33-1099)
Floor Layers, Except Carpet, Wood, and Hard Tiles (47-2042)
Food Service Managers (11-9051)
Glaziers (47-2121)
Healthcare Support Workers, All Other (31-9099)
Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)
Highway Maintenance Workers (47-4051)
Human Resources Assistants, Except Payroll and Timekeeping (43-4161)
Industrial Machinery Mechanics (49-9041)

⁵⁴ "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, accessed November 1, 2024, coeccc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

SOC Occupational Title (SOC Code)
Insurance Sales Agents (41-3021)
Legal Secretaries and Administrative Assistants (43-6012)
Life, Physical, and Social Science Technicians, All Other (19-4099)
Medical Equipment Preparers (31-9093)
Paving, Surfacing, and Tamping Equipment Operators (47-2071)
Payroll and Timekeeping Clerks (43-3051)
Pest Control Workers (37-2021)
Phlebotomists (31-9097)
Plasterers and Stucco Masons (47-2161)
Plumbers, Pipefitters, and Steamfitters (47-2152)
Police and Sheriffs Patrol Officers (33-3051)
Postal Service Mail Carriers (43-5052)
Procurement Clerks (43-3061)
Production, Planning, and Expediting Clerks (43-5061)
Property, Real Estate, and Community Association Managers (11-9141)
Psychiatric Technicians (29-2053)
Real Estate Brokers (41-9021)
Real Estate Sales Agents (41-9022)
Roofers (47-2181)
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel (41-3091)
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products (41-4012)
Security and Fire Alarm Systems Installers (49-2098)
Solar Photovoltaic Installers (47-2231)
Surveying and Mapping Technicians (17-3031)
Tax Preparers (13-2082)
Transportation Security Screeners (33-9093)
Tree Trimmers and Pruners (37-3013)
Veterinary Technologists and Technicians (29-2056)

Table 16. Labor Force Participants in San Diego County, 2021⁵⁵

	Labor Force, San Diego County	
	Labor Force, 2021	% of Labor Force
Total	1,766,356	100%
Gender		
Male	974,418	52%
Female	791,938	48%
Race/Ethnicity⁵⁶		
White	804,847	46%
Hispanic	584,138	33%
Asian	214,171	12%
Black or African American	83,079	5%
Two or More Races	61,900	4%
Native Hawaiian or Other Pacific Islander	7,421	0.4%
American Indian or Alaska Native	5,146	0.3%
BIPOC⁵⁷	955,855	55%
Age		
19 or less	58,970	3%
20 to 24	184,796	10%
25 to 34	454,478	26%
35 to 54	715,978	41%
55+	352,134	20%

⁵⁵ U.S. Census Bureau. "Sex by Age by Employment Status for the Population 16 Years and Over, 2021." American Community Survey, ACS 5-Year Estimates Selected Population Detailed Tables. data.census.gov.

⁵⁶ May not total 100 percent due to rounding. "Some other race" is not included.

⁵⁷ Black, Indigenous, and People of Color (BIPOC) included: Hispanic; Asian; Black or African American; Multi-Ethnicity; Filipino; Native Hawaiian or Other Pacific Islander; American Indian or Alaska Native.

Table 17. Equity Gaps in Priority Jobs by Demographics

SOC	Description	Underrepresented			Overrepresented
		Female	Male	BIPOC	Ages 55+
11-3012	Administrative Services Managers		•	•	•
53-2021	Air Traffic Controllers	•			
49-3011	Aircraft Mechanics and Service Technicians	•			
17-3011	Architectural and Civil Drafters	•		•	•
49-2091	Avionics Technicians	•			
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	•			
13-1028	Buyers and Purchasing Agents		•	•	•
17-3022	Civil Engineering Technologists and Technicians	•			
13-1031	Claims Adjusters, Examiners, and Investigators		•		•
53-2012	Commercial Pilots	•		•	
15-1231	Computer Network Support Specialists	•			
33-3012	Correctional Officers and Jailers	•			
13-1051	Cost Estimators	•		•	•
29-1292	Dental Hygienists		•	•	
33-3021	Detectives and Criminal Investigators	•			
17-3023	Electrical and Electronic Engineering Technologists and Technicians	•			•
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	•			
49-9051	Electrical Power-Line Installers and Repairers	•		•	
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	•			•
43-6011	Executive Secretaries and Executive Administrative Assistants		•	•	•
11-3013	Facilities Managers	•		•	•
33-2011	Firefighters	•		•	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	•		•	•
43-1011	First-Line Supervisors of Office and Administrative Support Workers		•		•

SOC	Description	Underrepresented			Overrepresented
		Female	Male	BIPOC	Ages 55+
33-1012	First-Line Supervisors of Police and Detectives	•		•	
51-1011	First-Line Supervisors of Production and Operating Workers	•			•
53-2031	Flight Attendants		•	•	•
17-3026	Industrial Engineering Technologists and Technicians	•			•
29-2061	Licensed Practical and Licensed Vocational Nurses		•		•
13-1081	Logisticians	•			
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	•		•	•
15-1244	Network and Computer Systems Administrators	•		•	
31-2011	Occupational Therapy Assistants		•	•	
47-2073	Operating Engineers and Other Construction Equipment Operators	•		•	•
23-2011	Paralegals and Legal Assistants		•	•	•
31-2021	Physical Therapist Assistants		•		
33-3051	Police and Sheriff's Patrol Officers	•			
13-2028	Property Appraisers and Assessors	•		•	•
43-5031	Public Safety Telecommunicators		•		
29-2034	Radiologic Technologists and Technicians		•		
29-1141	Registered Nurses		•		•
29-1126	Respiratory Therapists		•		•
47-2211	Sheet Metal Workers	•			
47-2221	Structural Iron and Steel Workers	•			
29-2055	Surgical Technologists		•		
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	•			
49-9052	Telecommunications Line Installers and Repairers	•			
51-8031	Water and Wastewater Treatment Plant and System Operators	•		•	•
15-1255	Web and Digital Interface Designers	•		•	
15-1254	Web Developers	•		•	

Table 18. Priority Jobs by Gender⁵⁸

SOC	Occupational Title	% Female	% Male
11-3012	Administrative Services Managers	51%	49%
53-2021	Air Traffic Controllers	19%	81%
49-3011	Aircraft Mechanics and Service Technicians	7%	93%
17-3011	Architectural and Civil Drafters	23%	77%
49-2091	Avionics Technicians	11%	89%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	2%	98%
13-1028	Buyers and Purchasing Agents	55%	45%
17-3022	Civil Engineering Technologists and Technicians	18%	82%
13-1031	Claims Adjusters, Examiners, and Investigators	59%	41%
53-2012	Commercial Pilots	7%	93%
15-1231	Computer Network Support Specialists	27%	73%
33-3012	Correctional Officers and Jailers	31%	69%
13-1051	Cost Estimators	17%	83%
29-1292	Dental Hygienists	93%	7%
33-3021	Detectives and Criminal Investigators	27%	73%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	16%	84%
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	8%	92%
49-9051	Electrical Power-Line Installers and Repairers	3%	97%
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	20%	80%
43-6011	Executive Secretaries and Executive Administrative Assistants	95%	5%
11-3013	Facilities Managers	30%	70%
33-2011	Firefighters	6%	94%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	7%	93%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	67%	33%
33-1012	First-Line Supervisors of Police and Detectives	18%	82%
51-1011	First-Line Supervisors of Production and Operating Workers	22%	78%
53-2031	Flight Attendants	80%	20%
17-3026	Industrial Engineering Technologists and Technicians	21%	79%
29-2061	Licensed Practical and Licensed Vocational Nurses	87%	13%
13-1081	Logisticians	34%	66%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	2%	98%

⁵⁸ Cells highlighted in yellow are significantly underrepresented compared to the overall labor market, $p < .05$. Please note that equivalent percentages may not be significant due to differences in sample sizes. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

SOC	Occupational Title	% Female	% Male
15-1244	Network and Computer Systems Administrators	19%	81%
31-2011	Occupational Therapy Assistants	83%	17%
47-2073	Operating Engineers and Other Construction Equipment Operators	3%	97%
23-2011	Paralegals and Legal Assistants	84%	16%
31-2021	Physical Therapist Assistants	67%	33%
33-3051	Police and Sheriff's Patrol Officers	17%	83%
13-2028	Property Appraisers and Assessors	38%	62%
43-5031	Public Safety Telecommunicators	70%	30%
29-2034	Radiologic Technologists and Technicians	65%	35%
29-1141	Registered Nurses	88%	12%
29-1126	Respiratory Therapists	61%	39%
47-2211	Sheet Metal Workers	4%	96%
47-2221	Structural Iron and Steel Workers	3%	97%
29-2055	Surgical Technologists	71%	29%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	9%	91%
49-9052	Telecommunications Line Installers and Repairers	5%	95%
51-8031	Water and Wastewater Treatment Plant and System Operators	7%	93%
15-1255	Web and Digital Interface Designers	38%	62%
15-1254	Web Developers	34%	66%

Table 19. Priority Jobs by Age⁵⁹

SOC	Occupational Title	Under 21	22 to 24	25 to 54	55+
11-3012	Administrative Services Managers	1%	2%	65%	32%
53-2021	Air Traffic Controllers	6%	12%	73%	9%
49-3011	Aircraft Mechanics and Service Technicians	12%	16%	62%	10%
17-3011	Architectural and Civil Drafters	3%	5%	66%	25%
49-2091	Avionics Technicians	16%	19%	58%	8%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	7%	9%	65%	19%
13-1028	Buyers and Purchasing Agents	1%	3%	66%	31%
17-3022	Civil Engineering Technologists and Technicians	6%	9%	64%	20%
13-1031	Claims Adjusters, Examiners, and Investigators	1%	2%	73%	23%
53-2012	Commercial Pilots	1%	7%	79%	12%
15-1231	Computer Network Support Specialists	3%	5%	74%	17%
33-3012	Correctional Officers and Jailers	3%	6%	78%	14%
13-1051	Cost Estimators	1%	2%	57%	40%
29-1292	Dental Hygienists	1%	4%	76%	19%
33-3021	Detectives and Criminal Investigators	1%	2%	84%	14%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	2%	5%	62%	32%
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	11%	16%	59%	13%
49-9051	Electrical Power-Line Installers and Repairers	3%	5%	78%	14%
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	4%	7%	66%	24%
43-6011	Executive Secretaries and Executive Administrative Assistants	2%	3%	61%	34%
11-3013	Facilities Managers	1%	1%	62%	36%

⁵⁹ Cells highlighted in yellow are significantly underrepresented compared to the overall labor market, $p < .05$. Please note that equivalent percentages may not be significant due to differences in sample sizes. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

SOC	Occupational Title	Under 21	22 to 24	25 to 54	55+
33-2011	Firefighters	3%	5%	85%	7%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	1%	2%	69%	27%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1%	2%	70%	26%
33-1012	First-Line Supervisors of Police and Detectives	3%	6%	84%	9%
51-1011	First-Line Supervisors of Production and Operating Workers	1%	2%	69%	28%
53-2031	Flight Attendants	0%	2%	64%	35%
17-3026	Industrial Engineering Technologists and Technicians	2%	5%	66%	28%
29-2061	Licensed Practical and Licensed Vocational Nurses	2%	4%	69%	25%
13-1081	Logisticians	2%	6%	75%	17%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	5%	6%	66%	24%
15-1244	Network and Computer Systems Administrators	2%	4%	80%	14%
31-2011	Occupational Therapy Assistants	1%	6%	79%	13%
47-2073	Operating Engineers and Other Construction Equipment Operators	2%	4%	66%	28%
23-2011	Paralegals and Legal Assistants	1%	7%	71%	22%
31-2021	Physical Therapist Assistants	10%	14%	66%	9%
33-3051	Police and Sheriff's Patrol Officers	4%	7%	82%	8%
13-2028	Property Appraisers and Assessors	0%	1%	55%	43%
43-5031	Public Safety Telecommunicators	2%	5%	77%	16%
29-2034	Radiologic Technologists and Technicians	1%	4%	76%	18%
29-1141	Registered Nurses	0%	2%	73%	25%
29-1126	Respiratory Therapists	0%	2%	75%	23%
47-2211	Sheet Metal Workers	3%	5%	71%	20%
47-2221	Structural Iron and Steel Workers	3%	4%	73%	21%
29-2055	Surgical Technologists	2%	6%	78%	13%

SOC	Occupational Title	Under 21	22 to 24	25 to 54	55+
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	5%	7%	69%	18%
49-9052	Telecommunications Line Installers and Repairers	3%	4%	78%	15%
51-8031	Water and Wastewater Treatment Plant and System Operators	2%	3%	69%	25%
15-1255	Web and Digital Interface Designers	3%	6%	82%	9%
15-1254	Web Developers	3%	7%	81%	10%

*May not total 100 percent due to rounding

Table 20. Priority Jobs by BIPOC⁶⁰

SOC	Occupational Title	% BIPOC
11-3012	Administrative Services Managers	48%
53-2021	Air Traffic Controllers	51%
49-3011	Aircraft Mechanics and Service Technicians	52%
17-3011	Architectural and Civil Drafters	48%
49-2091	Avionics Technicians	53%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	57%
13-1028	Buyers and Purchasing Agents	49%
17-3022	Civil Engineering Technologists and Technicians	55%
13-1031	Claims Adjusters, Examiners, and Investigators	55%
53-2012	Commercial Pilots	24%
15-1231	Computer Network Support Specialists	55%
33-3012	Correctional Officers and Jailers	67%
13-1051	Cost Estimators	35%
29-1292	Dental Hygienists	43%
33-3021	Detectives and Criminal Investigators	58%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	56%
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	51%
49-9051	Electrical Power-Line Installers and Repairers	48%
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	55%
43-6011	Executive Secretaries and Executive Administrative Assistants	47%
11-3013	Facilities Managers	44%
33-2011	Firefighters	50%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	46%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	53%
33-1012	First-Line Supervisors of Police and Detectives	47%
51-1011	First-Line Supervisors of Production and Operating Workers	56%
53-2031	Flight Attendants	45%
17-3026	Industrial Engineering Technologists and Technicians	56%
29-2061	Licensed Practical and Licensed Vocational Nurses	65%
13-1081	Logisticians	62%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	48%

⁶⁰ Cells highlighted in yellow are significantly underrepresented compared to the overall labor market, $p < .05$. Please note that equivalent percentages may not be significant due to differences in sample sizes. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

SOC	Occupational Title	% BIPOC
15-1244	Network and Computer Systems Administrators	51%
31-2011	Occupational Therapy Assistants	48%
47-2073	Operating Engineers and Other Construction Equipment Operators	51%
23-2011	Paralegals and Legal Assistants	50%
31-2021	Physical Therapist Assistants	52%
33-3051	Police and Sheriff's Patrol Officers	59%
13-2028	Property Appraisers and Assessors	32%
43-5031	Public Safety Telecommunicators	58%
29-2034	Radiologic Technologists and Technicians	55%
29-1141	Registered Nurses	57%
29-1126	Respiratory Therapists	59%
47-2211	Sheet Metal Workers	52%
47-2221	Structural Iron and Steel Workers	57%
29-2055	Surgical Technologists	65%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	57%
49-9052	Telecommunications Line Installers and Repairers	61%
51-8031	Water and Wastewater Treatment Plant and System Operators	50%
15-1255	Web and Digital Interface Designers	49%
15-1254	Web Developers	44%

Table 21. Top 15 Priority Jobs with Underrepresentation by Race/Ethnicity⁶¹

TOP	Program Title	%
White		
33-3012	Correctional Officers and Jailers	33%
29-2055	Surgical Technologists	35%
29-2061	Licensed Practical and Licensed Vocational Nurses	35%
13-1081	Logisticians	38%
49-9052	Telecommunications Line Installers and Repairers	39%
33-3051	Police and Sheriff's Patrol Officers	41%
29-1126	Respiratory Therapists	41%
33-3021	Detectives and Criminal Investigators	42%
43-5031	Public Safety Telecommunicators	42%
29-1141	Registered Nurses	43%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	43%
47-2221	Structural Iron and Steel Workers	43%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	43%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	44%
51-1011	First-Line Supervisors of Production and Operating Workers	44%
Hispanic or Latino		
53-2012	Commercial Pilots	12%
15-1254	Web Developers	16%
13-2028	Property Appraisers and Assessors	16%
29-1141	Registered Nurses	18%
53-2031	Flight Attendants	18%
15-1255	Web and Digital Interface Designers	20%
15-1244	Network and Computer Systems Administrators	21%
15-1231	Computer Network Support Specialists	23%
31-2011	Occupational Therapy Assistants	23%
29-1292	Dental Hygienists	24%
13-1051	Cost Estimators	24%
29-1126	Respiratory Therapists	25%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	25%

⁶¹ These lists represent the top 15 jobs with the lowest representation of each race or ethnicity within each priority job. Please note that statistical comparisons were only conducted for BIPOC. Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

TOP	Program Title	%
17-3026	Industrial Engineering Technologists and Technicians	25%
53-2021	Air Traffic Controllers	26%
Asian		
47-2073	Operating Engineers and Other Construction Equipment Operators	1%
49-9051	Electrical Power-Line Installers and Repairers	2%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	3%
47-2221	Structural Iron and Steel Workers	3%
53-2012	Commercial Pilots	4%
33-1012	First-Line Supervisors of Police and Detectives	4%
33-3012	Correctional Officers and Jailers	4%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	5%
47-2211	Sheet Metal Workers	5%
33-2011	Firefighters	6%
51-8031	Water and Wastewater Treatment Plant and System Operators	6%
43-5031	Public Safety Telecommunicators	6%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	6%
49-9052	Telecommunications Line Installers and Repairers	6%
53-2021	Air Traffic Controllers	7%
Black or African American		
13-1051	Cost Estimators	1%
53-2012	Commercial Pilots	2%
29-1292	Dental Hygienists	2%
47-2221	Structural Iron and Steel Workers	3%
13-2028	Property Appraisers and Assessors	3%
17-3011	Architectural and Civil Drafters	3%
15-1254	Web Developers	3%
15-1255	Web and Digital Interface Designers	3%
47-2073	Operating Engineers and Other Construction Equipment Operators	4%
49-9051	Electrical Power-Line Installers and Repairers	4%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	4%
47-2211	Sheet Metal Workers	4%
51-1011	First-Line Supervisors of Production and Operating Workers	4%
31-2021	Physical Therapist Assistants	4%

TOP	Program Title	%
17-3026	Industrial Engineering Technologists and Technicians	4%
Native Hawaiian or Other Pacific Islander		
31-2011	Occupational Therapy Assistants	0.0%
15-1255	Web and Digital Interface Designers	0.2%
33-1012	First-Line Supervisors of Police and Detectives	0.2%
15-1254	Web Developers	0.2%
13-2028	Property Appraisers and Assessors	0.2%
13-1051	Cost Estimators	0.2%
15-1244	Network and Computer Systems Administrators	0.3%
33-3021	Detectives and Criminal Investigators	0.3%
29-1292	Dental Hygienists	0.3%
53-2012	Commercial Pilots	0.3%
31-2021	Physical Therapist Assistants	0.3%
47-2211	Sheet Metal Workers	0.3%
29-1141	Registered Nurses	0.3%
33-3051	Police and Sheriff's Patrol Officers	0.3%
17-3011	Architectural and Civil Drafters	0.4%
American Indian or Alaska Native		
31-2011	Occupational Therapy Assistants	0.0%
53-2031	Flight Attendants	0.1%
31-2021	Physical Therapist Assistants	0.1%
13-1081	Logisticians	0.2%
53-2012	Commercial Pilots	0.2%
15-1255	Web and Digital Interface Designers	0.2%
15-1244	Network and Computer Systems Administrators	0.2%
13-1051	Cost Estimators	0.2%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	0.2%
15-1254	Web Developers	0.2%
13-2028	Property Appraisers and Assessors	0.2%
29-1141	Registered Nurses	0.2%
15-1231	Computer Network Support Specialists	0.2%
29-1126	Respiratory Therapists	0.2%
29-2034	Radiologic Technologists and Technicians	0.3%

Table 22. 50 Priority Programs in 2023 Report⁶² That Did Not Meet Criteria in the Current Study

TOP Title (TOP Code)
Accounting (TOP 0502.00)
Administrative Medical Assisting (TOP 1208.20)
Applied Design (TOP 1009.00)
Biotechnology and Biomedical Technology (TOP 0430.00)
Carpentry (TOP 0952.10)
Commercial Music (TOP 1005.00)
Computer Science (Transfer) (TOP 0706.00)
Dramatic Arts (TOP 1007.00)
Drywall and Insulation (TOP 0952.80)
E-Commerce (Business emphasis) (TOP 0509.70)
E-Commerce (Technology emphasis) (TOP 0709.10)
Energy Systems Technology (TOP 0946.10)
Environmental Control Technology (TOP 0946.00)
Environmental Science (TOP 0301.00)
Environmental Technology (TOP 0303.00)
Fashion Merchandising (TOP 1303.20)
Forensics, Evidence, and Investigation (TOP 2105.40)
Geographic Information Systems (TOP 2206.10)
Geography (TOP 2206.00)
Graphic Art and Design (TOP 1030.00)
Health Information Technology (TOP 1223.00)
Horticulture (TOP 0109.00)
Hospital Central Service Technician (TOP 1209.00)
Hospitality (TOP 1307.00)
Industrial and Occupational Safety and Health (TOP 0956.70)
Industrial and Transportation Security (TOP 2105.30)
Information Technology, General (TOP 0701.00)
Laboratory Science Technology (TOP 0955.00)

⁶² "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, accessed November 1, 2024, coeccc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

TOP Title (TOP Code)
Landscape Design and Maintenance (TOP 0109.10)
Law, General (TOP 1401.00)
Legal Office Technology (TOP 0514.10)
Lodging Management (TOP 1307.20)
Masonry, Tile, Cement, Lath and Plaster (TOP 0952.60)
Medical Assisting (TOP 1208.00)
Medical Office Technology (TOP 0514.20)
Nursery Technology (TOP 0109.30)
Nursing (TOP 1230.00)
Orthopedic Assistant (TOP 1214.00)
Other Health Occupations (TOP 1299.00)
Phlebotomy (TOP 1205.10)
Plumbing, Pipefitting and Steamfitting (TOP 0952.30)
Restaurant and Food Services and Management (TOP 1307.10)
Sales and Salesmanship (TOP 0509.40)
Surveying (TOP 0957.30)
Tax Studies (TOP 0502.10)
Technical Theater (TOP 1006.00)
Turfgrass Technology (TOP 0109.40)
Veterinary Technician (Licensed) (TOP 0102.10)
Viticulture, Enology, and Wine Business (TOP 0104.00)
Welding Technology (TOP 0956.50)

Table 23. FTES Enrollments for San Diego & Imperial Counties Community Colleges, PY 2023-24⁶³

	FTES Total Enrollments, San Diego & Imperial Counties Community Colleges	
	FTES Enrollments, PY 2023-24	% of FTES Enrollments
Total	107,526	100%
Gender		
Female	56,498	53%
Male	48,792	46%
Non-Binary	712	1%
Race/Ethnicity		
Hispanic	52,981	49%
White	27,680	26%
Asian	8,029	7%
Multi-Ethnicity	5,935	6%
African-American	5,503	5%
Filipino	4,149	4%
Pacific Islander	480	0.4%
American Indian or Alaska Native	256	0.2%
<i>BIPOC</i> ⁶⁴	77,334	72%
Age		
19 or less	34,707	32%
20 to 24	32,589	30%
25 to 34	21,085	20%
35 to 49	12,075	11%
50+	7,067	7%

⁶³ FTES student enrollments by demographics for the San Diego & Imperial Counties Community Colleges for Program Year 2023-24, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

⁶⁴ Black, Indigenous, and People of Color (BIPOC) included: Hispanic; Asian; Black or African American; Multi-Ethnicity; Filipino; Native Hawaiian or Other Pacific Islander; American Indian or Alaska Native.

Table 24. Equity Gaps in Priority Programs by Demographics, PY 2023-24

TOP Code	TOP Title ⁶⁵	Total FTES Enrolled	Underrepresented			
			Female	Male	BIPOC	Age <19
2105.00	Administration of Justice*	864				
9500.00	Aeronautical and Aviation Technology*	82	•		•	•
1160.00	Agricultural Power Equipment Technology	No FTES Enrolled				
3020.30	Air Traffic Control	No FTES Enrolled				
9504.40	Aircraft Electronics (Avionics)	No FTES Enrolled				
9505.50	Aircraft Fabrication	No FTES Enrolled				
9531.10	Architectural Drafting*	No FTES Enrolled				
2010.00	Architecture and Architectural Technology*	383	•			•
9480.00	Automotive Technology*	1,085	•			
9501.10	Aviation Airframe Mechanics*	54	•		•	•
9502.20	Aviation Powerplant Mechanics*	47	•			•
5060.00	Business Management*	917	•		•	•
9570.00	Civil and Construction Management Technology*	11				•
9532.20	Civil Drafting	No FTES Enrolled				
9341.10	Computer Electronics*	No FTES Enrolled				
7020.00	Computer Information Systems*	637	•			•
7080.00	Computer Infrastructure and Support*	448	•			•
7081.10	Computer Networking*	39	•			•
7071.10	Computer Programming*	1,047	•			
7070.00	Computer Software Development*	125	•			
7082.20	Computer Support*	115	•			•
7073.30	Computer Systems Analysis	115				•

*An active/approved for-credit program in one or more of the nine community colleges in San Diego County

⁶⁵ San Diego and Imperial Counties Community Colleges Catalog, April 2024. Data was pulled from Chancellor’s Office Curriculum Inventory (COCI) 2.0. Please note that the status of programs may have changed since the data was pulled, or that an existing program may be related but listed under a different TOP code. For example, many nursing programs in the region are listed under TOP 1230.10 Registered Nursing, but no existing programs are under TOP 1230.00 Nursing. coci2.ccctechcenter.org/programs.

TOP Code	TOP Title ⁶⁵	Total FTES Enrolled	Underrepresented			
			Female	Male	BIPOC	Age <19
9520.00	Construction Crafts Technology	72	•			•
2105.10	Corrections*	18				
1240.20	Dental Hygienist*	95		•		•
9470.00	Diesel Technology*	107	•			
6140.00	Digital Media*	115				•
5096.60	Display	No FTES Enrolled				
9530.00	Drafting Technology*	224	•		•	•
9522.20	Electrical*	337	•			•
9344.40	Electrical Systems and Power Transmission*	19	•			•
9340.00	Electronics and Electric Technology*	221	•			•
5111.10	Escrow	No FTES Enrolled				
2133.50	Fire Academy*	224	•		•	•
2133.00	Fire Technology*	607	•		•	•
3020.40	Flight Attendant	No FTES Enrolled				
9472.20	Heavy Equipment Maintenance*	6	•			
9473.30	Heavy Equipment Operation	No FTES Enrolled				
9342.20	Industrial Electronics	No FTES Enrolled				
9450.00	Industrial Systems Technology and Maintenance	No FTES Enrolled				
9430.00	Instrumentation Technology	No FTES Enrolled				
5120.00	Insurance	7				
1230.20	Licensed Vocational Nursing*	146		•		•
5100.00	Logistics and Materials Transportation*	17				
5063.30	Management Development and Supervision*	30				•
9560.00	Manufacturing and Industrial Technology*	53	•			
5090.00	Marketing and Distribution*	182				

*An active/approved for-credit program in one or more of the nine community colleges in San Diego County

TOP Code	TOP Title ⁶⁵	Total FTES Enrolled	Underrepresented			
			Female	Male	BIPOC	Age <19
1218.00	Occupational Therapy Technology*	32		•		•
5144.40	Office Management	No FTES Enrolled				
5140.00	Office Technology/Office Computer Applications*	664		•		•
9990.00	Other Engineering and Related Industrial Technologies*	No FTES Enrolled				
2199.00	Other Public and Protective Services*	No FTES Enrolled				
1402.00	Paralegal*	297		•		•
1222.00	Physical Therapist Assistant*	103			•	•
3020.20	Piloting*	71	•		•	•
2105.50	Police Academy*	1,540	•		•	•
2105.20	Probation and Parole	No FTES Enrolled				
2102.10	Public Works*	No FTES Enrolled				
5092.20	Purchasing	No FTES Enrolled				
1225.00	Radiologic Technology*	136				•
5110.00	Real Estate*	254				•
1230.10	Registered Nursing*	580		•		•
1210.00	Respiratory Care/Therapy*	62		•		•
5065.50	Retail Store Operations and Management*	No FTES Enrolled				
9564.40	Sheet Metal and Structural Metal*	25	•		•	•
7021.10	Software Applications*	72				•
1217.00	Surgical Technician*	56		•		•
9343.30	Telecommunications Technology*	No FTES Enrolled				
9580.00	Water and Wastewater Technology*	97	•		•	•
6143.30	Website Design and Development*	276				•
2133.10	Wildland Fire Technology	7	•			
7090.00	World Wide Web Administration*	No FTES Enrolled				

*An active/approved for-credit program in one or more of the nine community colleges in San Diego County

Table 25. Priority Programs by Gender, PY 2023-24⁶⁶

TOP	Program Title	Total FTES Enrolled	% Female	% Male
2105.00	Administration of Justice	864	52%	46%
0950.00	Aeronautical and Aviation Technology	82	17%	80%
0201.00	Architecture and Architectural Technology	383	45%	54%
0948.00	Automotive Technology	1,085	14%	85%
0950.10	Aviation Airframe Mechanics	54	11%	85%
0950.20	Aviation Powerplant Mechanics	47	11%	84%
0506.00	Business Management	917	38%	61%
0957.00	Civil and Construction Management Technology	11	24%	74%
0702.00	Computer Information Systems	637	38%	60%
0708.00	Computer Infrastructure and Support	448	25%	73%
0708.10	Computer Networking	39	24%	75%
0707.10	Computer Programming	1,047	27%	70%
0707.00	Computer Software Development	125	21%	77%
0708.20	Computer Support	115	28%	68%
0707.30	Computer Systems Analysis	115	56%	42%
0952.00	Construction Crafts Technology	72	2%	98%
2105.10	Corrections	18	35%	65%
1240.20	Dental Hygienist	95	91%	9%
0947.00	Diesel Technology	107	7%	93%
0614.00	Digital Media	115	53%	45%
0953.00	Drafting Technology	224	22%	75%
0952.20	Electrical	337	4%	94%
0934.40	Electrical Systems and Power Transmission	19	1%	99%
0934.00	Electronics and Electric Technology	221	19%	81%
2133.50	Fire Academy	224	4%	92%
2133.00	Fire Technology	607	9%	90%
0947.20	Heavy Equipment Maintenance	6	3%	97%
0512.00	Insurance	7	61%	39%
1230.20	Licensed Vocational Nursing	146	85%	15%
0510.00	Logistics and Materials Transportation	17	37%	62%

⁶⁶ Cells highlighted in yellow are significantly underrepresented compared to the community colleges overall, $p < .05$. Please note that equivalent percentages may not be significant due to differences in sample sizes. "Non-Binary" and "Unknown" were not included in analyses due to small numbers, and the total may not equal to 100 percent due to rounding. California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

TOP	Program Title	Total FTES Enrolled	% Female	% Male
0506.30	Management Development and Supervision	30	51%	48%
0956.00	Manufacturing and Industrial Technology	53	27%	70%
0509.00	Marketing and Distribution	182	52%	46%
1218.00	Occupational Therapy Technology	32	67%	28%
0514.00	Office Technology/Office Computer Applications	664	69%	30%
1402.00	Paralegal	297	77%	19%
1222.00	Physical Therapist Assistant	103	53%	47%
3020.20	Piloting	71	22%	75%
2105.50	Police Academy	1,540	17%	82%
1225.00	Radiologic Technology	136	54%	46%
0511.00	Real Estate	254	53%	46%
1230.10	Registered Nursing	580	76%	23%
1210.00	Respiratory Care/Therapy	62	78%	22%
0956.40	Sheet Metal and Structural Metal	25	4%	93%
0702.10	Software Applications	72	57%	41%
1217.00	Surgical Technician	56	69%	25%
0958.00	Water and Wastewater Technology	97	13%	85%
0614.30	Website Design and Development	276	56%	42%
2133.10	Wildland Fire Technology	7	10%	88%

Table 26. Priority Programs by Age, PY 2023-24⁶⁷

TOP	Program Title	Total FTES Enrolled	19 or Younger	20 to 24	25 to 34	35 to 49	50+
2105.00	Administration of Justice	864	33%	31%	24%	10%	3%
0950.00	Aeronautical and Aviation Technology	82	9%	22%	40%	20%	8%
0201.00	Architecture and Architectural Technology	383	25%	41%	20%	10%	4%
0948.00	Automotive Technology	1,085	35%	32%	14%	7%	12%
0950.10	Aviation Airframe Mechanics	54	7%	23%	45%	20%	4%
0950.20	Aviation Powerplant Mechanics	47	1%	29%	37%	23%	9%
0506.00	Business Management	917	15%	34%	32%	16%	3%
0957.00	Civil and Construction Management Technology	11	2%	19%	29%	35%	15%
0702.00	Computer Information Systems	637	20%	37%	25%	12%	5%
0708.00	Computer Infrastructure and Support	448	8%	25%	38%	22%	7%
0708.10	Computer Networking	39	8%	31%	35%	16%	9%
0707.10	Computer Programming	1,047	31%	30%	25%	11%	3%
0707.00	Computer Software Development	125	33%	29%	23%	14%	3%
0708.20	Computer Support	115	3%	12%	27%	37%	21%
0707.30	Computer Systems Analysis	115	9%	18%	28%	33%	11%
0952.00	Construction Crafts Technology	72	7%	27%	46%	18%	2%
2105.10	Corrections	18	11%	10%	25%	36%	18%
1240.20	Dental Hygienist	95	0%	32%	56%	11%	0%
0947.00	Diesel Technology	107	30%	31%	25%	10%	3%
0614.00	Digital Media	115	16%	22%	32%	20%	9%
0953.00	Drafting Technology	224	22%	35%	25%	12%	6%
0952.20	Electrical	337	3%	23%	50%	21%	2%
0934.40	Electrical Systems and Power Transmission	19	0%	5%	75%	20%	0%

⁶⁷ Cells highlighted in yellow are significantly underrepresented compared to the community colleges overall, $p < .05$. Please note that equivalent percentages may not be significant due to differences in sample sizes and the total may not equal 100 percent due to rounding. California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

TOP	Program Title	Total FTES Enrolled	19 or Younger	20 to 24	25 to 34	35 to 49	50+
0934.00	Electronics and Electric Technology	221	5%	17%	30%	31%	16%
2133.50	Fire Academy	224	5%	51%	39%	5%	0%
2133.00	Fire Technology	607	17%	24%	26%	26%	7%
0947.20	Heavy Equipment Maintenance	6	11%	19%	46%	22%	2%
0512.00	Insurance	7	15%	18%	24%	30%	13%
1230.20	Licensed Vocational Nursing	146	4%	21%	37%	28%	10%
0510.00	Logistics and Materials Transportation	17	11%	21%	30%	30%	9%
0506.30	Management Development and Supervision	30	5%	21%	31%	28%	15%
0956.00	Manufacturing and Industrial Technology	53	40%	14%	26%	13%	7%
0509.00	Marketing and Distribution	182	42%	19%	20%	13%	5%
1218.00	Occupational Therapy Technology	32	0%	8%	64%	28%	0%
0514.00	Office Technology/Office Computer Applications	664	7%	17%	22%	32%	23%
1402.00	Paralegal	297	4%	23%	34%	31%	8%
1222.00	Physical Therapist Assistant	103	2%	23%	49%	24%	1%
3020.20	Piloting	71	19%	24%	26%	21%	9%
2105.50	Police Academy	1,540	0%	29%	53%	16%	2%
1225.00	Radiologic Technology	136	0%	24%	57%	17%	2%
0511.00	Real Estate	254	20%	22%	23%	23%	11%
1230.10	Registered Nursing	580	1%	31%	45%	22%	2%
1210.00	Respiratory Care/Therapy	62	0%	27%	54%	19%	0%
0956.40	Sheet Metal and Structural Metal	25	2%	19%	40%	38%	1%
0702.10	Software Applications	72	6%	18%	25%	28%	23%
1217.00	Surgical Technician	56	0%	36%	46%	14%	3%
0958.00	Water and Wastewater Technology	97	5%	21%	30%	34%	9%
0614.30	Website Design and Development	276	5%	18%	32%	32%	13%
2133.10	Wildland Fire Technology	7	7%	47%	45%	0%	0%

Table 27. Priority Programs by BIPOC, PY 2023-24⁶⁸

TOP	Program Title	Total FTES Enrolled	% BIPOC
2105.00	Administration of Justice	864	70%
0950.00	Aeronautical and Aviation Technology	82	52%
0201.00	Architecture and Architectural Technology	383	72%
0948.00	Automotive Technology	1,085	79%
0950.10	Aviation Airframe Mechanics	54	56%
0950.20	Aviation Powerplant Mechanics	47	61%
0506.00	Business Management	917	67%
0957.00	Civil and Construction Management Technology	11	61%
0702.00	Computer Information Systems	637	69%
0708.00	Computer Infrastructure and Support	448	75%
0708.10	Computer Networking	39	65%
0707.10	Computer Programming	1,047	70%
0707.00	Computer Software Development	125	65%
0708.20	Computer Support	115	69%
0707.30	Computer Systems Analysis	115	76%
0952.00	Construction Crafts Technology	72	83%
2105.10	Corrections	18	54%
1240.20	Dental Hygienist	95	71%
0947.00	Diesel Technology	107	64%
0614.00	Digital Media	115	66%
0953.00	Drafting Technology	224	63%
0952.20	Electrical	337	69%
0934.40	Electrical Systems and Power Transmission	19	53%
0934.00	Electronics and Electric Technology	221	76%
2133.50	Fire Academy	224	49%
2133.00	Fire Technology	607	46%
0947.20	Heavy Equipment Maintenance	6	77%
0512.00	Insurance	7	53%
1230.20	Licensed Vocational Nursing	146	86%
0510.00	Logistics and Materials Transportation	17	55%

⁶⁸ Cells highlighted in yellow are significantly underrepresented compared to the community colleges overall, $p < .05$. Please note that equivalent percentages may not be significant due to differences in sample sizes. California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

TOP	Program Title	Total FTES Enrolled	% BIPOC
0506.30	Management Development and Supervision	30	66%
0956.00	Manufacturing and Industrial Technology	53	66%
0509.00	Marketing and Distribution	182	67%
1218.00	Occupational Therapy Technology	32	60%
0514.00	Office Technology/Office Computer Applications	664	72%
1402.00	Paralegal	297	70%
1222.00	Physical Therapist Assistant	103	58%
3020.20	Piloting	71	60%
2105.50	Police Academy	1,540	66%
1225.00	Radiologic Technology	136	78%
0511.00	Real Estate	254	68%
1230.10	Registered Nursing	580	70%
1210.00	Respiratory Care/Therapy	62	80%
0956.40	Sheet Metal and Structural Metal	25	54%
0702.10	Software Applications	72	68%
1217.00	Surgical Technician	56	86%
0958.00	Water and Wastewater Technology	97	54%
0614.30	Website Design and Development	276	68%
2133.10	Wildland Fire Technology	7	45%

Table 28. Top 15 Priority Programs Underrepresented by Race/Ethnicity, PY 2023-24⁶⁹

TOP	Program Title	Total FTES Enrolled	%
White			
1217.00	Surgical Technician	6	11%
0952.00	Construction Crafts Technology	9	13%
1230.20	Licensed Vocational Nursing	20	14%
0948.00	Automotive Technology	197	18%
1210.00	Respiratory Care/Therapy	13	20%
1225.00	Radiologic Technology	28	20%
0707.30	Computer Systems Analysis	24	21%
0934.00	Electronics and Electric Technology	48	22%
0947.20	Heavy Equipment Maintenance	1	23%
0708.00	Computer Infrastructure and Support	106	24%
0514.00	Office Technology/Office Computer Applications	165	25%
0707.10	Computer Programming	279	27%
1230.10	Registered Nursing	155	27%
0201.00	Architecture and Architectural Technology	103	27%
0708.20	Computer Support	31	27%
Hispanic or Latino			
1218.00	Occupational Therapy Technology	32	25%
2133.10	Wildland Fire Technology	7	27%
0950.10	Aviation Airframe Mechanics	54	29%
0950.00	Aeronautical and Aviation Technology	82	31%
0950.20	Aviation Powerplant Mechanics	47	31%
0708.20	Computer Support	115	31%
1222.00	Physical Therapist Assistant	103	32%
0707.10	Computer Programming	1,047	33%
0707.00	Computer Software Development	125	34%
2133.00	Fire Technology	607	34%
0707.30	Computer Systems Analysis	115	34%
3020.20	Piloting	71	35%
0614.30	Website Design and Development	276	35%
0509.00	Marketing and Distribution	182	36%

⁶⁹ California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

TOP	Program Title	Total FTES Enrolled	%
0510.00	Logistics and Materials Transportation	17	36%
Asian			
0952.00	Construction Crafts Technology	72	0%
0958.00	Water and Wastewater Technology	97	1%
0947.00	Diesel Technology	107	1%
0506.30	Management Development and Supervision	30	1%
2133.50	Fire Academy	224	2%
2105.10	Corrections	18	2%
2105.00	Administration of Justice	864	2%
0952.20	Electrical	337	2%
2105.50	Police Academy	1,540	2%
2133.00	Fire Technology	607	2%
2133.10	Wildland Fire Technology	7	3%
1402.00	Paralegal	297	3%
0956.40	Sheet Metal and Structural Metal	25	3%
0201.00	Architecture and Architectural Technology	383	3%
0510.00	Logistics and Materials Transportation	17	4%
Filipino			
2133.50	Fire Academy	224	0%
0947.00	Diesel Technology	107	0%
0952.00	Construction Crafts Technology	72	1%
0952.20	Electrical	337	1%
0958.00	Water and Wastewater Technology	97	1%
0512.00	Insurance	7	1%
2133.00	Fire Technology	607	1%
2105.10	Corrections	18	1%
0956.40	Sheet Metal and Structural Metal	25	2%
0957.00	Civil and Construction Management Technology	11	2%
0950.00	Aeronautical and Aviation Technology	82	2%
2105.00	Administration of Justice	864	2%
0708.10	Computer Networking	39	2%
0956.00	Manufacturing and Industrial Technology	53	2%
0950.20	Aviation Powerplant Mechanics	47	2%

TOP	Program Title	Total FTES Enrolled	%
Black or African American			
2133.10	Wildland Fire Technology	7	0%
2133.50	Fire Academy	224	1%
2105.10	Corrections	18	1%
0947.00	Diesel Technology	107	1%
2133.00	Fire Technology	607	2%
1210.00	Respiratory Care/Therapy	62	2%
1240.20	Dental Hygienist	95	2%
0952.00	Construction Crafts Technology	72	2%
0953.00	Drafting Technology	224	2%
0948.00	Automotive Technology	1,085	3%
0201.00	Architecture and Architectural Technology	383	3%
0707.00	Computer Software Development	125	3%
0510.00	Logistics and Materials Transportation	17	3%
0950.20	Aviation Powerplant Mechanics	47	4%
2105.00	Administration of Justice	864	4%
0956.40	Sheet Metal and Structural Metal	25	4%
Native Hawaiian or Other Pacific Islander⁷⁰			
1402.00	Paralegal	297	0%
0614.30	Website Design and Development	276	0%
2133.50	Fire Academy	224	0%
0934.00	Electronics and Electric Technology	221	0%
0707.00	Computer Software Development	125	0%
0614.00	Digital Media	115	0%
0708.20	Computer Support	115	0%
1222.00	Physical Therapist Assistant	103	0%
1240.20	Dental Hygienist	95	0%
1210.00	Respiratory Care/Therapy	62	0%
1217.00	Surgical Technician	56	0%
0956.00	Manufacturing and Industrial Technology	53	0%
0956.40	Sheet Metal and Structural Metal	25	0%
0934.40	Electrical Systems and Power Transmission	19	0%

⁷⁰ The programs listed, ranked by enrollment size, did not have any students who identified as Native Hawaiian or Other Pacific Islander.

TOP	Program Title	Total FTES Enrolled	%
0957.00	Civil and Construction Management Technology	11	0%
American Indian or Alaska Native ⁷¹			
0953.00	Drafting Technology	224	0%
1225.00	Radiologic Technology	136	0%
0707.00	Computer Software Development	125	0%
0614.00	Digital Media	115	0%
0707.30	Computer Systems Analysis	115	0%
0947.00	Diesel Technology	107	0%
1240.20	Dental Hygienist	95	0%
0950.00	Aeronautical and Aviation Technology	82	0%
1210.00	Respiratory Care/Therapy	62	0%
1217.00	Surgical Technician	56	0%
0950.10	Aviation Airframe Mechanics	54	0%
0950.20	Aviation Powerplant Mechanics	47	0%
0708.10	Computer Networking	39	0%
1218.00	Occupational Therapy Technology	32	0%
0956.40	Sheet Metal and Structural Metal	25	0%

⁷¹ The programs listed, ranked by enrollment size, did not have any students who identified as American Indian or Alaska Native.

Table 29. Priority Jobs that are Recession-Resilient, Pandemic-Resilient, or Recession- and Pandemic-Resilient Jobs⁷² in San Diego County⁷³

SOC	Occupational Title	Recession-Resilient	Pandemic-Resilient	Recession and Pandemic Resilient	Avg. Annual Openings 2023-2028	25 th Percentile Hourly Earnings	Median Hourly Earnings
29-1141	Registered Nurses	•	•	•	2,023	\$51.15	\$63.59
43-1011	First-Line Supervisors of Office and Administrative Support Workers	•	•	•	1,486	\$26.83	\$31.73
29-2061	Licensed Practical and Licensed Vocational Nurses	•	•	•	710	\$30.91	\$35.66
33-3051	Police and Sheriff's Patrol Officers	•			677	\$39.78	\$52.64
23-2011	Paralegals and Legal Assistants	•			581	\$26.18	\$29.74
13-1081	Logisticians	•			522	\$37.07	\$48.05
49-3011	Aircraft Mechanics and Service Technicians	•			365	\$31.41	\$38.36
17-3023	Electrical and Electronic Engineering Technologists and Technicians	•			289	\$30.24	\$36.81
11-3012	Administrative Services Managers	•			242	\$38.82	\$53.08
15-1244	Network and Computer Systems Administrators	•	•	•	201	\$40.39	\$49.82
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other		•		192	\$30.56	\$39.20
15-1254	Web Developers		•		72	\$27.04	\$41.00

⁷² "Resilient Jobs: Top Jobs During the Great Recession and COVID-19 Pandemic," San Diego & Imperial COE, August 2020, sdiregionalconsortium.org/wp-content/uploads/2023/06/Resilient-Jobs_2020-08-27v4.pdf.

⁷³ Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

Table 30. Comparing Equity Gaps⁷⁴ in Priority Jobs Between 2020⁷⁵ and 2023

SOC	Occupational Title			
Females		% 2020	% 2023	Difference
49-3011	Aircraft Mechanics and Service Technicians	5%	7%	+2%
17-3011	Architectural and Civil Drafters	22%	23%	+1%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	1%	2%	+1%
49-9051	Electrical Power-Line Installers and Repairers	2%	3%	+1%
17-3026	Industrial Engineering Technologists and Technicians	20%	21%	+1%
49-9052	Telecommunications Line Installers and Repairers	6%	5%	-1%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	17%	16%	-1%
17-3022	Civil Engineering Technologists and Technicians	20%	18%	-2%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	12%	9%	-3%
33-3012	Correctional Officers and Jailers	34%	31%	-3%
Males		% 2020	% 2023	Difference
53-2031	Flight Attendants	16%	20%	+4%
31-2021	Physical Therapist Assistants	31%	33%	+2%
23-2011	Paralegals and Legal Assistants	15%	16%	+1%
43-5031	Public Safety Telecommunicators	29%	30%	+1%
43-6011	Executive Secretaries and Executive Administrative Assistants	4%	5%	+1%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	34%	33%	-1%
29-2034	Radiologic Technologists and Technicians	37%	35%	-2%
29-1126	Respiratory Therapists	42%	39%	-3%
29-2055	Surgical Technologists	32%	29%	-3%
Age 55+		% 2020	% 2023	Difference
49-3011	Aircraft Mechanics and Service Technicians	19%	10%	-9%
51-8031	Water and Wastewater Treatment Plant and System Operators	27%	25%	-2%
17-3022	Civil Engineering Technologists and Technicians	22%	20%	-2%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	20%	19%	-1%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	22%	24%	+2%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	25%	27%	+2%

⁷⁴ Please note that this table does not include all priority jobs. This table only includes priority jobs that had equity gaps in 2020 and showed a change between 2020 and 2023.

⁷⁵ "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

SOC	Occupational Title	% 2020	% 2023	Difference
29-1126	Respiratory Therapists	19%	23%	+4%
17-3026	Industrial Engineering Technologists and Technicians	24%	28%	+4%
51-1011	First-Line Supervisors of Production and Operating Workers	23%	28%	+5%
13-1031	Claims Adjusters, Examiners, and Investigators	18%	23%	+5%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	20%	26%	+6%
29-2061	Licensed Practical and Licensed Vocational Nurses	19%	25%	+6%
47-2073	Operating Engineers and Other Construction Equipment Operators	22%	28%	+6%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	25%	32%	+7%
17-3011	Architectural and Civil Drafters	17%	25%	+8%
43-6011	Executive Secretaries and Executive Administrative Assistants	24%	34%	+10%
53-2031	Flight Attendants	23%	35%	+12%
BIPOC		2020 %	2023 %	Difference
51-8031	Water and Wastewater Treatment Plant and System Operators	42%	50%	+8%
15-1231	Computer Network Support Specialists	48%	55%	+7%
43-5031	Public Safety Telecommunicators	51%	58%	+7%
13-1031	Claims Adjusters, Examiners, and Investigators	48%	55%	+7%
49-9051	Electrical Power-Line Installers and Repairers	41%	48%	+7%
33-2011	Firefighters	43%	50%	+7%
33-3021	Detectives and Criminal Investigators	51%	58%	+7%
31-2011	Occupational Therapy Assistants	41%	48%	+7%
29-1292	Dental Hygienists	36%	43%	+7%
23-2011	Paralegals and Legal Assistants	44%	50%	+6%
17-3023	Electrical and Electronic Engineering Technologists and Technicians	50%	56%	+6%
17-3011	Architectural and Civil Drafters	42%	48%	+6%
17-3022	Civil Engineering Technologists and Technicians	49%	55%	+6%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	51%	57%	+6%
43-6011	Executive Secretaries and Executive Administrative Assistants	42%	47%	+5%
47-2211	Sheet Metal Workers	47%	52%	+5%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	43%	48%	+5%

SOC	Occupational Title	% 2020	% 2023	Difference
47-2073	Operating Engineers and Other Construction Equipment Operators	46%	51%	+5%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	49%	53%	+4%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	42%	46%	+4%
17-3026	Industrial Engineering Technologists and Technicians	52%	56%	+4%
51-1011	First-Line Supervisors of Production and Operating Workers	52%	56%	+4%
31-2021	Physical Therapist Assistants	49%	52%	+4%
29-2034	Radiologic Technologists and Technicians	52%	55%	+3%
49-3011	Aircraft Mechanics and Service Technicians	50%	52%	+3%
53-2031	Flight Attendants	47%	45%	-2%

Table 31. Comparing Equity Gaps⁷⁶ in Priority Programs Between 2016-17⁷⁷ and 2023-24

TOP	Program Title			
Females		% 2016-17	% 2023-24	Difference
0614.00	Digital Media	34%	53%	+19%
2105.10	Corrections	18%	35%	+17%
0956.00	Manufacturing and Industrial Technology	11%	27%	+16%
0614.30	Website Design and Development	40%	56%	+16%
0708.00	Computer Infrastructure and Support	13%	25%	+12%
0708.10	Computer Networking	13%	24%	+11%
0201.00	Architecture and Architectural Technology	35%	45%	+10%
2105.00	Administration of Justice	42%	52%	+10%
0708.20	Computer Support	19%	28%	+9%
0950.00	Aeronautical and Aviation Technology	11%	17%	+6%
0953.00	Drafting Technology	18%	22%	+4%
0707.10	Computer Programming	24%	27%	+3%
0506.30	Management Development and Supervision	48%	51%	+3%
0511.00	Real Estate	51%	53%	+2%
2133.00	Fire Technology	7%	9%	+2%
0952.20	Electrical	3%	4%	+1%
2105.50	Police Academy	18%	17%	-1%
0934.00	Electronics and Electric Technology	31%	19%	-12%
Males		% 2016-17	% 2023-24	Difference
1225.00	Radiologic Technology	31%	46%	+15%
0702.10	Software Applications	40%	41%	+1%
1210.00	Respiratory Care/Therapy	23%	22%	-1%
1217.00	Surgical Technician	26%	25%	-1%
0514.00	Office Technology/Office Computer Applications	33%	30%	-3%
1230.20	Licensed Vocational Nursing	21%	15%	-6%
1402.00	Paralegal	25%	19%	-6%

⁷⁶ Please note that this table does not include all priority programs. This table only includes priority programs that had equity gaps in 2020 and showed a change between program years 2016-17 and 2023-24.

⁷⁷ "Equity Gaps in Priority Jobs and Programs: San Diego County," San Diego & Imperial COE, February 2023, coecc.net/san-diego-imperial/2023/02/equity-gaps-in-priority-jobs-and-programs.

TOP	Program Title			
Age 19 and Younger		% 2016-17	% 2023-24	Difference
0509.00	Marketing and Distribution	11%	42%	+31%
0707.00	Computer Software Development	5%	33%	+28%
0947.00	Diesel Technology	11%	30%	+19%
0511.00	Real Estate	6%	20%	+14%
2133.00	Fire Technology	8%	17%	+9%
0953.00	Drafting Technology	13%	22%	+9%
0702.00	Computer Information Systems	12%	20%	+8%
0952.00	Construction Crafts Technology	2%	7%	+5%
0708.00	Computer Infrastructure and Support	5%	8%	+3%
0934.00	Electronics and Electric Technology	3%	5%	+2%
0708.10	Computer Networking	6%	8%	+2%
0950.00	Aeronautical and Aviation Technology	7%	9%	+2%
0514.00	Office Technology/Office Computer Applications	6%	7%	+1%
0958.00	Water and Wastewater Technology	4%	5%	+1%
0957.00	Civil and Construction Management Technology	4%	2%	-2%
0702.10	Software Applications	8%	6%	-2%
1230.20	Licensed Vocational Nursing	7%	4%	-3%
0506.30	Management Development and Supervision	12%	5%	-7%
BIPOC ⁷⁸		% 2016-17	% 2023-24	Difference
1230.20	Licensed Vocational Nursing	60%	86%	+26%
1217.00	Surgical Technician	65%	86%	+21%
1210.00	Respiratory Care/Therapy	60%	80%	+20%
2105.50	Police Academy	47%	66%	+19%
3020.20	Piloting	47%	60%	+13%
0708.00	Computer Infrastructure and Support	62%	75%	+13%
1225.00	Radiologic Technology	65%	78%	+13%
0947.20	Heavy Equipment Maintenance	66%	77%	+11%

⁷⁸ Please note that BIPOC was not originally calculated in the “Equity Gaps in Priority Jobs and Programs” report. The data presented was calculated from LaunchBoard and included all categories excluding “White.” Please note that “masked values” were also included which is a limitation of this calculation. “LaunchBoard,” California Community Colleges, calpassplus.org/LaunchBoard/Community-College-Pipeline.aspx.

TOP	Program Title	% 2016-17	% 2023-24	Difference
0952.20	Electrical	58%	69%	+11%
1240.20	Dental Hygienist	62%	71%	+9%
0201.00	Architecture and Architectural Technology	64%	72%	+8%
0950.10	Aviation Airframe Mechanics	49%	56%	+7%
0950.20	Aviation Powerplant Mechanics	55%	61%	+6%
0614.30	Website Design and Development	63%	68%	+5%
0509.00	Marketing and Distribution	63%	67%	+4%
0511.00	Real Estate	64%	68%	+4%
0707.10	Computer Programming	66%	70%	+4%
0953.00	Drafting Technology	59%	63%	+4%
0934.40	Electrical Systems and Power Transmission	50%	53%	+3%
0708.20	Computer Support	66%	69%	+3%
2133.00	Fire Technology	44%	46%	+2%
0947.00	Diesel Technology	62%	64%	+2%
0708.10	Computer Networking	63%	65%	+2%
1218.00	Occupational Therapy Technology	58%	60%	+2%
0506.00	Business Management	66%	67%	+1%
2105.10	Corrections	58%	54%	-4%
0950.00	Aeronautical and Aviation Technology	57%	52%	-5%
1222.00	Physical Therapist Assistant	65%	58%	-7%
0956.40	Sheet Metal and Structural Metal	62%	54%	-8%
0958.00	Water and Wastewater Technology	62%	54%	-8%
2133.50	Fire Academy	58%	49%	-9%
2133.10	Wildland Fire Technology	58%	45%	-13%

Methodology

Key Definitions

The following are key definitions used throughout the report.

SOC code: The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. The report used these titles to match those defined by this system.⁷⁹

TOP code: The Taxonomy of Programs (TOP) is a system of codes used by the State of California to compare differently named academic programs with similar outcomes across community colleges.⁸⁰ Each course offered by California Community Colleges is assigned a TOP code.

Living wage: The living wage is the hourly rate that an individual in a household must earn to support themselves and/or their family, working full-time, or 2,080 hours per year. This living wage takes into account family composition, ages of children, and geographic differences in costs. The living wage in San Diego County is \$26.01 per hour for a single adult.⁸¹

Priority job: A middle-skill job that has at least 60 projected annual job openings in San Diego County between 2023 and 2028; pays entry-level earnings at or above the living wage of \$26.01 for a single adult in the San Diego County; and requires fewer than five years of work experience at entry.

Priority program: A community college program based on TOP codes that trains for a priority job identified in this report.

Full-time equivalent student (FTES):⁸² An enrolled student who attends 15 hours each week during the semester (or a group of students who, together, attend 15 hours each week). This is intended to be a count of how many students there would be if they only attended on a full-time basis. A very common term with several different meanings but even though the methodologies might be different, the purpose of the calculation is always the same; count how many students there would be if they only attended on a full-time basis.

FTES is determined by hours of attendance and 525 hours of attendance is considered one FTES. The 525-hour value is based on the assumptions that a full-time student attends 15 hours of classes in a week, there are 17.5 weeks in a semester, and there are 2 semesters in an academic year so $15 \times 17.5 \times 2 = 525$ hours = 1 FTES.

⁷⁹ bls.gov/soc.

⁸⁰ TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System, nces.ed.gov/ipeds/use-the-data.

⁸¹ Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California, 2024. selfsufficiencystandard.org/California.

⁸² Data Mart Glossary of Terms, Data Mart, datamart.cccco.edu/App_Doc/Data_Definition_Glossary.doc.

Data Sources

The San Diego & Imperial COE used various sources for this project. First, traditional labor market information was obtained from Lightcast, formerly (EMSI), a data company that compiles labor market information from, among other sources, government organizations such as the Bureau of Labor Statistics and the US Census Bureau, and online job postings.⁸³ This data included information about projected annual job openings between 2023 and 2028, entry-level and median earnings, typical entry-level education, and the demographic characteristics of people employed in priority jobs in 2023 (the most recently available data). Second, we obtained labor force participation information and employment information for San Diego County residents aged 16 and over from the United States Census Bureau's American Community Survey (ACS).⁸⁴ We used the ACS five-year estimates for San Diego County (2021) as it provides data for all areas and was the most recent data available that included all race and ethnic categories to be used for analysis. We also selected labor force participation for comparison, instead of solely focusing on the demographics of those currently in the workforce, as this includes individuals who may not be currently employed but are seeking employment. Third, we obtained full-time equivalent student (FTES) enrollment data from the California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart.⁸⁵ Data from the 2023-24 academic year was the most recent year available. Finally, using the San Diego and Imperial Counties Community Colleges Catalog we identified active or approved for-credit programs as of April 2024 listed in the catalog.⁸⁶ Please note that the status of programs may have changed since the publication of this report.

Procedures

First, we identified San Diego County's priority jobs using the following criteria: a middle-skill job, as defined by the COE; had at least 60 projected annual job openings in San Diego County between 2023 and 2028; pays entry-level earnings at or above the living wage for a single adult in San Diego County; and typically requires fewer than five years of work experience at entry. We used these criteria to select the 50 priority jobs. We then obtained data regarding the demographic characteristics of people employed in these priority jobs in 2023. We used the demographic characteristics of labor force participants overall in San Diego County as benchmarks with which to compare the representation of demographics within each priority job.

To identify priority programs, we used TOP codes and SOC codes and referred to a crosswalk created by the Centers of Excellence to determine alignment between priority jobs and TOP codes that train for those occupations. From that list, we identified 72 TOP codes, or priority programs. Please note that in an effort to concentrate on programs that were specifically focused on training for priority jobs and that were less general, not all possible TOP codes associated with an occupation were included.

To analyze program data, we first downloaded FTES enrollment demographic data across all San Diego & Imperial Counties Community Colleges,⁸⁷ which served as benchmarks for student enrollments. Then, we downloaded FTES enrollment demographic data specific to community colleges in San Diego County and filtered

⁸³ Lightcast 2024.03; QCEW, Non-QCEW, Self-Employed.

⁸⁴ U.S. Census Bureau. "Sex By Age by Employment Status for The Population 16 Years and Over." American Community Survey, ACS 5-Year Estimates Selected Population Detailed Tables, Table B23001, 2021, data.census.gov.

⁸⁵ California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

⁸⁶ San Diego and Imperial Counties Community Colleges Catalog, 2024. Data was pulled from Chancellor's Office Curriculum Inventory (COCI) 2.0. Only active programs listed were included as part of this report, and note that the status of these programs may have changed since the data was pulled. coci2.cccotechcenter.org/programs.

⁸⁷ California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, datamart.cccco.edu.

to focus on data for the 72 priority TOP codes only. Please note that data was not available for all TOP codes, as there were numerous programs that did not have FTES in any community colleges in San Diego County. We then combined categories that would be used for analysis. For example, BIPOC included the race/ethnic categories: Hispanic; Asian; Black or African American; Multi-Ethnicity; Filipino; Native Hawaiian or Other Pacific Islander; American Indian or Alaska Native. Age categories were also combined for ease of analysis.

Equity Analysis

We evaluated equity by conducting z-tests to analyze differences in proportions, determining whether demographic groups represented within jobs and programs were statistically under- or overrepresented compared to the overall population (i.e., labor force participants or community college FTES enrollments). The significance level was set at a threshold of $p < .05$. Note that statistical significance may vary for equivalent percentages due to differences in sample sizes. Data tables in the report also highlight proportions that deviate by more than 10 percentage points from the overall population, emphasizing priority jobs and programs with notable disparities.

Acknowledgments and Disclaimers

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Important Disclaimers and Limitations

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to represent data that is available and to qualify and validate the accuracy of the data; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this report or its recommendations.