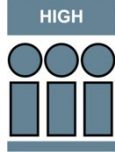


Firefighting Occupations

Labor Market Analysis: San Diego County

September 2026

Summary

NEW PROGRAM RECOMMENDATION?	EVIDENCE OF A SUPPLY GAP?	AT OR ABOVE THE LIVING WAGE?	EXPECTED LEVEL(S) OF EDUCATION
 Proceed	 	 	☐ Doctorate Degree ☐ Master's Degree ☐ Bachelor's Degree ☐ Associate degree ☒ Some College or Certificate ☐ HS Diploma or Equivalent ☐ Less Than a HS Diploma ☐ Apprenticeship
SUPPORT FOR PROGRAM MODIFICATION?	NUMBER OF INSTITUTIONS THAT PROVIDE TRAINING	NUMBER OF ANNUAL JOB OPENINGS	
 	LOW 	HIGH 	

The San Diego & Imperial Center of Excellence (COE) developed this brief to assist the region's community colleges with strategic planning and program development. Firefighting Occupations include "Firefighters" and "First-Line Supervisors of Firefighting and Prevention Workers." According to available data, Firefighting Occupations in San Diego County have a labor market demand of 352 annual job openings (while average demand for a single occupation in San Diego County is 289 annual job openings), and three institutions supply an estimated 246 awards for these occupations. On average, entry-level wages are above the living wage. This brief recommends that colleges proceed with developing a new program for these occupations and supports a program modification because 1) there is a supply gap; 2) a high number of annual job openings exists for these occupations; and 3) average entry-level wages are above the living wage.

Introduction

This report provides labor market information in San Diego County for the following occupational codes in the Standard Occupational Classification (SOC)¹ system:

- **Firefighters (SOC 33-2011):** Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.
- **First-Line Supervisors of Firefighting and Prevention Workers (SOC 33-1021):** Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.

For the purpose of this report, these occupations are referred to as *Firefighting Occupations*.

¹ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for collecting, calculating, and disseminating data. [bls.gov/soc](https://www.bls.gov/soc)

Projected Occupational Demand

Between 2025 and 2030, businesses in San Diego County will need to hire 352 employees annually to fill new jobs and backfill positions made vacant through turnover and retirement (Exhibit 1). Firefighters account for the largest share of demand, with 293 annual openings. Overall employment is projected to increase by 261 jobs, or six percent, during the five-year period.

Exhibit 1: Employment Change and Occupational Demand for Firefighting Occupations in San Diego County (2025-2030)²

Occupational Title	2025 Jobs	2030 Jobs	2025-2030 Net Jobs Change	2025-2030 % Jobs Change	Annual Job Openings (Demand)
Firefighters	3,314	3,519	205	6%	293
First-Line Supervisors of Firefighting and Prevention Workers	731	787	56	8%	59
Total	4,045	4,306	261	6%	352

² Lightcast Q3 2026; QCEW, Non-QCEW, Self-Employed.

Earnings

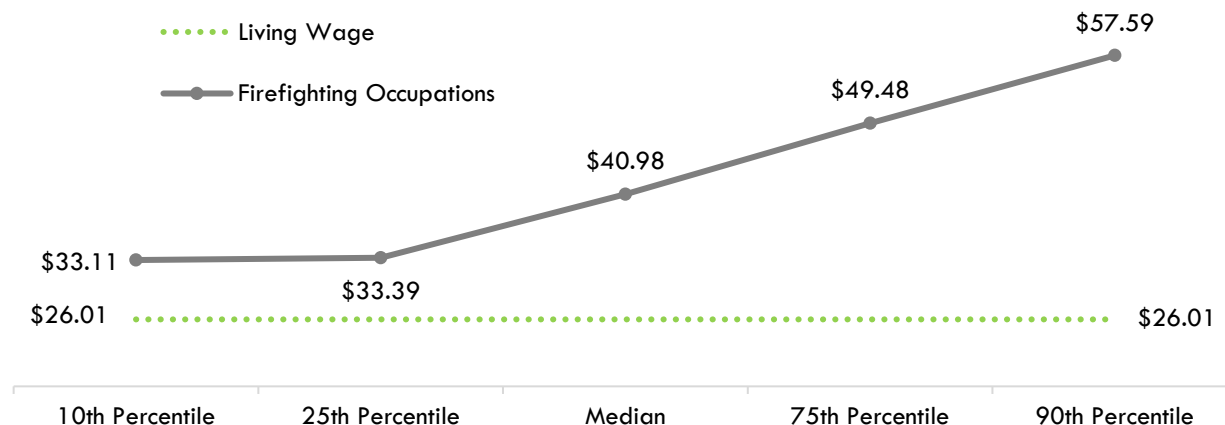
According to traditional³ labor market information (LMI), entry-level hourly earnings for *Firefighting Occupations* range from \$27.88 to \$38.90 (Exhibit 2).

Exhibit 2: Hourly Earnings for Firefighting Occupations in San Diego County⁴

Occupational Title	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
First-Line Supervisors of Firefighting and Prevention Workers	\$38.90	\$47.86	\$58.45
Firefighters	\$27.88	\$34.09	\$40.50

On average, entry-level hourly earnings for *Firefighting Occupations* are \$33.39—or approximately \$69,453 annually⁵. This is above the living wage of \$26.01⁶ per hour for a single adult in San Diego County (Exhibit 3).

Exhibit 3: Average Hourly Earnings⁷ for Firefighting Occupations in San Diego County⁸



³ Traditional LMI is generally historical data captured by the U.S. Bureau of Labor Statistics (BLS) or the California Employment Development Department (EDD). It does not account for recent technological, economic, or legislative changes that may affect labor market demand and wages.

⁴ Lightcast Q3 2026; QCEW, Non-QCEW, Self-Employed.

⁵ Annualized salaries assume a full-time position with 2,080 work hours. Multiplying the hourly wage by 2,080 yields the annual salary.

⁶ Center for Women's Welfare, University of Washington. The Self-Sufficiency Standard for California 2024.

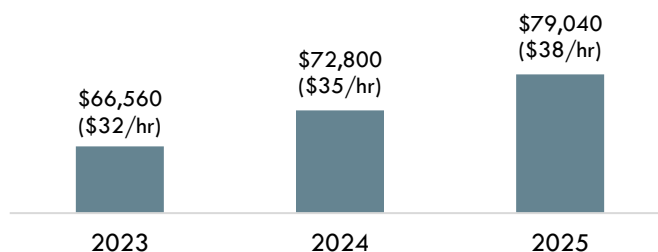
selfsufficiencystandard.org/california

⁷ The 10th and 25th percentiles may be considered entry-level wages; the 75th and 90th percentiles may be considered experienced wages.

⁸ Lightcast Q3 2026; QCEW, Non-QCEW, Self-Employed.

In online job postings, employers also advertised between \$32 and \$38 per hour between January 1, 2023 and December 31, 2025 for *Firefighting Occupations* in San Diego County (Exhibit 4).⁹ This suggests that employer-advertised wages in online job postings were within the range of entry-level wages reported in traditional labor market information and fluctuated over the period analyzed.

Exhibit 4: Entry-Level Advertised Salaries in Online Job Postings for *Firefighting Occupations* in San Diego County (2023-2025)



Expected Level of Education

According to traditional LMI reported to the California Employment Development Department and U.S. Bureau of Labor Statistics, *Firefighting Occupations* typically require a *postsecondary non-degree award* for entry-level employment (Exhibit 5).¹⁰

Exhibit 5: National Educational Attainment for *Firefighting Occupations*¹¹

Occupational Title	Typical Entry-Level Education
Firefighters	Postsecondary non-degree award
First-Line Supervisors of Firefighting and Prevention Workers	Postsecondary non-degree award

⁹ Lightcast Q3 2026; Job Posting Analytics, January 2023 through December 2025.

¹⁰ Lightcast Q3 2026; QCEW, Non-QCEW, Self-Employed.

¹¹ Lightcast Q3 2026; QCEW, Non-QCEW, Self-Employed.

Similarly, a [high school diploma or General Educational Development \(GED\) credential](#) was the most requested minimum educational requirement in online job postings for *Firefighting Occupations* in San Diego County between January 1, 2023 and December 31, 2025. Employers also expected the following certifications (Exhibit 6).¹²

Exhibit 6: Top Certifications for *Firefighting Occupations* in San Diego County in Online Job Postings (2023-2025)¹³

- | | |
|--|--|
| 1. Firefighter I Certification | 6. Advanced Cardiovascular Life Support (ACLS) Certification |
| 2. Paramedic (EMT-P) | 7. Firefighter II Certification |
| 3. Emergency Medical Technician (EMT) | 8. CDL Class C License |
| 4. Cardiopulmonary Resuscitation (CPR) Certification | 9. Advanced Life Support |
| 5. Basic Life Support (BLS) Certification | 10. Emergency Medical Technician - Basic (EMT-B) |

Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. There are [two](#) TOP codes and [three](#) CIP codes related to *Firefighting Occupations* (Exhibit 7).

Exhibit 7: Related TOP and CIP Codes for *Firefighting Occupations*¹⁴

TOP or CIP Code	TOP or CIP Program Title
TOP 2133.00	Fire Technology
TOP 2133.50	Fire Academy
CIP 43.0201	Fire Prevention and Safety Technology/Technician
CIP 43.0202	Fire Services Administration
CIP 43.0203	Fire Science/Fire-fighting

¹² Lightcast Q3 2026; Job Posting Analytics, January 2023 through December 2025.

¹³ Lightcast Q3 2026; Job Posting Analytics, January 2023 through December 2025. Valid Driver's License was excluded from this exhibit.

¹⁴ California Community Colleges Chancellor's Office TOP-CIP crosswalk and confirmed program-code selection for this analysis.

According to TOP data, [three](#) community colleges supply the region with awards for these occupations: [Palomar College](#), [San Diego Miramar College](#), and [Southwestern College](#). According to CIP data, no other postsecondary institutions supplied awards in the selected programs during the period analyzed (Exhibit 8).

Exhibit 8: Number of Awards Conferred by Postsecondary Institutions (Three-Year Annual Averages)^{15 16}

TOP or CIP Code	TOP or CIP Program Title	3-Year Annual Average Community College Awards (2022-23 to 2024-25)	Other Institutions 3-Year Average Awards (2022-23 to 2024-25)	Total Average Supply (2022-23 to 2024-25)
2133.00	Fire Technology	153	0	153
	Palomar	107	0	
	• Associate degree	49	0	
	• Certificate 30 < 60 units	58	0	
	San Diego Miramar	39	0	
	• Associate degree	30	0	
	• Certificate 30 < 60 units	8	0	
	• Certificate 16 < 30 units	1	0	
	Southwestern	7	0	
	• Associate degree	6	0	
	• Certificate 30 < 60 units	1	0	
2133.50	Fire Academy	93	0	93
	Palomar	76	0	
	• Certificate 30 < 60 units	76	0	
	Southwestern	17	0	
	• Associate degree	1	0	
	• Certificate 16 < 30 units	16	0	
43.0201	Fire Prevention and Safety Technology/Technician	0	0	0
43.0202	Fire Services Administration	0	0	0
43.0203	Fire Science/Fire-fighting	0	0	0
	Total	246	0	246

¹⁵ California Community Colleges Chancellor's Office Data Mart, program years 2022-23 through 2024-25.

¹⁶ National Center for Education Statistics, Integrated Postsecondary Education Data System completions, academic years 2021-22 through 2023-24. Awards above a bachelor's degree were excluded.

Demand vs. Supply

Comparing labor demand with labor supply¹⁷ suggests that there is a **supply gap** for these occupations in San Diego County, with **352** annual openings and **246** average annual awards. Comparatively, there are **3,717** annual openings in California and **3,786** annual awards, suggesting a statewide **oversupply** (Exhibit 9).¹⁸

Exhibit 9: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)

	Demand (Annual Openings)	Supply (Average Annual Awards)	Supply Gap or Oversupply
San Diego	352	246	106
California	3,717	3,786	-69

Please note: This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed.

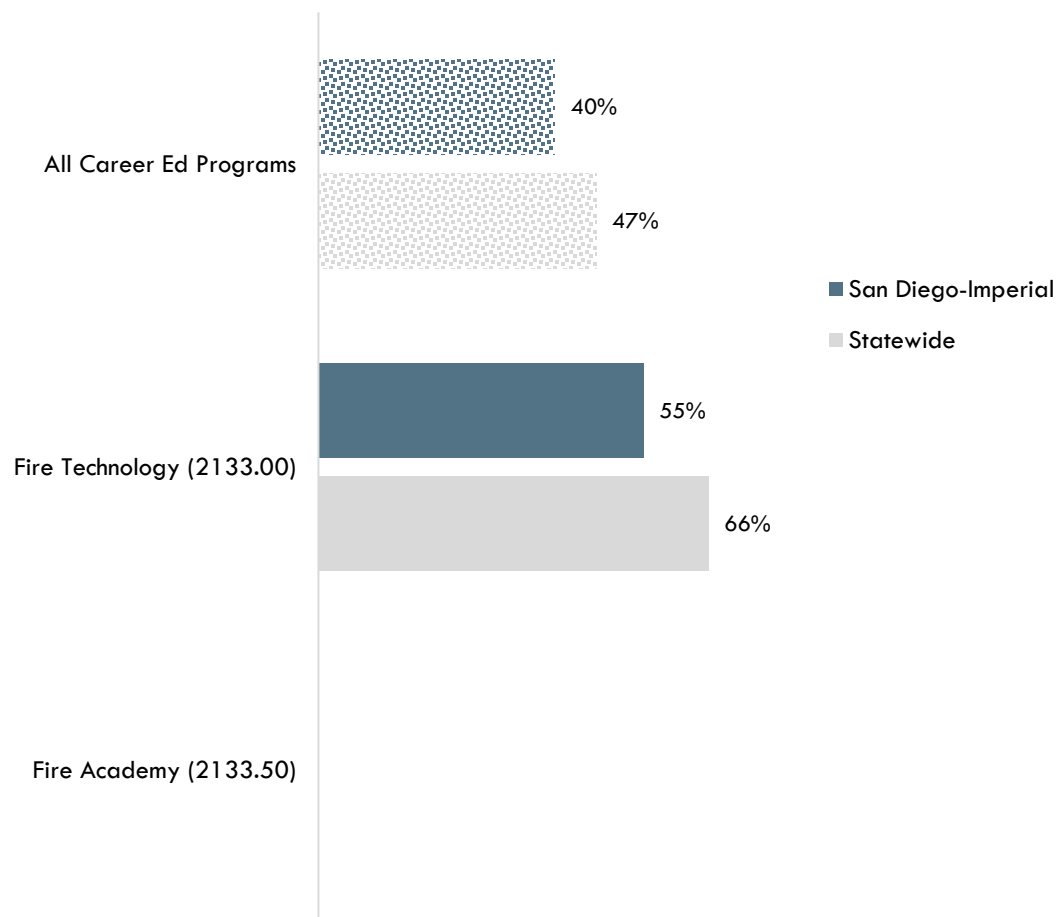
¹⁷ Labor supply can be found from two different sources: Lightcast or the California Community Colleges Chancellor's Office MIS Data Mart. Lightcast uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

¹⁸ "Supply and Demand," Centers of Excellence Student Outcomes, coecc.net/our-resources.

Student Outcomes and Regional Comparisons

According to the California Community Colleges DataVista, **55%** of students in the San Diego-Imperial region earned a living wage after completing a program related to *Firefighting Occupations*, compared to **66%** statewide and **47%** of students in Career Education programs in general across the state (Exhibit 10).¹⁹

Exhibit 10: Percentage of Students Who Earned a Living Wage by Program, PY2023-24²⁰



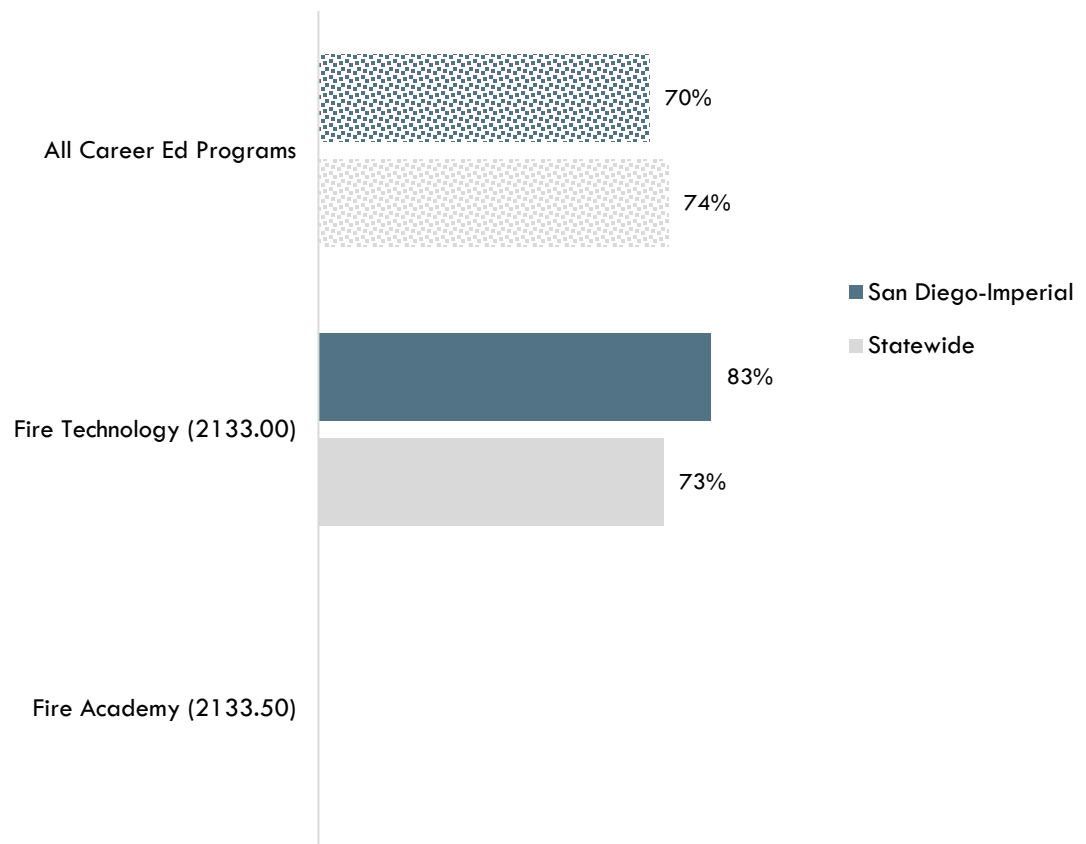
"N/A" indicates insufficient data.

¹⁹ California Community Colleges DataVista. datavista.cccco.edu

²⁰ Most recent year with available data is Program Year 2023–24. The measure reports the percentage of completers and skills builders who exited and attained a living wage.

According to the California Community Colleges DataVista, **83%** of students in the San Diego-Imperial region obtained a job closely related to their field of study after completing a program related to *Firefighting Occupations*, compared to **73%** statewide and **74%** of students in Career Education programs in general across the state (Exhibit 11).²¹

Exhibit 11: Percentage of Students in a Job Closely Related to Field of Study by Program, PY2022-23²²



"N/A" indicates insufficient data.

²¹ California Community Colleges DataVista. datavista.cccco.edu

²² Most recent year with available data is Program Year 2022–23. The measure reports the percentage of CTE Outcomes Survey respondents employed in the same or a similar field as their program of study.

Employers

Between January 1, 2023 and December 31, 2025, the top employers in San Diego County for *Firefighting Occupations* included [Global Medical Response](#), [State of California](#), [General Dynamics](#), [City of San Diego](#), and [City of Vista](#), based on online job postings (Exhibit 12).

Exhibit 12: Top Employers for *Firefighting Occupations* in San Diego County²³

Top Employers	
• Global Medical Response • State of California • General Dynamics • City of San Diego • City of Vista	• Sycuan • Pala Band of Mission Indians • City of Escondido • City of Chula Vista • City of Encinitas

Skills

Exhibit 13 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2023 and December 31, 2025.

Exhibit 13: Top Skills for *Firefighting Occupations* in San Diego County²⁴

Specialized Skills	Soft Skills	Software Skills
• Firefighting • Fire Prevention • Emergency Medical Services • Fire Suppression Systems • Fire Service • Cardiopulmonary Resuscitation (CPR) • Fire Protection • Fire Safety • First Aid • Fire Alarm Systems	• Communication • Operations • Management • Planning • English Language • Accountability • Customer Service • Investigation • Professionalism	• N/A

²³ Lightcast Q3 2026; Job Posting Analytics, January 2023 through December 2025.

²⁴ Lightcast Q3 2026; Job Posting Analytics, January 2023 through December 2025. Skills must populate in at least 10% of job postings to be listed.

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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 qualify and validate the accuracy of the data and the report findings; however, neither the California Community Colleges Centers of Excellence (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 study or its recommendations.