SAN DIEGO & IMPERIAL COUNTIES
COMMUNITY COLLEGES

Electronic Technician Occupations

Labor Market Analysis: San Diego County — August 2025

Summary

NEW PROGRAM RECOMMENDATION?	EVIDENCE OF A SUPPLY GAP?	AT OR ABOVE THE LIVING WAGE?	EXPECTED LEVEL OF EDUCATION
Proceed with Caution	☑	☒	☐ 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	MEDIUM	

The San Diego & Imperial Center of Excellence (COE) developed this brief to assist the region's community colleges with strategic planning and program development. *Electronic Technician Occupations* include "Electric Motor, Power Tool, and Related Repairers" and "Installation, Maintenance, and Repair Workers, All Other." According to available data, *Electronic Technician 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 two institutions supply 23 awards for these occupations. Entry-level wages are below the living wage. This brief recommends that the colleges proceed with caution when developing a new program for these occupations but supports a program modification because although 1) there is a supply gap in San Diego County and 2) a low number of institutions provide training for these occupations, 3) these occupations' average entry-level wages are below the living wage. College should note that the expected level of education for *Electronic Technician Occupations* is a high school diploma or equivalent.

Introduction

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

- **Electric Motor, Power Tool, and Related Repairers** (SOC 49-2092): Repair, maintain, or install electric motors, wiring, or switches.
- **Installation, Maintenance, and Repair Workers, All Other** (SOC 49-9099): All installation, maintenance, and repair workers not listed separately.

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

Projected Occupational Demand

Between 2023 and 2028, businesses in San Diego County will need to hire 352 employees annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example (Exhibit 1). Most of this labor market demand comes from Installation, Maintenance, and Repair Workers, All Other, which are projected to have the most annual job openings with 322 openings each year between 2023 and 2028.

Exhibit 1: Number of Jobs for *Electronic Technician Occupations* (2023-2028)[2]

Occupational Title	2023 Jobs	2028 Jobs	2023 - 2028 Net Jobs Change	2023 - 2028 % Net Jobs Change	Annual Job Openings (Demand)
Installation, Maintenance, and Repair Workers, All Other	3,193	3,268	75	2%	322
Electric Motor, Power Tool, and Related Repairers	258	290	32	12%	30
Total	3,451	3,558	107	3%	352

[1] 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. https://www.bls.gov/soc/.
[2] Lightcast 2025.02; QCEW, Non-QCEW, Self-Employed.

Earnings

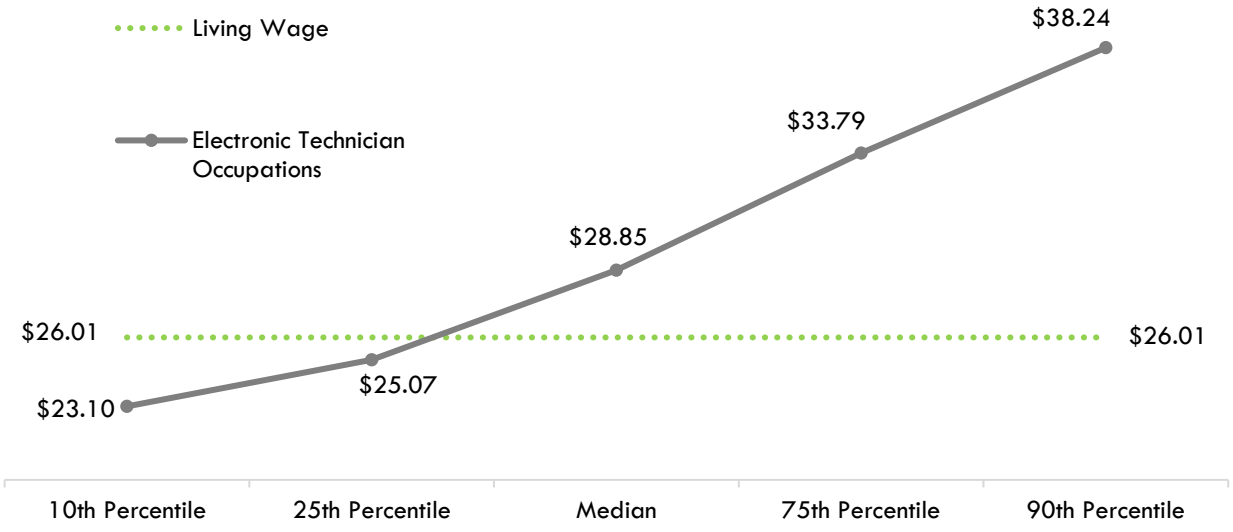
According to traditional[3] labor market information (LMI), entry-level hourly earnings for *Electronic Technician Occupations* range from $21.07 to $29.07 (Exhibit 2).

Exhibit 2: Hourly Earnings for *Electronic Technician Occupations* in San Diego County[4]

Occupational Title	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Electric Motor, Power Tool, and Related Repairers	$29.07	$33.83	$36.54
Installation, Maintenance, and Repair Workers, All Other	$21.07	$23.86	$31.04

On average, the entry-level hourly earnings for employed *Electronic Technician Occupations* are $25.07—or $52,145.60 annual salary[5]; this is less than the living wage for a single adult in San Diego County, which is $26.01 per hour (Exhibit 3). [6]

Exhibit 3: Hourly Earnings[7] for *Electronic Technician Occupations* in San Diego County[8]



[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 2025.02; QCEW, Non-QCEW, Self-Employed.
[5] Annualized salaries assume a full-time position with 2,080 hours. Multiplying the hourly wage with 2,080 yields the annual salary.
[6] Center for Women's Welfare, University of Washington. (2024). The self-sufficiency standard for California 2024. selfsufficiencystandard.org/California.
[7] 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.
[8] Lightcast 2025.02; QCEW, Non-QCEW, Self-Employed.

There were no online job posting data available for *Electronic Technician Occupations* in San Diego County between January 1, 2022 and December 30, 2024 to determine advertised entry-level salaries (Exhibit 4).[9] This suggests that employers may not rely on online job postings to recruit for these positions.

Exhibit 4: Entry-Level Advertised Salaries in Online Job Postings for *Electronic Technician Occupations* in San Diego County (2022-2024)

N/A	N/A	N/A
2022	2023	2024

[9] Lightcast 2025.02; "Job Posting Analytics." 2022-2024.

Expected Level of Education

According to traditional LMI (data reported to EDD and BLS), *Electronic Technician Occupations* have a national educational attainment of a high school diploma or equivalent (Exhibit 5).[10]

Exhibit 5: National Educational Attainment for *Electronic Technician Occupations*[11]

Occupational Title	Typical Entry-Level Education
Electric Motor, Power Tool, and Related Repairers	High school diploma or equivalent
Installation, Maintenance, and Repair Workers, All Other	High school diploma or equivalent

There were no online job posting data available for *Electronic Technician Occupations* in San Diego County between January 1, 2022 and December 30, 2024 to identify requested certifications (Exhibit 6).[12]

Exhibit 6: Top Certifications for *Electronic Technician Occupations* in San Diego County in Online Job Postings (2022-2024)[13]

1. N/A

[10] Lightcast 2025.02; QCEW, Non-QCEW, Self-Employed.
[11] Lightcast 2025.02; QCEW, Non-QCEW, Self-Employed.
[12] Lightcast 2025.02; "Job Posting Analytics." 2022-2024.
[13] Lightcast 2025.02; "Job Posting Analytics." 2022-2024.

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 two CIP codes related to *Electronic Technician Occupations* (Exhibit 7).

Exhibit 7: Related TOP and CIP Codes for *Electronic Technician Occupations*[14]

TOP or CIP Code	TOP or CIP Program Title
TOP 0934.00	Electronics and Electric Technology
TOP 0946.10	Energy Systems Technology
CIP 47.0101	Electrical/Electronics Equipment Installation and Repair Technology/Technician, General
CIP 47.0701	Energy Systems Installation and Repair Technology/Technician

According to TOP data, two community colleges supply the region with awards for these occupations: San Diego City College and San Diego College of Continuing Education. According to CIP data, no non-community-college institution supplies the region with awards (Exhibit 8).

Exhibit 8: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions (Program Year 2020-21 Through Program Year 2023-24 Average)

TOP6 or CIP Code	TOP6 or CIP Program Title	3-Yr Annual Average CC Awards (PY21-22 to PY23-24)	Other Educational Institutions 3-Yr Annual Average Awards (PY20-21 to PY22-23)	Total Average Supply (PY20-21 to PY22-24)
0934.00	Electronics and Electric Technology	**23**	**0**	**23**
	San Diego City	**1**	**0**	
	• Certificate 16 < 30 units	1	0	
	San Diego Cont. Ed.	**22**	**0**	
	• Non-credit 480 < 960 hrs	4	0	
	• Non-credit 288 < 480 hrs	18	0	
			Total	**23**

[14] This brief uses a conservative estimate of program supply and only calculates awards from the TOP code listed in Exhibit 7.

Demand vs. Supply

Comparing labor demand with labor supply[15] suggests that there is a supply gap for these occupations in San Diego County, with 352 annual openings and 23 awards. Comparatively, there are 3,663 annual openings in California and 989 awards, suggesting that there is a supply gap across the state (Exhibit 9).[16]

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

	Demand (Annual Openings)	**Supply** (Annual Awards)	**Supply Gap or Oversupply**
San Diego	352	23	**329**
California	3,663	989	**2,674**

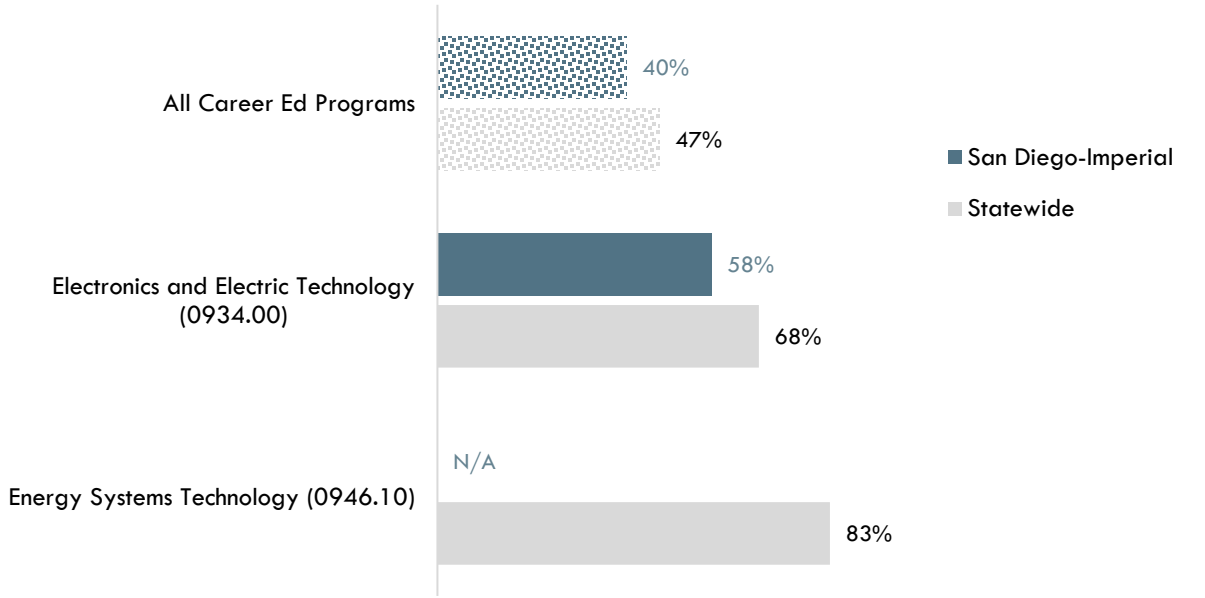
Please note: This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers;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

[15] 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.
[16] "Supply and Demand," Centers of Excellence Student Outcomes, coeccc.net/our-resources.

Student Outcomes and Regional Comparisons

According to the California Community Colleges DataVista, 58% of students in the San Diego-Imperial region earned a living wage after completing a program related to *Electronic Technician Occupations,* compared to 68 to 83% statewide and 47% of students in Career Education programs in general across the state (Exhibit 10).[17]

Exhibit 10: Percentage of Students Who Earned a Living Wage by Program, PY2022-23[18]

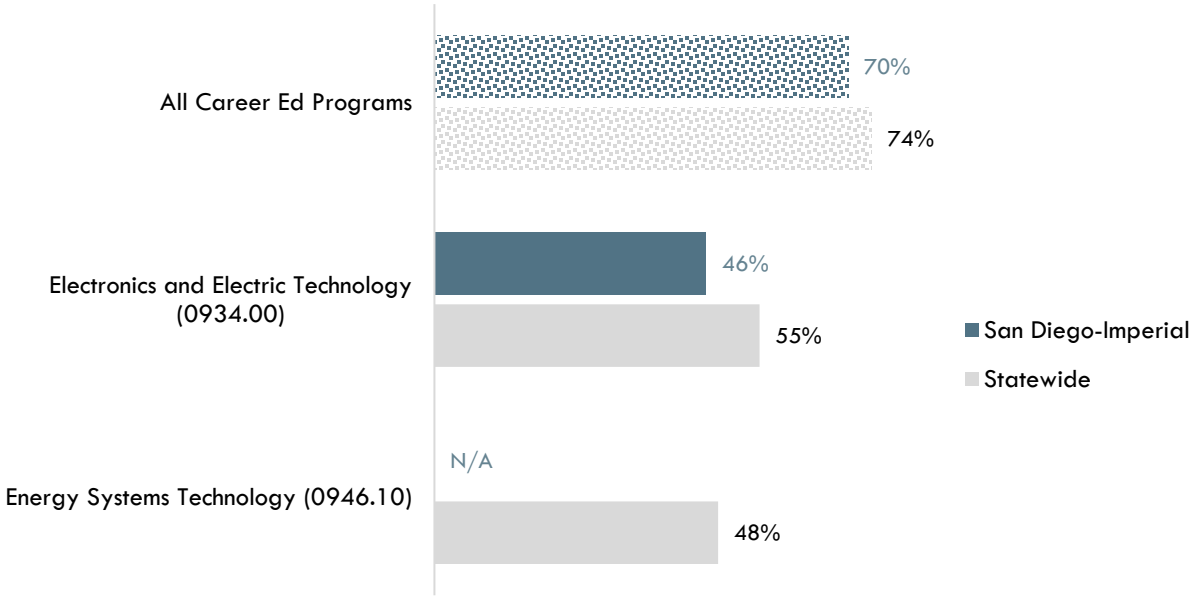


"N/A" indicates insufficient data

[17] DataVista, California Community Colleges, datavista.cccco.edu/.
[18] Most recent year with available data is Program Year 2022-23. Among completers and skills builders who exited, the percentage of students who attained a living wage.

According to the California Community Colleges DataVista, 46% of students in the San Diego-Imperial region obtained a job closely related to their field of study after completing a program related to *Electronic Technician Occupations,* compared to 48 to 55% statewide and 74% of students in Career Education programs in general across the state (Exhibit 11).[19]

Exhibit 11: Percentage of Students in a Job Closely Related to Field of Study by Program, PY2021-22[20]



"N/A" indicates insufficient data

[19] DataVista, California Community Colleges, datavista.cccco.edu/.
[20] Most recent year with available data is Program Year 2021-22. Percentage of Students in a Job Closely Related to Field of Study: Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

Employers

Between January 1, 2022 and December 31, 2024, there were no online job postings in San Diego county for *Electronic Technician Occupations* (Exhibit 12).

Exhibit 12: Top Employers for *Electronic Technician Occupations* in San Diego County[21]

Top Employers
• N/A

Skills

There were no online job postings in San Diego county for *Electronic Technician Occupations* to list the top specialized, soft, and software skills between January 1, 2022 and December 31, 2024 (Exhibit 13).

Exhibit 13: Top Skills for *Electronic Technician Occupations* in San Diego County[22]

Specialized Skills	Soft Skills	Software Skills
• N/A	• N/A	• N/A

[21] Lightcast 2025.02; "Job Posting Analytics." 2022-2024.
[22] Lightcast 2025.02; "Job Posting Analytics." 2022-2024.

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Important Disclaimers

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 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 study or its recommendations.