



# Labor Market Analysis for Program Recommendation

## Carpentry and Electrician Occupations

### East Bay Subregion

Prepared by the Bay Region Center of Excellence for Labor Market Research

Certificate Program

April 2026

Recommendation Based on Labor Market Data: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> With Reservations <input type="checkbox"/> No		
	Earning Wage Meets Living Wage	Meets Demand
Bay Region	Entry Level Hourly Wage- \$28 Mid-Career Hourly Wage- \$38  Mid-Career Hourly Wage at or above the Bay Living Wage (\$27)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Demand: 4,152 Supply: 724 (17% of Demand is Met) Gap: 3,428  In-Demand? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
East Bay Subregion	Entry Level Hourly Wage-\$26 Mid-Career Hourly Wage-\$36  Mid-Career Hourly Wage at or above the Subregion Living Wage (\$25)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Demand: 1,327 Supply: 23 (2% of Demand is Met) Gap:1,304  In-Demand? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Note:** An occupation is considered to provide a living wage if the mid-career wage is at or above the amount required for a single adult to be economically self-sufficient within a specified region. As a rule of thumb, an occupation will be considered **in-demand** when the supply is less than 75% of the demand **and** the labor market gap exceeds 40 openings (a reasonable regional threshold for starting a new program), but this approach may not apply in all cases. For definitions of demand, supply, and living wage, please scroll to the bottom of the report under **Definitions**.

## Recommendation

Based on the labor market data, we recommend this proposed program. The occupations meet both the Bay Region and East Bay subregion living wage at the entry and mid-career levels. An additional 3,428 students are needed in the Bay Region and 1,304 students in the East Bay subregion to complete their program. Lastly, only 17% of labor market demand is being met in the Bay Region, and 2% of demand is being met in the East Bay subregion overall.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 0952.10 - Carpentry programs in the state and region. It is recommended that these data be reviewed to better understand how outcomes for students taking courses on this TOP code compare to potentially similar programs at subregion in the state and region.

This report profiles Carpentry and Electrician Occupations in the 12 county Bay Region and in the East Bay subregion. This report includes middle-skill occupations that require a certificate, or an associate degree, or it may require a bachelor's degree, but 33% or fewer of current workers in these roles hold one.

- Carpenters (47-2031):** Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall, and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.
  - Typical Entry-Level Educational: High school diploma or equivalent
  - Skill Level: Middle-Skill
  - Work Experience Required: None
  - Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 24%
- Electricians (47-2111):** Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.
  - Typical Entry-Level Educational: High school diploma or equivalent
  - Skill Level: Middle-Skill
  - Work Experience Required: None
  - Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 45%

## Occupational Demand

**Table 1. Employment Outlook for Carpentry and Electrician Occupations in the Bay Region**

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Carpenters	31,351	30,595	-756	-2%	11,346	2,269	\$26	\$35
Electricians	19,990	20,261	270	1%	9,414	1,883	\$30	\$42
<b>Total</b>	<b>51,341</b>	<b>50,856</b>	<b>-485</b>	<b>-1%</b>	<b>20,760</b>	<b>4,152</b>	<b>\$28</b>	<b>\$38</b>

Source: Lightcast 2026.1

The Bay Region includes: Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

**Table 2. Employment Outlook for Carpentry and Electrician Occupations in the East Bay Subregion**

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Carpenters	10,210	10,006	-204	-2%	3,654	731	\$25	\$34

Occupation	2024 Jobs	2029 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	Entry Level Hourly	Mid-Career Hourly Wage
Electricians	6,901	6,597	-304	-4%	2,982	596	\$27	\$40
<b>Total</b>	<b>17,111</b>	<b>16,603</b>	<b>-508</b>	<b>-3%</b>	<b>6,636</b>	<b>1,327</b>	<b>\$26</b>	<b>\$36</b>

Source: Lightcast 2026.1

East Bay Subregion includes: Alameda, Contra Costa Counties

### Job Postings in the Bay Region and East Bay Subregion

**Table 3. Number of Job Postings by Occupation for the latest 12 months**

Occupation	Bay Region	East Bay
Electricians	1,201	434
Carpenters	1,060	290

Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

**Table 4a. Top Job Titles in Job Postings for Carpentry and Electrician Occupations in the Bay Region**

Title	Bay	Title	Bay
Electricians	228	Carpenters/Laborers	40
Carpenters	193	Service Electricians	33
Journeyman Electricians	139	Apprentice Electricians	27
Finish Carpenters	121	Industrial Electricians	27
Journeyman Carpenters	95	Certified Electricians	26
Carpenters Apprentice	65	Carpenters/Painters	23
Lead Carpenters	58	Licensed Electricians	23
Maintenance Electricians	42	Carpenters/Framers	23
Commercial Journeyman Electricians	41	Residential Carpenters	22

Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

**Table 4b. Top Job Titles in Job Posting for Carpentry and Electrician Occupations in the East Bay Subregion**

Title	East Bay	Title	East Bay
Electricians	82	Carpenters/Laborers	15
Carpenters	47	Carpenters/Painters	11
Journeyman Electricians	43	Service Electricians	11
Finish Carpenters	27	Apprentice Electricians	10
Journeyman Carpenters	22	Licensed Electricians	10
Carpenters Apprentice	21	Commercial Journeyman Electricians	9

Title	East Bay	Title	East Bay
Industrial Electricians	19	Plant Electricians	9
Maintenance Electricians	17	Remodelers	8
Electrical Technicians	16	Marine Electricians	8

Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

## Industry Concentration

**Table 5. Industries Hiring for Carpentry and Electrician Occupations in the Bay Region**

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2024)	Jobs in Industry (2029)	% Change (2024-29)	% Occupation Group in Industry (2024)
Electrical Contractors and Other Wiring Installation Contractors	14,777	14,877	1%	28%
Residential Remodelers	8,162	8,713	7%	16%
New Single-Family Housing Construction (except For-Sale Builders)	4,717	4,308	-9%	9%
Commercial and Institutional Building Construction	3,929	3,906	-1%	8%
Drywall and Insulation Contractors	1,436	1,320	-8%	3%
All Other Specialty Trade Contractors	1,079	962	-11%	2%
Flooring Contractors	1,020	978	-4%	2%
Plumbing, Heating, and Air-Conditioning Contractors	898	889	-1%	2%
Finish Carpentry Contractors	928	798	-14%	2%
Tile and Terrazzo Contractors	790	740	-6%	2%

Source: Lightcast 2026.1

**Table 6. Top Employers Posting Carpentry and Electrician Occupations in the Bay Region and the East Bay Subregion**

Employer	Bay	Employer	East Bay
PeopleReady	61	PeopleReady	24
Aerotek	39	Cargill	23
Zero Impact Builders	38	Cedar Point	16
State of California	37	Tesla	14
PG&E	32	Aerotek	12
Cargill	23	University of California-Berkeley	10

Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

## Educational Supply

There is one community college in the Bay Region which issue 18 awards on average annually (last 3 years ending 2023-24) on TOP 0952.10 - Carpentry. In the East Bay subregion, there is one community college that issued 18 awards on average annually (last 3 years) on this TOP code.

There are two community colleges in the Bay Region, which issue 238 awards on average annually (last 3 years ending 2023-24) on TOP 0952.20 - \_Electrical. In the East Bay subregion, there is one community college that issued 5 awards on average annually (last 3 years) on this TOP code.

There are four other CTE educational institutions in the Bay Region issuing 468 awards on average annually (last 3 years ending 2022-23) on CIP 46.0302- Electrician. There are no other CTE educational institutions in the East Bay subregion issuing awards on average annually (last 3 years) on this CIP code.

**Table 7a. Community College Awards on TOP 0952.10 - Carpentry in the Bay Region**

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
Laney	East Bay	6	8	4	18
<b>Total</b>	-	<b>6</b>	<b>8</b>	<b>4</b>	<b>18</b>

Source: Data Mart

Note: The annual average for awards is 2021-22 to 2023-24.

**Table 7b. Community College Awards on TOP 0952.20 - \_Electrical in the Bay Region**

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
Chabot	East Bay	0	5	0	5
Foothill	Silicon Valley	5	0	228	233
<b>Total</b>	-	<b>5</b>	<b>5</b>	<b>228</b>	<b>238</b>

Source: Data Mart

Note: The annual average for awards is 2021-22 to 2023-24.

**Table 7c. Other CTE Institutions Awards on CIP 46.0302- Electrician in the Bay Region**

College	Subregion	Certificates of at least 1 but less than 2 years	Certificates of less than 1 year	Total
CET-San Jose	Silicon Valley	59	0	59
CET-Soledad	SC-Monterey	75	0	75
Institute for Business and Technology	Silicon Valley	0	240	240
InterCoast Colleges-Fairfield	North Bay	94	0	94
<b>Total</b>	-	<b>228</b>	<b>240</b>	<b>468</b>

Source: Data Mart

Note: The annual average for awards is 2020-21 to 2022-23.

## Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 4,152 annual openings for the Carpentry and Electrician occupational cluster and 724 annual (3-year average) awards for an annual undersupply of 3,428 students. In the East Bay subregion, there is also a gap with 1,327 annual openings and 23 annual (3-year average) awards for an annual undersupply of 1,304 students.

## Student Outcomes

**Table 8a. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0952.10 - Carpentry**

Metric Outcomes	Bay All CTE Program	State 0952.10	Bay 0952.10	East Bay 0952.10
Students with a Job Closely Related to Their Field of Study	75%	75%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$58,379	\$73,135	\$58,078	\$47,264
Median Change in Earnings for SWP Exiting Students	31%	47%	19%	19%
Exiting Students Who Attained the Living Wage	50%	67%	50%	44%

Source: DataVista Program Median of 2020 to 2022.

**Table 8b. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0952.20 - \_Electrical**

Metric Outcomes	Bay All CTE Program	State 0952.20	Bay 0952.20	East Bay 0952.20
Students with a Job Closely Related to Their Field of Study	75%	73%	88%	79%
Median Annual Earnings for SWP Exiting Students	\$58,379	\$61,148	\$105,576	\$91,586
Median Change in Earnings for SWP Exiting Students	31%	58%	107%	68%
Exiting Students Who Attained the Living Wage	50%	60%	79%	82%

Source: DataVista Program Median of 2020 to 2022.

## Skills, Certifications and Education

**Table 9. Top Skills in Job Postings for Carpentry and Electrician Occupations in the Bay Region**

Skill	Posting	Skill	Posting
Carpentry	1,037	Renovation	235
Construction	569	Transformers (Electrical)	228
Electrical Systems	517	Cabinetry	215
Electrical Wiring	493	Preventive Maintenance	189
Blueprinting	451	Roofing	189
Power Tool Operation	433	Machinery	186
Hand Tools	416	Drywall (Installation And Repair)	182
Electrical Equipment	349	Electronic Components	178
Lifting Ability	284	Plumbing	178
Finish Carpentry	248	Electrical Codes	166

Skill	Posting	Skill	Posting
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Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

**Table 10. Certifications in Job Postings for Carpentry and Electrician Occupations in the Bay Region**

Certification	Posting	Certification	Posting
Valid Driver's License	565	OSHA Certification	8
CDL Class C License	78	CDL Class B License	7
First Aid Certification	25	Forklift Certification	5
Contractor License	17	EPA 608 Technician Certification	5
CDL Class A License	10	National Apprenticeship Certificate	4
Commercial Driver's License (CDL)	9		

Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

**Table 11. Education Requirements for Carpentry and Electrician Occupations in the Bay Region**

Education Level	Job Postings	% of Total
High school or GED	373	76%
Associate degree	82	17%
Bachelor's degree & higher	36	7%

Source: Lightcast 2026.1; "Job Posting Analytics." Apr. 2025 - Mar. 2026

Note: 81% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample.

## Methodology

Occupations for this report were identified by use of job descriptions and skills listed in O\*Net. Labor demand data is sourced from Lightcast occupation and job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CCCCO Data Mart and CTE Launchboard.

## Definitions

**Demand** refers to average annual openings which includes a combination of both [new jobs and replacement jobs](#) between 2024 to 2029. New jobs represent the total number of additional workers required in an occupation, calculated as the difference between the current number of workers and the projected number of unfilled positions. Replacements are jobs that will need to be filled by [new hires](#) due to existing workers leaving the occupation. The average annual openings figure is derived by dividing total openings (2024 to 2029) by five years.

**Supply** refers to the average number of [graduates](#) between academic years 2021–2022 and 2023–2024. Graduates include students from community colleges, other two-year private and public institutions, as well as four-year institutions.

**Living wage** refers to the amount of income required for working families to meet basic needs at a minimally adequate level, considering family composition, ages of children, and geographic differences in costs based on the Self-Sufficiency Standard methodology.

**Entry-level** wages are the hourly earnings paid to workers who are newly entering an occupation.

**Mid-career wages** are the hourly earnings paid to workers who have accumulated several years of experience in an occupation, reflecting increased productivity, skill proficiency, and responsibility beyond entry-level roles but short of late-career or senior positions.

## Sources

O\*Net Online

Lightcast

CTE LaunchBoard [www.calpassplus.org](http://www.calpassplus.org)

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

CCCCO Data Mart

## Contacts

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