



Labor Market Analysis for Program Recommendation

Applied Physical Occupations

East Bay Subregion

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

Certificate Program

June 2026

Recommendation Based on Labor Market Data: ☒ Yes ☐ With Reservations ☐ No		
	Earning Wage Meets Living Wage	Meets Demand
Bay Region	Entry Level Hourly Wage- \$32 Mid-Career Hourly Wage- \$37 Mid-Career Hourly Wage at or above the Bay Living Wage (\$27)? ☒ Yes ☐ No	Demand: 74 Supply: 9 (12% of Demand is Met) Gap: 65 In-Demand? ☒ Yes ☐ No
East Bay Subregion	Entry Level Hourly Wage- \$33 Mid-Career Hourly Wage- \$48 Mid-Career Hourly Wage at or above the Subregion Living Wage (\$25)? ☒ Yes ☐ No	Demand: 17 Supply: 0 (0% of Demand is Met) Gap: 17 In-Demand? ☐ Yes ☒ 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

The labor market data supports 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 65 students are needed in the Bay Region and 17 students in the East Bay subregion to complete their program. Lastly, only 12% of labor market demand is being met in the Bay Region, and 0% of demand is being met in the East Bay subregion overall.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0935.00 - Electro-Mechanical Technology 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 Applied Physical Occupations in the 12 county Bay Region and in the East Bay subregion. The occupations classified as above middle-skill occupations require a bachelor's degree or higher.

- **Electro-Mechanical and Mechatronics Technologists and Technicians (17-3024):** Operate, test, maintain, or adjust unmanned, automated, servomechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment to observe or record visual information at sites such as oil rigs, crop fields, buildings, or for similar infrastructure, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.
Typical Entry-Level Educational: Associate's degree
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: 47%

Occupational Demand

Table 1. Employment Outlook for Applied Physical 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
Electro-Mechanical and Mechatronics Technologists and Technicians	880	857	-22	-3%	371	74	\$32	\$37
Total	880	857	-23	-3%	371	74	\$32	\$37

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 Applied Physical 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
Electro-Mechanical and Mechatronics Technologists and Technicians	195	192	-2	-1%	84	17	\$33	\$48
Total	195	192	-3	-2%	84	17	\$33	\$48

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
Electro-Mechanical and Mechatronics Technologists and Technicians	291	66

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

Table 4a. Top Job Titles in Job Postings for Applied Physical Occupations in the Bay Region

Title	Bay	Title	Bay
Mechatronics Technicians	68	Elementary/Middle School Teachers	5
Robotics Technicians	54	Equipment Technicians	5
Robotics Techs	21	Operators	5
Robot Operators	19	Prototype Technicians	4
Robotics Instructors	16	Maintenance Support Specialists	3
Engineering Technicians	14	Autonomous Vehicle Operators	3
Electromechanical Technicians	12	Robotics Coaches	2
Robot Technicians	11	Operating Room Technicians	2
Technicians	7	Process Technicians	2

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

Table 4b. Top Job Titles in Job Posting for Applied Physical Occupations in the East Bay Subregion

Title	East Bay	Title	East Bay
Mechatronics Technicians	25	Electromechanical Technicians	2
Robotics Technicians	8	Welding Technicians	1
Elementary/Middle School Teachers	4	SMT Technicians	1
Robotics Techs	4	Process Technicians	1
Engineering Technicians	3	Hardware Technicians	1
Technicians	3	Equipment Maintenance Managers	1
Operating Room Technicians	2	Robotics Instructors	1
Mechanical Technicians	2	Server Build Technicians	1
Robotics Specialists	2	Yard Technicians	1

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

Industry Concentration

Table 5. Industries Hiring for Applied Physical 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)
Semiconductor and Related Device Manufacturing	84	94	11%	10%
Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	84	84	0%	9%
Engineering Services	54	53	-2%	6%
Semiconductor Machinery Manufacturing	51	51	0%	6%
Research and Development in Biotechnology (except Nanobiotechnology)	39	41	6%	4%
Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	26	23	-11%	3%
Electromedical and Electrotherapeutic Apparatus Manufacturing	23	25	9%	3%
Other Measuring and Controlling Device Manufacturing	23	27	16%	3%
Analytical Laboratory Instrument Manufacturing	24	17	-29%	2%
Temporary Help Services	18	16	-11%	2%

Source: Lightcast 2026.1

Table 6. Top Employers Posting Applied Physical Occupations in the Bay Region and the East Bay Subregion

Employer	Bay	Employer	East Bay
Cushman & Wakefield	68	Cushman & Wakefield	24
Insight Global	16	Insight Global	6
Lumicity	15	Amazon	4
Brick Tech	11	Lumicity	3
Kelly Services	9	Boxbot	2
Actalent	8	Airswift	2

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

Educational Supply

There are two community colleges in the Bay Region issuing 9 awards on average annually (last 3 years ending 2024-25) on TOP 0935.00 - Electro-Mechanical Technology. In the East Bay subregion, there are no community colleges that issued awards on average annually (last 3 years) on this TOP code.

There are no other CTE educational institutions in the Bay Region issuing awards on average annually (last 3 years ending 2023-24) on CIP 15.0403- Electromechanical/Electromechanical Engineering Technology/Technician.

Table 7. Community College Awards on TOP 0935.00 - Electro-Mechanical Technology in the Bay Region

College	Subregion	Associate Degree	Low unit Certificate	Total
Mission	Silicon Valley	3	2	5
Santa Rosa	North Bay	0	4	4
Total	-	3	6	9

Source: Data Mart

Note: The annual average for awards is 2022-23 to 2024-25.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 74 annual openings for the Applied Physical occupational cluster and 9 annual (3-year average) awards for an annual undersupply of 65 students. In the East Bay subregion, there is also a gap with 17 annual openings and no annual (3-year average) awards for an annual undersupply of 17 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0935.00 - Electro-Mechanical Technology

Metric Outcomes	Bay All CTE Program	State 0935.00	Bay 0935.00	East Bay 0935.00
Students with a Job Closely Related to Their Field of Study	75%	82%	NA	NA
Median Annual Earnings for SWP Exiting Students	\$58,379	\$62,448	\$92,913	NA
Median Change in Earnings for SWP Exiting Students	31%	31%	14%	NA
Exiting Students Who Attained the Living Wage	50%	69%	69%	NA

Source: DataVista Program Median of 2020 to 2022.

Skills and Education

Table 9. Top Skills in Job Postings for Applied Physical Occupations in the Bay Region

Skill	Posting	Skill	Posting
Robotics	262	Equipment Maintenance	68
Robotic Systems	105	Personal Protective Equipment	63
Mechatronics	100	Aerial Lifts	62
Warehousing	87	Automation	59
Electronics	81	Preventive Maintenance	59
Packaging And Labeling	79	Safety Standards	59
Safety Procedures	79	Composite Materials	57
Material Handling Equipment	76	Predictive Maintenance	55
Conveyor Systems	72	Relays	49
Computerized Maintenance Management Systems	70	Workflow Management	49

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

Table 10. Education Requirements for Applied Physical Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	108	41%
Associate degree	120	45%
Bachelor's degree & higher	36	14%

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

Note: 46% 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 CCCC 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
 Statewide CTE Outcomes Survey
 Employment Development Department Unemployment Insurance Dataset
 CCCC Data Mart

Contacts

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