



Labor Market Analysis for Program Recommendation

Heavy Equipment Technician Occupations

Santa Cruz and Monterey Subregion

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

Certificate Program

August 2026

Recommendation Based on Labor Market Data: ☒ Yes ☐ With Reservations ☐ No		
	Earning Wage Meets Living Wage	Meets Demand
Bay Region	Entry Level Hourly Wage- \$31 Mid-Career Hourly Wage- \$39 Mid-Career Hourly Wage at or above the Bay Living Wage (\$27)? ☒ Yes ☐ No	Demand: 689 Supply: 0 (0% of Demand is Met) Gap: 689 In-Demand? ☒ Yes ☐ No
Santa Cruz and Monterey Subregion	Entry Level Hourly Wage- \$27 Mid-Career Hourly Wage- \$34 Mid-Career Hourly Wage at or above the Subregion Living Wage (\$27)? ☒ Yes ☐ No	Demand: 75 Supply: 0 (0% of Demand is Met) Gap: 75 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 Santa Cruz and Monterey subregion living wage at the entry and mid-career levels. An additional 689 students are needed in the Bay Region and 75 students in the Santa Cruz and Monterey subregion to complete their program. Lastly, only 0% of labor market demand is being met in the Bay Region, and 0% of demand is being met in the Santa Cruz and Monterey subregion overall.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0947.20 - Heavy Equipment Maintenance 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 Heavy Equipment Technician Occupations in the 12 county Bay Region and in the Santa Cruz and Monterey subregion. The occupations classified as middle-skill occupations 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.

- **Bus and Truck Mechanics and Diesel Engine Specialists (49-3031):** Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.
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: 38%
- **Mobile Heavy Equipment Mechanics, Except Engines (49-3042):** Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and mining.
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: 39%

Occupational Demand

Table 1. Employment Outlook for Heavy Equipment Technician 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
Bus and Truck Mechanics and Diesel Engine Specialists	3,903	4,045	142	4%	1,753	351	\$28	\$36
Mobile Heavy Equipment Mechanics, Except Engines	4,038	4,027	-10	0%	1,688	338	\$34	\$41
Total	7,941	8,072	131	2%	3,441	689	\$31	\$39

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 Heavy Equipment Technician Occupations in the Santa Cruz and Monterey 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
Bus and Truck Mechanics and Diesel Engine Specialists	450	460	9	2%	194	39	\$24	\$32
Mobile Heavy Equipment Mechanics, Except Engines	438	433	-4	-1%	180	36	\$30	\$36
Total	888	893	5	1%	374	75	\$27	\$34

Source: Lightcast 2026.1

Santa Cruz and Monterey Subregion includes: Monterey, San Benito, Santa Cruz Counties

Job Postings in the Bay Region and Santa Cruz and Monterey Subregion

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

Occupation	Bay Region	Santa Cruz and Monterey
Bus and Truck Mechanics and Diesel Engine Specialists	763	40
Mobile Heavy Equipment Mechanics, Except Engines	763	54

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Table 4a. Top Job Titles in Job Postings for Heavy Equipment Technician Occupations in the Bay Region

Title	Bay	Title	Bay
Diesel Mechanics	177	Mobile Diesel Mechanics	28
Mechanics	130	Forklift Mechanics	25
Heavy Equipment Mechanics	98	Heavy Equipment Construction Mechanics	20
Heavy Equipment Technicians	73	Lead Diesel Mechanics	19
Diesel Technicians	63	Diesel Technicians/Mechanics	18
Diesel Mechanic Technicians	48	Fleet Diesel Mechanics	16
Equipment Mechanics	48	Yard Technicians	16
Diesel Fleet Mechanic Technicians	37	Mobile Mechanics	14
Heavy Duty Diesel Mechanics	31	Technician Trainers	14

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Table 4b. Top Job Titles in Job Posting for Heavy Equipment Technician Occupations in the Santa Cruz and Monterey Subregion

Title	Santa Cruz and Monterey	Title	Santa Cruz and Monterey
Heavy Equipment Mechanics	12	Field Technicians	3

Title	Santa Cruz and Monterey	Title	Santa Cruz and Monterey
Mechanics	9	Field Service Technicians	3
Gas/Diesel Mechanics	6	Wheelchair Technicians	2
Diesel Mechanics	6	Apprentice Technicians	2
Diesel Technicians	6	Harvesters	2
Heavy Equipment Technicians	5	LAN Technicians	2
Mobile Diesel Mechanics	3	Service Mechanics	1
Heavy Duty Diesel Mechanics	3	Fleet Diesel Mechanics	1
Heavy Equipment Diesel Mechanics	3	Rescue Coordinators	1

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Industry Concentration

Table 5. Industries Hiring for Heavy Equipment Technician 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)
Local Government, Excluding Education and Hospitals	709	743	5%	9%
General Automotive Repair	498	521	5%	6%
Industrial Machinery and Equipment Merchant Wholesalers	420	411	-2%	5%
Highway, Street, and Bridge Construction	251	267	6%	3%
Solid Waste Collection	213	244	14%	3%
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	219	198	-10%	3%
All Other Specialty Trade Contractors	212	202	-5%	3%
Federal Government, Military	201	210	4%	3%
Crop Production	203	195	-4%	3%
Marine Cargo Handling	191	208	9%	2%

Source: Lightcast 2026.1

Table 6. Top Employers Posting Heavy Equipment Technician Occupations in the Bay Region and the Santa Cruz and Monterey Subregion

Employer	Bay	Employer	Santa Cruz and Monterey
Mv Transportation	74	Pd Systems	5

Employer	Bay	Employer	Santa Cruz and Monterey
GPAC	61	Love's	4
US Foods	52	Quinn Company	3
Herc Rentals	39	RDO Equipment	3
VITUS Search Group	39	State of California	3
Aerotek	30	Sonsray	3

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Educational Supply

There are no community colleges in the Bay Region issuing awards on average annually (last 3 years ending 2024-25) on TOP 0947.20 - Heavy Equipment Maintenance.

There are no other CTE educational institutions in the Bay Region issuing awards on average annually (last 3 years ending 2023-24) on CIP 47.0302- Heavy Equipment Maintenance Technology/Technician.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 689 annual openings for the Heavy Equipment Technician occupational cluster and no annual (3-year average) awards for an annual undersupply of 689 students. In the Santa Cruz and Monterey subregion, there is also a gap with 75 annual openings and no annual (3-year average) awards for an annual undersupply of 75 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0947.20 - Heavy Equipment Maintenance

Metric Outcomes	Bay All CTE Program	State 0947.20	Bay 0947.20	Santa Cruz and Monterey 0947.20
Students with a Job Closely Related to Their Field of Study	75%	NA	NA	NA
Median Annual Earnings for SWP Exiting Students	\$58,379	\$68,257	\$65,602	NA
Median Change in Earnings for SWP Exiting Students	31%	102%	42%	NA
Exiting Students Who Attained the Living Wage	50%	72%	NA	NA

Source: DataVista Program Median of 2020 to 2022.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Heavy Equipment Technician Occupations in the Bay Region

Skill	Posting	Skill	Posting
Diesel Engines	610	Good Driving Record	205
Heavy Equipment	428	HVAC	183
Hydraulics	413	Machinery	178

Skill	Posting	Skill	Posting
Mechanics	363	Equipment Repair	170
Electrical Systems	347	Power Tool Operation	160
Preventive Maintenance	347	Differentials	138
Brakes	308	Diagnostic Tools	128
Hand Tools	288	Construction	127
Suspension (Vehicle)	236	Mechanical Aptitude	127
Lifting Ability	218	Welding	126

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Table 10. Certifications in Job Postings for Heavy Equipment Technician Occupations in the Bay Region

Certification	Posting	Certification	Posting
Automotive Service Excellence (ASE) Certification	201	EPA Universal Certification	24
Commercial Driver's License (CDL)	149	HVAC Certification	21
CDL Class A License	95	ASE Medium-Heavy Truck Certification	18
DOT Certification	40	Forklift Certification	7
CDL Class C License	39	Cardiopulmonary Resuscitation (CPR) Certification	4
CDL Class B License	32	First Aid Certification	4
EPA 608 Technician Certification	31	Air Brake Certification	3

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Table 11. Education Requirements for Heavy Equipment Technician Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	606	87%
Associate degree	65	9%
Bachelor's degree & higher	22	3%

Source: Lightcast 2026.1; "Job Posting Analytics." Aug. 2025 - Jul. 2026

Note: 57% 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

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

CCCCO Data Mart

Contacts

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