



Labor Market Analysis for Program Recommendation

Automotive Technology Occupations (TOP Code 0948)

Silicon Valley Sub-Region

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

July 2025

Recommendation

Based on all available data, there appears to be an “undersupply” of Automotive Technology workers compared to the demand for this cluster of occupations in the Bay Region and in the Silicon Valley Sub-Region (Santa Clara County). There is a projected annual gap of about 1,812 students in the Bay Region and 277 students in the Silicon Valley Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0948.00 - Automotive 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 sub-region in the state and region.

This report includes occupations classified as middle-skill 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.

This report profiles Automotive Technology Occupations in the 12 county Bay Region and in the Silicon Valley Sub-Region.

- **First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011):** Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.
 - Typical Entry-Level Educational: High school diploma or equivalent
 - Skill Level: Middle-Skill
 - Work Experience Required: Less than 5 years
 - Percentage of individuals 25+ with an associate degree, certificate, or some postsecondary coursework as their highest level of education attainment: 42%
- **Electrical and Electronics Installers and Repairers, Transportation Equipment (49-2093):** Install, adjust, or maintain mobile electronics communication equipment, including sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment.
 - Typical Entry-Level Educational: Postsecondary nondegree award
 - 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: 49%

- **Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096):** Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.
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: 49%
- **Automotive Service Technicians and Mechanics (49-3023):** Diagnose, adjust, repair, or overhaul automotive vehicles.
Typical Entry-Level Educational: Postsecondary nondegree award
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: 35%

Occupational Demand

Table 1. Employment Outlook for Automotive Technology Occupations in the Bay Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
First-Line Supervisors of Mechanics, Installers, and Repairers	11,541	11,974	433	4%	5,255	1,051	\$35	\$47
Electrical and Electronics Installers and Repairers, Transportation Equipment	253	252	-1	-0%	111	22	\$43	\$52
Electronic Equipment Installers and Repairers, Motor Vehicles	174	137	-37	-21%	65	13	\$19	\$23
Automotive Service Technicians and Mechanics	14,672	15,019	347	2%	6,838	1,368	\$21	\$30
Total	26,640	27,382	742	3%	12,269	2,454	\$27	\$38

Source: Lightcast 2025.1

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 Automotive Technology Occupations in the Silicon Valley Sub-Region

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
First-Line Supervisors of Mechanics, Installers, and Repairers	2,564	2,644	79	3%	1,146	229	\$36	\$49
Electrical and Electronics Installers and Repairers, Transportation Equipment	95	91	-4	-4%	40	8	\$34	\$71
Electronic Equipment Installers and Repairers, Motor Vehicles	94	68	-25	-27%	34	7	\$18	\$21
Automotive Service Technicians and Mechanics	2,731	2,698	-33	-1%	1,182	236	\$23	\$34

Occupation	2023 Jobs	2028 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Wage	Median Hourly Wage
Total	5,484	5,501	17	0%	2,402	480	\$29	\$41

Source: Lightcast 2025.1

Silicon Valley Sub-Region includes: Santa Clara County

Job Postings in the Bay Region and Silicon Valley Sub-Region

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

Occupation	Bay Region	Silicon Valley
Automotive Service Technicians and Mechanics	4,455	1,026
First-Line Supervisors of Mechanics, Installers, and Repairers	3,675	845
Electrical and Electronics Installers and Repairers, Transportation Equipment	303	94
Electronic Equipment Installers and Repairers, Motor Vehicles	63	10

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Table 4a. Top Job Titles in Job Postings for Automotive Technology Occupations in the Bay Region

Title	Bay	Title	Bay
Maintenance Supervisors	645	Automotive Mechanics	120
Automotive Technicians	598	Maintenance Directors	118
Maintenance Managers	283	Mechanics	116
Service Managers	250	Tire and Lube Technicians	105
Automotive Technicians/Mechanics	197	Lead Maintenance Technicians	104
Electronics Technicians	194	Vehicle Mechanics	101
Automotive Service Advisors	181	Technicians	97
Lube Technicians	174	Automotive Maintenance Technicians	95
Service Technicians	164	Automotive Repair Technicians	81

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Table 4b. Top Job Titles in Job Posting for Automotive Technology Occupations in the Silicon Valley Sub-Region

Title	Silicon Valley	Title	Silicon Valley
Automotive Technicians	143	Occupancy Planners	34
Maintenance Supervisors	113	Service Technicians	32
Electronics Technicians	63	Maintenance Directors	30
Maintenance Managers	60	Automotive Diagnostic Technicians	26

Title	Silicon Valley	Title	Silicon Valley
Automotive Service Advisors	52	Technicians	25
Automotive Technicians/Mechanics	47	Smog Technicians	24
Service Managers	38	Automotive Maintenance Technicians	23
Lube Technicians	36	Lead Maintenance Technicians	23
Automotive Mechanics	34	Facilities Maintenance Managers	21

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Industry Concentration

Table 5. Industries Hiring for Automotive Technology Occupations in the Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2023)	Jobs in Industry (2028)	% Change (2023-28)	% Occupation Group in Industry (2023)
General Automotive Repair	5,792	5,999	4%	22%
New Car Dealers	4,334	4,593	6%	16%
Local Government, Excluding Education and Hospitals	1,320	1,411	7%	5%
Automotive Body, Paint, and Interior Repair and Maintenance	1,026	1,011	-1%	4%
Plumbing, Heating, and Air-Conditioning Contractors	715	721	1%	3%
Specialized Automotive Repair	654	632	-3%	2%
Automotive Parts and Accessories Retailers	511	485	-5%	2%
Car Washes	441	404	-8%	2%
Natural Gas Distribution	398	424	7%	2%
Federal Government, Military	360	364	1%	1%

Source: Lightcast 2025.2

Table 6. Top Employers Posting Automotive Technology Occupations in the Bay Region and the Silicon Valley Sub-Region

Employer	Bay	Employer	Silicon Valley
Bridgestone Corporation	260	Bridgestone Corporation	56
Walmart	158	Stress-Free Auto Care	47
CarMax	115	Stanford University	33
Tesla	110	VITUS Search Group	28

Employer	Bay	Employer	Silicon Valley
Toyota Motor	96	Tesla	27
Chevrolet	89	Chevrolet	26

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Educational Supply

There are fourteen community colleges in the Bay Region issuing 624 awards on average annually (last 3 years ending 2023-24) on TOP 0948.00 - Automotive Technology. In the Silicon Valley Sub-Region, there are two community colleges that issued 185 awards on average annually (last 3 years) on this TOP code.

There is one other CTE educational institutions in the Bay Region issuing 18 awards on average annually (last 3 years ending 2022-23) on CIP 47.0604- Automobile/Automotive Mechanics Technology/Technician. There is one other CTE educational institution in the Silicon Valley Sub-Region issuing 18 awards on average annually (last 3 years) on this CIP code.

Table 7a. Community College Awards on TOP 0948.00 - Automotive Technology in the Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	Total
Alameda	East Bay	9	15	0	0	24
Chabot	East Bay	11	1	52	0	64
Contra Costa	East Bay	4	6	8	0	18
Deanza	Silicon Valley	34	21	89	11	155
Evergreen Valley	Silicon Valley	7	7	16	0	30
Hartnell	SC-Monterey	14	0	0	0	14
Las Positas	East Bay	5	0	12	0	17
Los Medanos	East Bay	11	0	17	0	28
Marin	North Bay	1	7	8	0	16
Monterey	SC-Monterey	4	8	8	0	20
San Francisco	Mid-Peninsula	5	0	21	0	26
Santa Rosa	North Bay	5	4	151	0	160
Skyline	Mid-Peninsula	9	0	7	0	16
Solano	North Bay	4	0	32	0	36
Total	-	123	69	421	11	624

Source: Data Mart

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

Table 7b. Other CTE Institutions Awards on CIP 47.0604- Automobile/Automotive Mechanics Technology/Technician. in the Bay Region

College	Subregion	Certificates of less than 1 year	Total
CET-San Jose	Silicon Valley	18	18
Total	-	18	18

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 2,454 annual openings for the Automotive Technology occupational cluster and 642 annual (3-year average) awards for an annual

undersupply of 1,812 students. In the Silicon Valley Sub-Region, there is also a gap with 480 annual openings and 203 annual (3-year average) awards for an annual undersupply of 277 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0948.00 - Automotive Technology

Metric Outcomes	Bay All CTE Program	State 0948.00	Bay 0948.00	Silicon Valley 0948.00
Students with a Job Closely Related to Their Field of Study	74%	71%	69%	76%
Median Annual Earnings for SWP Exiting Students	\$53,090	\$33,007	\$43,465	\$47,386
Median Change in Earnings for SWP Exiting Students	24%	44%	37%	49%
Exiting Students Who Attained the Living Wage	54%	42%	41%	37%

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Skills, Certifications and Education

Table 9. Top Skills in Job Postings for Automotive Technology Occupations in the Bay Region

Skill	Posting	Skill	Posting
Automotive Services	1,469	Mechanics	644
HVAC	1,455	Carpentry	599
Plumbing	1,059	Painting	592
Preventive Maintenance	945	Occupational Safety and Health Administration (OSHA)	556
Suspension (Vehicle)	833	Hand Tools	547
Changing Oil	831	Machinery	497
Brakes	762	Safety Standards	485
Electrical Systems	710	Vehicle Maintenance	481
Transmission	703	Facility Repair And Maintenance	478
Construction	657	Power Tool Operation	452

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Table 10. Certifications in Job Postings for Automotive Technology Occupations in the Bay Region

Certification	Posting	Certification	Posting
Automotive Service Excellence (ASE) Certification	951	EPA Universal Certification	41

Certification	Posting	Certification	Posting
CDL Class C License	116	Airframe & Powerplant (A&P) Certificate	38
Commercial Driver's License (CDL)	109	Cardiopulmonary Resuscitation (CPR) Certification	30
CDL Class B License	88	Forklift Certification	30
CDL Class A License	67	EPA Type II Certification	27
HVAC Certification	57	First Aid Certification	27
EPA 608 Technician Certification	56	EPA Section 608 Technician Certification	26

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Table 11. Education Requirements for Automotive Technology Occupations in the Bay Region

Education Level	Job Postings	% of Total
High school or GED	2,501	58%
Associate degree	554	13%
Bachelor's degree & higher	1,243	29%

Source: Lightcast 2025.2; "Job Posting Analytics." Jul. 2024 - Jun. 2025

Note: 58% 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 CCCCCO Data Mart and CTE Launchboard.

Middle-skill occupations as those typically requiring more than a high school diploma, but less than a bachelor's degree except in cases where a bachelor's degree is required, but more than one-third of the workforce has less than a bachelor's degree.

Sources

O*Net Online

Lightcast

CTE LaunchBoard www.calpassplus.org

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

CCCCCO Data Mart

Contacts

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