



Labor Market Analysis for Program Recommendation

AAG Automotive Advanced Occupations

Las Positas College

Prepared by Bay Regions Center of Excellence for Labor Market Research

August 2024

Recommendation

Based on all available data, there appears to be an “undersupply” of AAG automotive advanced workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda, Contra Costa counties). There is a projected annual gap of about 1,012 students in the Bay region and 425 students in the East Bay 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 colleges in the state and region, as well as to outcomes across all CTE programs at Las Positas College and in the region.

This report profiles AAG automotive advanced occupations in the 12 county Bay region and in the East Bay sub-region for regional program recommendation at Las Positas College.

- Automotive Service Technicians and Mechanics (49-3023):** Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes “Automotive Body and Related Repairers” (49-3021), “Bus and Truck Mechanics and Diesel Engine Specialists” (49-3031), and “Electronic Equipment Installers and Repairers, Motor Vehicles” (49-2096).
 Entry-Level Educational Requirement: Postsecondary nondegree award
 Training Requirement: Short-term on-the-job training
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 35%

Occupational Demand

Table 1. Employment Outlook for AAG Automotive Advanced Occupations in Bay Region

Occupation	2022 Jobs	2027 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Automotive Service Technicians and Mechanics	15,876	16,198	322	2%	7,378	1,476	\$21	\$29
Total	15,876	16,198	322	2%	7,378	1,476	\$21	\$29

Source: Lightcast 2024.1

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 AAG Automotive Advanced Occupations in East Bay Sub-region

Occupation	2022 Jobs	2027 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Automotive Service Technicians and Mechanics	5,651	5,868	217	4%	2,714	543	\$21	\$28
Total	5,651	5,868	217	4%	2,714	543	\$21	\$28

Source: Lightcast 2024.1

East Bay Sub-Region includes: Alameda, Contra Costa Counties

Job Postings in Bay Region and East Bay Sub-Region

Table 3. Number of Job Postings by Occupation for latest 12 months (Aug. 2023 - Jul. 2024)

Occupation	Bay Region	East Bay
Automotive Service Technicians and Mechanics	4,343	1,786

Source: Lightcast

Table 4a. Top Job Titles for AAG Automotive Advanced Occupations for latest 12 months (Aug. 2023 - Jul. 2024) Bay Region

Title	Bay	Title	Bay
Automotive Technicians	755	Automotive Service Technicians	83
Automotive Technicians/Mechanics	240	Service Technicians	82
Automotive Service Advisors	175	Automotive Diagnostic Technicians	73
Automotive Mechanics	167	Auto Body Shop Technicians	59
Mechanics	136	Vehicle Technicians	54
Lube Technicians	127	Automotive Service Writers	50
Smog Technicians	87	Automotive Service Advisors/Writers	49
Automotive Repair Technicians	85	Automotive Maintenance Technicians	45
Tire and Lube Technicians	85	Service Champions	42

Source: Lightcast

Table 4b. Top Job Titles for AAG Automotive Advanced Occupations for latest 12 months (Aug. 2023 - Jul. 2024) East Bay Sub-Region

Title	East Bay	Title	East Bay
Automotive Technicians	293	Tire and Lube Technicians	41
Automotive Technicians/Mechanics	126	Automotive Diagnostic Technicians	38
Automotive Service Advisors	76	Service Champions	32
Automotive Mechanics	56	Local CDL-A Truck Drivers	25

Title	East Bay	Title	East Bay
Automotive Service Technicians	50	Smog Technicians	25
Mechanics	47	Automotive Service Advisors/Writers	23
Lube Technicians	45	CDL-A Truck Drivers	23
Auto Body Shop Technicians	44	Vehicle Mechanics	22
Regional CDL-A Truck Drivers	41	Automotive Service Writers	20

Source: Lightcast

Industry Concentration

Table 5. Industries hiring AAG Automotive Advanced Workers in Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2022)	Jobs in Industry (2027)	% Change (2022-27)	% Occupation Group in Industry (2023)
General Automotive Repair	5,272	5,301	1%	35%
New Car Dealers	4,084	4,166	2%	27%
Automotive Body, Paint, and Interior Repair and Maintenance	730	633	-13%	5%
Specialized Automotive Repair	572	549	-4%	4%
Local Government, Excluding Education and Hospitals	395	404	2%	3%
Automotive Parts and Accessories Retailers	418	362	-13%	3%
Car Washes	424	354	-16%	3%
All Other Automotive Repair and Maintenance	310	308	-1%	2%
Used Car Dealers	284	264	-7%	2%
Tire Dealers	254	230	-9%	2%

Source: Lightcast 2024.1

Table 6. Top Employers Posting AAG Automotive Advanced Occupations in Bay Region and East Bay Sub-Region (Aug. 2023 - Jul. 2024)

Employer	Bay	Employer	East Bay
Crash Champions	230	Crash Champions	183
Bridgestone Corporation	219	Amazon	89
CarMax	163	Bridgestone Corporation	83
Amazon	92	CarMax	42
Toyota Motors	83	Toyota Motors	42

Employer	Bay	Employer	East Bay
Walmart	79	Monro Auto Service and Tire Centers	36

Source: Lightcast

Educational Supply

There are twelve community colleges in the Bay Region issuing 451 awards on average annually (last 3 years ending 2021-23) on TOP 0948.00 - Automotive Technology. In the East Bay Sub-Region, there are five community colleges that issued 118 awards on average annually (last 3 years) on this TOP code.

There is one other CTE educational institution in the Bay Region issuing 13 awards on average annually (last 3 years ending 2020-22) on CIP 47.0604- Automobile/Automotive Mechanics Technology/Technician. There are no other CTE educational institutions in the East Bay Sub-Region issuing awards on average annually (last 3 years) on this CIP code.

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

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Noncredit award	other	Total
Alameda	East Bay	8	12	0	0	0	20
Chabot	East Bay	12	2	29	0	0	43
Contra Costa	East Bay	3	5	6	0	0	14
Deanza	Silicon Valley	29	20	84	10	0	143
Evergreen Valley	Silicon Valley	7	8	18	0	0	33
Las Positas	East Bay	5	0	10	0	0	15
Los Medanos	East Bay	10	0	16	0	0	26
Marin	North Bay	0	6	5	0	0	11
San Francisco	Mid-Peninsula	5	0	3	0	0	8
Santa Rosa	North Bay	3	2	52	0	44	101
Skyline	Mid-Peninsula	9	0	1	0	0	10
Solano	North Bay	3	0	24	0	0	27
Total	-	94	55	248	10	44	451

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

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

College	Subregion	Certificates of less than 1 year	Total
CET-San Jose	Silicon Valley	13	13
Total	-	13	13

Source: Data Mart

Note: The annual average for awards is 2019-20 to 2021-22.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 1,476 annual openings for the AAG automotive advanced occupational cluster and 464 annual (3-year average) awards for an annual undersupply of 1,012 students. In the East Bay Sub-Region, there is also a gap with 543 annual openings and 118 annual (3-year average) awards for an annual undersupply of 425 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	Las Positas College All CTE Program	State 0948.00	Bay 0948.00	East Bay 0948.00	Las Positas College 0948.00
Students with a Job Closely Related to Their Field of Study	74%	69%	71%	69%	68%	59%
Median Annual Earnings for SWP Exiting Students	\$53,090	\$49,986	\$33,007	\$43,465	\$40,672	\$40,354
Median Change in Earnings for SWP Exiting Students	24%	27%	44%	37%	51%	55%
Exiting Students Who Attained the Living Wage	54%	56%	42%	41%	42%	46%

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

Skills, Certifications and Education

Table 9. Job Postings Top Skills for AAG Automotive Advanced Occupations in Bay Region (Aug. 2023 - Jul. 2024)

Skill	Posting	Skill	Posting
Automotive Services	1,338	Mechanics	326
Suspension (Vehicle)	843	Electrical Systems	309
Brakes	763	Engine Repair	306
Transmission	699	Batteries	265
Changing Oil	627	Vehicle Inspection	255
HVAC	513	Automotive Technologies	241
Hand Tools	460	Engine Tuning	220
Power Tool Operation	358	Machinery	218
Tires	351	Vehicle Maintenance	197
Oil And Gas	345	Diagnostic Tools	192

Source: Lightcast

Table 10. Job Postings Certifications for AAG Automotive Advanced Occupations in Bay Region (Aug. 2023 - Jul. 2024)

Certification	Posting	Certification	Posting
Automotive Service Excellence (ASE) Certification	848	Forklift Certification	8
HVAC Certification	15	Tanker And Hazmat Combo X Endorsement	6

Certification	Posting	Certification	Posting
Tanker Endorsement	13	Hazmat Endorsement	5
ASE Advanced Engine Performance Certification	9	Mobile Electronics Certified Professional	5
Passenger Endorsement	8	DOT Certification	4

Source: Lightcast

Table 11. Education Requirements for AAG Automotive Advanced Occupations in Bay Region

Education Level	Job Postings	% of Total
High school or GED	1,136	66%
other	194	11%
Bachelor's degree & higher	402	23%

Source: Lightcast

Note: 65% 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.

Sources

O*Net Online

Lightcast

CTE LaunchBoard www.calpassplus.org

Launchboard

Statewide CTE Outcomes Survey

Employment Development Department Unemployment Insurance Dataset

Living Insight Center for Community Economic Development

Chancellor's Office MIS system

Contacts

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