



Labor Market Analysis for Program Recommendation

Automotive Occupations

Chabot College

Prepared by the San Francisco Bay Center of Excellence for Labor Market Research

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Recommendation

Based on all available data, there appears to be an “undersupply” of Automotive 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 1,953 students in the Bay region and 655 students in the East Bay Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 0947.00 - Diesel 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 Chabot College and in the region.

This report profiles Automotive Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Chabot 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: 36%
- **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.
 Entry-Level Educational Requirement: High school diploma or equivalent
 Training Requirement: Long-term on-the-job training
 Percentage of Community College Award Holders or Some Postsecondary Coursework: 37%

Occupational Demand

Table 1. Employment Outlook for Automotive Occupations in Bay Region

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Automotive Service Technicians and Mechanics	14,399	14,853	454	3%	7,810	1,562	\$21	\$28

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Bus and Truck Mechanics and Diesel Engine Specialists	3,588	3,899	311	9%	2,030	406	\$26	\$33
Total	17,987	18,752	765	4%	9,840	1,968		

Source: Lightcast 2022.3

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 Occupations in East Bay Sub-region

Occupation	2021 Jobs	2026 Jobs	5-yr Change	5-yr % Change	5-yr Total Openings	Annual Openings	25% Hourly Earning	Median Hourly Wage
Automotive Service Technicians and Mechanics	5,004	5,197	193	4%	2,711	542	\$22	\$28
Bus and Truck Mechanics and Diesel Engine Specialists	1,181	1,221	40	3%	593	119	\$27	\$33
Total	6,185	6,418	233	4%	3,304	661		

Source: Lightcast 2022.3

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 (July 2022 - June 2023)

Occupation	Bay Region	East Bay
Automotive Service Technicians and Mechanics	7,497	2,798
Bus and Truck Mechanics and Diesel Engine Specialists	1,267	607

Source: Lightcast

Table 4a. Top Job Titles for Automotive Occupations for latest 12 months (July 2022 - June 2023)

Bay Region

Title	Bay	Title	Bay
Automotive Technicians	1,022	General Service Technicians	120
Diesel Mechanics	369	Diesel Technicians/Mechanics	117
Service Technicians	316	Mechanics	113
Lube Technicians	236	Vehicle Technicians	112
Automotive Mechanics	209	Diesel Mechanic Journeymen	94
Automotive Technicians/Mechanics	200	Shop Technicians	85
Automotive Service Advisors	197	Automotive Service Advisors/Writers	84
Automotive Tire and Lube Technicians	175	Technicians	84
Diesel Mechanic Technicians	162	Vehicle Operators	84

Source: Lightcast

**Table 4b. Top Job Titles for Automotive Occupations for latest 12 months (July 2022 - June 2023)
East Bay Sub-Region**

Title	East Bay	Title	East Bay
Automotive Technicians	396	Diesel Mechanic Technicians	60
Diesel Mechanics	165	Shop Technicians	55
Service Technicians	105	General Service Technicians	54
Automotive Technicians/Mechanics	103	Diesel Technicians/Mechanics	49
Automotive Tire and Lube Technicians	102	Mechanics	47
Lube Technicians	75	Detailers	40
Automotive Mechanics	71	Fleet Mechanics	36
Diesel Mechanic Journeymen	69	Mobile Technicians	36
Automotive Service Advisors	63	Vehicle Service Technicians	36

Source: Lightcast

Industry Concentration

Table 5. Industries hiring Automotive Workers in Bay Region

Industry - 6 Digit NAICS (No. American Industry Classification) Codes	Jobs in Industry (2021)	Jobs in Industry (2026)	% Change (2021-26)	% Occupation Group in Industry (2022)
General Automotive Repair	4,830	5,130	6%	27%
New Car Dealers	4,498	4,822	7%	25%
Local Government, Excluding Education and Hospitals	923	937	2%	5%
Automotive Parts and Accessories Stores	486	427	-12%	2%
Automotive Body, Paint, and Interior Repair and Maintenance	403	407	1%	2%
Car Washes	379	399	5%	2%
Other Automotive Mechanical and Electrical Repair and Maintenance	364	338	-7%	2%
Used Car Dealers	282	323	14%	2%
Federal Government, Military	282	287	2%	2%
Tire Dealers	296	264	-11%	1%

Source: Lightcast 2022.3

Table 6. Top Employers Posting Automotive Occupations in Bay Region and East Bay Sub-Region (July 2022 - June 2023)

Employer	Bay	Employer	East Bay
CarMax	238	CarMax	108
Penske Automotive Group	181	Lucid Motors	102
Bridgestone Corporation	146	Ac Transit	66
AutoNation	118	Monro Auto Service and Tire Centers	63
Monro Auto Service and Tire Centers	112	AutoNation	61
Lucid Motors	105	Bridgestone Corporation	61

Source: Lightcast

Educational Supply

There are two (2) community colleges in the Bay Region issuing 15 awards on average annually (last 3 years ending 2019-20) on TOP 0947.00 - Diesel Technology. In the East Bay Sub-Region, there is a one (1) community college that issued six (6) awards on average annually (last 3 years) on this TOP code.

Table 7. Community College Awards on TOP 0947.00 - Diesel Technology in Bay Region

College	Subregion	Associate Degree	High unit Certificate	Low unit Certificate	Total
Alameda	East Bay	1	5	0	6
Santa Rosa	North Bay	0	1	8	9
Total		1	6	8	15

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 large labor market gap in the Bay region with 1,968 annual openings for the Automotive occupational cluster and 15 annual (3-year average) awards for an annual undersupply of 1,953 students. In the East Bay Sub-Region, there is also a gap with 661 annual openings and 6 annual (3-year average) awards for an annual undersupply of 655 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0947.00 - Diesel Technology

Metric Outcomes	Bay All CTE Programs	Chabot All CTE Programs	State 0947.00	Bay 0947.00	East Bay 0947.00	Chabot 0947.00
Students with a Job Closely Related to Their Field of Study	74%	75%	81%	80%	N/A	N/A
Median Annual Earnings for SWP Exiting Students	\$53,090	\$48,800	\$40,990	\$45,646	\$72,056	N/A
Median Change in Earnings for SWP Exiting Students	24%	34%	49%	57%	19%	N/A

Metric Outcomes	Bay All CTE Programs	Chabot All CTE Programs	State 0947.00	Bay 0947.00	East Bay 0947.00	Chabot 0947.00
Exiting Students Who Attained the Living Wage	54%	56%	63%	59%	75%	N/A

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

Skills, Certifications and Education

Table 9. Top Skills for Automotive Occupations in Bay Region (July 2022 - June 2023)

Skill	Posting	Skill	Posting
Automotive Services	1,973	Vehicle Inspection	777
Brakes	1,519	Tires	684
Suspension (Vehicle)	1,483	Electrical Systems	654
Diesel Engines	1,058	Preventive Maintenance	553
Changing Oil	1,030	Batteries	481
Vehicle Maintenance	953	Power Tool Operation	473
Mechanics	930	Tire Repairs	421
HVAC	904	Machinery	419
Hand Tools	821	Engine Repair	402
Transmission	788	Oil And Gas	387

Source: Lightcast

Table 10. Certifications for Automotive Occupations in Bay Region (July 2022 - June 2023)

Certification	Posting	Certification	Posting
Valid Driver's License	4,134	Forklift Certification	48
Automotive Service Excellence (ASE) Certification	1,667	DOT Certification	27
Commercial Driver's License (CDL)	415	Transportation Worker Identification Credential (TWIC) Card	23
Passenger Endorsement	135	ASE Advanced Engine Performance Certification	18
CDL Class A License	81	10-Hour OSHA General Industry Card	12
CDL Class B License	78	Aerial Lift Certification	12
CDL Class C License	54		

Source: Lightcast

Table 11. Education Requirements for Automotive Occupations in Bay Region

Education Level	Job Postings	% of Total
High school or GED	3,340	75%
Associate degree	338	8%
Bachelor's degree & higher	789	17%

Source: Lightcast

Note: 55% 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.

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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