

**Labor Market Analysis for Program Recommendation**

**Automotive Technology Management Occupations**

**De Anza College**

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

## April 2024

## Recommendation

Based on all available data, there appears to be an “undersupply” of Automotive Technology Management workers compared to the demand for this cluster of occupations in the Bay region and in the Silicon Valley sub-region (Santa Clara counties). There is a projected annual gap of about 743 students in the Bay region and 125 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 colleges in the state and region, as well as to outcomes across all CTE programs at De Anza College and in the region.

This report profiles Automotive Technology Management Occupations in the 12 county Bay region and in the Silicon Valley sub-region for a regional program recommendation for a Bachelor’s degree program at De Anza College.

* **First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011):** Directly supervise and coordinate the activities of mechanics, installers, and repairers. Excludes team or work leaders.  
    Entry-Level Educational Requirement: High school diploma or equivalent  
    Training Requirement: None  
    Percentage of Community College Award Holders or Some Postsecondary Coursework: 42%

## Occupational Demand

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

| **Occupation** | **2022 Jobs** | **2027 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 | 11,689 | 12,435 | 746 | 6% | 5,674 | 1,135 | $32 | $44 |
| **Total** | **11,689** | **12,435** | **746** | **6%** | **5,674** | **1,135** | **$32** | **$44** |
| 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 Automotive Technology Management Occupations in Silicon Valley Sub-region**

| **Occupation** | **2022 Jobs** | **2027 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 | 2,571 | 2,746 | 176 | 7% | 1,263 | 253 | $36 | $48 |
| **Total** | **2,571** | **2,746** | **176** | **7%** | **1,263** | **253** | **$36** | **$48** |
| Source: Lightcast 2024.1 | | | | | | | | |
| **Silicon Valley Sub-Region includes:** Santa Clara County | | | | | | | | |

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

**Table 3. Number of Job Postings by Occupation for latest 12 months (Apr. 2023 - Mar. 2024)**

| **Occupation** | **Bay Region** | **Silicon Valley** |
| --- | --- | --- |
| First-Line Supervisors of Mechanics, Installers, and Repairers | 3,889 | 783 |
| Source: Lightcast | | |

**Table 4a. Top Job Titles for Automotive Technology Management Occupations for latest 12 months (Apr. 2023 - Mar. 2024) Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Maintenance Supervisors | 721 | Building Engineers | 60 |
| Maintenance Managers | 326 | Shop Managers | 58 |
| Service Managers | 183 | Assistant Service Managers | 51 |
| Service Supervisors | 103 | Shop Foremen | 48 |
| Maintenance Directors | 97 | Facilities Supervisors | 41 |
| Automotive Service Managers | 89 | Installation Managers | 37 |
| Parts Managers | 67 | Fleet Maintenance Supervisors | 33 |
| Sales and Service Managers | 61 | Field Service Managers | 29 |
| Staff Services Managers | 61 | Assistant Maintenance Managers | 28 |
| Source: Lightcast | | | |

**Table 4b. Top Job Titles for Automotive Technology Management Occupations for latest 12 months (Apr. 2023 - Mar. 2024) Silicon Valley Sub-Region**

| **Title** | **Silicon Valley** | **Title** | **Silicon Valley** |
| --- | --- | --- | --- |
| Maintenance Supervisors | 134 | Shop Foremen | 14 |
| Maintenance Managers | 48 | Facilities Supervisors | 12 |
| Service Managers | 45 | Service Desk Managers | 11 |
| Building Engineers | 40 | Installation Managers | 10 |
| Automotive Service Managers | 29 | Assistant Maintenance Managers | 8 |
| Service Supervisors | 25 | Field Service Managers | 8 |
| Sales and Service Managers | 17 | Parts Managers | 8 |
| Assistant Service Managers | 16 | Service Engineers | 8 |
| Maintenance Directors | 15 | Shop Managers | 8 |
| Source: Lightcast | | | |

## Industry Concentration

**Table 5. Industries hiring Automotive Technology Management 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)** |
| --- | --- | --- | --- | --- |
| Local Government, Excluding Education and Hospitals | 808 | 866 | 7% | 7% |
| Plumbing, Heating, and Air-Conditioning Contractors | 659 | 693 | 5% | 6% |
| General Automotive Repair | 554 | 577 | 4% | 5% |
| New Car Dealers | 461 | 487 | 6% | 4% |
| Natural Gas Distribution | 373 | 382 | 2% | 3% |
| Residential Property Managers | 359 | 403 | 12% | 3% |
| Automotive Body, Paint, and Interior Repair and Maintenance | 327 | 357 | 9% | 3% |
| Offices of Real Estate Agents and Brokers | 318 | 336 | 5% | 3% |
| Electrical Contractors and Other Wiring Installation Contractors | 300 | 324 | 8% | 3% |
| Hotels (except Casino Hotels) and Motels | 250 | 297 | 19% | 2% |
| Source: Lightcast 2024.1 | | | | |

**Table 6. Top Employers Posting Automotive Technology Management Occupations in Bay Region and Silicon Valley Sub-Region (Apr. 2023 - Mar. 2024)**

| **Employer** | **Bay** | **Employer** | **Silicon Valley** |
| --- | --- | --- | --- |
| Greystar | 99 | CBRE | 26 |
| Tesla | 73 | Kellogg's | 26 |
| The Judge Group | 59 | Greystar | 22 |
| Fpi Management | 47 | Tesla | 20 |
| 24 Hour Fitness | 38 | 24 Hour Fitness | 11 |
| State of California | 36 | Stanford University | 11 |
| Source: Lightcast | | | |

## Educational Supply

There are 14 community colleges in the Bay Region issuing 382 awards on average annually (last 3 years ending 2021-22) on TOP 0948.00 - Automotive Technology. In the Silicon Valley Sub-Region, there are two (2) community colleges that issued 118 awards on average annually (last 3 years) on this TOP code.

There is one (1) other CTE educational institution in the Bay Region and Silicon Valley Sub-Region issuing 10 awards on average annually (last 3 years ending 2021-22) on CIP 47.0604- Automobile/Automotive Mechanics Technology/Technician.

**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** | **Total** |
| --- | --- | --- | --- | --- | --- | --- |
| Alameda | East Bay | 7 | 11 | 0 | 0 | 18 |
| Chabot | East Bay | 13 | 3 | 27 | 0 | 43 |
| Contra Costa | East Bay | 1 | 3 | 5 | 0 | 9 |
| De Anza | Silicon Valley | 18 | 11 | 51 | 3 | 83 |
| Evergreen Valley | Silicon Valley | 7 | 13 | 15 | 0 | 35 |
| Hartnell | SC-Monterey | 13 | 0 | 0 | 0 | 13 |
| Las Positas | East Bay | 5 | 0 | 7 | 0 | 12 |
| Los Medanos | East Bay | 7 | 0 | 13 | 0 | 20 |
| Marin | North Bay | 1 | 4 | 4 | 0 | 9 |
| Monterey | SC-Monterey | 4 | 5 | 3 | 0 | 12 |
| San Francisco | Mid-Peninsula | 7 | 0 | 17 | 0 | 24 |
| Santa Rosa | North Bay | 2 | 1 | 71 | 0 | 74 |
| Skyline | Mid-Peninsula | 7 | 0 | 1 | 0 | 8 |
| Solano | North Bay | 2 | 0 | 20 | 0 | 22 |
| **Total** |  | **94** | **51** | **234** | **3** | **382** |
| 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 < 1 year** | **Total** |
| --- | --- | --- | --- |
| CET-San Jose | Silicon Valley | 10 | 10 |
| **Total** |  | **10** | **10** |
| 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 1,135 annual openings for the Automotive Technology Management occupational cluster and 392 annual (3-year average) awards for an annual undersupply of 743 students. In the Silicon Valley Sub-Region, there is also a gap with 253 annual openings and 128 annual (3-year average) awards for an annual undersupply of 125 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 Programs** | **De Anza All CTE Programs** | **State 0948.00** | **Bay 0948.00** | **Silicon Valley 0948.00** | **De Anza 0948.00** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 74% | 76% | 71% | 69% | 76% | 79% |
| Median Annual Earnings for SWP Exiting Students | $53,090 | $50,788 | $33,007 | $43,465 | $47,386 | $47,851 |
| Median Change in Earnings for SWP Exiting Students | 24% | 30% | 44% | 37% | 49% | 43% |
| Exiting Students Who Attained the Living Wage | 54% | 44% | 42% | 41% | 37% | 39% |
| Source: Launchboard Strong Workforce Program Median of 2018 to 2021. | | | | | | |

## Skills, Certifications and Education

**Table 9. Top Skills for Automotive Technology Management Occupations in Bay Region (Apr. 2023 - Mar. 2024)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| HVAC | 625 | Machinery | 255 |
| Plumbing | 609 | Safety Standards | 235 |
| Preventive Maintenance | 397 | Workflow Management | 232 |
| Carpentry | 386 | Facility Repair And Maintenance | 213 |
| Painting | 364 | Purchasing | 206 |
| Project Management | 313 | Housekeeping | 199 |
| Occupational Safety and Health Administration (OSHA) | 311 | Mechanics | 197 |
| Auditing | 300 | Inventory Control Systems | 187 |
| Property Management | 281 | Automotive Services | 183 |
| Construction | 278 | Inventory Management | 178 |
| Source: Lightcast | | | |

**Table 10. Certifications for Automotive Technology Management Occupations in Bay Region (Apr. 2023 - Mar. 2024)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Valid Driver's License | 943 | CDL Class B License | 33 |
| Airframe & Powerplant (A&P) Certificate | 66 | EPA 608 Technician Certification | 31 |
| Automotive Service Excellence (ASE) Certification | 62 | Cardiopulmonary Resuscitation (CPR) Certification | 26 |
| EPA Universal Certification | 52 | EPA Type II Certification | 17 |
| HVAC Certification | 47 | Forklift Certification | 16 |
| CDL Class C License | 41 | Basic Life Support (BLS) Certification | 15 |
| Commercial Driver's License (CDL) | 40 | Project Management Professional Certification | 15 |
| CFC Refrigeration Certification | 39 | Security Clearance | 12 |
| First Aid Certification | 38 | Transportation Worker Identification Credential (TWIC) Card | 12 |
| Source: Lightcast | | | |

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

| **Education Level** | **Job Postings** | **% of Total** |
| --- | --- | --- |
| High school or GED | 1,337 | 51% |
| Associate degree | 345 | 13% |
| Bachelor's degree & higher | 963 | 36% |
| Source: Lightcast | | |
| Note: 45% 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

For more information, please contact:

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