**Automotive Service Technicians**

**Labor Market Information Report**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

February 2018

# Recommendation

The information contained in this report is in response to two different labor market information (LMI) requests: the first for a certificate designed to prepare students to take the Smog Check Inspector License Exam and the second for an 18-unit certificate for an entry-level Automotive Service Technician. However, there is only one SOC code at the six-digit level for Automotive Service Technicians that would cover both of these opportunities for students with these certificates.

Based on all available data, there appears to be a large undersupply of Auto Service Technicians compared to the demand for this occupation in the Bay region and the Santa Cruz-Monterey sub-region. The annual gap between demand and supply is about 1,245 in the region and about 125 in the Santa Cruz-Monterey Bay sub-region.

This report also provides student outcomes data on employment and earnings for Auto Technology programs (TOP 0948.00) in the region and state. It is recommended that this data be reviewed to better understand how outcomes for Monterey Peninsula College (MPC) students taking courses on this TOP code compare to potentially similar programs at colleges in the state, region and sub-region as well as to student outcomes across all programs at MPC and in the region.

# Introduction

This report profiles Automotive Service Technicians and Mechanics in the 12 county Bay region and Santa Cruz – Monterey (SC-Monterey) sub-region for two proposed new certificates at Monterey Peninsula College. There is an eight-digit SOC code for Transportation Vehicle, Equipment & Systems Inspectors, except Aviation (53-6051.07) that is a good match for the Smog Check Inspector, but unfortunately, traditional labor market information (LMI) for determining annual openings is not available at the eight-digit level.

* **Automotive Service Technicians and Mechanics (SOC 49-3023)**: Diagnose, adjust, repair, or overhaul automotive vehicles.

*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:* 33%

# Occupational Demand

**Table 1. Employment Outlook for Automotive Service Technicians and Mechanics (49-3023) in Bay Region and SC-Monterey Sub-Region**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Region or Sub-Region | Occupation | 2016 Jobs | 2021 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Openings | Annual Openings | 10% Hrly Wage | Median Hrly Wage |
| Bay | Auto Techs  | 17,369 | 18,274 | 905 | 5% | 9,082 | 1,816 | $11.43 | $21.89 |
| SC-Monterey | Auto Techs  | 1,374 | 1,419 | 45 | 3% | 693 | 139 | $10.85 | $18.18 |

*Source: EMSI 2017.4***Bay Region** includes Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties
**SC-Monterey Sub-Region** includes Monterey, San Benito and Santa Cruz counties

### Job Postings in Bay Region and East Bay Sub-Region

**Table 2. Number of Job Postings for Automotive Service Techs (49-3023) and Transportation Vehicle, Equipment and Systems Inspectors, except Aviation (53-6051.07) for latest 12 months (Feb 2017 – Jan 2018)**

|  |  |  |
| --- | --- | --- |
| 8-Digit Occupations | Bay Region | SC-Monterey |
| Automotive Specialty Technicians (49-3023.02) | 729 | 17 |
| Automotive Master Mechanics (49-3023.01) | 252 | 3 |
| Transportation Vehicle, Equipment & Systems Inspectors except Aviation (53-6051.07) | 45 | 0 |
| **Total** | **1,026** | **20** |

*Source: Burning Glass*

**Table 3. Top Job Titles for Automotive Service Techs (49-3023) and Transportation Vehicle, Equipment and Systems Inspectors, except Aviation (53-6051.07) for latest 12 months (Feb 2017 – Jan 2018)**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Bay Region | Common Title | Bay Region |
| Detailer | 200 | Shop Technician | 19 |
| Lube Technician | 96 | Plumber | 11 |
| Auto Technician | 60 | Service Consultant | 10 |
| Mechanic | 57 | Service Advisor | 9 |
| Roadside Rescuer | 22 | Service Manager | 9 |

*Source: Burning Glass*

# Industry Concentration

**Table 4. Industries hiring Automotive Service Technicians and Mechanics in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 5 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2016) | Jobs in Industry (2021) | % Change (2016-21) | % in Industry (2016) |
| Automotive Mechanical & Electrical Repair & Maintenance (81111) | 6,729 | 7,047 | 5% | 38.8% |
| New Car Dealers (44111) | 4,591 | 4,827 | 5% | 26.3% |
| Automotive Body, Paint, Interior & Glass Repair (81112) | 1,090 | 1,137 | 4% | 6.3% |
| Other Automotive Repair & Maintenance (81119) | 795 | 827 | 4% | 4.7% |
| Automotive Parts & Accessories Stores (44131) | 719 | 714 |  (1%) | 4.1% |
| Local Government excluding Education & Hospitals (90399) | 517 | 533 | 3% | 3.0% |
| Tire Dealers (44132) | 382 | 416 | 9% | 2.2% |
| Used Car Dealers (44112) | 254 | 307 | 21% | 1.5% |

*Source: EMSI 2017.4*

**Table 5. Top Employers Posting Jobs in Bay Region and SC-Monterey for latest 12 months (Feb 2017 – Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employer** | **Bay** | **Employer** | **Bay**  | **Employer** | **SC-Monterey** |
| Penske | 58 | Lithia Motors Inc | 25 | Lithia Motors Inc | 4 |
| Del Grande Dealer Group | 39 | Alamo | 20 | Ryder System Inc | 4 |
| Sonic Automotive | 30 | AutoNation | 20 | Herc Rentals | 2 |
| Allstate | 26 | Sunstate Equipment Company | 20 | Allstate | 1 |
| Bridgestone/Firestone | 25 | Ryder System Inc | 19 | Astech | 1 |
| Enterprise Rent-A-Car | 25 | Carmax | 16 | Bridgestone/Firestone | 1 |

*Source: Burning Glass*

# Educational Supply

On the supply side, for Automotive Technology Programs (TOP 0948.00), there are 14 community colleges in the Bay region issuing 571 awards to individual students annually. Two of these colleges are in the Santa Cruz – Monterey sub-region, issuing 14 awards to individual students annually.

**Table 6. Automotive Technology Programs (TOP 0948.00) or Automobile/Automotive Mechanics Technology/Technician Programs (CIP 47.0604) in Bay Region**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | CC Headcount | CC Students Who Received an Award | Associate Degrees | Certificates or Other Credit Awards | Total Awards |
| Alameda | East Bay | 265 | 22 | 12 | 25 | 37 |
| Chabot | East Bay | 343 | 25 | 13 | 40 | 53 |
| Contra Costa | East Bay | 186 | 9 | 2 | 14 | 16 |
| De Anza | Silicon Valley | 712 | 87 | 52 | 106 | 158 |
| Evergreen | Silicon Valley | 228 | 20 | 10 | 18 | 28 |
| Hartnell | SC & Monterey | 136 | 3 | 3 | 3 | 6 |
| Las Positas | East Bay | 162 | 17 | 4 | 11 | 15 |
| Los Medanos | East Bay | 264 | 18 | 12 | 42 | 53 |
| Marin | North Bay | 169 | 12 | 1 | 7 | 8 |
| Monterey | SC & Monterey | 119 | 11 | 3 | 14 | 17 |
| San Francisco | Mid-Peninsula | 233 | 49 | 5 | 94 | 99 |
| Santa Rosa | North Bay | 336 | 152 | 3 | 230 | 233 |
| Skyline | Mid-Peninsula | 650 | 144 | 6 | 202 | 208 |
| Solano | North Bay | 143 | 2 | 1 | 2 | 3 |
| CET-Sobrato | Silicon Valley | n/a | n/a | 0 | 29 | 29 |
| **Total Bay Region** | **3,946** | **571** | **127** | **837** | **964** |
| **Total SC-Monterey** | **369** | **14** | **6** | **17** | **23** |

# *Source: IPEDS, Data Mart and Launchboard*

NOTE: Headcount of students who took one or more courses and No. of Students who received an award is for 2015-16. For Community Colleges, the annual average for Associate Degrees and Certificates is 2014-17. For CET-Sobrato, the annual average for certificates is 203-16.

# Gap Analysis

The labor market gap is significant in the Bay region for this occupation with total annual openings of 1,816 and annual supply of 571 students getting awards. This represents an annual undersupply of about 1,245 students. In the SC-Monterey sub-region, there is also a gap with total annual openings of 139 and 14 students getting awards for a gap of 125.

# Student Outcomes

**Table 7. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 0948.00 - Automotive Technology at Bay Region Colleges and at Monterey Peninsula College for 2014-15**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2014-15** | **Bay Region (All Programs)** | **Monterey (All Programs)** | **State (0948.00)** | **Bay Region (0948.00)** | **SC & Monterey (0948.00)** | **Monterey (0948.00)** | **Top College in Bay Region (0948.00)** |
| % Employed Four Quarters After Exit | 68% | 72% | 68% | 76% | 74% | 71% | Evergreen Valley | 84% |
| Median Earnings Two Quarters After Exit | $12,640 | $18,315 | $6,740 | $9,500 | $5,370 | $4,705 | Skyline College | $14,200 |
| Median % Change in Earnings | 37% | 22% | 65% | 45% | 84% | 81% | San Francisco | 179% |
| % of Students Earning a Living Wage | 51% | 67% | 38% | 48% | 15% | 14% | College of Marin | 66% |

*Source: Launchboard*

# Skill & Certifications

**Table 8. Top Skills for Automotive Service Technicians in the Bay Region (Feb 2017 – Jan 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Skill** | **Latest 12 Mos. Postings** | **Skill** | **Latest 12 Mos. Postings** | **Skill** | **Latest 12 Mos. Postings** |
| Repair | 391 | Microsoft Excel | 89 | Electrical Systems | 51 |
| Inspection | 249 | Scheduling | 88 | Auto Mechanical Diagnosis | 44 |
| Customer Service | 189 | Vehicle Inspection | 72 | Machinery | 44 |
| Auto Repair | 115 | Vehicle Maintenance | 72 | Budgeting | 43 |
| Cleaning | 98 | Sales | 69 | Hazardous Waste | 43 |
| Customer Contact | 95 | Occupational Health & Safety | 62 | Microsoft Word | 43 |

*Source: Burning Glass*

**Table 9. Top Certifications for Automotive Service Technicians in the Bay Region (Feb 2017 – Jan 2018)**

Note: 82% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.

|  |  |  |  |
| --- | --- | --- | --- |
| **Certification** | **Latest 12 Mos. Postings** | **Certification** | **Latest 12 Mos. Postings** |
| Automotive Service Excellence (Ase) Certification | 90 | Certified Hipaa Professional | 10 |
| Commercial Driver'S License | 41 | Master Mechanic | 10 |
| Air Brake Certified | 12 | Certified A+ Technician | 7 |

*Source: Burning Glass*

**Table 10. Education Requirements in Bay Region**

Note: 66% of records have been excluded because they do not include a degree level. As a result, the chart below may not be representative of the full sample.

|  |  |
| --- | --- |
| **Education (minimum advertised)** | **Latest 12 Mos. Postings** |
| High school or vocational training | 328 (94%) |
| Associate Degree | 16 (5%) |
| Bachelor’s Degree | 4 (1%) |

*Source: Burning Glass*

# Methodology

Occupations for this report were identified by use of skills listed in O\*Net descriptions and job descriptions in Burning Glass. Labor demand data is sourced from Economic Modeling Specialists International (EMSI) occupation data and Burning Glass job postings data. Educational supply and student outcomes data is retrieved from multiple sources, including CTE Launchboard and CCCCO Data Mart.

# Sources

O\*Net Online

Labor Insight/Jobs (Burning Glass)

Economic Modeling Specialists International (EMSI)

CTE LaunchBoard [www.calpassplus.org/Launchboard/](http://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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