** Automotive Service Technicians and Mechanics**

**Labor Market Information Report**

**Chabot College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

September 2019

# Recommendation

Based on all available data, there appears to be an undersupply of Automotive Service Technicians and Mechanics compared to the demand for this occupation in the Bay region and in the East Bay sub-region (Alameda and Contra Costa Counties.) There is a projected annual gap of about 1,011 students in the Bay region and 522 students in the East Bay Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 0948.00 - Automotive Technology 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.

# Introduction

This report profiles Automotive Service Technicians and Mechanics in the 12 county Bay region and in the East Bay sub-region for a proposed new Technology Based Automotive Systemsprogram at Chabot College.

|  |
| --- |
| * **Automotive Service Technicians and Mechanics (SOC 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: 33% |

# Occupational Demand

**Table 1. Employment Outlook for Automotive Service Technicians and Mechanics in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2018 Jobs | 2023 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Automotive Service Technicians and Mechanics |  17,328  |  18,225  | 897 | 5% |  9,105  |  1,821  | $12.67 | $23.13 |

*Source: EMSI 2019.2*

**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 Service Technicians and Mechanics in East Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Occupation  | 2018 Jobs | 2023 Jobs | 5-Yr Change | 5-Yr % Change | 5-Yr Open-ings | Average Annual Open-ings | 10% Hourly Wage | Median Hourly Wage |
| Automotive Service Technicians and Mechanics |  5,784  |  6,239  | 455 | 8% |  3,218  |  644  | $12.76 | $23.32 |

*Source: EMSI 2019.2*

**East Bay Sub-Region** includes Alameda and 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 (September 2018 - August 2019)**

| Occupation | Bay Region | East Bay |
| --- | --- | --- |
|  Automotive Specialty Technicians | 4,390 | 1,394 |
|  Automotive Master Mechanics | 456 | 119 |
|  **Total** | 4,846 | 1,513 |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Automotive Service Technicians and Mechanics for latest 12 months (September 2018 - August 2019) Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Bay | Common Title | Bay |
| Auto Technician | 759 | Oil Change Technician | 35 |
| Service Technician | 307 | Repair Technician | 34 |
| Lube Technician | 284 | Flat Rate Technician | 33 |
| Mechanic | 268 | Automotive Advisor | 32 |
| Technician | 250 | Assessor | 30 |
| Detailer | 199 | Inspector | 27 |
| Auto Mechanic | 176 | Roadside Rescuer | 26 |
| Automotive Service Advisor | 135 | 91B Light-Wheel Vehicle Mechanic | 24 |
| Automotive Technician | 72 | Behavior Technician | 23 |
| Fueler | 60 | Operator | 22 |
| Shop Technician | 52 | Area Technician | 22 |
| Field Service Technician | 51 | Trainer | 21 |
| Automotive Service Technician | 43 | Quality Technician | 21 |
| Technician, Retail Industry | 38 | Personal Service Coordinator, Behavioral Health | 20 |

**Table 4b. Top Job Titles for Automotive Service Technicians and Mechanics for latest 12 months (September 2018 - August 2019) East Bay Sub-Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | East Bay | Common Title | East Bay |
| Auto Technician | 235 | Automotive Service Technician | 17 |
| Lube Technician | 108 | Inspector | 16 |
| Service Technician | 92 | Quality Technician | 14 |
| Mechanic | 78 | Assessor | 13 |
| Technician | 69 | Area Technician | 13 |
| Detailer | 65 | 91B Light-Wheel Vehicle Mechanic | 11 |
| Automotive Service Advisor | 40 | Repair Technician | 10 |
| Auto Mechanic | 38 | Automotive Service Writer | 9 |
| Shop Technician | 30 | Automotive Advisor | 9 |
| Field Service Technician | 24 | Technician/Leader, Geek Squad | 8 |
| Automotive Technician | 23 | Specialist | 8 |
| Fueler | 20 | Oil Change Technician | 8 |
| Personal Service Coordinator, Behavioral Health | 18 | Roadside Assistance Technician | 7 |
| Roadside Rescuer | 17 | Fleet Technician | 7 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Automotive Service Technicians and Mechanics in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Industry – 6 Digit NAICS (No. American Industry Classification) Codes | Jobs in Industry (2018) | Jobs in Industry (2022) | % Change (2018-22) | % in Industry (2018) |
| General Automotive Repair (811111) | 3,994 | 4,273 | 7% | 35% |
| New Car Dealers (441110) | 3,071 | 3,333 | 9% | 27% |
| Automotive Body, Paint, and Interior Repair and Maintenance (811121) | 589 | 585 | -1% | 5% |
| Automotive Parts and Accessories Stores (441310) | 371 | 315 | -15% | 3% |
| Local Government, Excluding Education and Hospitals (903999) | 297 | 285 | -4% | 3% |
| Tire Dealers (441320) | 244 | 272 | 11% | 2% |
| Car Washes (811192) | 238 | 244 | 3% | 2% |
| All Other Automotive Repair and Maintenance (811198) | 208 | 244 | 17% | 2% |
| Used Car Dealers (441120) | 207 | 270 | 30% | 2% |
| Other Automotive Mechanical and Electrical Repair and Maintenance (811118) | 202 | 168 | -17% | 2% |
| Taxi Service (485310) | 123 | 157 | 28% | 1% |

*Source: EMSI 2019.2*

**Table 6. Top Employers Posting Jobs for Automotive Service Technicians and Mechanics in Bay Region and East Bay Sub-Region (September 2018 - August 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | East Bay |
| United Parcel Service Incorporated | 131 | Allstate Good Hands Rescue Network | 38 | Jiffy Lube | 36 |
| Chrysler | 124 | Penske | 37 | United Parcel Service Incorporated | 31 |
| Bridgestone / Firestone | 121 | Lexus | 34 | Hendrick Automotive Group | 30 |
| Jiffy Lube | 100 | Chevrolet | 33 | Allstate | 28 |
| Pep Boys | 67 | US Army | 30 | Bridgestone / Firestone | 27 |
| Autonation | 65 | Qvale Auto Group | 30 | Lucid Motors Inc | 26 |
| Penske Automotive Group | 64 | Hertz Corporation | 30 | Pep Boys | 25 |
| Allstate | 61 | Hendrick Automotive Group | 30 | Telecare Corporation | 24 |
| Carmax | 59 | Yourmechanic | 28 | Honda | 24 |
| Sonic Automotive | 58 | Telecare Corporation | 28 | Chrysler | 24 |
| Lithia Motors Incorporated | 57 | FedEx | 27 | Carmax | 21 |
| Honda | 57 | Lucid Motors Inc | 26 | Autonation | 21 |
| Toyota Motors | 51 | Sunstate Equipment Company | 24 | Tesla | 20 |
| Del Grande Dealer Group | 49 | Subaru | 23 | Lithia Motors Incorporated | 19 |
| Tesla | 46 | Tesla Motors | 21 | Toyota Motors | 18 |
| Amerit Fleet Solutions | 43 | Kar Auction Services | 21 | Sonic Automotive | 16 |
| Best Buy | 41 | Army National Guard | 21 | FedEx | 16 |

*Source: Burning Glass*

# Educational Supply

There are 14 community colleges in the Bay Region issuing 810 awards on average annually (last 3 years) on TOP 0948.00 - Automotive Technology. There are four colleges in the East Bay Sub-Region issuing 122 awards on average annually (last 3 years) on this TOP code.

**Table 7. Awards on TOP 0948.00 - Automotive Technology in the Bay Region**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Associates | Certificate 18+ | Certificate Below18 | Total |
| Chabot College  | East Bay |  16  |  45  |  |  61  |
| City College of San Francisco  | Mid-Peninsula |  5  |  7  |  82  |  94  |
| College of Alameda  | East Bay |  14  |  23  |  1  |  38  |
| College of Marin  | North Bay |  2  |  18  |  |  20  |
| Contra Costa College  | East Bay |  3  |  7  |  12  |  22  |
| De Anza College  | Silicon Valley |  42  |  53  |  36  |  131  |
| Evergreen Valley College  | Silicon Valley |  9  |  4  |  22  |  35  |
| Hartnell College  | Santa Cruz - Monterey |  7  |  5  |  |  12  |
| Las Positas College  | East Bay |  4  |  9  |  |  13  |
| Los Medanos College  | East Bay |  9  |  6  |  34  |  49  |
| Monterey Peninsula College  | Santa Cruz - Monterey |  3  |  12  |  6  |  21  |
| Santa Rosa Junior College  | North Bay |  5  |  7  |  125  |  137  |
| Skyline College  | Mid-Peninsula |  6  |  158  |  5  |  169  |
| Solano College  | North Bay |  1  |  7  |  |  8  |
| **Total Bay Region** |  **126**  |  **361**  |  **323**  |  **810**  |
| **Total East Bay Sub-Region** | **30** | **45** | **47** | **122** |

# *Source: Data Mart*

Note: The annual average for awards is 2015-16 to 2017-18.

# Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 1,821 annual openings for Automotive Service Technicians and Mechanics and 810 annual (3-year average) awards for an annual undersupply of 1,011 students. In the East Bay Sub-Region, there is also a gap with 644 annual openings and 122 annual (3-year average) awards for an annual undersupply of 522 students.

# Student Outcomes

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay (All CTE Programs) | Chabot College (All CTE Programs) | State (94800) | Bay (94800) | East Bay (94800) | Chabot College (94800) |
| % Employed Four Quarters After Exit | 74% | 74% | 70% | 75% | 76% | 78% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $9,425 | $6,822 | $9,000 | $7,981 | $7,801 |
| Median % Change in Earnings | 46% | 71% | 78% | 71% | 113% | 112% |
| % of Students Earning a Living Wage | 63% | 60% | 47% | 60% | 58% | 59% |

*Source: Launchboard Pipeline (version available on 9/24/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Automotive Service Technicians and Mechanics in Bay Region (September 2018 - August 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Repair | 2,613 | Motor Vehicle Operation | 222 | Data Entry | 121 |
| Auto Repair | 1,225 | Mechanical Repair | 207 | Roadside Assistance | 121 |
| Customer Service | 1,038 | Lifting Ability | 202 | Machinery | 116 |
| Automotive Services Industry Knowledge | 809 | Retail Industry Knowledge | 198 | Battery Testing and Installation | 110 |
| Customer Contact | 437 | Power Tools | 177 | Technical Training | 107 |
| Vehicle Maintenance | 378 | Welding | 160 | Wiring | 103 |
| Vehicle Inspection | 354 | Inspection Records | 156 | Tire Repairs | 96 |
| Scheduling | 330 | Brake Work | 154 | Purchasing | 91 |
| Oil Changes | 329 | Test Equipment | 153 | Engine Repair | 90 |
| Hand Tools | 325 | Transmission Repair | 149 | Merchandising | 90 |
| Automotive Industry Knowledge | 308 | Quality Assurance and Control | 146 | Technical Writing / Editing | 85 |
| Sales | 289 | Occupational Health and Safety | 139 | Tire Pressure Check | 85 |
| Electrical Systems | 261 | Automotive Mechanical Diagnosis | 127 | Personal Protective Equipment (PPE) | 83 |
| Predictive / Preventative Maintenance | 251 | Manual Dexterity | 123 | Sales Goals | 82 |
| Cleaning | 232 | Store Management | 123 | Budgeting | 80 |

*Source: Burning Glass*

**Table 10. Certifications for Automotive Service Technicians and Mechanics in Bay Region (September 2018 - August 2019)**

Note: 43% 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 | Postings | Certification | Postings |
| Driver's License | 2,426 | CDL Class B | 24 |
| Automotive Service Excellence (ASE) Certification | 627 | MECP Advanced Certification | 20 |
| Certified Lube Technician | 57 | CDl Class C | 19 |
| First Aid CPR AED | 48 | Good Conduct | 17 |
| Mobile Electronics Certified Professional (MECP) | 41 | Occupational Safety and Health Administration Certification | 13 |
| Mobile Electronics Certified Professional | 41 | Microsoft Certified Systems Engineer (Legacy) | 12 |
| Chrysler Certified | 41 | Environmental Protection Agency Certification | 12 |
| Air Brake Certified | 36 | Electrical Certification | 11 |
| Registered Behavior Technician | 32 | Auto Repair Certification | 11 |
| CDL Class A | 29 | Security Clearance | 10 |
| Certified Career Development Facilitator | 27 | CompTIA Network+ | 10 |
| MECP Basic Installation | 26 | Airframe and Powerplant (A and P) Certification | 10 |

*Source: Burning Glass*

**Table 11. Education Requirements for Automotive Service Technicians and Mechanics 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 | Percent 12 Mos. Postings |
| High school or vocational training | 1,592 | 95% |
| Associate Degree | 78 | 5% |
| Bachelor’s Degree or Higher | 0 | 0% |

*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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