** Automotive Light Duty Diesel Occupations**

**Labor Market Information Report**

**Las Positas College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

November 2019

# Recommendation

Based on all available data, there appears to be an undersupply of Automotive Light Duty Diesel workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda and Contra Costa Counties). There is a projected annual gap of about 476 students in the Bay region and 204 students in the East Bay Sub-Region.

This report also provides student outcomes data on employment and earnings for programs on TOP 0947.00 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.

# Introduction

This report profiles Automotive Light Duty Diesel Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Las Positas College.

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| --- |
| * **Bus and Truck Mechanics and Diesel Engine Specialists (SOC 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 Light Duty Diesel Occupations 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 |
| Bus and Truck Mechanics and Diesel Engine Specialists | 5,068 | 5,425 | 357 | 7% | 2,673 | 535 | $18.11 | $29.62 |

*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 Light Duty Diesel Occupations 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 |
| Bus and Truck Mechanics and Diesel Engine Specialists | 1,986 | 2,149 | 163 | 8% | 1,073 | 215 | $18.07 | $28.61 |

*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 (November 2018 - October 2019)**

| Occupation | Bay Region | East Bay |
| --- | --- | --- |
| Bus and Truck Mechanics and Diesel Engine Specialists | 914 | 428 |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Automotive Light Duty Diesel Occupations for latest 12 months (November 2018 - October 2019) Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | Bay | Common Title | Bay |
| Diesel Mechanic | 330 | Truck Driver Trainee | 4 |
| Diesel Technician | 277 | Trailer/Technician | 3 |
| Fleet Mechanic | 93 | Technical Trainer | 2 |
| Trailer Mechanic | 64 | Lead Journeyman Special Projects Division | 2 |
| Diesel Truck Mechanic | 28 | Food Truck Service Worker | 2 |
| Truck Mechanic | 20 | Ambassador | 2 |
| Mechanic | 15 | Truck Trailer/Loader | 1 |
| Truck Technician | 12 | Truck Driver | 1 |
| Trailer Technician | 8 | Trailer/Technician, Fleet, Solutions | 1 |
| Maintenance Technician | 8 | Service Writer | 1 |
| Auto Technician | 7 | Service Advisor | 1 |
| Service Expert Night - Super Sport | 6 | Ram Truck Driver/Trailer | 1 |
| Technician | 5 | Multifamily Senior Super Podium/Wrap Hybrid Units | 1 |
| Service Technician | 5 | Lube Technician | 1 |

**Table 4b. Top Job Titles for Automotive Light Duty Diesel Occupations for latest 12 months (November 2018 - October 2019) East Bay Sub-Region**

|  |  |  |  |
| --- | --- | --- | --- |
| Common Title | East Bay | Common Title | East Bay |
| Diesel Technician | 138 | Trailer Technician | 2 |
| Diesel Mechanic | 137 | Technical Trainer | 2 |
| Fleet Mechanic | 45 | Service Technician | 2 |
| Trailer Mechanic | 41 | Truck Trailer/Loader | 1 |
| Diesel Truck Mechanic | 18 | Truck Driver | 1 |
| Truck Mechanic | 10 | Service Writer | 1 |
| Truck Technician | 5 | Ram Truck Driver/Trailer | 1 |
| Service Expert Night - Super Sport | 5 | Multifamily Senior Super Podium/Wrap Hybrid Units | 1 |
| Mechanic | 5 | Lube Technician | 1 |
| Technician | 4 | Lead Journeyman Special Projects Division | 1 |
| Maintenance Technician | 4 | Entry Level Diesel Sign On 10 | 1 |
| Truck Driver Trainee | 2 |  |  |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Automotive Light Duty Diesel Workers 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) |
| Local Government, Excluding Education and Hospitals (903999) | 588 | 638 | 9% | 12% |
| General Automotive Repair (811111) | 567 | 621 | 10% | 11% |
| General Freight Trucking, Local (484110) | 243 | 282 | 16% | 5% |
| Solid Waste Collection (562111) | 202 | 233 | 15% | 4% |
| Passenger Car Rental (532111) | 173 | 178 | 3% | 3% |
| Federal Government, Military (901200) | 167 | 160 | -4% | 3% |
| Motor Vehicle Supplies and New Parts Merchant Wholesalers (423120) | 140 | 161 | 15% | 3% |
| Used Household and Office Goods Moving (484210) | 132 | 133 | 1% | 3% |
| Specialized Freight (except Used Goods) Trucking, Local (484220) | 130 | 126 | -3% | 3% |
| Elementary and Secondary Schools (Local Government) (903611) | 115 | 121 | 5% | 2% |
| General Freight Trucking, Long-Distance, Truckload (484121) | 103 | 123 | 19% | 2% |
| General Freight Trucking, Long-Distance, Less Than Truckload (484122) | 107 | 116 | 8% | 2% |
| Couriers and Express Delivery Services (492110) | 103 | 105 | 2% | 2% |
| New Car Dealers (441110) | 85 | 94 | 11% | 2% |
| Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (811310) | 68 | 70 | 3% | 1% |
| Motor Vehicle Towing (488410) | 67 | 68 | 1% | 1% |
| Solid Waste Landfill (562212) | 65 | 64 | -2% | 1% |
| School and Employee Bus Transportation (485410) | 60 | 68 | 13% | 1% |
| Automotive Body, Paint, and Interior Repair and Maintenance (811121) | 62 | 63 | 2% | 1% |
| Automobile and Other Motor Vehicle Merchant Wholesalers (423110) | 57 | 65 | 14% | 1% |
| Crop Production (111000) | 58 | 57 | -2% | 1% |
| Industrial Machinery and Equipment Merchant Wholesalers (423830) | 57 | 57 | 0% | 1% |

*Source: EMSI 2019.2*

**Table 6. Top Employers Posting Automotive Light Duty Diesel Occupations in Bay Region and East Bay Sub-Region (November 2018 - October 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Employer | Bay | Employer | Bay | Employer | East Bay |
| Amerit Fleet Solutions | 117 | Complete Coach Works | 8 | Amerit Fleet Solutions | 69 |
| Penske | 70 | United States Foods | 7 | Penske | 25 |
| United Parcel Service Incorporated | 39 | Reyes Fleet Management | 7 | United Parcel Service Incorporated | 20 |
| MV Transportation, Inc. | 29 | Republic Services Incorporated | 7 | Waste Management | 12 |
| Ryder System Incorporated | 28 | Norcal Kenworth | 7 | American Mobile Maintenance | 10 |
| First Transit | 23 | Clarke Power Services | 7 | Ryder System Incorporated | 8 |
| Renn Transportation | 22 | Transervice Logistics | 6 | Complete Coach Works | 8 |
| Waste Management | 20 | Tk Services Incorporated | 6 | MV Transportation, Inc. | 7 |
| Reyes Holdings | 15 | Tipsy Barrel | 6 | United States Foods | 6 |
| Biagi Bros | 15 | Tec Equipment | 6 | Tk Services Incorporated | 6 |
| American Mobile Maintenance | 14 | Peterbilt | 6 | Tipsy Barrel | 6 |
| Peterson | 10 | Nestle USA Incorporated | 6 | Renn Transportation | 6 |
| Mechanics Hub | 10 | Alco Iron Metal Company | 6 | Peterson | 6 |
| Dickinson Fleet Services Llc | 9 | 24 Hour Fitness | 6 | Mechanics Hub | 6 |
| Brinks Incorporated | 9 | Serramonte Ford | 5 | Clarke Power Services | 6 |
| Sentinel Transportation | 8 | Estes West | 5 | First Transit | 5 |
| Dickinson Fleet Services | 8 | Protransport 1 | 4 | Biagi Bros | 5 |

*Source: Burning Glass*

# Educational Supply

There are three community colleges in the Bay Region issuing 59 awards on average annually (last 3 years) on TOP 0947.00 - Diesel Technology. There is one college (College of Alameda) in the East Bay Sub-Region issuing 11 awards on average annually (last 3 years) on this TOP code.

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| College | Sub-Region | Associates | Certificate 18+ units | Certificate Low unit | Total |
| College of Alameda | East Bay | 2 | 9 |  | 11 |
| Hartnell College | Santa Cruz - Monterey | 4 | 2 |  | 6 |
| Santa Rosa Junior College | North Bay | 2 | 1 | 39 | 42 |
| **Total Bay Region** | | **8** | **12** | **39** | **59** |
| **Total East Bay Sub-Region** | | **2** | **9** |  | **11** |

# *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 535 annual openings for the Automotive Light Duty Diesel occupational cluster and 59 annual (3-year average) awards for an annual undersupply of 476 students. In the East Bay Sub-Region, there is also a gap with 215 annual openings and 11 annual (3-year average) awards for an annual undersupply of 204 students.

# Student Outcomes

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 2015-16 | Bay  (All CTE Programs) | Las Positas College (All CTE Programs) | State (0947.00) | Bay (0947.00) | East Bay (0947.00) | Las Positas College (0947.00) |
| % Employed Four Quarters After Exit | 74% | 75% | 81% | 86% | 80% | 75% |
| Median Quarterly Earnings Two Quarters After Exit | $10,550 | $10,000 | $8,399 | $10,242 | $9,500 | $9,849 |
| Median % Change in Earnings | 46% | 28% | 48% | 47% | 50% | 46% |
| % of Students Earning a Living Wage | 63% | 64% | 53% | 59% | 57% | 59% |

*Source: Launchboard Pipeline (version available on 11/4/19)*

# Skills, Certifications and Education

**Table 9. Top Skills for Automotive Light Duty Diesel Occupations in Bay Region (November 2018 - October 2019)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Skill | Postings | Skill | Postings | Skill | Postings |
| Repair | 873 | Machinery | 66 | Transmission Repair | 44 |
| Predictive / Preventative Maintenance | 331 | Auto Repair | 64 | Hydraulic Jacks | 42 |
| Vehicle Maintenance | 272 | Data Entry | 60 | Screwdrivers | 41 |
| Welding | 211 | Truck Repair | 58 | Facility Maintenance | 39 |
| Hand Tools | 208 | Vehicle Preventative Maintenance | 58 | Checking Batteries | 38 |
| Hydraulics | 198 | Scheduling | 56 | Mig and Tig Welding | 38 |
| Fleet Preventive Maintenance | 181 | Oil Changes | 51 | Inventory Control | 37 |
| Forklift Operation | 124 | Occupational Health and Safety | 50 | Lifting Ability | 32 |
| Electrical Systems | 110 | Suspension Repair | 50 | Legal Compliance | 31 |
| Customer Contact | 107 | Vehicle Inspection | 49 | Tire Repairs | 29 |
| Customer Service | 95 | HVAC | 47 | Inventory Control Assistance | 28 |
| Power Tools | 82 | Equipment Repair | 45 | Test Equipment | 26 |
| Department of Transportation (DOT) Inspection | 73 | Brake Work | 44 | Record Keeping | 25 |
| Schematics Reading | 70 | Hoisting Equipment | 44 | Commercial Driving | 24 |
| Repair | 873 | Machinery | 66 | Transmission Repair | 44 |

*Source: Burning Glass*

**Table 10. Certifications for Automotive Light Duty Diesel Occupations in Bay Region (November 2018 - October 2019)**

Note: Some 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 | 470 | Department of Transportation (DOT) Medical Certification | 3 |
| Automotive Service Excellence (ASE) Certification | 268 | Air Conditioning (AC) Certification | 3 |
| Air Brake Certified | 97 | Forklift Operator Certification | 2 |
| CDL Class A | 62 | CDL Class C | 2 |
| Cdl Class B | 24 | Medical Examiner's License | 1 |
| Project Management Certification | 21 | Food Handler Certification | 1 |
| Diesel Mechanic Certification | 21 | Fluid Power Certification | 1 |
| Department of Transportation (DOT) Certified | 7 | First Aid CPR AED | 1 |
| Hazardous Materials Certification | 6 | Certified Dealer | 1 |
| Heavy Truck | 3 | Brake Inspector Certification | 1 |
| Epa 609 | 3 |  |  |
| Electric Vehicle Technician (EVT) | 3 |  |  |

*Source: Burning Glass*

**Table 11. Education Requirements for Automotive Light Duty Diesel Occupations in Bay Region**

Note: 64% 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 | 317 | 96% |
| Associate Degree | 12 | 4% |
| 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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