**Fire** **Services - Company Officer Occupations**

**Labor Market Information Report**

**Las Positas College**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

December 2020

# Recommendation

Based on all available data, there appears to be an undersupply of Fire Services - Company Officer 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 425 students in the Bay Region and 58 students in the East Bay Sub-Region.

**Introduction**

This report provides student outcomes data on employment and earnings for TOP 2133.00-Fire 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 Las Positas College and in the region.

This report profiles Fire Services - Company Officer Occupations in the 12 county Bay Region and in the East Bay Sub-Region for a proposed new program at Las Positas College.

|  |
| --- |
| * **First-Line Supervisors of Fire Fighting and Prevention Workers (33-1021):** Directly supervise and coordinate activities of workers engaged in fire fighting and fire prevention and control.
 |
| Entry-Level Educational Requirement: Postsecondary nondegree award |
| Training Requirement: Moderate-term on-the-job training |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 57% |
|  |
| * **Fire Inspectors and Investigators (33-2021):** Inspect buildings to detect fire hazards and enforce local ordinances and State laws, or investigate and gather facts to determine cause of fires and explosions.
 |
| Entry-Level Educational Requirement: Postsecondary nondegree award |
| Training Requirement: Moderate-term on-the-job training |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 51% |
|  |
| * **Firefighters (33-2011):** Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.
 |
| Entry-Level Educational Requirement: Postsecondary nondegree award |
| Training Requirement: Long-term on-the-job training |
| Percentage of Community College Award Holders or Some Postsecondary Coursework: 61% |
|  |

**Occupational Demand**

**Table 1. Employment Outlook for Fire** **Services - Company Officer Occupations in Bay Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Occupation**  | **2019 Jobs** | **2024 Jobs** | **5-Yr Change** | **5-Yr % Change** | **5-Yr Open-ings** | **Average Annual Open-ings** | **25% Hourly Wage** | **Median Hourly Wage** |
| First-Line Supervisors of Fire Fighting and Prevention Workers |  925  |  989  | 64 | 7% |  365  |  73  | $46.49 | $76.49 |
| Fire Inspectors and Investigators |  233  |  249  | 17 | 7% |  128  |  26  | $42.75 | $53.44 |
| Firefighters |  8,355  |  8,780  | 426 | 5% |  3,337  |  667  | $32.29 | $45.32 |
| **TOTAL** |  **9,512**  |  **10,019**  | **506** | **5%** |  **3,830**  |  **766**  | **$33.93** | **$48.55** |

*Source: EMSI 2020.3*

**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 Fire** **Services - Company Officer Occupations in East Bay Sub-Region**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Occupation**  | **2019 Jobs** | **2024 Jobs** | **5-Yr Change** | **5-Yr % Change** | **5-Yr Open-ings** | **Average Annual Open-ings** | **25% Hourly Wage** | **Median Hourly Wage** |
| First-Line Supervisors of Fire Fighting and Prevention Workers |  254  |  265  | 11 | 4% |  93  |  19  | $56.06 | $80.50 |
| Fire Inspectors and Investigators |  50  |  53  | 3 | 6% |  27  |  5  | $44.35 | $53.03 |
| Firefighters |  2,148  |  2,211  | 62 | 3% |  802  |  160  | $37.93 | $46.01 |
| **TOTAL** |  **2,452**  |  **2,529**  | **77** | **3%** |  **922**  |  **184**  | **$39.94** | **$49.73** |

*Source: EMSI 2020.3*

**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 2019 - October 2020)**

| **Occupation** | **Bay Region** | **East Bay** **Sub-Region** |
| --- | --- | --- |
| Municipal Fire Fighting and Prevention Supervisors | 144 | 44 |
| Municipal Firefighters | 129 | 56 |
| Fire Inspectors | 122 | 62 |
| Forest Fire Fighting and Prevention Supervisors | 24 | 3 |
| Forest Firefighters | 12 | 7 |
| Fire Investigators | 2 | 0 |
|  **TOTAL** | **433** | **172** |

*Source: Burning Glass*

**Table 4a. Top Job Titles for Fire** **Services - Company Officer Occupations for latest 12 months (November 2019 - October 2020) Bay Region**

|  |  |  |  |
| --- | --- | --- | --- |
| **Common Title** | **Bay** | **Common Title** | **Bay** |
| Firefighter | 23 | Location Leader | 5 |
| Battalion Chief | 20 | Fire Sprinkler Technician/Fire Protection | 5 |
| Fire Chief | 19 | Fire Response Specialist | 5 |
| Fire Alarm Inspector | 13 | Assistant Fire Chief | 5 |
| Firefighter/First Responder | 11 | Aircraft And Firefighting Specialist | 5 |
| Fire Inspector - Alarm | 10 | Senior Fire Inspector | 4 |
| Fire Inspector | 9 | Firefighter Paramedic | 4 |
| Fire Captain | 9 | Firefighter Fire Department | 4 |
| Incident Commander | 6 | Fire Department Division Chief | 4 |
| Firefighter Recruit | 6 | Fire Alarm Inspector - Bay Area | 4 |
| Fire Protection Inspector | 6 | Wildland Firefighter | 3 |
| Fire Alarm Systems Inspector | 6 | Lateral Firefighter | 3 |
| Fire Alarm & Fire Sprinkler Inspector | 6 | Firefighter/Paramedic | 3 |
| U S Navy Firefighter | 5 | Firefighter II | 3 |

**Table 4b. Top Job Titles for Fire Services - Company Officer Occupations for latest 12 months (November 2019 - October 2020) East Bay Sub-Region**

|  |  |  |  |
| --- | --- | --- | --- |
| **Common Title** | **East Bay** | **Common Title** | **East Bay** |
| Firefighter/First Responder | 10 | Fire Department - Fire Chief | 3 |
| Fire Alarm Inspector | 10 | Fire Battalion Chief | 3 |
| Firefighter Recruit | 6 | Senior Fire Response Specialist | 2 |
| Firefighter | 6 | Navy Firefighter | 2 |
| Fire Inspector | 6 | Foreman - Fire Protection Systems | 2 |
| Fire Alarm & Fire Sprinkler Inspector | 6 | Firefighter Paramedic Lateral | 2 |
| Fire Response Specialist | 5 | Firefighter Fire Department | 2 |
| Assistant Fire Chief | 5 | Fire Sprinkler Inspector | 2 |
| Fire Department Division Chief | 4 | Fire Prevention Inspector | 2 |
| Fire Captain | 4 | Fire Marshal | 2 |
| Firefighter Paramedic | 3 | Deputy Chief, Facilities Planning And Management | 2 |
| Firefighter II | 3 | Deputy Chief Of Communications | 2 |
| Fire Sprinkler Technician/Fire Protection | 3 | Captain Promotional | 2 |
| Fire Inspector - Alarm | 3 | Blood Drive Volunteers | 2 |

*Source: Burning Glass*

# Industry Concentration

**Table 5. Industries hiring Fire** **Services - Company Officers in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Industry – 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2019)** | **Jobs in Industry (2024)** | **% Change (2019-24)** | **% Occupation Group in Industry (2019)** |
| Local Government, Excluding Education and Hospitals | 8,713 |  9,147  | 5% | 92% |
| State Government, Excluding Education and Hospitals | 157 |  167  | 6% | 2% |
| All Other Support Services | 145 |  161  | 11% | 2% |
| Federal Government, Civilian, Excluding Postal Service | 125 |  128  | 3% | 1% |
| Federal Government, Military | 96 |  94  | -2% | 1% |
| Convention and Trade Show Organizers | 98 |  101  | 3% | 1% |

*Source: EMSI 2020.3*

**Table 6. Top Employers Posting Fire Services - Company Officer Occupations in Bay Region and East Bay Sub-Region (November 2019 - October 2020)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employer** | **Bay** | **Employer** | **Bay** | **Employer** | **East** Bay |
| Daily Dispatch | 16 | City Salinas | 4 | Western States Fire Protection | 6 |
| State of California | 15 | City Napa | 4 | County Alameda | 6 |
| National Testing Network | 12 | City Berkeley | 4 | Bay Alarm Company | 6 |
| Bay Alarm | 11 | Alameda County | 4 | Tesla | 5 |
| Johnson Controls Inc | 10 | Umpqua Community College | 3 | Johnson Controls Inc | 5 |
| Western States Fire Protection | 6 | Splunk | 3 | East Bay Regional Park District | 5 |
| County Alameda | 6 | Siemens | 3 | Daily Dispatch | 5 |
| Bay Alarm Company | 6 | San Francisco Public Works | 3 | Convergint Technologies | 4 |
| United States Marie Corps | 5 | Oakland Unified School District | 3 | City Berkeley | 4 |
| Tesla | 5 | Foundation Partners | 3 | Alameda County | 4 |
| East Bay Regional Park District | 5 | First Alarm | 3 | Siemens | 3 |
| County Sonoma | 5 | Fiore Industries Inc | 3 | Oakland Unified School District | 3 |
| Arrow Fire Protection | 5 | County Marin | 3 | City Albany | 3 |
| Amazon | 5 | Commercial Fire Protection Inc | 3 | Cintas | 3 |
| Thenewstribune Com | 4 | Commercial Fire Protection | 3 | Arrow Fire Protection | 3 |
| River Rock Casino | 4 | City and County of San Francisco | 3 | Amazon | 3 |
| Convergint Technologies | 4 | City Albany | 3 | Alameda County Social Services | 3 |

*Source: Burning Glass*

# Educational Supply

There are 11 community colleges in the Bay Region issuing 341 awards on average annually (last 3 years ending 2018-19) on TOP 2133.00-Fire Technology. In the East Bay Sub-Region there are three (3) community colleges that issued 126 awards on average annually (last 3 years) on this TOP code.

**Table 7. Community College Awards on TOP 2133.00-Fire** **Technology in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **College** | **Sub-Region** | **Associates** | **Certificate Low Unit** | **Total** |
| Cabrillo | SC - Monterey | 18 | 1 | 19 |
| Chabot  | East Bay | 14 | 2 | 16 |
| Gavilan | Silicon Valley |  | 6 | 6 |
| Las Positas | East Bay | 8 | 13 | 21 |
| Los Medanos | East Bay | 27 | 62 | 89 |
| Mission | Silicon Valley | 29 |  | 29 |
| Monterey | SC - Monterey | 2 | 3 | 5 |
| San Francisco | Mid-Peninsula | 14 | 43 | 57 |
| San Mateo | Mid-Peninsula | 22 | 12 | 34 |
| Santa Rosa | North Bay | 35 | 16 | 51 |
| Solano | North Bay | 10 | 3 | 13 |
| **Total Bay Region** | **179** | **162** | **341** |
| **Total East Bay Sub-Region** | **49** | **77** | **126** |

# Source: Data Mart

Note: The annual average for awards is 2016-17 to 2018-19.

# Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay Region with 766 annual openings for the Fire Services - Company Officer occupational cluster and 341 annual (3-year average) awards for an annual undersupply of 425 students. In the East Bay Sub-Region, there is also a gap with 184 annual openings and 126 annual (3-year average) awards for an annual undersupply of 58 students.

# Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 2133.00-Fire** **Technology**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **2017-18** | **Bay** All CTE Programs | **Las Positas College** All CTE Programs | **State** 2133.00 | **Bay** 2133.00 | **East Bay** 2133.00 | **Las Positas College** 2133.00 |
| % Employed Four Quarters After Exit | 67% | 70% | 68% | 78% | 73% | 79% |
| Median Quarterly Earnings Two Quarters After Exit | $11,466 | $11,069 | $15,834 | $17,149 | $6,818 | $7,114 |
| Median % Change in Earnings | 31% | 30% | 28% | 33% | 29% | 64% |
| % of Students Earning a Living Wage | 53% | 52% | 71% | 67% | 41% | 39% |

*Source: Launchboard Pipeline (version available on August 2020)*

# Skills, Certifications and Education

**Table 9. Top Skills for Fire** **Services - Company Officer Occupations in Bay Region (Nov. 2019 – Oct. 2020)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Skill** | **Postings** | **Skill** | **Postings** | **Skill** | **Postings** |
| Fire Protection | 119 | Public administration | 26 | Lifting Ability | 16 |
| Repair | 105 | Emergency Medical Care | 25 | Record Keeping | 16 |
| Fire Suppression | 74 | Business Administration | 24 | Medical Emergencies | 15 |
| Budgeting | 69 | Hand Tools | 24 | Network Testing | 15 |
| Customer Service | 48 | Project Management | 22 | New Construction | 15 |
| Occupational Health and Safety | 47 | Equipment Moving | 20 | Environmental Health and Safety | 14 |
| Scheduling | 38 | Life Support | 20 | Exercise Treadmill | 14 |
| HAZMAT | 37 | Power Tools | 20 | Prevention Programs | 14 |
| Staff Management | 34 | Accounting | 19 | Spirometry | 14 |
| Cardiopulmonary Resuscitation  | 32 | Technical Inspections | 18 | Technical Support | 14 |
| Emergency Services | 31 | Wiring | 18 | Treadmill Test | 14 |
| Public Health and Safety | 31 | Chemistry | 17 | Conflict Management | 13 |
| Incident Command System | 28 | Prevention Activities | 17 | Performance testing | 13 |
| Self-Contained Breathing Apparatus (SCBA) | 28 | Training Programs | 17 | Personnel Management | 13 |
| Advanced Cardiac Life Support (ACLS) | 26 | Hydraulics | 16 | Predictive / Preventative Maintenance | 13 |

*Source: Burning Glass*

**Table 10. Certifications for Fire Services - Company Officer Occupations in Bay Region (Nov. 2019 – Oct. 2020)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Certification** | **Postings** | **Certification** | **Postings** |
| Driver's License | 191 | HazMat Awareness | 11 |
| Emergency Medical Technician (EMT) | 80 | Advanced Cardiac Life Support (ACLS) Certification | 11 |
| Fire Fighter I | 59 | National Registry of Emergency Medical Technicians  | 8 |
| Certified Patient Account Technician | 53 | Fire Instructor I | 8 |
| Paramedic Certification | 35 | American Heart Association Certification | 8 |
| Fire Officer I | 21 | IT Infrastructure Library (ITIL) Certification | 7 |
| First Aid CPR AED | 20 | Airport Firefighter | 6 |
| Firefighter II | 20 | Aerial Rescue and Fire Fighting (ARFF) | 6 |
| Fire Inspector I | 18 | Wildland Firefighter I | 5 |
| CDL Class C | 13 | Security Clearance | 5 |
| Fire Officer III | 12 | Police Officer | 5 |
| Fire Inspector II | 12 | HazMat Technician | 5 |

*Source: Burning Glass*

**Table 11. Education Requirements for Fire** **Services Technology - Company Officer Occupations in Bay Region**

Note: 45% 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 | 165 | 70% |
| Associate Degree | 10 | 4% |
| Bachelor’s Degree or Higher | 61 | 26% |

*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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