**Emergency Medical Technologies Occupations**

**Labor Market Information Report**

Prepared by the San Francisco Bay Center of Excellence

for Labor Market Research

April 2018

# Recommendation

Based on all available data included in this report, there appears to be an undersupply of Emergency Medical Technicians (EMTs) and Paramedics in the Bay region, if you adjust the supply calculation to take into account students who are taking courses in these program areas, who previously received a degree or certificate, and who may be currently employed as an EMT or Paramedic but are receiving in-service training. The adjusted labor market undersupply is 46 in the region and 78 in the East Bay Sub-Region (Alameda and Contra Costa Counties). Please see the Gap Analysis section on page 3 for further explanation.

This report also provides student outcomes data on employment and earnings for Emergency Medical Services (1250.00) and Paramedic (1251.00) programs in the region and state. It is recommended that this data be reviewed to better understand how student outcomes for Las Positas taking courses on 1250.00 compare to potentially similar programs at colleges in the region and state well as to outcomes across all CTE programs at Las Positas College and in the region.

# Introduction

This report profiles Emergency Medical occupations in the 12 county Bay region and the East Bay sub-region (Alameda and Contra Costa counties) for revision of an existing program at Las Positas College.

* **Emergency Medical Technicians and Paramedics (SOC 29-2041):** Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.

*Entry-Level Educational Requirement:* *Postsecondary Nondegree Award*

*Training Requirement:* *None*

*Percentage of Community College Award Holders or Some Postsecondary Coursework:* 67%

# Occupational Demand

**Table 1. Employment Outlook for EMTs and Paramedics**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Region or Sub-Region | 2017 Jobs | 2022 Jobs | 5-Yr Change | 5-Yr % Change | 5-year Openings | Annual Openings | 10% Hrly Wage | Median Hrly Wage |
| Bay Region | 4,498 | 5,490 | 992  | 22% | 2,457 | 491 | $10.95  | $17.95  |
| East Bay Sub-Region | 1,879 | 2,203 | 324  | 17% | 921 | 184 | $10.89  | $17.44  |

*Source: EMSI 2018.1*

**Bay Region** includes Alameda, Contra Costa, Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano and Sonoma Counties

**East Bay Sub-Region** includes Alameda and Contra Costa counties

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

**Table 2. Number of Job Postings for EMTs and Paramedics for latest 12 months (April 2017 – March 2018)**

|  |  |  |
| --- | --- | --- |
| Occupation | Bay Region | East Bay |
| Emergency Medical Technicians and Paramedics (SOC 29-2041.00) | 245 | 70 |

*Source: Burning Glass*

**Table 3. Top Job Titles for EMTs and Paramedics for latest 12 months (April 2017 – March 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Common Title | Bay Region | East Bay | Common Title | Bay Region | East Bay |
| Paramedic | 73 | 9 | Emergency Medicine | 14 | 0 |
| Emergency Medical Technician | 37 | 18 | Emergency Room | 7 | 1 |
| Emt \*\* A Sign-On \*\* | 31 | 10 | Ed Technician | 5 | 0 |
| Emt | 28 | 8 | EMT-B | 4 | 3 |

*Source: Burning Glass*

# Industry Concentration

**Table 4. Industries hiring EMTs and Paramedics in Bay Region**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Industry – 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2017)** | **Jobs in Industry (2022)** | **% Change (2017-22)** | **% in Industry (2017)** |
| Ambulance Services (621910) | 2,801 | 3,598 | 28% | 62.3% |
| Local Government, Excluding Education and Hospitals (903999) | 888 | 960 | 8% | 19.7% |
| General Medical and Surgical Hospitals (622110) | 273 | 274 | 0% | 6.1% |
| Hospitals (Local Government) (903622) | 231 | 260 | 13% | 5.1% |
| HMO Medical Centers (621491) | 62 | 96 | 55% | 1.4% |

*Source: EMSI 2018.1*

**Table 5. Top Employers Posting for EMTs and Paramedics in Bay Region and East Bay (April 2017 – March 2018)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Employer** | **Bay** | **Employer** | **Bay** | **Employer** | **East Bay** |
| Pro Transport | 46 | Falck Northern California | 5 | Pro Transport | 16 |
| Protransport 1 | 18 | G4S | 5 | Protransport 1 | 4 |
| Dignity Health | 15 | Iosm | 5 | Falcon Ambulance | 3 |
| Careonsite Medical Services | 7 | Vivo Health | 5 | Securitas | 3 |

*Source: Burning Glass*

# Educational Supply

For TOP 1250.00 - Emergency Medical Services and TOP 1251.00 - Paramedic, in the Bay region there are nine community colleges issuing 1,252 awards annually , and two other postsecondary issuing 120 awards annually for a total of 1,372 awards annually. However, the number of students getting awards is used for the supply calculation, since students get more than one award. 532 students received awards in 2016-17 from community colleges and 120 awards from other postsecondary institutions for a total supply of about 652 for the Bay region.

**Table 6. Programs on TOP 1250.00 - Emergency Medical Services and TOP 1251.00 Paramedic or on CIP 51.0904 - Emergency Medical Technology/Technician (EMT Paramedic)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| College | Sub-Region | TOP code | Head-count | No. of Students Earning an Award | Associates | Certifi-cates | Total Awards |
| Chabot | East Bay | 125000 | 250 | 0 | 0 | 0 | 0 |
| Contra Costa | East Bay | 125000 | 220 | 0 | 0 | 0 | 0 |
| Foothill | Silicon Valley | 125000 | 571 | 161 | 0 | 161 | 161 |
| Foothill | Silicon Valley | 125100 | 115 | 19 | 15 | 1 | 15 |
| Hartnell | SC-Monterey | 125000 | 70 | 0 | 0 | 0 | 0 |
| Las Positas | East Bay | 125000 | 269 | 0 | 0 | 0 | 0 |
| Los Medanos | East Bay | 125000 | 349 | 114 | 0 | 134 | 134 |
| Marin | North Bay | 125000 | 88 | 0 | 0 | 0 | 0 |
| Merritt | East Bay | 125000 | 155 | 3 | 0 | 3 | 3 |
| Mission | Silicon Valley | 125100 | 67 | 0 | 0 | 0 | 0 |
| Monterey | SC-Monterey | 125000 | 213 | 106 | 0 | 106 | 106 |
| Napa | North Bay | 125000 | 175 | 0 | 0 | 0 | 0 |
| Napa | North Bay | 125100 | 38 | 3 | 5 | 6 | 11 |
| San Francisco | Mid-Peninsula | 125000 | 572 | 3 | 0 | 87 | 87 |
| San Francisco | Mid-Peninsula | 125100 | 110 | 2 | 3 | 14 | 17 |
| San Jose | Silicon Valley | 125000 | 130 | 0 | 0 | 0 | 0 |
| San Mateo | Mid-Peninsula | 125000 | 75 | 0 | 0 | 0 | 0 |
| Santa Rosa | North Bay | 125000 | 1,184 | 0 | 0 | 554 | 554 |
| Santa Rosa | North Bay | 125100 | 18 | 20 | 3 | 29 | 32 |
| Skyline | Mid-Peninsula | 125000 | 274 | 21 | 0 | 52 | 52 |
| Solano | North Bay | 125000 | 216 | 80 | 0 | 80 | 80 |
| Pacific Union College | North Bay | n/a | n/a | n/a | 15 | 0 | 15 |
| WestMed College | Silicon Valley | n/a | n/a | n/a | 0 | 105 | 105 |
| **Total Bay Region** |  | **5,129** | **532\*** | **41** | **1,332** | **1,372** |
| **Total Bay Region on TOP 1250.00 EMS** | **4,781** | **488** | **0** | **1,117** | **1,117** |
| **Total Bay Region on TOP 1251.00 Paramedic** | **348** | **44** | **26** | **50** | **76** |
| **Total East Bay Sub-Region (all on TOP 1250.00)** | **1,230** | **117** | **0** | **137** | **137** |

# *Sources: IPEDS, Data Mart and Launchboard*

\*There may be some double counting of students since 1250.00 and 1251.00 are added together for the regional total for the two programs since students may take course on both TOP codes at a community college.

NOTE: For community colleges, the annual average for awards is 2014-17. Headcount and no. of students earning an award is for 2016-17. For other postsecondary, the annual average for awards is 2013-16.

# Gap Analysis

The labor market appears to be oversupplied in the Bay Region. On the demand side, there are 491 annual openings in the Bay region with 532 students getting awards in 2016-17 from community colleges and 120 awards from other postsecondary for a total supply of about 652. The number of students getting awards is used since students get more than one award. Therefore, there would be appear to be an oversupply of 41.

However, some Community College students may already be employed as an EMT or Paramedic and are getting in-service training, and therefore, they should not really be counted in the supply. According to Launchboard, 15% of students in the Bay region taking courses on TOP 1250.00 - Emergency Medical Services (EMS), already received a degree or certificate from a Community College in 2016-17. 32% of students in the Bay region taking courses on TOP 1251.00 – Paramedic, previously received a degree or certificate from a Community College. If you reduced the number of students getting awards on TOP 1250.00 by 15%, then the new supply number for Emergency Medical Services would be 415. If you reduced the number of students getting awards on TOP 1251.00 by 32%, then the supply for Paramedics would be 30.

Therefore, the new adjusted supply number is 445, which takes into account that some students on these TOP codes are receiving in-service training and are already employed as EMTs or Paramedics. The labor market is undersupplied by 46 using the adjusted supply number.

In the East Bay sub-region, there are 184 annual openings and 117 students receiving awards for a gap (or undersupply) of 67. If you adjusted the supply to take into account students taking courses on TOP 1250.00 who previously received a degree of certificate (which is 9% for the East Bay in 2016-17), then the undersupply increases to 78.

# Student Outcomes

**Table 7a. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1250.00 - EMS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **2015-16** | **Bay Region (All CTE Programs)** | **Las Positas (All CTE Programs)** | **State (1250.00)** | **Bay Region (1250.00)** | **Las Positas****(1250.00)** | **Top Colleges in State****on TOP 1250.00 EMS** |
| % Employed Four Quarters After Exit | 74% | 75% | 72% | 77% | 76% | Hartnell | 92% (36 students) |
| Median Earnings Two Quarters After Exit | $10,310 | $11,400 | $6,835 | $7,270 | $7,295 | Santa Rosa | $11,465(232 students) |
| Median % Change in Earnings | 46% | 39% | 73% | 65% | 38% | Skyline | 101%(no. of students n/a) |
| % of Students Earning a Living Wage | 63% | 65% | 52% | 52% | 52% | Santa Rosa | 68% (196 students) |

 *Source: Launchboard*

**Table 7b. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1251.00 - Paramedic**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2015-16** | **Bay Region (All CTE Programs)** | **Las Positas (All CTE Programs)** | **State (1251.00)** | **Bay Region (1251.00)** | **Top Colleges in State****on TOP 1251.00 Paramedic** |
| % Employed Four Quarters After Exit | 74% | 75% | 80% | 92% | Napa | 100%(17 students) |
| Median Earnings Two Quarters After Exit | $10,310 | $11,400 | $13,690 | $13,435 | Foothill | $13,690(19 students) |
| Median % Change in Earnings | 46% | 39% | 88% | 89% | Foothill | 89%(no. of students n/a) |
| % of Students Earning a Living Wage | 63% | 65% | 78% | 68% | Foothill | 90%(21 students) |

 *Source: Launchboard*

# Skills, Certifications and Education

**Table 8. Top Skills for EMTs and Paramedics in Bay Region (April 2017 – March 2018)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Skill** | **Postings** | **Skill** | **Postings** |
| Patient Care | 152 | Occupational Health and Safety | 21 |
| Cardiopulmonary Resuscitation (CPR) | 144 | Customer Billing | 19 |
| Advanced Cardiac Life Support (ACLS) | 71 | Teamwork / Collaboration | 19 |
| Cleaning | 48 | Trauma | 19 |
| Medical Triage | 31 | Customer Service | 18 |
| Basic Trauma Life Support (BTLS) | 27 | Hepatitis B | 18 |
| Electrocardiogram (EKG / ECG) | 26 | Emergency Medicine | 17 |
| Life Support | 24 | Customer Contact | 16 |
| Public Health and Safety | 23 | Measles Mumps Rubella (MMR) | 15 |
| HAZMAT | 22 | Patient Transportation and Transfer | 15 |
| Social Services | 22 | Vaccines | 15 |

*Source: Burning Glass*

**Table 9. Certifications for EMTs and Paramedics in the Bay Region (April 2017 – March 2018)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Certification** | **Postings** | **Certification** | **Postings** |
| Emergency Medical Technician (EMT) | 156 | Paramedic Certification | 38 |
| Driver's License | 141 | Basic Life Saving (BLS) | 26 |
| Advanced Cardiac Life Support (ACLS) Certification | 65 | Basic Cardiac Life Support Certification | 19 |
| Medical Examiner's License | 48 | First Aid CPR AED | 11 |

*Source: Burning Glass*

**Table 10. Education Requirements for EMTs and Paramedics in Bay Region**

Note: 67% 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 |  | 79 (96%) |
| Associate Degree |  | 3 (4%) |

*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

For more information, please contact:

* Karen Beltramo, Data Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (CoE), karen@baccc.net or (831) 332-1253
* John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 452-5529