

**Labor Market Analysis for Program Recommendation**

**Paramedic Occupations**

**Merritt College**

## Prepared by the San Francisco Bay Center of Excellence for Labor Market Research

## September 2023

## Recommendation

Based on all available data, there appears to be an “undersupply” of Paramedic workers compared to the demand for this cluster of occupations in the Bay region and in the East Bay sub-region (Alameda, Contra Costa counties). There is a projected annual gap of about 601 students in the Bay region and 218 students in the East Bay Sub-Region.

## Introduction

This report provides student outcomes data on employment and earnings for TOP 1251.00 - Paramedic 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 Merritt College and in the region.

This report profiles Paramedic Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new program at Merritt College.

* **Emergency Medical Technicians (29-2042):** Assess injuries and illnesses and administer basic emergency medical care. May 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: 62%
* **Paramedics (29-2043):** Administer basic or advanced emergency medical care and assess injuries and illnesses. May administer medication intravenously, use equipment such as EKGs, or administer advanced life support to sick or injured individuals.
  Entry-Level Educational Requirement: Postsecondary nondegree award
  Training Requirement: None
  Percentage of Community College Award Holders or Some Postsecondary Coursework: 66%

## Occupational Demand

**Table 1. Employment Outlook for Paramedic Occupations in Bay Region**

| **Occupation** | **2021 Jobs** | **2026 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Emergency Medical Technicians | 4,888 | 5,327 | 439 | 9% | 2,457 | 491 | $17 | $20 |
| Paramedics | 2,285 | 2,537 | 252 | 11% | 902 | 180 | $21 | $25 |
| **Total** | **7,173** | **7,864** | **691** | **10%** | **3,359** | **671** |  |  |
| Source: Lightcast 2022.3 |
| **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 Paramedic Occupations in East Bay Sub-region**

| **Occupation** | **2021 Jobs** | **2026 Jobs** | **5-yr Change** | **5-yr % Change** | **5-yr Total Openings** | **Annual Openings** | **25% Hourly Earning** | **Median Hourly Wage** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Emergency Medical Technicians | 1,968 | 2,119 | 152 | 8% | 926 | 185 | $16 | $19 |
| Paramedics | 450 | 516 | 66 | 15% | 193 | 39 | $25 | $28 |
| **Total** | **2,417** | **2,635** | **218** | **9%** | **1,119** | **224** |  |  |
| Source: Lightcast 2022.3 |
| **East Bay Sub-Region includes:** Alameda, 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 (Sept. 2022 - Aug. 2023)**

| **Occupation** | **Bay Region** | **East Bay** |
| --- | --- | --- |
| Paramedics | 1,343 | 444 |
| Emergency Medical Technicians | 1,318 | 540 |
| Source: Lightcast |

**Table 4a. Top Job Titles for Paramedic Occupations for latest 12 months (Sept. 2022 - Aug. 2023) - Bay Region**

| **Title** | **Bay** | **Title** | **Bay** |
| --- | --- | --- | --- |
| Paramedics | 775 | F-15 Crew Chiefs | 13 |
| Emergency Medical Technicians - Basic | 496 | Emergency Medical Technician/Paramedics | 10 |
| Emergency Medical Technicians | 419 | Emergency Department Technicians | 9 |
| AMR Emergency Medical Technicians | 146 | First Aid Responders | 9 |
| Emergency Response Managers | 112 | Critical Care/ICU/PICU/NICU Nurse Practitioners | 8 |
| Gamers | 109 | Emergency Medical Technician Instructors | 8 |
| Paramedic Specialists | 91 | First Aid Sales Representatives | 8 |
| Cisco Engineers | 20 | Emergency Medical Technician Security Officers | 7 |
| Emergency Medical Responders | 18 | Emergency Veterinary Technicians | 7 |
| Source: Lightcast |

**Table 4b. Top Job Titles for Paramedic Occupations for latest 12 months (Sept. 2022 - Aug. 2023) - East Bay Sub-Region**

| **Title** | **East Bay** | **Title** | **East Bay** |
| --- | --- | --- | --- |
| Paramedics | 335 | Non-Commissioned Officers | 4 |
| Emergency Medical Technicians - Basic | 253 | Regional Technicians | 4 |
| Emergency Medical Technicians | 151 | Response Specialists | 4 |
| AMR Emergency Medical Technicians | 69 | Welcome Coordinators | 4 |
| Emergency Response Managers | 31 | 911 Coordinators | 3 |
| Gamers | 29 | Emergency Department Technicians | 3 |
| Critical Care/ICU/PICU/NICU Nurse Practitioners | 8 | Set Up Technicians | 3 |
| Emergency Medical Technician Paramedics | 5 | Critical Care Paramedics | 2 |
| Emergency Response Coordinators | 4 | Emergency Medical Responders | 2 |
| Source: Lightcast |

## Industry Concentration

**Table 5. Industries hiring Paramedic Workers in Bay Region**

| **Industry - 6 Digit NAICS (No. American Industry Classification) Codes** | **Jobs in Industry (2021)** | **Jobs in Industry (2026)** | **% Change (2021-26)** | **% Occupation Group in Industry (2022)** |
| --- | --- | --- | --- | --- |
| Ambulance Services | 3,263 | 3,720 | 14% | 52% |
| Local Government, Excluding Education and Hospitals | 1,517 | 1,674 | 10% | 24% |
| General Medical and Surgical Hospitals | 416 | 437 | 5% | 7% |
| Hospitals (Local Government) | 276 | 370 | 34% | 5% |
| Federal Government, Military | 270 | 278 | 3% | 4% |
| HMO Medical Centers | 205 | 176 | -14% | 2% |
| Hospitals (State Government) | 43 | 64 | 49% | 1% |
| Source: Lightcast 2022.3 |

**Table 6. Top Employers Posting Paramedic Occupations in Bay Region and East Bay Sub-Region (Sept. 2022 - Aug. 2023)**

| **Employer** | **Bay** | **Employer** | **East Bay** |
| --- | --- | --- | --- |
| AMR | 1,733 | AMR | 710 |
| Global Medical Response | 101 | Norcal Ambulance | 23 |
| Lifewest Ambulance Services | 64 | Protransport-1 | 21 |
| Norcal Ambulance | 59 | Falck Northern California | 18 |
| Protransport-1 | 58 | Global Medical Response | 16 |
| Pro-Transport | 40 | Pro-Transport | 15 |
| Source: Lightcast |

## Educational Supply

There are six (6) community colleges in the Bay Region issuing 66 awards on average annually (last 3 years ending 2021-22) on TOP 1251.00 Paramedic. In the East Bay Sub-Region, there are two (2) community colleges that issued six (6) awards on average annually (last 3 years) on this TOP code.

There is one (1) other CTE educational institution in the Bay Region issuing four (4) awards on average annually (last 3 years ending 2021-22) on CIP 51.0904 - Emergency Medical Technology/Technician (EMT Paramedic). There are no other CTE educational institution in the East Bay Sub-Region issuing awards on average annually (last 3 years) on this CIP code.

**Table 7a. Community College Awards on TOP 1251.00 Paramedic in Bay Region**

| **College** | **Subregion** | **Associate Degree** | **High unit Certificate** | **Low unit Certificate** | **Total** |
| --- | --- | --- | --- | --- | --- |
| Contra Costa | East Bay | 0 | 1 | 0 | 1 |
| Foothill | Silicon Valley | 19 | 2 | 0 | 21 |
| Las Positas | East Bay | 3 | 1 | 1 | 5 |
| Napa | North Bay | 3 | 0 | 0 | 3 |
| San Francisco | Mid-Peninsula | 6 | 8 | 0 | 14 |
| Santa Rosa | North Bay | 5 | 17 | 0 | 22 |
| **Total** |  | **36** | **29** | **1** | **66** |
| Source: Data Mart |
| Note: The annual average for awards is 2019-20 to 2021-22. |

**Table 7b. Other CTE Institutions Awards on CIP 51.0904 - Emergency Medical Technology/Technician (EMT Paramedic) in Bay Region**

| **College** | **Subregion** | **Associate degree** | **Total** |
| --- | --- | --- | --- |
| Pacific Union College | North Bay | 4 | 4 |
| **Total** |  | **4** | **4** |

## Gap Analysis

Based on the data included in this report, there is a large labor market gap in the Bay region with 671 annual openings for the Paramedic occupational cluster and 70 annual (3-year average) awards for an annual undersupply of 601 students. In the East Bay Sub-Region, there is also a gap with 224 annual openings and six (6) annual (3-year average) awards for an annual undersupply of 218 students.

## Student Outcomes

**Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1251.00 - Paramedic**

| **Metric Outcomes** | **Bay All CTE Programs** | **Merritt College All CTE Programs** | **State 1251.00** | **Bay 1251.00** | **East Bay 1251.00** | **Merritt College 1251.00** |
| --- | --- | --- | --- | --- | --- | --- |
| Students with a Job Closely Related to Their Field of Study | 74% | 66% | 93% | 94% | 100% | N/A |
| Median Annual Earnings for SWP Exiting Students | $53,090 | $46,924 | $59,828 | $62,004 | $66,878 | N/A |
| Median Change in Earnings for SWP Exiting Students | 24% | 8% | 51% | 53% | 94% | N/A |
| Exiting Students Who Attained the Living Wage | 54% | 54% | 77% | 63% | 70% | N/A |
| Source: Launchboard Strong Workforce Program Median of 2018 to 2021. |

## Skills, Certifications and Education

**Table 9. Top Skills for Paramedic Occupations in Bay Region (Sept. 2022 - Aug. 2023)**

| **Skill** | **Posting** | **Skill** | **Posting** |
| --- | --- | --- | --- |
| Ambulances | 2,054 | National Incident Management Systems | 344 |
| Medical Equipment | 1,784 | Emergency Response | 339 |
| Electrocardiography | 1,230 | Billing | 288 |
| Defibrillation | 1,229 | Prescription Labeling | 284 |
| Intravenous Hydration | 1,221 | Hoisting | 271 |
| Emergency Medical Services | 999 | Hepatitis B | 246 |
| Cardiopulmonary Resuscitation (CPR) | 878 | Tuberculosis | 241 |
| Medical Assistance | 677 | Healthcare Industry Knowledge | 226 |
| Office Equipment | 560 | Medical Direction | 187 |
| Patient Rights | 560 | Triage | 184 |
| Source: Lightcast |

**Table 10. Certifications for Paramedic Occupations in Bay Region (Sept. 2022 - Aug. 2023)**

| **Certification** | **Posting** | **Certification** | **Posting** |
| --- | --- | --- | --- |
| Basic Life Support (BLS) Certification | 2,013 | Cardiopulmonary Resuscitation (CPR) Certification | 72 |
| Valid Driver's License | 1,978 | Certified Cardiographic Technician (CCT) | 58 |
| Advanced Cardiovascular Life Support (ACLS) Certification | 1,294 | Basic Cardiac Life Support | 57 |
| Emergency Medical Technician (EMT) | 1,237 | Registered Nurse (RN) | 47 |
| Pediatric Advanced Life Support (PALS) | 1,236 | First Aid Certification | 29 |
| Paramedic (EMT-P) | 998 | Certified First Responder (CFR) | 29 |
| Basic Trauma Life Support (BTLS) | 867 | Automated External Defibrillator (AED) Certification | 26 |
| Emergency Medical Technician - Basic (EMT-B) | 358 | American Red Cross (ARC) Certification | 19 |
| Nationally Registered Emergency Medical Technician (NREMT) | 163 | Emergency Medical Responder (EMR) | 19 |
| Advanced Life Support | 149 | CPR/AED For The Professional Rescuer | 18 |
| Source: Lightcast |

**Table 11. Education Requirements for Paramedic Occupations in Bay Region**

| **Education Level** | **Job Postings** | **% of Total** |
| --- | --- | --- |
| High school or GED | 2,198 | 96% |
| Associate degree | 27 | 1% |
| Bachelor's degree & higher | 60 | 3% |
| Source: Lightcast |
| Note: 16% of records have been excluded because they do not include a degree level. As a result, the chart above may not be representative of the full sample. |

## Methodology

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

## Sources

O\*Net Online
Lightcast
CTE LaunchBoard 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:

* Leila Jamoosian, Research Analyst, for Bay Area Community College Consortium (BACCC) and Centers of Excellence (COE), leila@baccc.net
* John Carrese, Director, San Francisco Bay Center of Excellence for Labor Market Research, jcarrese@ccsf.edu or (415) 267-6544