



Labor Market Analysis for Program Recommendation Emergency Medical Services Occupations Chabot College

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

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Recommendation

Based on all available data, there appears to be an “undersupply” of Emergency Medical Services 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 413 students in the Bay region and 365 students in the East Bay Sub-Region.

Introduction

This report provides student outcomes data on employment and earnings for TOP 1250.00 - Emergency Medical Services 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 Chabot College and in the region.

This report profiles Emergency Medical Services Occupations in the 12 county Bay region and in the East Bay sub-region for a proposed new Emergency Medical Services Associate in Science degree program at Chabot 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%
- **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: 60%
- **Ambulance Drivers and Attendants, Except Emergency Medical Technicians (53-3011):** Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients.
Entry-Level Educational Requirement: High school diploma or equivalent
Training Requirement: Moderate-term on-the-job training
Percentage of Community College Award Holders or Some Postsecondary Coursework: 32%

Occupational Demand

Table 1. Employment Outlook for Emergency Medical Services 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
Firefighters	6,902	7,277	375	5%	3,210	642	\$36	\$44
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	97	134	37	38%	124	25	\$15	\$17
Total	11,888	12,738	850	7%	5,790	1,158		

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 Emergency Medical Services 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
Firefighters	1,962	2,060	98	5%	902	180	\$39	\$44
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	37	46	9	24%	40	8	\$15	\$16
Total	3,966	4,225	259	7%	1,868	373		

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 (Apr. 2023 - Mar. 2024)

Occupation	Bay Region	East Bay
Emergency Medical Technicians	1,084	458
Firefighters	131	32
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	3	1

Source: Lightcast

Table 4a. Top Job Titles for Emergency Medical Services Occupations for latest 12 months (Apr. 2023 - Mar. 2024)
Bay Region

Title	Bay	Title	Bay
Emergency Medical Technicians - Basic	421	Emergency Response Managers	9
Emergency Medical Technicians	303	Reserve Firefighters	8
AMR Emergency Medical Technicians	95	Emergency Department Technicians	7

Title	Bay	Title	Bay
Firefighters/Paramedics	57	Emergency Medical Technician Security Officers	7
Firefighters	42	First Responders	7
Emergency Medical Responders	28	First Aid Responders	5

Source: Lightcast

**Table 4b. Top Job Titles for Emergency Medical Services Occupations for latest 12 months (Apr. 2023 - Mar. 2024)
East Bay Sub-Region**

Title	East Bay	Title	East Bay
Emergency Medical Technicians - Basic	212	Emergency Medical Responders	4
Emergency Medical Technicians	121	Emergency Response Managers	4
AMR Emergency Medical Technicians	50	Emergency Department Technicians	3
Firefighters/Paramedics	13	Training Instructors	3
Firefighters	12	Emergency Response Coordinators	2
Reserve Firefighters	5	Health Services Coordinators	2
911 Coordinators	4	Non-Commissioned Officers	2

Source: Lightcast

Industry Concentration

Table 5. Industries hiring Emergency Medical Services 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)
Local Government, Excluding Education and Hospitals	7,665	8,498	11%	63%
Ambulance Services	2,667	3,113	17%	22%
General Medical and Surgical Hospitals	342	373	9%	3%
Hospitals (Local Government)	226	303	34%	2%
All Other Support Services	221	207	-6%	2%
HMO Medical Centers	179	160	-11%	1%
State Government, Excluding Education and Hospitals	99	126	27%	1%
Federal Government, Military	105	102	-3%	1%
Convention and Trade Show Organizers	62	95	53%	1%
Federal Government, Civilian, Excluding Postal Service	73	76	3%	1%

Source: Lightcast 2022.3

Table 6. Top Employers Posting Emergency Medical Services Occupations in Bay Region and East Bay Sub-Region (Apr. 2023 - Mar. 2024)

Employer	Bay	Employer	East Bay
AMR	461	AMR	250
Lifestest Ambulance Services	52	Falck Northern California	16
Global Medical Response	43	Falcon Critical Care Transport	12
Lifeguard Air Ambulance	29	Lifestest Ambulance Services	12
Falcon Critical Care Transport	27	Eagle Ambulance	11
On-Site Health & Safety	21	Pro-Transport	9

Source: Lightcast

Educational Supply

There are eight (8) community colleges in the Bay Region issuing 741 awards on average annually (last 3 years ending 2021-22) on TOP 1250.00 - Emergency Medical Services. In the East Bay Sub-Region, there are three (3) community colleges that issued eight (8) 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 1250.00 - Emergency Medical Services in Bay Region

College	Subregion	High unit Certificate	Low unit Certificate	Total
Contra Costa	East Bay	0	1	1
Las Positas	East Bay	0	5	5
Merritt	East Bay	0	2	2
Monterey	SC-Monterey	8	21	29
San Francisco	Mid-Peninsula	0	36	36
Santa Rosa	North Bay	0	621	621
Skyline	Mid-Peninsula	0	46	46
Solano	North Bay	0	1	1
Total		8	733	741

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

Note: The annual average for awards is 2019-20 to 2021-22.

Gap Analysis

Based on the data included in this report, there is a labor market gap in the Bay region with 1,158 annual openings for the Emergency Medical Services occupational cluster and 745 annual (3-year average) awards for an annual undersupply of 413 students. In the East Bay Sub-Region, there is also a gap with 373 annual openings and eight (8) annual (3-year average) awards for an annual undersupply of 365 students.

Student Outcomes

Table 8. Four Employment Outcomes Metrics for Students Who Took Courses on TOP 1250.00 - Emergency Medical Services

Metric Outcomes	Bay All CTE Programs	Chabot All CTE Programs	State 1250.00	Bay 1250.00	East Bay 1250.00	Chabot 1250.00
Students with a Job Closely Related to Their Field of Study	74%	75%	66%	67%	71%	80%
Median Annual Earnings for SWP Exiting Students	\$53,090	\$48,800	\$35,212	\$43,194	\$41,854	\$42,528
Median Change in Earnings for SWP Exiting Students	24%	34%	32%	30%	31%	21%
Exiting Students Who Attained the Living Wage	54%	56%	50%	48%	45%	48%

Source: Launchboard Strong Workforce Program Median of 2018 to 2021.

Skills, Certifications and Education

Table 9. Top Skills for Emergency Medical Services Occupations in Bay Region (Apr. 2023 - Mar. 2024)

Skill	Posting	Skill	Posting
Emergency Medical Services	704	Trauma Care	61
Ambulances	610	Fire Prevention	52
Cardiopulmonary Resuscitation (CPR)	540	Vital Signs	52
Medical Assistance	530	Fire Suppression Systems	50
Office Equipment	518	Standard Operating Procedure	46
Medical Equipment	517	De-escalation Techniques	39
Patient Rights	508	Vehicle Maintenance	38
Firefighting	119	Triage	37
Emergency Medicine	105	Critical Care	35
Emergency Response	97	Health Assessment	34

Source: Lightcast

Table 10. Certifications for Emergency Medical Services Occupations in Bay Region (Apr. 2023 - Mar. 2024)

Certification	Posting	Certification	Posting
Emergency Medical Technician (EMT)	980	Certified First Responder (CFR)	36
Valid Driver's License	606	First Aid Certification	31
Basic Life Support (BLS) Certification	595	Emergency Medical Responder (EMR)	31
Emergency Medical Technician - Basic (EMT-B)	342	Pediatric Advanced Life Support (PALS)	30
Advanced Life Support	100	Advanced Cardiovascular Life Support (ACLS) Certification	29
Cardiopulmonary Resuscitation (CPR) Certification	76	Certified Cardiographic Technician (CCT)	26
Paramedic (EMT-P)	66	Automated External Defibrillator (AED) Certification	25
Nationally Registered Emergency Medical Technician (NREMT)	63	American Red Cross (ARC) Certification	21
Firefighter I Certification	62	CDL Class C License	18
Registered Nurse (RN)	36	Firefighter II Certification	15

Source: Lightcast

Table 11. Education Requirements for Emergency Medical Services Occupations in Bay Region

Education Level	Job Postings	% of Total
High school or GED	817	89%
Associate degree	41	4%
Bachelor's degree & higher	69	7%

Source: Lightcast

Note: 30% 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

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