

# Program Market Demand

2 Homeland Security, Law Enforcement, Firefighting and Related Protective Services

Emsi Q3 2018 Data Set

September 2018

College of San Mateo



3401 CSM Drive  
San Mateo, California 94402  
650.358.6880

# Parameters

## Programs

Code	Description
43.0201	Fire Prevention and Safety Technology/Technician
43.0203	Fire Science/Fire-fighting

## Regions

Code	Description
6001	Alameda County, CA
6013	Contra Costa County, CA
6075	San Francisco County, CA
6081	San Mateo County, CA
6085	Santa Clara County, CA

## Education Levels

Any

## Completions Year

2015

## Jobs Timeframe

2017 - 2024

## Job Postings Timeframe

Sep 2016 - Aug 2018

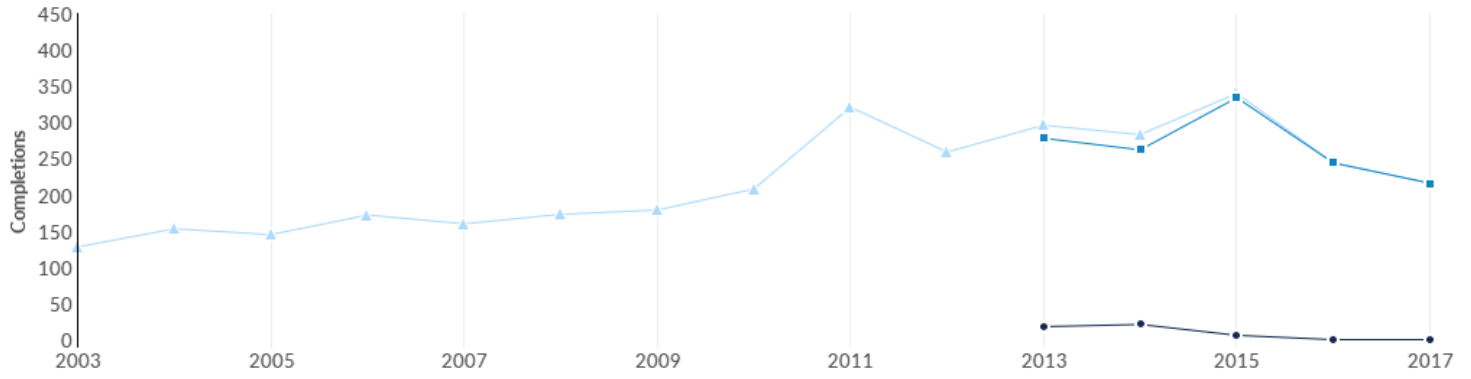
# Program Overview



	Completions (2015)	% Completions	Institutions (2015)	% Institutions
All Programs	340	100%	7	100%
Distance Offered Programs	6	2%	1	14%
Non-Distance Offered Programs	334	98%	6	86%

Institution	Completions (2015)	Growth % YOY (2015)	Market Share (2015)
City College of San Francisco	99	59.7%	29.1%
Los Medanos College	95	66.7%	27.9%
College of San Mateo	62	47.6%	18.2%
Mission College	40	-23.1%	11.8%
Las Positas College	22	-40.5%	6.5%
Chabot College	16	33.3%	4.7%
Cogswell College	6	-71.4%	1.8%

# Regional Trends



	2013 Completions	2015 Completions	% Change
● Distance Offered Programs	18	6	-66.7%
■ Non-Distance Offered Programs	278	334	+20.1%
▲ All Programs	296	340	+14.9%

# Job Postings vs. Hires

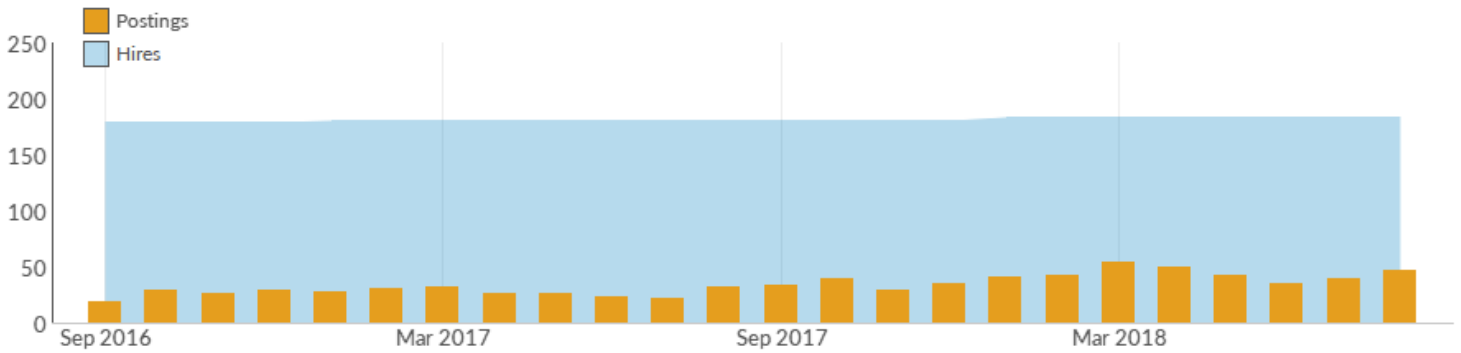
34

Avg. Monthly Postings (Sep 2016 - Aug 2018)

182


Avg. Monthly Hires (Sep 2016 - Aug 2018)

In an average month, there were 34 unique job postings for 4 Occupations, and 182 actually hired. This means there were approximately 5 hires for 4 Occupations for every 1 unique job posting.



Occupation	Avg Monthly Postings (Sep 2016 - Aug 2018)	Avg Monthly Hires (Sep 2016 - Aug 2018)
Fire Inspectors and Investigators	18	5
First-Line Supervisors of Fire Fighting and Prevention Workers	9	13
Firefighters	6	162
Forest Fire Inspectors and Prevention Specialists	0	2

## Job Postings Summary

<p>313</p> <p>Unique Postings 996 Total Postings</p>	<p>3 : 1</p> <p>Posting Intensity</p>  <p>Regional Average: 4 : 1</p>	<p>31 days</p> <p>Median Posting Duration Regional Average: 33 days</p>
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There were 996 total job postings for your selection from September 2016 to August 2018, of which 313 were unique. These numbers give us a Posting Intensity of 3-to-1, meaning that for every 3 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (4-to-1), indicating that they may not be trying as hard to hire for this position.

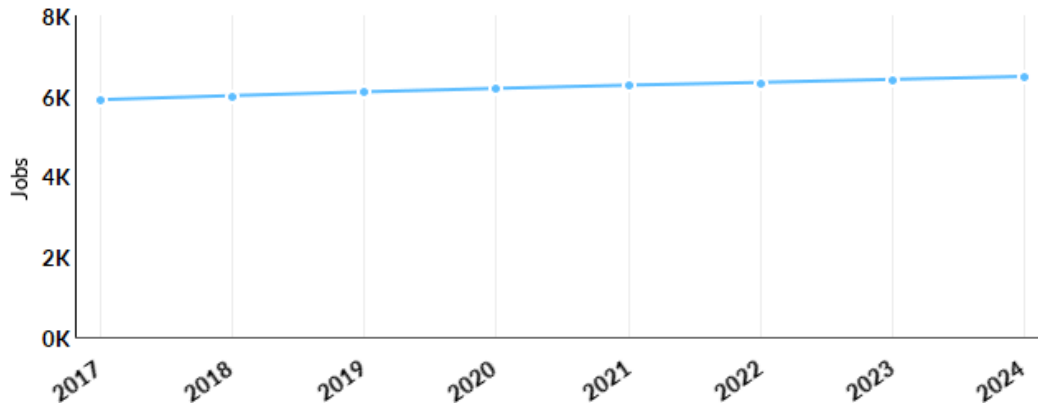
## Target Occupations

<p>5,900</p> <p>Jobs (2017) 37% below National average</p>	<p>+9.8%</p> <p>% Change (2017-2024) Nation: +6.1%</p>	<p>\$44.21/hr</p> <p>Median Hourly Earnings Nation: \$25.41/hr</p>	<p>491</p> <p>Annual Openings</p>
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Occupation	2017 Jobs	Annual Openings	Median Hourly Earnings	Growth (2017 - 2024)	Location Quotient (2017)
Firefighters	5,243	424	\$43.63/hr	+9.21%	0.69
First-Line Supervisors of Fire Fighting and Prevention Workers	447	40	\$65.86/hr	+14.54%	0.33
Fire Inspectors and Investigators	138	17	\$59.12/hr	+13.04%	0.46
Forest Fire Inspectors and Prevention Specialists	73	10	\$40.53/hr	+17.81%	1.27

# Growth

5,900 2017 Jobs	6,479 2024 Jobs	579 Change (2017-2024)	9.8% % Change (2017-2024)
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Occupation	2017 Jobs	2024 Jobs	Change	% Change
First-Line Supervisors of Fire Fighting and Prevention Workers (33-1021)	447	512	65	15%
Firefighters (33-2011)	5,243	5,726	483	9%
Fire Inspectors and Investigators (33-2021)	138	156	18	13%
Forest Fire Inspectors and Prevention Specialists (33-2022)	73	86	13	18%

# Percentile Earnings

\$35.17/hr

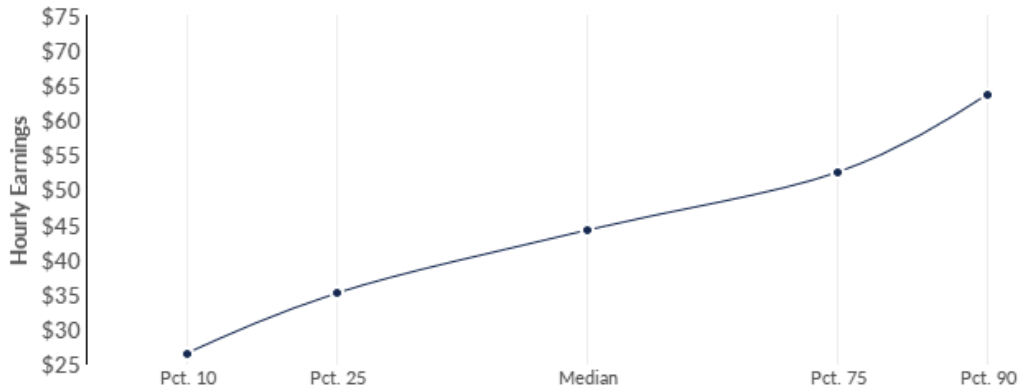
25th Percentile Earnings

\$44.21/hr

Median Earnings

\$52.53/hr

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
First-Line Supervisors of Fire Fighting and Prevention Workers (33-1021)	\$38.30	\$65.86	\$87.70
Firefighters (33-2011)	\$34.93	\$43.63	\$50.99
Fire Inspectors and Investigators (33-2021)	\$41.02	\$59.12	\$72.36
Forest Fire Inspectors and Prevention Specialists (33-2022)	\$35.18	\$40.53	\$50.95



# Top Companies Posting

Company	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
United States Department of the Army	34 / 17	2 : 1 	11 days
Commercial Fire Protection, Inc.	29 / 11	3 : 1 	29 days
Cal Building Systems Inc.	15 / 9	2 : 1 	50 days
City of Berkeley	19 / 9	2 : 1 	25 days
Johnson Controls, Inc.	67 / 9	7 : 1 	121 days
Careers In Government Inc	18 / 8	2 : 1 	41 days
City of Milpitas	12 / 8	2 : 1 	51 days
Apex Systems, Inc.	218 / 7	31 : 1 	52 days
City of Hayward	7 / 6	1 : 1 	26 days
UNNAMED LIMITED	30 / 6	5 : 1 	39 days
Bay Alarm Company	19 / 5	4 : 1 	36 days
City of Oakland	13 / 5	3 : 1 	13 days
City of San Ramon	6 / 5	1 : 1 	13 days
County of Contra Costa	9 / 5	2 : 1 	39 days
Rimkus Consulting Group, Inc.	6 / 5	1 : 1 	26 days
Telgian Corporation	13 / 5	3 : 1 	46 days
City & County of San Francisco	6 / 4	2 : 1 	43 days
City of Brea	4 / 4	1 : 1 	32 days
City of Gilroy	5 / 4	1 : 1 	39 days
City of South San Francisco	9 / 4	2 : 1 	15 days
Cybercoders, Inc.	14 / 4	4 : 1 	35 days
Western States Fire Protection Company	4 / 4	1 : 1 	69 days
Antarctica LLC	9 / 3	3 : 1 	70 days
Army Installation Management Command, US	6 / 3	2 : 1 	16 days
Bay Area Construction, Inc.	5 / 3	2 : 1 	8 days



City of Fremont	7 / 3	2 : 1		108 days
City of Pleasanton	6 / 3	2 : 1		11 days
City of San Diego	3 / 3	1 : 1		26 days
County of San Mateo	3 / 3	1 : 1		29 days
Donan Engineering Co. Inc.	8 / 3	3 : 1		75 days
Fire Safety Solutions, Inc.	6 / 3	2 : 1		34 days
RFI Communications & Security Systems Inc	4 / 3	1 : 1		7 days
State of California	6 / 3	2 : 1		7 days
The City of San Angelo	3 / 3	1 : 1		17 days
API Group Inc.	2 / 2	1 : 1		5 days
Army National Guard	2 / 2	1 : 1		22 days
Canada Inc	5 / 2	3 : 1		29 days
Capstone Fire Management, Inc.	2 / 2	1 : 1		38 days
Ce Energy Partners	2 / 2	1 : 1		116 days
City of Alameda	2 / 2	1 : 1		37 days
City of Pinole	7 / 2	4 : 1		18 days
City of Suisun City	2 / 2	1 : 1		26 days
County of Santa Clara	3 / 2	2 : 1		16 days
East Bay Regional Park District	4 / 2	2 : 1		79 days
Federal Government	4 / 2	2 : 1		3 days
Fire	2 / 2	1 : 1		4 days
Fire Protection Management Inc.	3 / 2	2 : 1		17 days
MI Wuk Sugar Pine Fire Protection District	2 / 2	1 : 1		14 days
Moraga-Orinda Fire Protection District	3 / 2	2 : 1		22 days
Presidio Trust	10 / 2	5 : 1		14 days

# Top Posted Job Titles

Job Title	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
Firefighter	51 / 35	1 : 1	29 days
Fire Inspector	75 / 31	2 : 1	25 days
Fire Sprinkler Inspector	99 / 31	3 : 1	29 days
Fire Chief	53 / 30	2 : 1	32 days
Fire Marshal	27 / 17	2 : 1	33 days
Maintenance Technician (Installation, Maintenance, and Repair)	29 / 15	2 : 1	57 days
Fire Engineer	28 / 14	2 : 1	35 days
Life Coach	17 / 12	1 : 1	13 days
Safety Engineer	120 / 12	10 : 1	62 days
Deputy Marshal	247 / 9	27 : 1	52 days
Security Alarm Technician	18 / 8	2 : 1	34 days
Battalion Chief	13 / 7	2 : 1	27 days
Emergency Medical Technician (EMT)	7 / 7	1 : 1	7 days
Fire Fighter	10 / 6	2 : 1	35 days
Fire Investigator	7 / 6	1 : 1	16 days
Paramedic	11 / 6	2 : 1	39 days
Fire Captain	6 / 4	2 : 1	7 days
Fire Sprinkler Fitter	8 / 4	2 : 1	13 days
Division Chief	5 / 3	2 : 1	80 days
Field Investigator (Business and Financial Operations)	8 / 3	3 : 1	75 days
Recruiter	7 / 3	2 : 1	46 days
Rescue Swimmer	9 / 3	3 : 1	69 days
Residential Support Staff	7 / 3	2 : 1	16 days
Sergeant	3 / 3	1 : 1	36 days

Clinical Leader	4 / 2	2 : 1		29 days
Construction Safety Officer	57 / 2	29 : 1		8 days
Emergency Department Nursing Assistant	2 / 2	1 : 1		26 days
Entry Level Electrical Engineer	3 / 2	2 : 1		17 days
Maintenance Representative	2 / 2	1 : 1		2 days
Nurse Practitioner	5 / 2	3 : 1		43 days
Public Safety Officer	2 / 2	1 : 1		22 days
Safety Inspector (Transportation and Material Moving)	2 / 2	1 : 1		8 days
Safety Technician	2 / 2	1 : 1		116 days
Aviation Officer	3 / 1	3 : 1		9 days
Certified Professional Coder	1 / 1	1 : 1		17 days
Delivery Driver	1 / 1	1 : 1		106 days
Deputy Head of Department	1 / 1	1 : 1		29 days
Field Service Technician	4 / 1	4 : 1		39 days
Fire Specialist	1 / 1	1 : 1		2 days
Junior Software Engineer	1 / 1	1 : 1		2 days
Law Enforcement Officer	2 / 1	2 : 1		57 days
Life Skills Worker	3 / 1	3 : 1		13 days
Line Supervisor	5 / 1	5 : 1		48 days
Loss Prevention Officer	1 / 1	1 : 1		29 days
Maintenance Manager (Installation, Maintenance, and Repair)	3 / 1	3 : 1		n/a
Maintenance Technician (Architecture and Engineering)	1 / 1	1 : 1		2 days
Officer in Charge	1 / 1	1 : 1		8 days
Quality Control Specialist (Architecture and Engineering)	2 / 1	2 : 1		39 days

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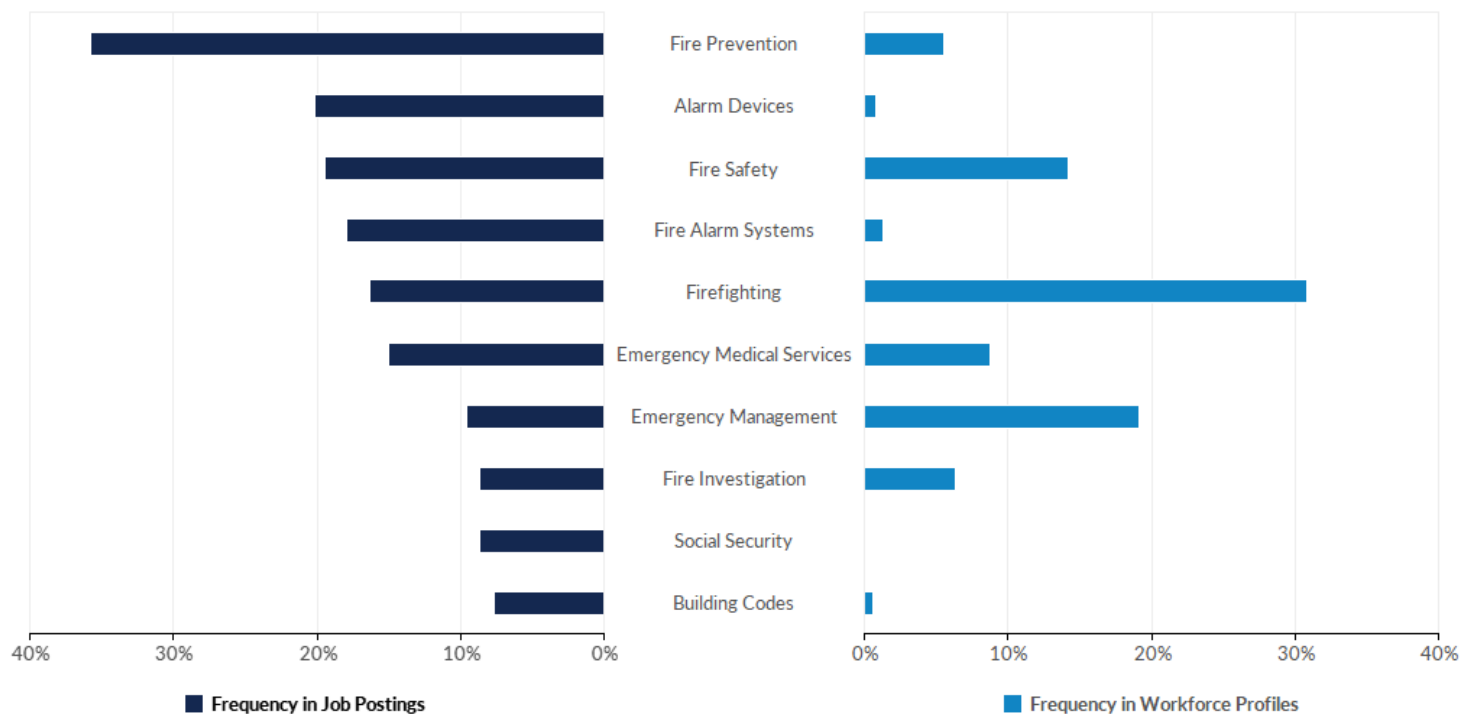
Research Director	1 / 1	1 : 1		5 days
Safety Inspector (Construction and Extraction)	1 / 1	1 : 1		7 days

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The following provides insight into the supply and demand of relevant skills by comparing the frequency of skills present in job postings against skills present in today's workforce. Along with Emsi's job posting analytics, this comparison leverages Emsi's dataset of more than 100M online resumés and profiles. All resumés and profiles used in these comparisons have been updated within the last three years.

\*The skills associated with workforce profiles represent workers of all education and experience levels.

## Top Hard Skills



## Top Hard Skills

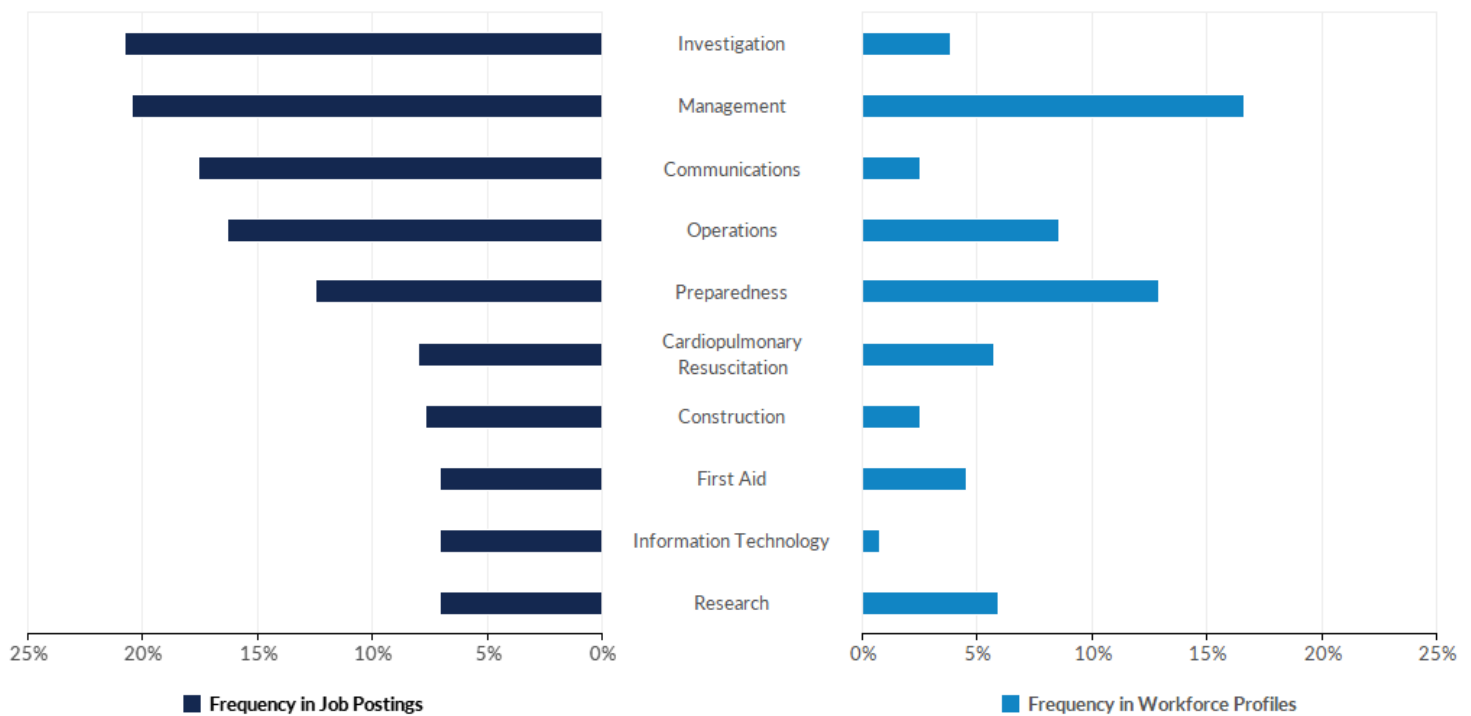
Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Aug 2018)	Frequency in Profiles	Profiles with Skill / Total Profiles (2016 - 2018)
Fire Prevention	36%	112 / 313	5%	98 / 1,783
Alarm Devices	20%	63 / 313	1%	15 / 1,783
Fire Safety	19%	61 / 313	14%	253 / 1,783
Fire Alarm Systems	18%	56 / 313	1%	23 / 1,783
Firefighting	16%	51 / 313	31%	550 / 1,783
Emergency Medical Services	15%	47 / 313	9%	157 / 1,783
Emergency Management	10%	30 / 313	19%	342 / 1,783

Fire Investigation	9%	27 / 313	6%	113 / 1,783
Social Security	9%	27 / 313	0%	0 / 1,783
Building Codes	8%	24 / 313	1%	11 / 1,783
Life Support	8%	24 / 313	0%	2 / 1,783
Code Enforcement	7%	23 / 313	3%	56 / 1,783
Disability Insurance	7%	23 / 313	0%	1 / 1,783
Emergency Preparedness	7%	23 / 313	0%	4 / 1,783
Fair Labor Standards Act	7%	22 / 313	0%	0 / 1,783
Incident Command Systems	6%	20 / 313	12%	210 / 1,783
Employee Benefits	6%	18 / 313	0%	2 / 1,783
Ordinances	6%	18 / 313	0%	0 / 1,783
Enforcement	5%	17 / 313	4%	72 / 1,783
Fire Suppression Systems	5%	17 / 313	10%	182 / 1,783
Medicare	5%	17 / 313	0%	3 / 1,783
Personal Protective Equipment	5%	17 / 313	0%	0 / 1,783
Safety Training	5%	17 / 313	1%	9 / 1,783
Building Inspections	4%	14 / 313	0%	0 / 1,783
Employee Assistance Programs	4%	14 / 313	0%	0 / 1,783
Employment Applications	4%	13 / 313	0%	0 / 1,783
Safety Codes	4%	13 / 313	0%	0 / 1,783
Sprinkler Systems	4%	13 / 313	0%	6 / 1,783
Fingerprinting	4%	12 / 313	0%	0 / 1,783
Life Safety Codes	4%	12 / 313	0%	0 / 1,783
Occupational Safety And Health	4%	12 / 313	0%	2 / 1,783
Environmental Health	4%	11 / 313	0%	0 / 1,783
International Mechanical Codes	4%	11 / 313	0%	0 / 1,783

Low Voltage	4%	11 / 313	0%	4 / 1,783
Appeals	3%	10 / 313	0%	0 / 1,783
Breathing Apparatuses	3%	10 / 313	0%	1 / 1,783
Deferred Compensation	3%	10 / 313	0%	0 / 1,783
Electrical Wirings	3%	10 / 313	0%	3 / 1,783
Immigration	3%	10 / 313	0%	0 / 1,783
Public Administration	3%	10 / 313	1%	21 / 1,783
Workplace Safety	3%	10 / 313	0%	4 / 1,783
Ambulances	3%	9 / 313	2%	40 / 1,783
Business Process Improvement	3%	9 / 313	2%	35 / 1,783
Automated External Defibrillator	3%	8 / 313	3%	49 / 1,783
Blueprinting	3%	8 / 313	0%	2 / 1,783
Paneling	3%	8 / 313	0%	0 / 1,783
Probation	3%	8 / 313	0%	0 / 1,783
Advanced Cardiovascular Life Support (ACLS)	2%	7 / 313	1%	17 / 1,783
Electronics	2%	7 / 313	0%	8 / 1,783
Pediatric Advanced Life Support	2%	7 / 313	1%	14 / 1,783



## Top Common Skills



## Top Common Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Aug 2018)	Frequency in Profiles	Profiles with Skill / Total Profiles (2016 - 2018)
Investigation	21%	65 / 313	4%	68 / 1,783
Management	20%	64 / 313	17%	296 / 1,783
Communications	18%	55 / 313	3%	45 / 1,783
Operations	16%	51 / 313	9%	153 / 1,783
Preparedness	12%	39 / 313	13%	230 / 1,783
Cardiopulmonary Resuscitation	8%	25 / 313	6%	102 / 1,783
Construction	8%	24 / 313	3%	45 / 1,783
First Aid	7%	22 / 313	5%	81 / 1,783
Information Technology	7%	22 / 313	1%	14 / 1,783
Research	7%	22 / 313	6%	106 / 1,783
Problem Solving	7%	21 / 313	1%	20 / 1,783
Computer Literacy	6%	20 / 313	0%	5 / 1,783

Customer Service	6%	20 / 313	10%	179 / 1,783
Troubleshooting (Problem Solving)	6%	20 / 313	1%	22 / 1,783
Innovation	6%	19 / 313	0%	7 / 1,783
Presentations	6%	18 / 313	1%	14 / 1,783
Decision Making	5%	17 / 313	0%	7 / 1,783
Leadership	5%	15 / 313	11%	188 / 1,783
Coordinating	4%	14 / 313	1%	25 / 1,783
Interpersonal Skills	4%	14 / 313	0%	2 / 1,783
Filing	4%	13 / 313	0%	7 / 1,783
Service-Orientation	4%	13 / 313	0%	1 / 1,783
Team Building	4%	12 / 313	5%	92 / 1,783
Writing	4%	12 / 313	1%	23 / 1,783
Cooperation	4%	11 / 313	0%	3 / 1,783
Verbal Communication Skills	4%	11 / 313	0%	0 / 1,783
Microsoft Internet Explorer	3%	10 / 313	0%	0 / 1,783
Interpersonal Communications	3%	9 / 313	0%	3 / 1,783
Driving	2%	7 / 313	0%	7 / 1,783
Microsoft Excel	2%	7 / 313	6%	113 / 1,783
Microsoft Outlook	2%	7 / 313	2%	29 / 1,783
Multilingualism	2%	7 / 313	0%	1 / 1,783
Spanish Language	2%	7 / 313	0%	7 / 1,783
Written Communication	2%	7 / 313	0%	3 / 1,783
Clerical Works	2%	6 / 313	0%	6 / 1,783
Listening Skills	2%	6 / 313	0%	0 / 1,783
Microsoft Office	2%	6 / 313	8%	137 / 1,783
Training And Development	2%	6 / 313	1%	10 / 1,783

Cantonese Chinese	2%	5 / 313	0%	0 / 1,783
English Language	2%	5 / 313	1%	9 / 1,783
Mandarin Chinese	2%	5 / 313	0%	0 / 1,783
Sales	2%	5 / 313	5%	89 / 1,783
Business Administration	1%	4 / 313	0%	2 / 1,783
Career Development	1%	4 / 313	0%	2 / 1,783
Creativity	1%	4 / 313	0%	0 / 1,783
Defensive Driving	1%	4 / 313	0%	2 / 1,783
Hospitality	1%	4 / 313	0%	5 / 1,783
Mathematics	1%	4 / 313	0%	3 / 1,783
Tagalog Language	1%	4 / 313	0%	0 / 1,783
Teaching	1%	4 / 313	3%	52 / 1,783

## Top Qualifications

Qualification	Postings with Qualification
Certified Fire Inspector I	23
National Registry Emergency Medical Technician	17
Certified First Responder	13
Certified Fire Inspector	10
Advanced Life Support	8
Certified Urologic Physician'S Assistant	5
Certified Patient Account Technician	4
Commercial Driver's License (CDL)	2
Medical Certificate	2

# Appendix A - Data Sources and Calculations

## Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

## Emsi Job Postings

Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills, and geography.

## Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

## Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

## State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department