



## Emergency Medical Services TOP: 1250.00

February 2020

Prepared by the South Central Coast Center of Excellence for Labor Market Research

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### Program Recommendation

This report was compiled by the South Central Coast<sup>1</sup> Center of Excellence to provide regional labor market data for the program recommendation – Emergency Medical Services. This report can help determine whether there is demand in the local labor market that is not being met by the supply from programs of study (CCC and non-CCC) that align with this occupation group.

### Key Findings

- In the South Central Coast region, **the number of jobs related to Emergency Medical Services are expected to remain steady**, over the next five years, for all related occupations.
- Firefighters are expected to anticipate a **medium risk of automation** and all other occupations are expected to anticipate a **low risk of automation**.
- In 2017 there were 1,842 regional completions in programs related to the occupations identified as related to Emergency Medical Services and 670 openings, indicating an **oversupply**.
- Typical entry-level education ranges from a **high school diploma or equivalent** for Police and Sheriff's Patrol Officers and Police, Fire, and Ambulance Dispatchers, to a **postsecondary nondegree award** for Emergency Medical Technicians and Paramedics and Firefighters, and a **Bachelor's degree** for Emergency Management Directors.
- Completers of Emergency Medical Services programs from the 2015-2016 academic year had a **median annual wage** upon completion of \$28,252.
- 78% of students are **employed within a year** after completing a program.
- 52% of students are **earning a living wage**.

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<sup>1</sup> The South Central Coast Region consists of San Luis Obispo County, Santa Barbara County, Ventura County, and the following cities from North Los Angeles County: Canyon Country, Castaic, Lake Hughes, Lancaster, Littlerock, Llano, Newhall, Palmdale, Pearblossom, Santa Clarita, Stevenson Ranch, and Valencia.

## Occupation Codes and Descriptions

Currently, there are five occupations in the standard occupational classification (SOC) system that were identified as related to Emergency Medical Services for this analysis. The occupation titles and descriptions, as well as reported job titles are included in Exhibit 1.

**Exhibit 1 – Occupation, description, and sample job titles**

SOC Code	Title	Description	Sample of Reported Job Titles
11-9161	<b>Emergency Management Directors</b>	Plan and direct disaster response or crisis management activities, provide disaster preparedness training, and prepare emergency plans and procedures for natural (e.g., hurricanes, floods, earthquakes), wartime, or technological (e.g., nuclear power plant emergencies or hazardous materials spills) disasters or hostage situations.	Emergency Management Consultant, Emergency Management Coordinator, Emergency Management Specialist, Emergency Management System Director (EMS Director), Emergency Planner, Emergency Preparedness Coordinator, Emergency Preparedness Program Specialist, Emergency Services Director, Hazard Mitigation Officer, Public Safety Director
29-2041	<b>Emergency Medical Technicians and Paramedics</b>	Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.	Emergency Medical Technician (EMT); Emergency Medical Technician, Basic (EMT, B); Emergency Medical Technician/Driver (EMT/DRIVER); EMT Intermediate (Emergency Medical Technician, Intermediate)
33-2011	<b>Firefighters</b>	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.	Apparatus Operator, Fire Captain, Fire Chief, Fire Engineer, Fire Equipment Operator, Fire Fighter, Firefighter, Fireman, Safety Officer, Volunteer Firefighter, Fire Fighter, Fire Management Specialist, Fire Rescue Technician, Fire Technician, Firefighter, Forest Fire Suppression Specialist, Forestry Fire Technician, Hot Shot, On-Scene Supporter, Wildland Firefighter
33-3051	<b>Police and Sheriff's Patrol Officers</b>	Maintain order and protect life and property by enforcing local, tribal, State, or Federal laws and ordinances. Perform a combination of the following duties: patrol a specific area; direct traffic; issue traffic	Alcohol Law Enforcement Agent (ALE Agent), Law Enforcement Officer, Officer, Patrol Officer, Peace Officer, Police Officer, Police Patrol Officer, Public Safety

		summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts.	Officer, State Trooper, Uniform Patrol Police Officer, Canine Deputy (K-9 Deputy), Chief Deputy Sheriff, Civil Division Deputy Sheriff, Civil Process Server, Corporal-Road Deputy with Sheriff Department, Deputy, Deputy (Patrol), Deputy Sheriff, Deputy Sheriff (Generalist)-Bailiff, Drug Abuse Resistance Education Officer (DARE Officer)
43-5031	<b>Police, Fire, and Ambulance Dispatchers</b>	Operate radio, telephone, or computer equipment at emergency response centers. Receive reports from the public of crimes, disturbances, fires, and medical or police emergencies. Relay information to law enforcement and emergency response personnel. May maintain contact with caller until responders arrive.	911 Dispatcher, Communications Officer, Communications Operator, Communications Specialist, Communications Supervisor, Dispatcher, Emergency Communications Operator (ECO), Police Dispatcher, Public Safety Dispatcher, Telecommunicator

Source: O\*NET Online

## Current and Future Employment

In the South Central Coast region, the number of jobs related to Emergency Medical Services are expected to remain steady, over the next five years, for all related occupations.

**Exhibit 2 – Five-year projections for Emergency Medical Services in the South Central Coast region**

SOC	Occupation	2018 Jobs	2023 Jobs	2018-2023 Change	2018-2023 % Change
11-9161	Emergency Management Directors	57	59	2	4%
29-2041	Emergency Medical Technicians and Paramedics	982	1,002	20	2%
33-2011	Firefighters	2,192	2,255	63	3%
33-3051	Police and Sheriff's Patrol Officers	5,279	5,436	157	3%
43-5031	Police, Fire, and Ambulance Dispatchers	359	378	19	5%

Source: Economic Modeling Specialists International (EMSI)

## Earnings

In the South Central Coast region, the average wage for the listed occupations is \$44.55 per hour.

Exhibit 3 contains hourly wages and annual average earnings for these occupations. Entry-level hourly earnings are represented by the 25<sup>th</sup> percentile of wages, median hourly earnings are represented by the 50<sup>th</sup> percentile of wages, and experienced hourly earnings are represented by the 75<sup>th</sup> percentile of wages, demonstrating various levels of employment.

**Exhibit 3 – Earnings for Emergency Medical Services in the South Central Coast region**

SOC	Occupation	Entry-Level Hourly Earnings	Median Hourly Earnings	Experienced Hourly Earnings
11-9161	Emergency Management Directors	\$24.93	\$45.33	\$62.34
29-2041	Emergency Medical Technicians and Paramedics	\$12.07	\$14.54	\$18.38
33-2011	Firefighters	\$27.02	\$36.07	\$49.89
33-3051	Police and Sheriff's Patrol Officers	\$42.05	\$51.84	\$58.61
43-5031	Police, Fire, and Ambulance Dispatchers	\$26.19	\$31.39	\$37.88

Source: Economic Modeling Specialists International (EMSI)

## Employer Job Postings

In this research brief, real-time labor market information is used to provide a more nuanced view of the current job market, as it captures job advertisements for occupations relevant to the field of study. Employer job postings are consulted to understand who is employing emergency medical technicians, and what they are looking for in potential candidates. To identify job postings related to Emergency Medical Services the following standard occupational classifications were used:

11-9161	Emergency Management Directors
29-2041	Emergency Medical Technicians and Paramedics
33-2011	Firefighters
33-3051	Police and Sheriff's Patrol Officers
43-5031	Police, Fire, and Ambulance Dispatchers

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## Top Occupations

In 2018, there were 301 employer postings for occupations related to Emergency Medical Services.

**Exhibit 4 – Top occupations in job postings and risk of automation tables**

SOC Code	Occupation	Job Postings, Full Year 2018
29-2041	Emergency Medical Technicians and Paramedics	136
33-3051	Police and Sheriff's Patrol Officers	65
33-2011	Firefighters	46
11-9161	Emergency Management Directors	29
43-5031	Police, Fire, and Ambulance Dispatchers	25

Source: Labor Insight/Jobs (Burning Glass)

SOC Code	Occupation	Risk of Automation
29-2041	Emergency Medical Technicians and Paramedics	Low
33-3051	Police and Sheriff's Patrol Officers	Low
33-2011	Firefighters	Medium
11-9161	Emergency Management Directors	Low
43-5031	Police, Fire, and Ambulance Dispatchers	Low

Source: Labor Insight/Jobs (Burning Glass)

**Top Titles**

The top job titles for employers posting ads for jobs related to Emergency Medical Services are listed in Exhibit 5. Firefighter is mentioned as the job title in 13% of all relevant job postings (40 postings).

**Exhibit 5 –Job titles**

<b>Title</b>	<b>Job Postings, Full Year 2018</b>
Firefighter	40
Paramedic	37
Police Officer	37
Dispatcher	19
EMT	19

Source: Labor Insight/Jobs (Burning Glass)

**Top Employers**

Exhibit 6 lists the major employers hiring professionals in the Emergency Medical Services field. The top employer posting job ads was Envision. The top worksite cities in the region for these occupations were San Luis Obispo, Ventura, Palmdale, Santa Clarita, and Santa Barbara.

**Exhibit 6 – Top employers (n=301)**

<b>Employer</b>	<b>Job Postings, Full Year 2018</b>
Envision	17
US Air Force	12
Tenet Health System	11
City of Ventura	9
General Atomics	9

Source: Labor Insight/Jobs (Burning Glass)

**Skills**

Patient Care is the most sought after skill for employers hiring for jobs related to Emergency Medical Services.

**Exhibit 7 –Job skills (n=230)**

Skills	Job Postings, Full Year 2018
Patient Care	78
Cardiopulmonary Resuscitation (CPR)	76
Advanced Cardiac Life Support (ACLS)	50
Public Health and Safety	48
Electrocardiogram (EKG/ECG)	36
Medical Triage	35
Emergency Services	29

Source: Labor Insight/Jobs (Burning Glass)

**Industry Concentration**

Exhibit 8 shows the industries with most Emergency Medical Services postings in the South Central Coast. Note: 10% of records have been excluded because they do not include an industry. As a result, the chart below may not be representative of the full sample.

**Exhibit 8 – Industries employing the most in the Emergency Medical Services field, 2018**

Industry	Occupation Group Jobs in Industry	% of Occupation Group in Industry
Health Care and Social Assistance	102	38%
Public Administration	85	31%
Professional, Scientific, and Technical Services	31	11%
Educational Services	28	10%
Administrative and Support and Waste Management and Remediation Services	6	2%

Source: Labor Insight/Jobs (Burning Glass)

## Education and Training

Exhibit 9 shows the typical entry-level education requirement for the occupations of interest, along with the typical on-the-job training needed to attain competency in the occupation.

**Exhibit 9 – Education and training requirements**

SOC	Occupation	Typical entry-level education	Typical on-the-job training
11-9161	<b>Emergency Management Directors</b>	Bachelor's degree	None
29-2041	<b>Emergency Medical Technicians and Paramedics</b>	Postsecondary nondegree award	None
33-2011	<b>Firefighters</b>	Postsecondary nondegree award	Long-term on-the-job training
33-3051	<b>Police and Sheriff's Patrol Officers</b>	High school diploma or equivalent	Moderate-term on-the-job training
43-5031	<b>Police, Fire, and Ambulance Dispatchers</b>	High school diploma or equivalent	Moderate-term on-the-job training

Source: Bureau of Labor Statistics Employment Projections (Educational Attainment)

## Regional Completions and Openings

There were 1,842 regional completions (2017) and 670 regional openings (2017) in the South Central Coast region in programs related to the occupations identified as related to Emergency Medical Services.

**Exhibit 10 – Completions and Openings**

<b>9</b> Regional Institutions had Related Programs (2018)	<b>1,842</b> Regional Completions (2018)	<b>670</b> Annual Openings (2018)
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Source: Economic Modeling Specialists International (EMSI)

## Related Programs

CIP Code	Program	Completions (2018)
43.0107	Criminal Justice/Police Science	753
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	514
51.0810	Emergency Care Attendant (EMT Ambulance)	129
51.0000	Health Services/Allied Health/Health Sciences, General	111
43.0203	Fire Science/Firefighting	91
43.0299	Fire Protection, Other	15
43.0111	Criminalistics and Criminal Science	0
43.0114	Law Enforcement Investigation and Interviewing	0
43.0206	Wildland/Forest Firefighting and Investigation	0

Source: Economic Modeling Specialists International (EMSI)



## Student Outcomes

The CTE LaunchBoard provides student outcome data on the effectiveness of CTE programs. The following student outcome information was collected from exiters of the Emergency Medical Services Program (TOP: 1250.00) in the South Central Coast region for the 2015-16 academic year.

- The median annual wage for students after exiting is \$28,252.
- 78% of students are employed within a year after completing a program.
- 52% of students are earning a living wage.
- Most Common middle-skills jobs for this program are:
  - Emergency Medical Technicians and Paramedics

Source: CTE LaunchBoard

## Sources

O\*Net Online, Labor Insight/Jobs (Burning Glass), Economic Modeling Specialists International (EMSI), Bureau of Labor Statistics (BLS) Education Attainment, California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart, CTE LaunchBoard

## Notes

Data included in this analysis represent the labor market demand for relevant positions most closely related to Emergency Medical Services. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study and can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions. All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.