

# Paramedics

*Inland Empire/Desert Region (Riverside and San Bernardino counties combined)*

## Summary

- Paramedic programs issued **87 credentials issued annually** from **three regional community colleges**.
- There were **74 online job postings** for paramedics during the last 12 months (October 2018 to September 2019). However, 267 additional job postings mentioned the demand for paramedic skills within other occupations during the same timeframe, indicating greater need for the skillset possessed by paramedics above and beyond the occupation alone.

## Introduction

In the field of first-response emergency medical services, emergency medical technicians (EMTs) typically represent entry-level positions for patient care while paramedics possess advanced training, which allows them to administer medications, start intravenous lines, provide airway management to increase oxygen flow, and resuscitate patients (UCLA, 2019). The Standard Occupational Classification (SOC), the primary and reliable system for quantifying occupations, combines EMTs and paramedics into a single occupation. Combining the occupations limits the analyses between the two different job roles with traditional labor market information. Job counts, annual job openings, and wages information for the combined, *Emergency Medical Technicians and Paramedics* occupation is available in Exhibit 1 below.

*Exhibit 1: Emergency Medical Technicians and Paramedics occupation*

2018 Jobs	2023 Jobs	5-Yr % Change (New Jobs)	Annual Openings (New + Replacement Jobs)	Entry to Experienced Hourly Wage Range (25 <sup>th</sup> – 75 <sup>th</sup> percentile)	Median Hourly Wage (50 <sup>th</sup> percentile)	% of workers age 55+
3,094	3,559	15%	288	\$12.10 to \$20.02	\$15.49	7%

Source: EMSI 2019.3

Due to the combined nature of this job code, this report utilizes real-time job posting data specific to paramedics to gauge demand for this job. This report also contains a special section detailing the need for other occupations that frequently require a paramedic skillset, beginning on page 6. For additional information on paramedics, please see California’s Emergency Medical Services Authority webpage listed in the references section of this report.

## Job Postings

Real-time labor market information from job advertisements is used as a method to gauge employer demand for paramedics. Exhibit 2 displays the number of job ads posted during the last 12 months, along

with the regional and statewide average time to fill for paramedics in the IEDR. On average, local employers fill online job postings for paramedics within 51 days. This regional average is the same as the statewide average, indicating that both areas face similar challenges when seeking candidates to fill these positions.

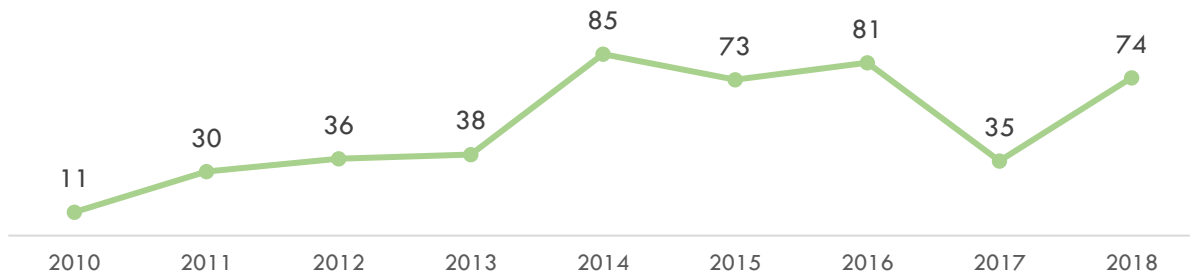
*Exhibit 2: Job ads and time to fill for paramedics, Oct 2018 – Sep 2019*

Occupation	Job Ads	Regional Average Time to Fill (Days)	California Average Time to Fill (Days)
Paramedics	74	51	51

Source: Burning Glass – Labor Insights

Historical job posting demand appears in Exhibit 3, detailing the number of job ads for paramedics during each calendar year dating back to 2014. Job posting intensity for paramedics rose sharply in 2014 and has remained relatively consistent since, except for 2017.

*Exhibit 3: Job postings for paramedics by year, 2010-2018*



Source: Burning Glass – Labor Insights

## Earnings

Since traditional labor market information does not differentiate between the earnings for EMTs and paramedics, an alternative way to determine what wages paramedics can expect to earn is by extracting wage information from online job postings. The Metropolitan Policy Program at Brookings would classify *paramedic* positions as “good jobs” because they provide an entry-level wage that allows workers to become economically independent and secure, above \$18 per hour (\$37,440 per year), with employer-sponsored health insurance (Shearer, Shah & Gootman, 2019, pg. 25). Only 21% of paramedic job postings list a potential annual wage below the “good” wage threshold.

Exhibit 3 displays advertised salary data from real-time job postings for paramedics over the last 12 months. This information should be viewed with caution, as 64% of job postings do not contain salary information. Please note that salary figures are prorated to reflect full-time, annual wage status.

Exhibit 3: Advertised salary information for paramedics, Oct 2018 – Sep 2019

Occupation	Number of job postings	Real-Time Salary Information				Average Annual Earnings
		Less than \$35,000	\$35,000 to \$49,999	\$50,000 to \$74,999	More than \$75,000	
Paramedics	28	7%	14%	57%	21%	\$66,000

Source: Burning Glass – Labor Insights

### Employers, Locations, Skills, Education, and Certifications

Exhibit 4 displays the employers posting the most job ads for paramedics during the last 12 months in the IEDR. Approximately 57% of the job postings for paramedics were posted by the following six employers over the previous year.

Exhibit 4: Employers posting the most job ads for paramedics, Oct 2018 – Sep 2019

Employer	Job Postings
Medcor, Inc.	13
Emergency Medical Services Authority	8
Air Methods	6
AMR Healthcare	6
State of California	5
County of San Bernardino	4
All other employers	32
<b>Total</b>	<b>74</b>

Source: Burning Glass – Labor Insights

Exhibit 5 displays the work location associated with the job postings for paramedics. The communities listed account for 84% of all the job postings for paramedics over the last 12 months.

Exhibit 5: Locations with the most job postings for paramedics, Oct 2018 – Sep 2019

Location	Job Postings
Riverside	17
Victorville	10
San Bernardino	8
Hemet	5
Redlands	5
Rialto	5
Chino	3

Location	Job Postings
Mountain Pass	3
Ontario	3
Rancho Cucamonga	3
<i>All other locations</i>	12
<b>Total</b>	<b>74</b>

Source: Burning Glass – Labor Insights

Exhibit 6 displays a sample of specialized and employability skills that employers are seeking when looking for workers to fill positions for paramedics. Specialized skills are occupation-specific skills that employers are requesting for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is commonly referred to as “soft skills.” The skills requested in job postings may be utilized as a helpful guide for curriculum development.

*Exhibit 6: Sample of in-demand skills from employer job ads for paramedics, Oct 2018 – Sep 2019*

Occupation	Specialized Skills	Employability Skills
Paramedics (n=67)	<ul style="list-style-type: none"> <li>• Patient Care</li> <li>• Cardiopulmonary Resuscitation (CPR)</li> <li>• Medical Triage</li> <li>• Advanced Cardiac Life Support (ACLS)</li> <li>• Electrocardiogram (EKG/ECG)</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Abilities</li> <li>• Leadership</li> <li>• Building Effective Relationships</li> <li>• Written Communication</li> </ul>

Source: Burning Glass – Labor Insights

Exhibit 7 displays the entry-level education typically required to enter this occupation according to the Bureau of Labor Statistics (BLS), educational attainment for incumbent workers with “some college, no degree” and an “associate degree” according to the U.S. Census (2016-17), and the minimum advertised education requirement from employer job ads.

*Exhibit 7: Typical entry-level education, educational attainment, and minimum advertised education requirements for paramedics, Oct 2018 – Sep 2019*

Occupation	Typical Entry-Level Education Requirement	Educational Attainment*	Minimum Advertised Education Requirement from Job Ads			
			Number of Job Postings	High school diploma or vocational training	Associate degree	Bachelor's degree or higher
Paramedics	Postsecondary nondegree award	65%	37	87%	13%	-

Source: EMSI 2019.3, Burning Glass – Labor Insights

\*Percentage of incumbent workers with a Community College Credential or Some Postsecondary Coursework

The California Emergency Services Authority (CA EMSA) is the regulatory agency that issues paramedic certifications. Before applying for the paramedic certification, individuals must complete a paramedic training program, then pass the National Registry (NREMT) examination. After successfully passing the NREMT, individuals must contact their local EMS agency to obtain their paramedic certification in California. For more information about paramedic certifications and requirements, visit the EMSA website (CA EMSA, 2019). Exhibit 8 displays the certifications required by employers posting job ads for paramedics in the IEDR.

*Exhibit 8: Top certifications required by employer job ads for paramedics, Oct 2018 – Sep 2019*

Occupation	Certifications
Paramedics (n=73)	<ul style="list-style-type: none"> <li>• Advanced Cardiac Life Support (ACLS)</li> <li>• Certified Emergency Medical Technician (EMT)</li> <li>• Certified Paramedic</li> <li>• Basic Life Support (BLS)</li> </ul>

Source: Burning Glass – Labor Insights

## Other Occupations requiring Paramedic skills

The skillset possessed by licensed paramedics is often requested, or needed, for a variety of occupations. For example, San Bernardino County Fire (2018) lists EMT or paramedic licenses as “highly desirable,” but they are considered requirements that may change based on recruiting needs. Riverside County Fire Department (2019) states that more than two-thirds of their fire stations employ firefighting paramedics, with at least one assigned to an engine. While obtaining a paramedic certification is not required for employment as a firefighter, it can certainly increase the likelihood of getting hired.

A job posting search confirmed the demand for paramedic skills within other jobs beyond the combined *Emergency Medical Technicians and Paramedics* occupation, yielding 267 additional job postings mentioning this skillset in job ads for a variety of other healthcare occupations in the region. Exhibit 9 displays the occupations that most frequently mentioned paramedic skills in job postings, along with the corresponding job titles for each occupation.

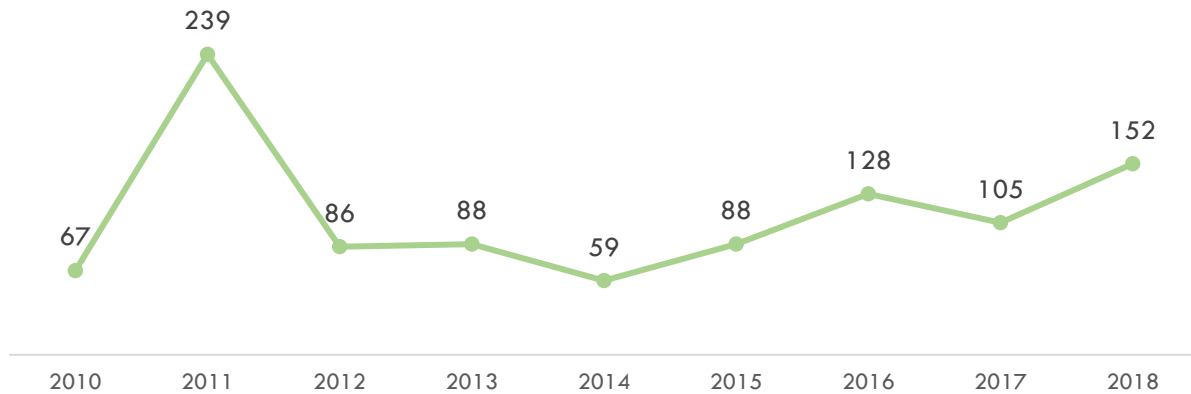
*Exhibit 9: Other occupations and corresponding job titles requiring paramedic skillset, Oct 2018 – Sep 2019*

Occupation	Job Titles	Job Postings
Registered Nurses	<ul style="list-style-type: none"> <li>• Travel Registered Nurse</li> <li>• Intensive Care Unit (ICU) Registered Nurse</li> <li>• Emergency Room Registered Nurse</li> <li>• Critical Care Registered Nurse</li> </ul>	107
Phlebotomists	<ul style="list-style-type: none"> <li>• Phlebotomist</li> </ul>	25
Firefighters	<ul style="list-style-type: none"> <li>• Firefighter</li> </ul>	16
Medical and Health Services Managers	<ul style="list-style-type: none"> <li>• Charge Nurse</li> </ul>	15
Health Technologists and Technicians	<ul style="list-style-type: none"> <li>• Emergency Services Technician</li> <li>• Paramedic</li> </ul>	13
Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	<ul style="list-style-type: none"> <li>• Lifeguard</li> </ul>	12
Licensed Vocational Nurses	<ul style="list-style-type: none"> <li>• Licensed Vocational Nurse</li> </ul>	5
Physician Assistants	<ul style="list-style-type: none"> <li>• Physician’s Assistant</li> <li>• Nurse Practitioner</li> </ul>	5
<i>All other occupations</i>		69
<b>Total</b>		<b>267</b>

Source: Burning Glass – Labor Insights

Historical job posting demand appears in Exhibit 10, detailing the number of job ads mentioning the paramedic skill set during each calendar year dating back to 2010. Job posting intensity for paramedic skills rose sharply in 2011, fell to the prior level, and has risen steadily since.

Exhibit 10: Job postings for paramedic skills by year, 2010-2018



Source: Burning Glass – Labor Insights

### Student Completions and Program Outcomes

The California Community College paramedic program (TOP 1251.00) prepares students for employment as paramedics by providing training specific to the certification standards for EMT-P (Paramedic) (Taxonomy of Programs, 2012). Exhibit 11 displays the average annual regional California Community College (CCC) credentials conferred during the three academic years between 2015 and 2018, from the California Community Colleges Chancellor’s Office Management Information Systems (MIS) Data Mart, along with the enrollments from the most recent year available on LaunchBoard. Credentials are the combined total of associate degrees and certificates issued during the timeframe, divided by three in this case to calculate an annual average. This is done to minimize the effect of atypical variation that might be present in a single year. Enrollments are the count of enrollments in courses assigned to the TOP code in the selected year. The relevant TOP code is from the Taxonomy of Programs manual, and the corresponding program titles used at each college (in *italics*) are sourced from the Chancellor’s Office Curriculum Inventory (COCI). Please note, a credential is not always equal to a single person in search of a job opening since a student may earn more than one credential, such as an associate degree in addition to a certificate.

Exhibit 11: Annual average community college credentials and enrollments for paramedic programs in the IEDR

<b>1251.00 - Paramedic</b>	<b>CCC Enrollments, Academic Year 2016-17</b>	<b>CCC Annual Average Credentials, Academic Years 2015-18</b>
<b>Crafton Hills</b> – <i>EMT-Paramedic, Emergency Medical Services</i>	244	
Associate of Science (A.S.) degree		6
Certificate requiring 30 to < 60-semester units		38
<b>Moreno Valley</b> – <i>Emergency Medical Services Paramedic</i>	372	
Associate of Science (A.S.) degree		7
Certificate requiring 30 to < 60-semester units		18
<b>Mt. San Jacinto</b>	18	
<b>Victor Valley</b> – <i>Emergency Medical Services, Paramedic, Paramedic Internship, Advanced Life Support Modules</i>	522	
Associate of Science (A.S.) degree		4
Certificate requiring 30 to < 60-semester units		14
<b>Total CCC Enrollments, Academic Year 2016-17</b>	<b>1,156</b>	
<b>Total Annual Average CCC Credentials, Academic Years 2015-18</b>		<b>87</b>

Source: LaunchBoard, Management Information Systems Data Mart, COCI

Community college student outcome information is from LaunchBoard and based on the selected TOP code and region. These metrics are based on records submitted to the California Community Colleges Chancellor’s Office Management Information Systems (MIS) by community colleges, which come from self-reported student information from CCC Apply and the National Student Clearinghouse. Employment and earnings metrics are sourced from records provided by California’s Employment Development Department’s Unemployment Insurance database. When available, outcomes for completers are reported to demonstrate the impact that earning a degree or certificate can have on employment and earnings. For more information on the types of students included for each metric, please see the web link for LaunchBoard’s Strong Workforce Program Metrics Data Element Dictionary in the References section (LaunchBoard, 2019a). Finally, employment in a job closely related to the field of study comes from self-reported student responses on the CTE Employment Outcomes Survey (CTEOS), administered by Santa Rosa Junior College (LaunchBoard, 2017). Data from the latest academic year for each metric is provided in Exhibit 12.



Exhibit 12: 1251.00 - Paramedic strong workforce program outcomes

<b>Strong Workforce Program Metrics: 1251.00 - Paramedic Academic Year 2015-16, unless noted otherwise</b>	<b>Inland Empire/Desert Region</b>	<b>California Median</b>
Course enrollments (2016-17)	1,156	111
Completed 12+ units in one year (2016-17)	197	36
Economically disadvantaged students* (2016-17)	73%	64%
Employed in the fourth fiscal quarter after exit* (completers)	92%	73%
Median annual earnings* (completers)	\$71,263	\$48,665
Job closely related to the field of study (2014-15)	91%	94%
Median change in earnings* (completers)	140%	75%
Attained a living wage (completers and skills-builders)	81%	77%

Source: LaunchBoard

\*Data for these metrics is available in Community College Pipeline. All others are available in Strong Program Workforce Metric

## Contact

Michael Goss, Director  
Center of Excellence, Inland Empire/Desert Region  
[michael.goss@chaffey.edu](mailto:michael.goss@chaffey.edu)  
October 2019

## References

- Burning Glass Technologies. (2019). *Labor Insights/Jobs*. Retrieved from <https://www.burning-glass.com/>
- California Community Colleges Chancellor's Office. LaunchBoard. (2019). *California Community Colleges LaunchBoard*. Retrieved from <https://www.calpassplus.org/Launchboard/Home.aspx>
- California Community Colleges Chancellor's Office. LaunchBoard. (2019a). *Strong Workforce Program Metrics Data Element Dictionary*. Pg. 3. Retrieved from <https://www.calpassplus.org/MediaLibrary/calpassplus/launchboard/Documents/SWP-DED.PDF>
- California Community Colleges Chancellor's Office. (2019). *Chancellor's Office Curriculum Inventory (COCI), version 3.0*. Retrieved from <https://coci2.ccctechcenter.org/programs>
- California Community Colleges Chancellor's Office Management Information Systems (MIS) Data Mart. (2019). *Data Mart*. Retrieved from <https://datamart.cccco.edu/datamart.aspx>
- California Community Colleges Chancellor's Office, Curriculum and Instructional Unit, Academic Affairs Division. (2012). *Taxonomy of Programs, 6<sup>th</sup> Edition, Corrected Version*. Retrieved from <https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Digital-Innovation-and-Infrastructure/Research/Files/TOPmanual6200909corrected12513.ashx?la=en&hash=94C709CA83C0380828415579395A5F536736C7C1>
- California Emergency Medical Services Authority (CA EMSA). (2019). *Paramedic Licensure and Testing FAQs*. Retrieved from <https://emsa.ca.gov/paramedic-licensure-and-testing-faqs/>
- Riverside County Fire Department (2019). *Job Opportunities*. Retrieved from <http://www.rvcfire.org/Pages/Employment.aspx>
- San Bernardino County Fire (2018). *Firefighter*. Retrieved from <https://www.sbcfire.org/Services/hr/firefighter.aspx>
- Shearer, C., Shah, I., Gootman, M. (2019, February). Metropolitan Policy Program at Brookings. Advancing Opportunity in California's Inland Empire. *Defining Opportunity*. (pg. 25). Retrieved from [https://www.brookings.edu/wp-content/uploads/2019/02/Full-Report\\_Opportunity-Industries\\_Inland-California\\_Final\\_Shearer-Shah-Gootman.pdf](https://www.brookings.edu/wp-content/uploads/2019/02/Full-Report_Opportunity-Industries_Inland-California_Final_Shearer-Shah-Gootman.pdf)
- UCLA (2019). *What's the difference between an EMT and Paramedic?* Retrieved from <https://www.cpc.mednet.ucla.edu/node/27>