










# Emergency Medical Technicians and Paramedics

Labor Market Analysis: San Diego County

January 2022

## Summary

NEW PROGRAM RECOMMENDATION?	EVIDENCE OF A SUPPLY GAP?	AT OR ABOVE THE LIVING WAGE?	EXPECTED LEVEL OF EDUCATION
 <p><b>Do Not Proceed with New Program</b></p>	 	 	<input type="checkbox"/> Bachelor's Degree+ <input type="checkbox"/> Associate Degree <input checked="" type="checkbox"/> Some College or Certificate
SUPPORT FOR PROGRAM MODIFICATION?	NUMBER OF INSTITUTIONS THAT PROVIDE TRAINING	NUMBER OF ANNUAL JOB OPENINGS	<input type="checkbox"/> HS Diploma or Equivalent <input type="checkbox"/> Less than a HS Diploma
 	<p>MEDIUM</p> 	<p>MEDIUM</p> 	<input type="checkbox"/> Apprenticeship

The San Diego-Imperial Center of Excellence for Labor Market Research (COE) developed this brief to assist the region's community colleges with strategic planning and program development. According to available labor market information, *Emergency Medical Technicians and Paramedics* in San Diego County have a labor market demand of 181 annual job openings (while average demand for a single occupation in San Diego County is 242 annual job openings), and four educational institutions in San Diego County supply 516 awards for this occupation, suggesting that there is an oversupply in the labor market. Entry-level wages and median wages for this occupation are below the living wage. This brief recommends that the colleges do not proceed with developing a **new** program for this occupation but supports a program modification because demand is met by the community colleges in the region.

## Introduction

This report provides labor market information in San Diego County for the following occupational code in the Standard Occupational Classification (SOC)<sup>1</sup> system:

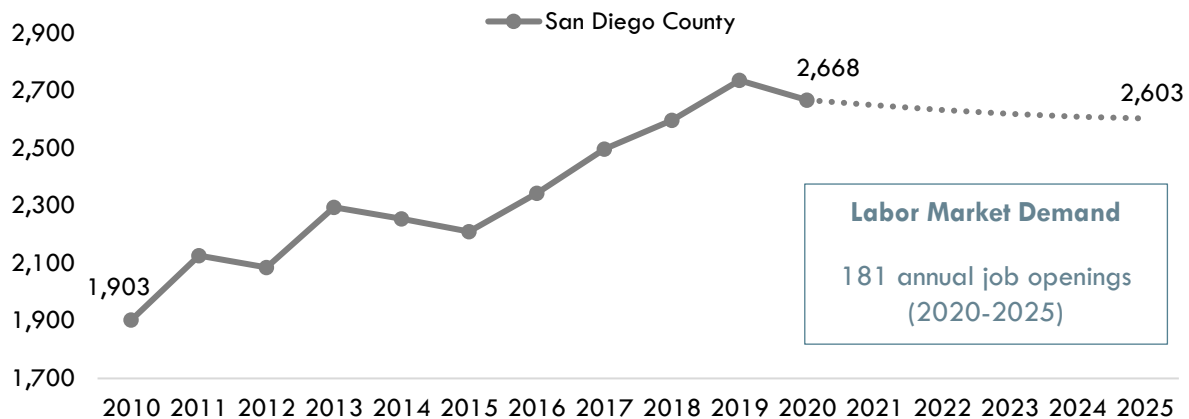
**Emergency Medical Technicians and Paramedics (SOC 29-2041):** Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities. Administer basic or advanced emergency medical care and assess injuries and illnesses. May administer medication intravenously, use equipment such as EKGs, or administer advanced life support to sick or injured individuals. Sample reported job titles include:

- Flight Paramedic
- Multi Care Technician
- First Responder
- EMT/Dispatcher
- EMT, Paramedic
- EMT Intermediate
- Emergency Medical Technician/Driver

## Projected Occupational Demand

Between 2020 and 2025, *Emergency Medical Technicians and Paramedics* are projected to decrease by 65 net jobs or two percent (Exhibit 1). Employers in San Diego County will need to hire 181 workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

**Exhibit 1: Number of Jobs for *Emergency Medical Technicians and Paramedics* (2010-2025)<sup>2</sup>**



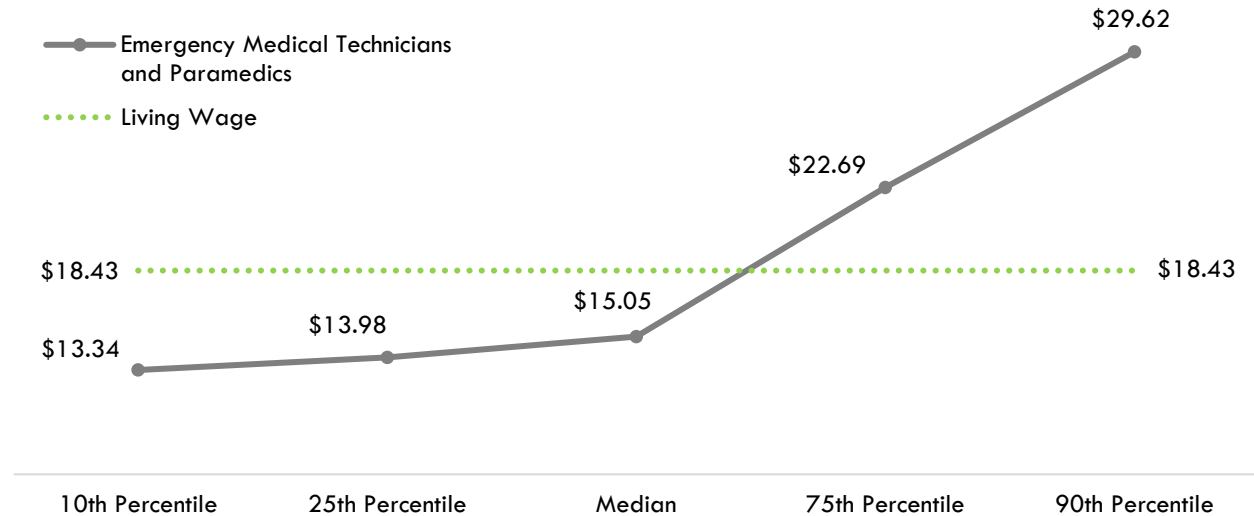
<sup>1</sup> The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. [bls.gov/soc](https://www.bls.gov/soc).

<sup>2</sup> EMSI 2021.04; QCEW, Non-QCEW, Self-Employed.

## Earnings

Emergency Medical Technicians and Paramedics receive entry-level hourly earnings of \$13.98; this is less than the living wage for a single adult in San Diego County, which is \$18.43 per hour (Exhibit 2).<sup>3</sup>

**Exhibit 2: Hourly Earnings<sup>4</sup> for Emergency Medical Technicians and Paramedics in San Diego County<sup>5</sup>**



## Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.<sup>6</sup> There are **two** TOP codes and **one** CIP code related to *Emergency Medical Technicians and Paramedics* (Exhibit 3).

**Exhibit 3: Related TOP and CIP Codes for Emergency Medical Technicians and Paramedics**

TOP or CIP Code	TOP or CIP Program Title
TOP 1250.00	Emergency Medical Services
TOP 1251.00	Paramedic
CIP 51.0904	Emergency Medical Technology/Technician (EMT Paramedic)

<sup>3</sup> "Family Needs Calculator (formerly the California Family Needs Calculator)," Insight: Center for Community Economic Development, last updated 2021. [insightccd.org/family-needs-calculator/](https://insightccd.org/family-needs-calculator/).

<sup>4</sup> 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.

<sup>5</sup> EMSI 2021.04; QCEW, Non-QCEW, Self-Employed.

<sup>6</sup> TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart ([datamart.cccco.edu](https://datamart.cccco.edu)) and CIP data comes from the Integrated Postsecondary Education Data System ([nces.ed.gov/ipeds/use-the-data/](https://nces.ed.gov/ipeds/use-the-data/)).

According to TOP data, three community colleges supply the region with awards for these occupations: Palomar College, San Diego Miramar College, and Southwestern College. According to CIP data, one non-community-college institution supplies the region with awards, National University (Exhibit 4).

**Exhibit 4: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions  
(Program Year 2016-17 through PY2019-20 Average)**

TOP6 or CIP	TOP6 or CIP Title	3-Yr Annual Average CC Awards (PY17-18 to PY19-20)	Other Educational Institutions 3-Yr Annual Average Awards (PY16-17 to PY18-19)	3-Yr Total Average Supply (PY16-17 to PY19-20)
1250.00	Emergency Medical Services	<b>74</b>	<b>0</b>	<b>74</b>
	• San Diego Miramar	55	0	
	• Southwestern	19	0	
1251.00	Paramedic	<b>442</b>	<b>0</b>	<b>442</b>
	• Palomar	430	0	
	• Southwestern	12	0	
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	<b>0</b>	<b>0</b>	<b>0</b>
	• National University	0	0	
			<b>Total</b>	<b>516</b>

## Demand vs. Supply

Comparing labor demand (annual openings) with labor supply<sup>7</sup> suggests that there is an **oversupply** for this occupation in San Diego County, with **181** annual openings and **516** awards. Comparatively, there are **2,126** annual openings in California and **3,609** awards, suggesting that there is an oversupply across the state<sup>8</sup> (Exhibit 5).

**Exhibit 5: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)**

	<b>Demand</b> (Annual Openings)	<b>Supply</b> (Total Annual Average Supply)	<b>Supply Gap or Oversupply</b>
San Diego	181	516	<b>335</b>
California	2,126	3,609	<b>1,483</b>

**Please note:** This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed.

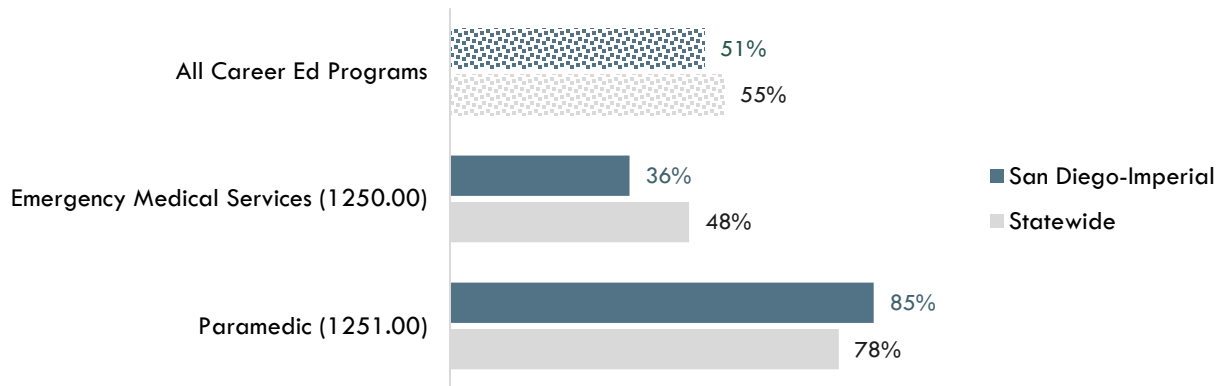
<sup>7</sup> Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

<sup>8</sup> "Supply and Demand," Centers of Excellence Student Outcomes, [coeccc.net/Supply-and-Demand.aspx](http://coeccc.net/Supply-and-Demand.aspx).

## Student Outcomes and Regional Comparisons

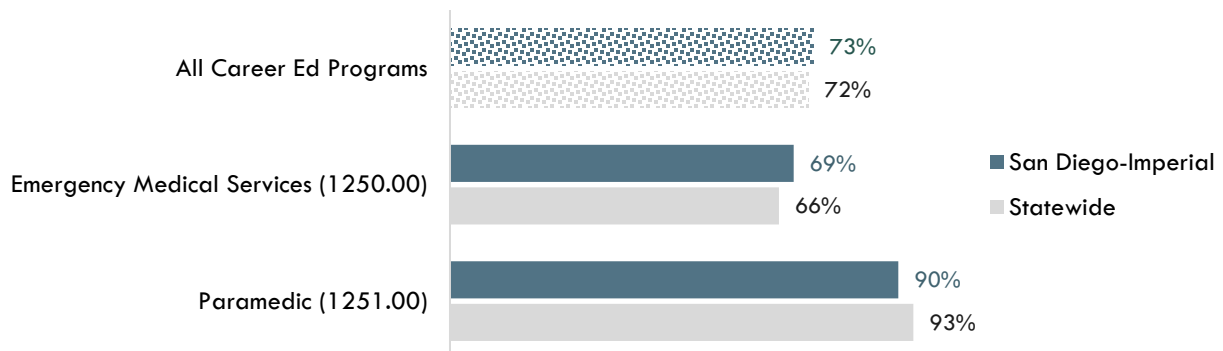
According to the California Community Colleges LaunchBoard, 36 to 85 percent of students in the San Diego-Imperial region earned a living wage after completing a program related to *Emergency Medical Technicians and Paramedics*, compared to 48 to 78 percent statewide and 55 percent of students in Career Education programs in general across the state (Exhibit 6a).<sup>9</sup>

**Exhibit 6a: Percentage of Students Who Earned a Living Wage by Program (PY 2017-18)<sup>10</sup>**



According to the California Community Colleges LaunchBoard, 69 to 90 percent of students statewide obtained a job closely related to their field of study after completing a program related to *Emergency Medical Technicians and Paramedics*, compared to 66 to 93 percent statewide and 72 percent of students in Career Education programs in general across the state (Exhibit 6b).<sup>11</sup>

**Exhibit 6b: Percentage of Students in a Job Closely Related to Field of Study by Program (PY 2016-17)<sup>12</sup>**



<sup>9</sup> "California Community Colleges Strong Workforce Program," California Community Colleges, [calpassplus.org/LaunchBoard/SWP.aspx](http://calpassplus.org/LaunchBoard/SWP.aspx).

<sup>10</sup> Among completers and skills builders who exited, the proportion of students who attained a living wage.

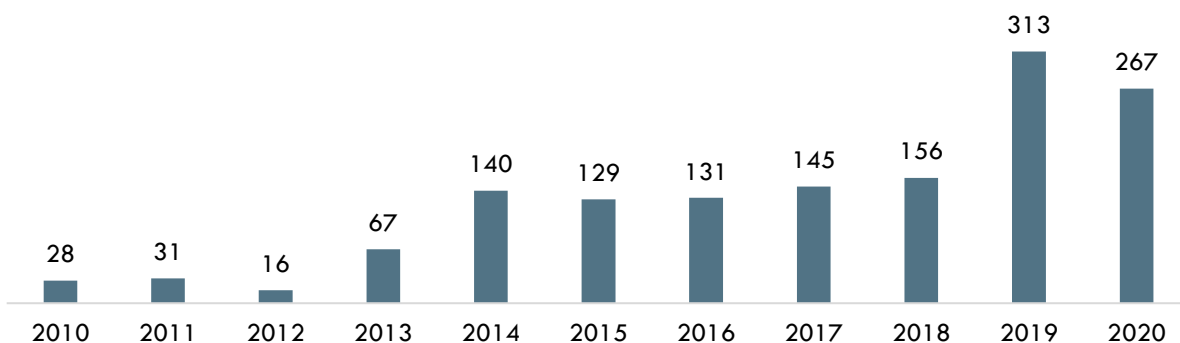
<sup>11</sup> "California Community Colleges Strong Workforce Program," California Community Colleges, [calpassplus.org/LaunchBoard/SWP.aspx](http://calpassplus.org/LaunchBoard/SWP.aspx).

<sup>12</sup> Most recent year with available data is Program Year 2017-18. Percentage of Students in a Job Closely Related to Field of Study: Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

## Online Job Postings

This report analyzes not only historical and projected (traditional LMI) data, but also recent data from online job postings (real-time LMI). Online job postings may provide additional insight about recent changes in the labor market that are not captured by historical data. Between 2010 and 2020, there was an average of 129 online job postings per year for *Emergency Medical Technicians and Paramedics* in San Diego County (Exhibit 7). Please note that online job postings do **not** equal labor market demand; demand is represented by annual job openings (see Exhibit 1). Employers may post a position multiple times for various reasons, such as increasing the pool of applicants, for example.

**Exhibit 7: Number of Online Job Postings for *Emergency Medical Technicians and Paramedics* in San Diego County (2010-2020)<sup>13</sup>**



## Top Employers

Between January 1, 2018 and December 31, 2020, the top five employers in San Diego County for this occupation were [Prime Healthcare Services](#), [Loyal Source](#), [American Medical Response](#), [San Diego Community College District](#), and [Sycuan Casino](#) based on online job postings (Exhibit 8).

**Exhibit 8: Top Employers for *Emergency Medical Technicians and Paramedics* in San Diego County<sup>14</sup>**

Top Employers	
<ul style="list-style-type: none"> <li>• Prime Healthcare Services</li> <li>• Loyal Source</li> <li>• American Medical Response</li> <li>• San Diego Community College District</li> <li>• Sycuan Casino</li> </ul>	<ul style="list-style-type: none"> <li>• SeaWorld Parks &amp; Entertainment</li> <li>• Scripps Health</li> <li>• U.S. Department of Commerce</li> <li>• Merlin Entertainments Group</li> <li>• Tri City Medical Center</li> </ul>

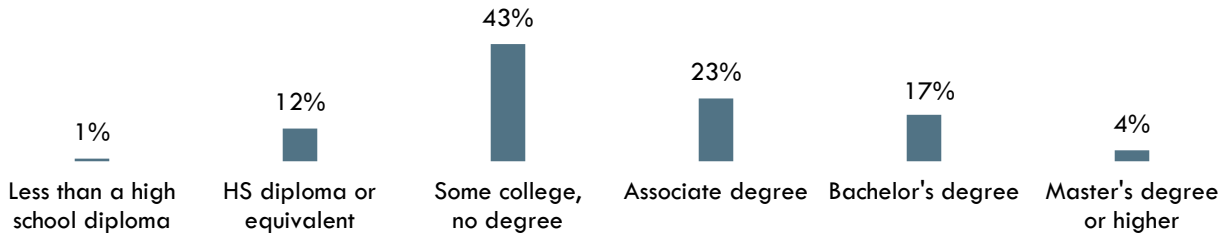
<sup>13</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2010-2020.

<sup>14</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2018-2020.

## Education, Skills, and Certifications

Exhibit 9 indicates the educational attainment for this occupation found currently in the national labor force. The typical entry-level education is *some college, no degree*.<sup>15</sup>

**Exhibit 9: National Educational Attainment of Emergency Medical Technicians and Paramedics<sup>16</sup>**



\*may not total 100 percent due to rounding

Exhibit 10 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2018 and December 31, 2020.

**Exhibit 10: Top Skills for Emergency Medical Technicians and Paramedics in San Diego County<sup>17</sup>**

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> <li>• Patient Care</li> <li>• Cardiopulmonary Resuscitation</li> <li>• Advanced Cardiac Life Support</li> <li>• Trauma</li> <li>• Vital Signs Measurement</li> <li>• Life Support</li> <li>• Occupational Health and Safety</li> <li>• Patient Transportation and Transfer</li> <li>• Record Keeping</li> <li>• Scheduling</li> <li>• Medical Triage</li> <li>• Electrocardiogram</li> <li>• Emergency Medical Care</li> <li>• Workers' Compensation</li> <li>• Medical Emergencies</li> </ul>	<ul style="list-style-type: none"> <li>• English</li> <li>• Physical Abilities</li> <li>• Communication Skills</li> <li>• Bilingual</li> <li>• Computer Literacy</li> <li>• Writing</li> <li>• Leadership</li> <li>• Spanish</li> <li>• Positive Disposition</li> <li>• Teamwork / Collaboration</li> <li>• Research</li> <li>• Written Communication</li> <li>• Building Effective Relationships</li> <li>• Planning</li> <li>• Preparing Reports</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Excel</li> <li>• Microsoft Word</li> <li>• Microsoft PowerPoint</li> <li>• Okta</li> <li>• Word Processing</li> <li>• Facebook</li> </ul>

<sup>15</sup> EMSI 2021.04; QCEW, Non-QCEW, Self-Employed.

<sup>16</sup> "Educational Attainment for Workers 25 Years and Older by Detailed Occupation," Bureau of Labor Statistics, last modified September 8th, 2021. [bls.gov/emp/tables/educational-attainment.htm](https://bls.gov/emp/tables/educational-attainment.htm).

<sup>17</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2018-2020.



Exhibit 11 lists the top certifications that appeared in online job postings between January 1, 2018 and December 31, 2020.

**Exhibit 11: Top Certifications for *Emergency Medical Technicians and Paramedics* in San Diego County<sup>18</sup>**

Top Certifications in Online Job Postings

1. Emergency Medical Technician (EMT)
  2. Basic Life Saving (BLS)
  3. Advanced Cardiac Life Support (ACLS) Certification
  4. Driver's License
  5. Paramedic Certification
  6. Basic Cardiac Life Support Certification
  7. National Registry of Emergency Medical Technicians (NREMT)
  8. First Aid CPR Aed
  9. Certified Registered Nurse Practitioner
  10. Medical Examiner's License
  11. Fire Fighter I
  12. American Heart Association Certification
  13. Licensed Vocational Nurse (LVN)
  14. Fire Instructor I
  15. Certified Patient Account Technician
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<sup>18</sup> Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2018-2020.

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### Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; 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 the report 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.

This workforce demand report uses state and federal job projection data that was developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available. Please consult with local employers to understand their current employment needs.