

Labor Market Analysis: 1250.00/Emergency Medical Services

EMERGENCY MEDICAL SERVICES - Certificate requiring 8 to fewer than 16 semester units

Los Angeles Center of Excellence, January 2024

Summary

Program Endorsement:	Endorsed: All Criteria Met <input type="checkbox"/>	Endorsed: Some Criteria Met <input checked="" type="checkbox"/>	Not Endorsed <input type="checkbox"/>
Program Endorsement Criteria			
Supply Gap:	Yes <input checked="" type="checkbox"/> (See comments below)		No <input type="checkbox"/>
Living Wage: (Entry-Level, 25th)	Yes <input type="checkbox"/>		No <input checked="" type="checkbox"/>
Education:	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Emerging Occupation(s)			
	Yes <input type="checkbox"/>		No <input checked="" type="checkbox"/>

The Los Angeles Center of Excellence for Labor Market Research (LA COE) prepared this report to provide regional labor market supply and demand data related to two middle-skill occupations:

- **Emergency Medical Technicians (29-2042):** Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities.¹
- **Paramedics (29-2043):** 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.²

Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.³ This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupations. While these two occupations have similar job descriptions, there are key differences in education and certification requirements. *Emergency medical technicians* are typically entry-level jobs. Students do not need prior medical experience, must be 18 years of age, must complete a minimum of 170 hours in coursework, and pass the National Registry of Emergency Medical Technicians (NREMT) exam. *Paramedics* may be the next step on the career ladder for EMTs. To be eligible for entry into a paramedic program (1,200 to 1,800 course hours), students must have already worked in the field as an EMT for at least six months.⁴ **While**

¹ [Emergency Medical Technicians \(bls.gov\)](#)

² [Paramedics \(bls.gov\)](#)

³ The COE classifies middle-skill jobs as the following:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

⁴ [What's the Difference Between an EMT and a Paramedic? | UCLA CPC](#)

students who complete the paramedic program are qualified to work as emergency medical technicians, emergency medical technicians are not qualified to work as paramedics.

Based on the available data, there appears to be a supply gap for these middle-skill emergency medical services occupations in the region based on available program completion data. However, this does not take into account the 1,141 students who passed the NREMT exams in Los Angeles County in 2022. While the majority of annual openings have entry-level wages that are lower than the self-sufficiency standard wage in both Los Angeles and Orange counties, approximately two-thirds of current workers in the field have completed some college or an associate degree. **Therefore, due to some of the criteria being met, the LA COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, **588 jobs are projected to be available annually** in the region due to new job growth and replacements, **which is more than the three-year average of 319 awards conferred** by educational institutions in the region.
 - This does not take into account the 1,141 students who passed the certification required to become an *emergency medical technician* (NREMT) in 2022. Based on this metric, **there may be an oversupply of emergency medical technicians in the LA/OC region.**
 - Furthermore, EMT certifications are also preferred or required in other occupations such as firefighters, police officers, and others in the medical field, meaning that not every certified EMT will work within the EMT occupation.
- **Living Wage Criteria** – Within Los Angeles County, the majority (83%) of annual job openings for these middle-skill emergency medical services occupations have **entry-level wages below the self-sufficiency standard hourly wage** (\$18.10/hour).⁵
- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a **postsecondary non-degree award** as the **typical entry-level education** for both occupations in this report.
 - Furthermore, the national-level educational attainment data indicates **66% of workers in the field have completed some college or an associate degree.**

Supply:

- There are **9 community colleges** in the greater LA/OC region that issue awards related to emergency medical services, conferring an average of **319 awards annually** between 2019 and 2022.
- In 2022, there were **1,141 students who passed the certification test to become an emergency medical technician (NREMT)** in Los Angeles County (88% passing rate).

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for these emergency medical services occupations. In the greater Los Angeles/Orange County region, the number of jobs

⁵ Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <http://selfsufficiencystandard.org/california>.

related to these occupations is projected to increase by 5% through 2027. There will be nearly 600 job openings per year through 2027 due to job growth and replacements. The majority of jobs in 2022 for these middle-skill emergency medical services occupations (68%) were located in Los Angeles County.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties⁶

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	5,123	5,113	(10)	(0%)	335
Orange	2,425	2,846	421	17%	253
Total	7,548	7,959	411	5%	588

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these emergency medical services occupations in Los Angeles County as they relate to the county's self-sufficiency standard wage. Orange County wages are included below in order to provide a complete analysis of the greater LA/OC region. Detailed wage information, by county, is included in Appendix A.

Los Angeles County

The majority (83%) of annual openings for these middle-skill emergency medical services occupations have entry-level wages below the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$16.40 and \$24.72. One occupation in this report has entry-level wages above the county's self-sufficiency standard wage: *Paramedics* (\$24.72). Experienced workers can expect to earn wages between \$22.58 and \$38.07, which are higher than the self-sufficiency standard.

Exhibit 2: Earnings for Occupations in LA County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Emergency Medical Technicians (29-2042)	\$16.40	\$16.96	\$22.58	\$35,300
Paramedics (29-2043)	\$24.72	\$29.53	\$38.07	\$61,400

*Rounded to the nearest \$100

Orange County

The majority (85%) of annual openings for these middle-skill emergency medical services occupations have entry-level wages below the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages are in a range between \$16.82 and \$24.74. One occupation in this report has entry-level wages above the county's self-sufficiency standard wage: *Paramedics* (\$24.74). Experienced workers can expect to earn wages between \$23.15 and \$37.92, which are higher than the self-sufficiency standard.

⁶ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

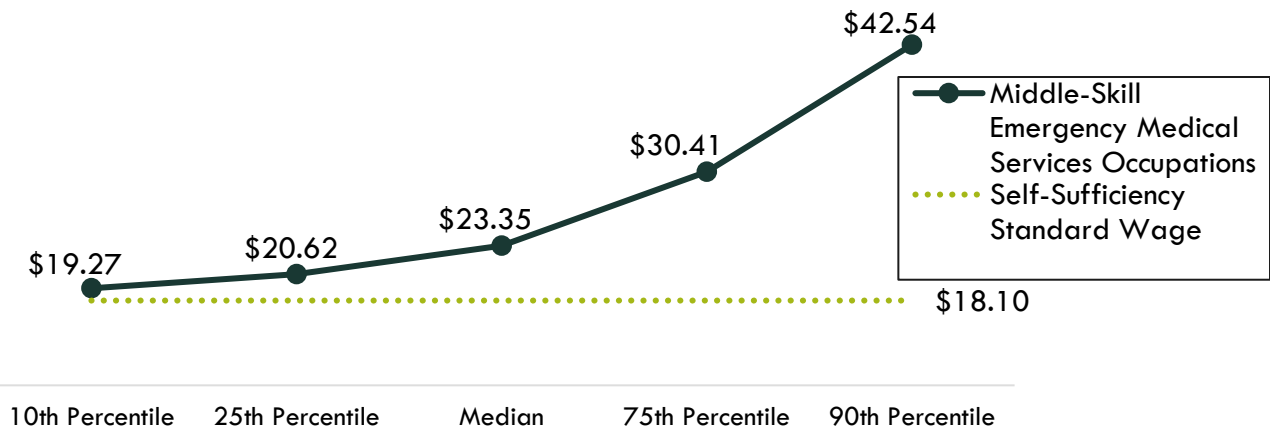
Exhibit 3: Earnings for Occupations in Orange County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Emergency Medical Technicians (29-2042)	\$16.82	\$17.39	\$23.15	\$36,200
Paramedics (29-2043)	\$24.74	\$29.44	\$37.92	\$61,243

*Rounded to the nearest \$100

On average, the entry-level earnings for the occupations in this report are \$20.62; this is above the living wage for one single adult in Los Angeles County (\$18.10). Exhibit 4 shows the average wage for the occupations in this report, from entry-level to experienced workers.

Exhibit 4: Average Hourly Earnings for Middle-Skill Emergency Medical Services Occupations in LA/OC



Job Postings

There were 2,295 online middle-skill job postings related to emergency medical services occupations listed in the past 12 months. Exhibit 5 displays the number of job postings by occupation. The majority of job postings (72%) were for *emergency medical technicians*, followed by *paramedics* (28%). The highest number of job postings were for emergency medical technicians-basic, emergency medical technicians, paramedics, emergency response managers, and special events managers. The top skills were ambulances, cardiopulmonary resuscitation (CPR), medical assistance, emergency medical services, and medical equipment. The top three employers, by number of job postings, in the region were AMR, Global Medical Response, and Liberty Ambulance.

Exhibit 5: Job postings by occupation (last 12 months)



Educational Attainment

The Bureau of Labor Statistics (BLS) lists a postsecondary non-degree award as the typical entry-level education for both occupations in this report. Furthermore, the national-level educational attainment data indicates 66% of workers in the field have completed some college or an associate degree. Of the 77% of middle-skill emergency medical services job postings listing a minimum education requirement in the greater Los Angeles/Orange County region, 97% (1,737) requested high school or vocational training, 2% (29) requested an associate degree, and 1% (9) requested a bachelor's degree.

Educational Supply

Community College Supply

Exhibit 6 shows the annual and three-year average number of awards conferred by community colleges in the related TOP codes: Emergency Medical Services (1 250.00), and Paramedic (1 251.00). The colleges with the most completions in the region are Saddleback, Mt. San Antonio, and El Camino.

Exhibit 6: Regional community college awards (certificates and degrees), 2019-2022

TOP	Program	College	2019-20 Awards	2020-21 Awards	2021-22 Awards	3-Year Average
1250.00	Emergency Medical Services	East LA	3	36	8	16
		Glendale	-	1	1	1
		LA Harbor	-	1	-	0
		Long Beach	2	2	1	2
		Mt San Antonio	35	34	69	46
		West LA	-	-	2	1
		LA Subtotal	40	74	81	65
		Orange Coast	49	65	-	38
		Saddleback	150	74	52	92
		OC Subtotal	199	139	52	130
Supply Subtotal/Average			239	213	133	195
1251.00	Paramedic	El Camino	97	26	6	43
		Mt San Antonio	22	2	34	19
		West LA	22	72	1	32
		LA Subtotal	141	100	41	94
		Saddleback	38	12	39	30
		OC Subtotal	38	12	39	30
Supply Subtotal/Average			179	112	80	124
Supply Total/Average			418	325	213	319

Other Supply

For a comprehensive regional supply analysis, it is important to consider the supply from other avenues, including community colleges programs and others that do not report their completion data to the Chancellor's Office (e.g., skills awards, contract education), and other non-community college programs that do not report their completions to IPEDS⁷. According to the California Emergency Medical Services Authority, the following programs are approved for EMT Training:⁸

- American EMT Academy (Anaheim)
- California Institute of Emergency Medical Training (Long Beach)
- California State University Long Beach (Long Beach)
- Citrus College (Glendora)
- Coastline ROP (Costa Mesa)
- College and Career Advantage (San Juan Capistrano)
- East San Gabriel Valley ROP (West Covina)
- LA Valley College (Valley Glen)
- North Orange County ROP (Anaheim)
- Orange County EMT (Lake Forest)
- Pasadena College (Pasadena)
- ProTech Life Safety Services (Anaheim)
- Santa Ana College Nursing Department (Santa Ana)
- Southern California Regional Occupational Center (Torrance)
- UCLA Center for Prehospital Care (Los Angeles)
- US Colleges – Santa Ana (Santa Ana)
- West Coast EMT – LA (Redondo Beach)
- West Coast EMT – Anaheim (Anaheim)

EMT Training Programs

In California, EMT training programs are approved by the local county's EMS agency. After training completion, EMTs must pass the National Registry (NREMT) cognitive and psychomotor examinations and apply for certification at a local EMS agency. Passing rates for the NREMT Exam (1st attempt) for Los Angeles County programs are listed in Exhibit 7. Please note that these exam pass rates differ from the program award numbers in Exhibit 5 since not all completers take this exam immediately, or in the same year that they earn their award, and in some cases not at all. Orange County's up-to-date NREMT Exam pass rates are also available online, however, the state EMSA website is currently down.⁹

⁷ IPEDS (<https://nces.ed.gov/ipeds/>)

⁸ EMT | EMSA (ca.gov)

⁹ EMT Training Programs | Orange County California - Health Care Agency (ochealthinfo.com)

Exhibit 7: Los Angeles County EMT Training Program Passing Rates¹⁰

Program	NREMT Paramedic Initial Exam Pass Rates (total taking exam)		
	2020	2021	2022
California Institute of Emergency Medical Training (CIEMT)	90% (192)	97% (248)	92% (210)
California State University Long Beach (CSULB)	90% (20)	80% (44)	46% (12)
Citrus College	N/A	100% (25)	100% (17)
El Camino College	70% (10)	64% (116)	63% (74)
LA Valley College	82% (55)	93% (54)	85% (44)
Mt. San Antonio College	82% (17)	87% (61)	76% (65)
Pasadena City College	82% (33)	81% (108)	70% (62)
Southern California Regional Occupational Center	80% (20)	90% (21%)	67% (4)
UCLA Center for Prehospital Care	95% (568)	93% (565)	95% (614)
West Coast EMT – LA	86% (51)	85% (224)	86% (189)

For most career education programs, the COE compares the number of completions from related programs (supply) to the number of projected job openings (demand) in the region in order to determine if a supply gap exists. In this particular case, it is best to both consider the traditional supply figures *as well as* the NREMT Initial Exam Pass Rates since only the individuals that pass this exam that are eligible to work as *emergency medical technicians*, whereas a certificate or degree in emergency medical services is not sufficient for employment as an *emergency medical technician*. Therefore, it is likely more useful to compare the 1,141 passing scores on the NREMT exam to the 588 average annual job openings in LA/OC than it is to consider the 319 awards issued from community college EMT programs.

¹⁰ [Los Angeles County Approved EMT Programs with NREMT Exam 1st Attempt Pass Rate \(lacounty.gov\)](https://lacounty.gov)

Appendix A: Occupational demand and wage data by county

Exhibit 8. Los Angeles County

Occupation (SOC)	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Emergency Medical Technicians (29-2042)	4,045	4,000	(45)	(1%)	278	\$16.40	\$16.96	\$22.58
Paramedics (29-2043)	1,078	1,113	35	3%	56	\$24.72	\$29.53	\$38.07
Total	5,123	5,113	(10)	(0%)	335	-	-	-

Exhibit 9. Orange County

Occupation (SOC)	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Emergency Medical Technicians (29-2042)	1,967	2,309	343	17%	215	\$16.82	\$17.39	\$23.15
Paramedics (29-2043)	458	537	79	17%	38	\$24.74	\$29.44	\$37.92
Total	2,425	2,846	421	17%	253	-	-	-

Exhibit 10. Los Angeles and Orange Counties

Occupation (SOC)	2022 Jobs	2027 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	% Age 55 and older*	Typical Entry-Level Education
Emergency Medical Technicians (29-2042)	6,012	6,309	298	5%	494	8%	Postsecondary non-degree award
Paramedics (29-2043)	1,537	1,650	113	7%	94	8%	Postsecondary non-degree award
Total	7,548	7,959	411	5%	588	-	-

*The average percentage of workers age 55 and older across all occupations in the greater LA/OC region is 27%. These occupations have a smaller share of older workers, which typically indicates fewer replacements needs to offset the amount of impending retirements.

Appendix B: Sources

- O*NET Online
- Lightcast (formerly Emsi)
- Bureau of Labor Statistics (BLS)
- California Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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