

## Labor Market Analysis: 1251.00/Paramedic

### Paramedic

Certificate requiring 30 to <60 semester units

Los Angeles Center of Excellence, June 2023

#### Summary

|  |   |   |  |
|--|---|---|--|
| <b>Program Endorsement:</b>                            | <b>Endorsed:<br/>All Criteria Met</b> <input checked="" type="checkbox"/> | <b>Endorsed:<br/>Some Criteria Met</b> <input type="checkbox"/> | <b>Not<br/>Endorsed</b> <input type="checkbox"/> |
| <b>Program Endorsement Criteria</b>                    |   |   |  |
| <b>Supply Gap:</b>                                     | Yes <input checked="" type="checkbox"/> (see comments)                    | No <input type="checkbox"/>                                     |  |
| <b>Living Wage:<br/>(Entry-Level, 25<sup>th</sup>)</b> | Yes <input checked="" type="checkbox"/>                                   | No <input type="checkbox"/>                                     |  |
| <b>Education:</b>                                      | Yes <input checked="" type="checkbox"/>                                   | No <input type="checkbox"/>                                     |  |
| <b>Emerging Occupation(s)</b>                          |   |   |  |
|  | 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 one middle-skill occupation:

- **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.<sup>1</sup>

Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.<sup>2</sup> 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.

Based on the available data there does not appear to be a supply gap for the occupations of interest. However, the oversupply is with the COE's acceptable margin (25% over or under the number of annual openings) and is therefore considered "supply met" rather than a "supply gap." While this program does not meet the traditional supply/demand endorsement criteria, there may be demand for these workers from local employers that is not reflected in traditional labor market data. For this reason, real-time labor market data is included in this report as well – to provide a more nuanced view of the regional job market for *paramedics*. It is also worth noting that not all certified *paramedics* actually work in the specific occupation designated for *paramedics*. Other professionals might also pursue a paramedic license, including firefighters,

<sup>1</sup> [Paramedics \(bls.gov\)](https://www.bls.gov)

<sup>2</sup> 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.

emergency medical services instructors, flight medics, ski patrol medics, physicians, physician's assistants, dentists, and others working in the health and public safety fields. Furthermore, entry-level wages exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, and the majority of annual openings for *paramedics* typically require a postsecondary non-degree award, as well as additional state licensing. **Therefore, due to all of the criteria being met, the LA COE endorses this proposed program.** Detailed reasons include:

#### **Demand:**

- **Supply Gap Criteria** – Over the next five years, **115 jobs are projected to be available annually** in the region due to new job growth and replacements, **which is less than the three-year average of 146 awards conferred** by educational institutions in the region.
  - Although there are more awards conferred than job openings, the data suggests that the ***demand has been met for these occupations within the LA/OC region*** since the three-year average number of awards (supply) is within the COE's 25% margin of annual job openings (demand).
  - Over the past 12 months, there were **627 online job postings for paramedics**. The highest number of job postings were for paramedics, emergency response managers, emergency medical technician-paramedics, waterpark attendants, and paramedic instructors.
- **Living Wage Criteria** – Within Los Angeles County, **the typical entry-level hourly wage for paramedics is \$23.56, which is higher than the self-sufficiency standard** hourly wage (living wage) for one adult in the region (\$18.10 in Los Angeles County).<sup>3</sup>
- **Educational Criteria** – The Bureau of Labor Statistics (BLS) lists a **postsecondary non-degree award as the typical entry-level education for paramedics**.
  - 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 **4 community colleges** in the greater LA/OC region that issue awards related to paramedics, conferring an average of **146 awards annually** between 2018 and 2021.
- In 2022, there were 154 individuals that took the **NREMT Paramedic Initial Exam and 131 passed** (85% pass rate).

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<sup>3</sup> Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <http://selfsufficiencystandard.org/california>.

## Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for *paramedics*. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to increase by 9% through 2026. There will be 115 job openings per year through 2026 due to job growth and replacements.

**Exhibit 1: Occupational demand in Los Angeles and Orange Counties<sup>4</sup>**

| Geography    | 2021 Jobs    | 2026 Jobs    | 2021-2026 Change | 2021-2026 % Change | Annual Openings |
|--------------|--------------|--------------|------------------|--------------------|-----------------|
| Los Angeles  | 1,120        | 1,136        | 16               | 1%                 | 64              |
| Orange       | 452          | 570          | 119              | 26%                | 51              |
| <b>Total</b> | <b>1,571</b> | <b>1,706</b> | <b>135</b>       | <b>9%</b>          | <b>115</b>      |

## Wages

The labor market endorsement in this report considers the entry-level hourly wages for *paramedics* 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 typical entry-level hourly wages for *paramedics* are \$23.56, which is above the self-sufficiency standard wage for one adult (\$18.10 in Los Angeles County). Experienced workers can expect to earn wages of \$29.99.

**Exhibit 2: Earnings for Occupations in LA County**

| Occupation           | Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 <sup>th</sup> Percentile) | Median Annual Earnings* |
|----------------------|---|------------------------|---|-------------------------|
| Paramedics (29-2043) | \$23.56   | \$24.09                | \$29.99   | \$50,100                |

\*rounded to the nearest \$100

### Orange County

The typical entry-level hourly wages for *paramedics* are \$22.32, which is above the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Experienced workers can expect to earn wages of \$28.66.

**Exhibit 3: Earnings for Occupations in Orange County**

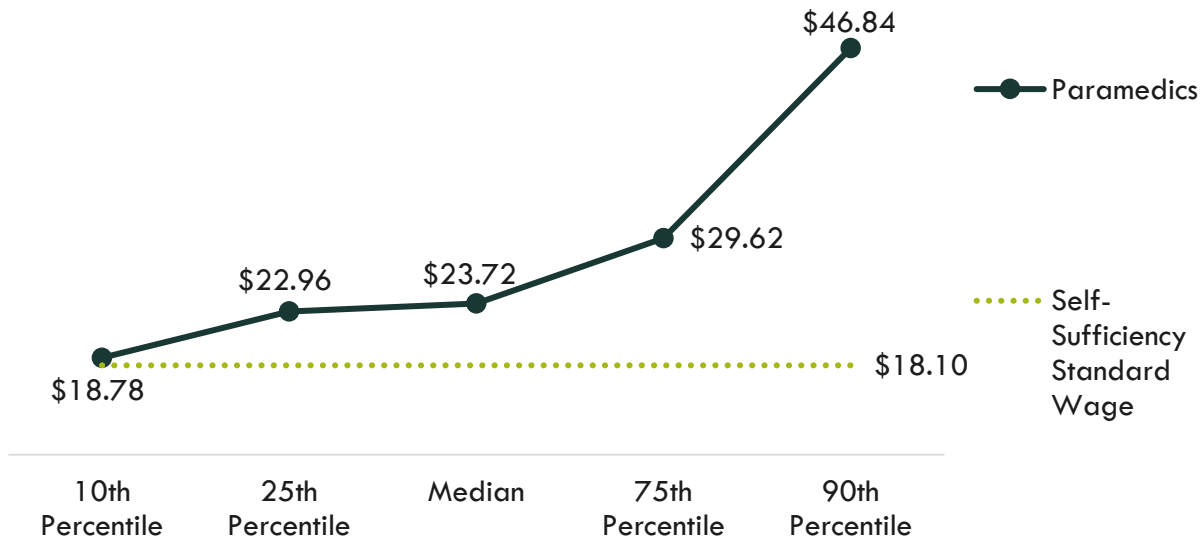
| Occupation           | Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 <sup>th</sup> Percentile) | Median Annual Earnings* |
|----------------------|---|------------------------|---|-------------------------|
| Paramedics (29-2043) | \$22.32   | \$23.01                | \$28.66   | \$47,900                |

\*rounded to the nearest \$100

<sup>4</sup> Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

On average, the entry-level earnings for the occupations in this report are \$22.96; 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 Paramedics in LA/OC**



### Job Postings

There were 627 online job postings related to *paramedics* listed in the past 12 months. The highest number of job postings were for paramedics, emergency response managers, emergency medical technician paramedics, waterpark attendants, and paramedic instructors. The top skills were ambulances, medical equipment, electrocardiography, defibrillation, and intravenous hydration. The top three employers, by number of job postings, in the region were AMR, PM Ambulance, and Global Medical Response.

### Educational Attainment

The Bureau of Labor Statistics (BLS) lists a postsecondary non-degree award as the typical entry-level education for *paramedics*. Furthermore, the national-level educational attainment data indicates 66% of workers in the field have completed some college or an associate degree. Of the 88% of *paramedic* job postings listing a minimum education requirement in the greater Los Angeles/Orange County region, 98% (537) requested high school or vocational training, 2% (11) requested an associate degree, and 2% (>1%) requested a bachelor's degree.

### Educational Supply

#### Community College Supply

Exhibit 5 shows the annual and three-year average number of awards conferred by community colleges in the related TOP code: Paramedic (1 251.00). The colleges with the most completions in the region are El Camino, Saddleback, and West LA.

**Exhibit 5: Regional community college awards (certificates and degrees), 2018-2021**

| TOP                         | Program   | College            | 2018-19 Awards | 2019-20 Awards | 2020-21 Awards | 3-Year Average |
|-----------------------------|-----------|--------------------|----------------|----------------|----------------|----------------|
| 1251.00                     | Paramedic | El Camino          | 76             | 97             | 26             | 66             |
|                             |           | Mt San Antonio     | 23             | 22             | 2              | 16             |
|                             |           | West LA            | -              | 22             | 72             | 31             |
|                             |           | <b>LA Subtotal</b> | <b>99</b>      | <b>141</b>     | <b>100</b>     | <b>113</b>     |
|                             |           | Saddleback         | 49             | 38             | 12             | 33             |
|                             |           | <b>OC Subtotal</b> | <b>49</b>      | <b>38</b>      | <b>12</b>      | <b>33</b>      |
| <b>Supply Total/Average</b> |           |                    | <b>148</b>     | <b>179</b>     | <b>112</b>     | <b>146</b>     |

### Non-Community College Supply

For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that provide training programs for *paramedics*. Over the most recent three-year period with available data, the only institution that report related completions to IPEDS was East San Gabriel Valley ROP. However, the last year that this program issued related awards was in 2018-19, totaling 32 awards that take less than one year to complete. Based on information available online, it appears that this institution only provides EMT training now.<sup>5</sup>

Beyond completions reported to IPEDS, UCLA's Center for Prehospital Care offers EMT and Paramedic training programs, but does not report completions from their program to IPEDS, but rather only NREMT Paramedic Initial Exam Pass Rates (covered in more detail below).<sup>6</sup>

### EMS Personnel Training Programs

In California, paramedic training programs are approved by the local EMS agency by county. Paramedic training programs in California are required to be accredited by the Committee on Accreditation of Educational Programs for Emergency Medical Service Processions (CoAEMSP).<sup>7</sup> Currently, there are five approved paramedic training programs in the LA/OC region:<sup>8</sup>

- Los Angeles County Paramedic Training Institute (Santa Fe Springs)
- Mt. San Antonio College Paramedic Program (Walnut)
- Orange County Emergency Medical Training (Lake Forest)
- Saddleback College (Mission Viejo)
- UCLA Paramedic Education Program (Los Angeles)

Passing rates for the NREMT Paramedic exam for Los Angeles County programs are listed in Exhibit 6. 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.

<sup>5</sup> <https://www.sgvrop.org/emergency-medical-technician-core/>

<sup>6</sup> <https://www.cpc.mednet.ucla.edu/paramedic-courses>

<sup>7</sup> [Training Programs \(ca.gov\)](https://www.cpc.mednet.ucla.edu/paramedic-courses)

<sup>8</sup> [APPROVED TRAINING PROVIDERS FOR \(lacounty.gov\)](https://www.lacounty.gov)

**Exhibit 6: Los Angeles County Paramedic Training Program Passing Rates**

| Program                                | NREMT Paramedic Initial Exam Pass Rates<br>(total taking exam) |           |          |
|--|--|-----------|----------|
|  | 2020   | 2021      | 2022     |
| LA County Paramedic Training Institute | 88% (72)   | 68% (34)  | 76% (35) |
| Mt. San Antonio College                | 100% (11)  | 89% (19)  | 89% (33) |
| UCLA Paramedic Education Program       | 92% (119)  | 86% (105) | 87% (86) |

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 Paramedic Initial Exam Pass Rates since only the individuals that pass this exam that are eligible to work as *paramedics*, whereas a certificate or degree in paramedic studies is not sufficient for employment as a *paramedic*. Therefore, it is likely more useful to compare the 131 passing scores on the paramedic exam to the 115 average annual job openings than it is to consider the 146 awards issued from community college paramedic programs.

## Appendix A: Occupational demand and wage data by county

### Exhibit 8. Los Angeles County

| Occupation (SOC)     | 2021 Jobs | 2026 Jobs | 5-Yr Change | 5-Yr % Change | Annual Openings | Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 <sup>th</sup> Percentile) |
|----------------------|-----------|-----------|-------------|---------------|-----------------|---|------------------------|---|
| Paramedics (29-2043) | 1,120     | 1,136     | 16          | 1%            | 64              | \$23.56   | \$24.09                | \$29.99   |

### Exhibit 9. Orange County

| Occupation (SOC)     | 2021 Jobs | 2026 Jobs | 5-Yr Change | 5-Yr % Change | Annual Openings | Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 <sup>th</sup> Percentile) |
|----------------------|-----------|-----------|-------------|---------------|-----------------|---|------------------------|---|
| Paramedics (29-2043) | 452       | 570       | 119         | 26%           | 51              | \$22.32   | \$23.01                | \$28.66   |

### Exhibit 10. Los Angeles and Orange Counties

| Occupation (SOC)     | 2021 Jobs | 2026 Jobs | 5-Yr Change | 5-Yr % Change | Annual Openings | % Age 55 and older* | Typical Entry-Level Education  |
|----------------------|-----------|-----------|-------------|---------------|-----------------|---------------------|--------------------------------|
| Paramedics (29-2043) | 1,571     | 1,706     | 135         | 9%            | 115             | 8%                  | Postsecondary non-degree award |

\*The average percentage of workers age 55 and older across all occupations in the greater LA/OC region is 27%. This occupation has 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)

For more information, please contact:

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