

Labor Market Analysis: 1205.00 – Medical Laboratory Technology

Medical Laboratory Technician – Associate of Science (A.S.) degree; Certificate requiring 30 to <60 semester units; Certificate requiring 16 to fewer than 30 semester units

Los Angeles Center of Excellence, April 2024

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

SUMMARY

This report analyzes whether local labor market demand is being met by community college programs aligned with the identified middle-skill occupation(s)¹ or whether a shortage of workers exists. Labor market demand is measured by annual job openings while education supply is measured by the number of awards (degrees and certificates) conferred on average each year.

Based on the available data, there appears to be a supply gap for the one identified middle-skill occupation in the region. Furthermore, entry-level wages exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, and more than one-third of current workers in the field have completed some college or associate degree as their highest level of education.

Recommendation: Due to all three program endorsement criteria being met, the Los Angeles Center of Excellence for Labor Market Research (LA COE) endorses this proposed program.

Key Findings

Supply Gap

- 892 annual job openings are projected in the region through 2027. This number is substantially greater than the three-year average of 115 awards conferred by educational institutions in the region.

¹ Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree. 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.

Living Wage

- \$22.12 is the typical entry-level hourly wage for clinical laboratory technologists and technicians, which is higher than Los Angeles County's self-sufficiency standard hourly wage (\$18.10/hour).²

Educational Attainment

- A bachelor's degree is the typical entry-level education for clinical laboratory technologists and technicians according to the Bureau of Labor Statistics (BLS).
- 40% of workers in the field have completed some college or an associate degree as their highest level of education, according to national educational attainment data.

Community college supply

- Two community colleges issued awards related to medical laboratory technology in the greater LA/OC region.
- 46 awards (degrees and certificates) were conferred on average each year between 2019 and 2022.

Other postsecondary supply

- Two educational institutions in the LA/OC region offer programs related to clinical/medical laboratory technology.
- 69 awards were conferred on average each year by other postsecondary institutions throughout the greater LA/OC region.

TARGET OCCUPATIONS

LA COE prepared this report to provide regional labor market and postsecondary supply data related to one middle-skill occupation. Although this occupation typically requires a bachelor's degree, it is considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree as their highest level of education.

- **Clinical Laboratory Technologists and Technicians (29-2010)** This occupation includes the 2018 SOC occupations: Medical and Clinical Laboratory Technologists (29-2011) and Medical and Clinical Laboratory Technicians (29-2012).³
 - **Medical and Clinical Laboratory Technologists (29-2011)** Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.⁴
 - **Medical and Clinical Laboratory Technicians (29-2012)** Perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.⁵

² Self-Sufficiency Standard wage data was pulled from The Self-Sufficiency Standard Tool for California. For more information, visit: <http://selfsufficiencystandard.org/california>.

³ [Clinical Laboratory Technologists and Technicians \(bls.gov\)](https://www.bls.gov/occupations/29-2010)

⁴ [Medical and Clinical Laboratory Technologists \(onetonline.org\)](https://www.onetonline.org/occupation/29-2011)

⁵ [Medical and Clinical Laboratory Technicians \(onetonline.org\)](https://www.onetonline.org/occupation/29-2012)

OCCUPATIONAL DEMAND

Exhibit 1 shows the five-year occupational demand projections for clinical laboratory technologists and technicians. In the greater Los Angeles/Orange County region, the number of jobs related to this occupation is projected to increase by 5% through 2027. There will be nearly 900 job openings per year through 2027 due to job growth and replacements. The majority of jobs in 2022 for clinical laboratory technologists and technicians (69%) were located in Los Angeles County.

Exhibit 1: Current employment and occupational demand, Los Angeles and Orange counties⁶

| Geography | 2022 Jobs | 2027 Jobs | 2022-2027 Change | 2022-2027 % Change | Annual Openings |
|--------------|---------------|---------------|------------------|--------------------|-----------------|
| Los Angeles | 8,129 | 8,499 | 370 | 5% | 603 |
| Orange | 3,523 | 3,777 | 254 | 7% | 288 |
| Total | 11,652 | 12,276 | 624 | 5% | 892 |

Detailed Occupation Data

Exhibit 2 displays the current employment and projected occupational demand for the target occupation in Los Angeles County. The percentage of workers aged 55+ workers is included in order to visualize upcoming replacement demand for these occupations.

Exhibit 2: Current employment, projected occupational demand, percentage of workers aged 55+, Los Angeles County⁷

| Occupation | 2022 Jobs | 2027 Jobs | 5-Yr Change | 5-Yr % Change | Annual Openings | % Aged 55 and older* |
|---|-----------|-----------|-------------|---------------|-----------------|----------------------|
| Clinical Laboratory Technologists and Technicians | 8,129 | 8,499 | 370 | 5% | 603 | 24% |

*The average percentage of workers aged 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.

WAGES

The labor market endorsement in this report considers the entry-level hourly wages for clinical laboratory technologists and technicians 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 Los Angeles/Orange County region.

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.

⁷ Ibid.

Los Angeles County

The typical entry-level hourly wages for clinical laboratory technologists and technicians are \$22.12, 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 \$38.77 (Exhibit 3).

Exhibit 3: Earnings for occupation in Los Angeles County

| Occupation | Entry-Level Hourly Earnings (25 th Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 th Percentile) | Median Annual Earnings* |
|---|---|------------------------|---|-------------------------|
| Clinical Laboratory Technologists and Technicians | \$22.12 | \$27.05 | \$38.77 | \$56,300 |

*Rounded to the nearest \$100

Orange County

The typical entry-level hourly wages for clinical laboratory technologists and technicians are \$23.10, which is above the self-sufficiency standard wage for one adult (\$20.63 in Orange County). Experienced workers can expect to earn wages of \$40.50 (Exhibit 4).

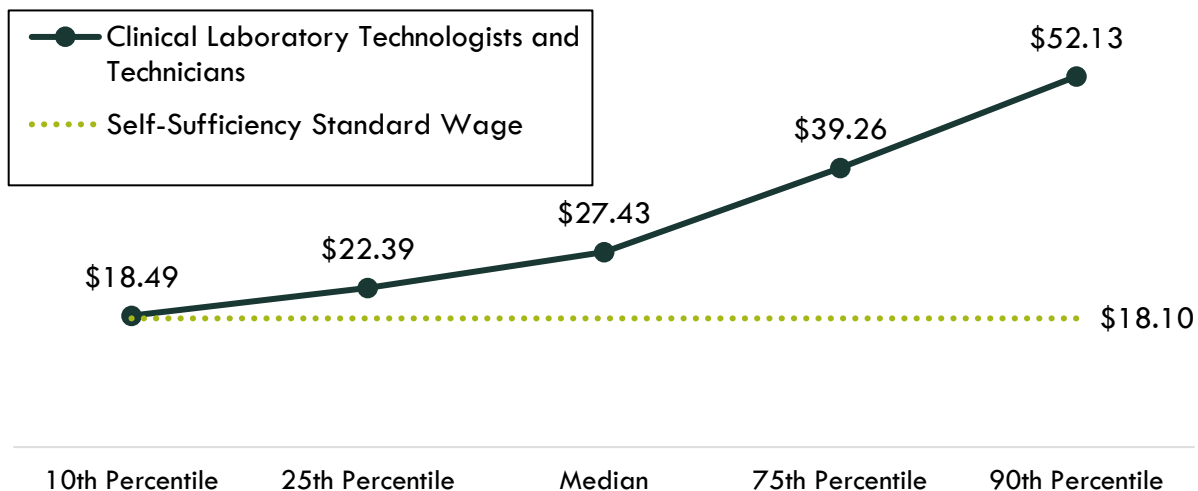
Exhibit 4: Earnings for occupation in Orange County

| Occupation | Entry-Level Hourly Earnings (25 th Percentile) | Median Hourly Earnings | Experienced Hourly Earnings (75 th Percentile) | Median Annual Earnings* |
|---|---|------------------------|---|-------------------------|
| Clinical Laboratory Technologists and Technicians | \$23.10 | \$28.26 | \$40.50 | \$58,800 |

*Rounded to the nearest \$100

Across the greater Los Angeles and Orange County region, the average entry-level hourly earnings for the occupations in this report are \$22.39; this is above the living wage for one single adult in Los Angeles County (\$18.10). Exhibit 5 shows the average hourly wage for the occupations in this report, for entry-level to experienced workers.

Exhibit 5: Average hourly earnings for clinical laboratory technologists and technicians, Los Angeles and Orange counties



JOB POSTINGS

In the past 12 months, 5,602 online job postings related to clinical laboratory technologists and technicians were listed in Los Angeles and Orange counties. Job postings were analyzed for the most common job titles, skills, and employers associated with the target occupation in this report (Exhibit 6).

Exhibit 6: Most commonly requested job titles, skills, and employers in job postings, Los Angeles and Orange counties

| Top Job Titles | Top Skills | Top Employers |
|---|--|---|
| <ul style="list-style-type: none"> Laboratory technicians Laboratory assistants Travel cath lab technologists Medical laboratory technicians Dialysis patient care technicians | <ul style="list-style-type: none"> Medical laboratory Laboratory equipment Biology Chemistry Phlebotomy | <ul style="list-style-type: none"> University of California Actalent* Providence Siemens University of Southern California |

*Staffing company

In the greater Los Angeles/Orange County region, 61% of the clinical laboratory technologists and technicians job postings listed a minimum educational requirement. The number and percentage of job postings by educational level appear in Exhibit 7.

Exhibit 7: Education levels requested in job postings for occupations related to clinical laboratory technologists and technicians, Los Angeles and Orange counties

| Education Level | Job Postings | % of Job Postings |
|--|--------------|-------------------|
| Bachelor's degree | 1,043 | 31% |
| Associate degree | 513 | 15% |
| High school diploma or vocational training | 1,860 | 54% |

EDUCATIONAL ATTAINMENT

The Bureau of Labor Statistics (BLS) lists a bachelor's degree as the typical entry-level education for clinical laboratory technologists and technicians (Exhibit 8). However, the national-level data indicates that 40% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

Exhibit 8: Entry-level education preferred by employers nationally, Bureau of Labor Statistics

| Occupation | Education Level |
|---|-------------------|
| Clinical Laboratory Technologists and Technicians | Bachelor's degree |

EDUCATIONAL SUPPLY

Community College Supply

Exhibit 9 shows the annual and three-year average number of awards conferred by community colleges in the related TOP code: Medical Laboratory Technology (1205.00). The only two colleges with completions in the region are Saddleback and Mt. San Antonio.

Exhibit 9: Regional community college awards (certificates and degrees), 2019-2022

| TOP Code | Program | College | 2019-20 Awards | 2020-21 Awards | 2021-22 Awards | 3-Year Average |
|-----------------------------|-------------------------------|--------------------|----------------|----------------|----------------|----------------|
| 1205.00 | Medical Laboratory Technology | Mt San Antonio | 11 | 26 | 27 | 21 |
| | | LA Subtotal | 11 | 26 | 27 | 21 |
| | | Saddleback | 29 | 27 | 17 | 24 |
| | | OC Subtotal | 29 | 27 | 17 | 24 |
| Supply Total/Average | | | 40 | 53 | 44 | 46 |

Other Postsecondary Supply

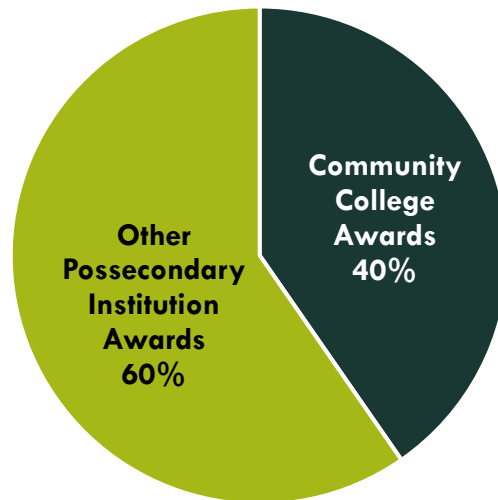
For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that provide training programs for clinical laboratory technologists and technicians. Exhibit 10 shows the number of awards conferred by these institutions in relevant programs. Due to different data collection periods, the most recent data is from 2019 to 2021. Between 2019 and 2021, other postsecondary college institutions in the region conferred an average of 69 bachelor's and sub-baccalaureate awards. Sub-baccalaureate awards include associate degrees, postsecondary awards, and other academic awards that typically take fewer than four years to complete. The majority of awards (98%) in Exhibit 11 are bachelor's degrees (68 awards).

Exhibit 10: Other regional postsecondary awards, 2019-2021

| CIP Code | Program | Postsecondary Institution | 2019-20 Awards | 2020-21 Awards | 2-Year Average |
|-----------------------------|---|---------------------------|----------------|----------------|----------------|
| 51.1004 | Clinical/Medical Laboratory Technician | Regan Career Institute | - | 1 | 1 |
| 51.1005 | Clinical Laboratory Science/Medical Technology/Technologist | CSU-Dominguez Hills | 49 | 86 | 68 |
| Supply Total/Average | | | 49 | 87 | 69 |

Exhibit 11 shows the proportion of community college awards conferred in the greater Los Angeles/Orange County region compared to the number of other postsecondary awards for the programs in this report. The majority of awards conferred in these programs are awarded by other institutions in the greater Los Angeles/Orange County region.

Exhibit 11: Percentage of community college awards compared to other postsecondary institution awards in the Los Angeles/Orange County region



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DATA 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)

Important Disclaimer: 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. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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