LABOR MARKET ANALYSIS

FOR PROGRAM RECOMMENDATION



PHLEBOTOMY IN THE GREATER SACRAMENTO REGION

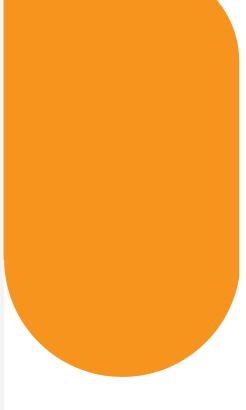
North (Greater Sacramento) Center of Excellence

NOVEMBER 2023

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SUMMARY

The North (Greater Sacramento) Center of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled careers in the North (Greater Sacramento) subregion. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations - jobs that typically require education beyond a high school diploma but less than a bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this analysis due to the lessened barriers for entry-level work, such as no formal education and fewer on-the-job training requirements.

Key findings include:

- The North (Greater Sacramento) subregion held 745 phlebotomist jobs in 2022. Phlebotomist jobs are projected to increase by 14% over the next five years, adding 102 new jobs to the subregion by 2027.
- Over the next five years, phlebotomist jobs are projected to have 132 annual openings in the North (Greater Sacramento) subregion.
- Wage data shows that phlebotomists earn \$21.35 to \$28.33, which is above the subregion's living wage of \$18.72 per hour. (See Appendix B for notes about the updated living wage).
- Awards data analysis shows that North (Greater Sacramento) training providers conferred an average of 117 awards in phlebotomy programs over the last three academic years.

Recommendations include:

• The North (Greater Sacramento) Center of Excellence recommends developing new phlebotomy training programs in a local community college.

INTRODUCTION

The North (Greater Sacramento) Center of Excellence (COE) was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupation and code:

- This middle-skill occupation requires more education and training beyond a high school diploma but usually less than a four-year degree:
 - Phlebotomists (31-9097)

A review of related programs revealed the following Taxonomy of Programs (TOP) title and code is appropriate for inclusion in this report:

• Phlebotomy (1205.10)

The corresponding Classification of Instructional Program (CIP) title and code is:

• Phlebotomy Technician/Phlebotomist (51.1009)

OCCUPATIONAL DEMAND

Exhibit 1 summarizes the five-year projected job growth for phlebotomists in North (Greater Sacramento)¹, North/Far North, and California.

Exhibit 1. Employment and projected demand, 2022-2027

Occupation	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	2022-2027 Annual Openings
Phlebotomists	745	846	102	14%	132
North (Greater Sacramento)	745	846	102	14%	132
Phlebotomists	1,022	1,149	127	12%	178
North/Far North	1,022	1,149	127	12%	178
Phlebotomists	14,004	15,885	1,881	13%	2,485
California	14,004	15,885	1,881	13%	2,485

¹ The North (Greater Sacramento) subregion covers seven counties, including El Dorada, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba.

Exhibit 2 compares the net changes in jobs between 2017 through 2022 and the projected changes through 2027. The rate of change is indexed to the total number of jobs in 2017.

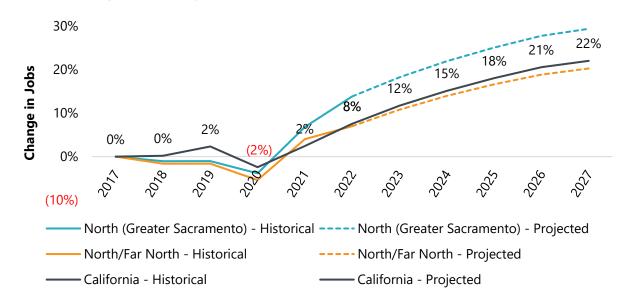


Exhibit 2. Changes in employment, 2017-2027

WAGES

Exhibit 3 compares the 25th percentile, median, and 75th percentile hourly wages for phlebotomists to the Greater Sacramento living wage for one working adult (\$18.72 per hour) and a small family (\$28.91 per hour).^{2,3} The 25th and 75th percentile hourly wages are used to estimate entry-level and experienced worker wages.

Exhibit 3. Hourly wages by occupation, 2022



² Living wage is defined as the level of income one working adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. Please note that the 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

³ A small family is defined as one working adult and one school aged child (between the ages of 5 and 12 years).

JOB POSTINGS

About Job Postings Analysis

This section analyzes recent data from online job postings. Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends. However, job postings differ from labor market demand; demand is based on projected annual openings. Job postings should be used to inform community college curriculum development and identify potential employers for targeted experiential learning opportunities.

Please note several limitations to analyzing and interpreting online job postings. Employers may post a position multiple times to increase the number of job applicants. Job postings may remain online after a business chooses not to fill a role. Employers may advertise one posting to fill multiple vacancies. And not all jobs are posted online.

The North COE identified 263 online phlebotomist job postings in the seven-county Greater Sacramento subregion. Job posting data comes from Lightcast (formerly Emsi Burning Glass) and represents unique advertisements newly posted online during the last 12 months, from November 2022 through October 2023.

Top Employers and Job Titles

Exhibit 4 details the number of online job postings for phlebotomists.

Exhibit 4. Job postings by occupation

Occupation	Unique Job Postings	Share of Job Postings
Phlebotomists	263	100%
Total Job Postings	263	100%

Exhibit 5 shows the top 5 relevant job titles with the most job postings.

Exhibit 5. Top jobs titles

Job Title	Number of Job Postings
Phlebotomists	157
Mobile Phlebotomists	46
Certified Phlebotomy Technicians	12
Certified Phlebotomists	8
Travel Phlebotomists	2

Exhibit 6 shows the top relevant employers with the most job postings for phlebotomists.

Exhibit 6. Top Employers

Employer	Number of Job Postings
Quest Diagnostics	77
BioLife Plasma Services	12
PRIDE Health	12
Labcorp Drug Development	10
Forward	10

Top Skills and Qualifications

Exhibit 7 shows the most relevant certifications for phlebotomists requested by employers.

Exhibit 7. Most in-demand certifications

Certification	Job Postings	Share of Job Postings
Phlebotomy Certification	100	38%
Certified Phlebotomy Technician	52	20%
Clinical Laboratory Scientist License (CLS)	17	6%
Patient Identification and Matching	9	3%
Basic Life Support (BLS)	9	3%

Exhibit 8 shows the top skills for phlebotomists across three categories: specialized, essential, and software skills.⁴

Exhibit 8. Most in-demand skills

Specialized Skills	Common Skills	Software Skills
Phlebotomy	Customer Service	Inventory Management Systems
Data Entry	Collections	Microsoft Office
Billing	Packaging and Labeling	Microsoft Excel
Specimen Processing	Research	Microsoft Word
Venipuncture	Filing	Microsoft Lync Servers
Medical Assistance	Communications	
Specimen Collection	Operations	
Pediatrics	Detail Oriented	
Geriatrics	Coordinating	
Laboratory Testing	Management	

⁴ Specialized skills are those primarily required to perform specific tasks in an occupation. Essential skills are typically related to employability. These are skills that are prevalent across many occupations, and include both interpersonal attributes and learned skills (aka "soft skills"). Software skills are specific to any software tool or programming component used to support a job.

Exhibit 9 shows the minimum education level preferred by employers for phlebotomist job postings in the Greater Sacramento subregion.⁵



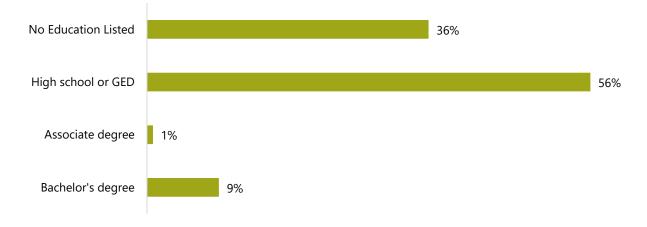
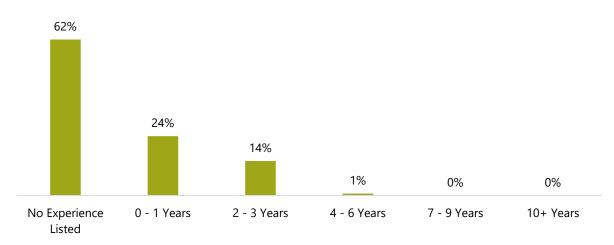


Exhibit 10 shows the minimum level of experience employers prefer for phlebotomist job postings in the Greater Sacramento subregion.⁶





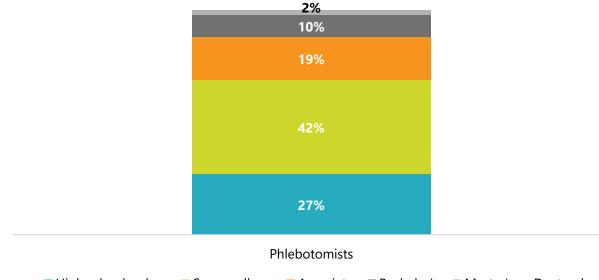
⁵ Employers may include more than one level of education as a hiring requirement in a job posting. As a result, the values in exhibit 9 may sum to greater than 100%.

⁶ Employers may include more than one level of experience as a hiring requirement in a job posting. As a result, the values in exhibit 10 may sum to greater than 100%.

EDUCATION AND TRAINING REQUIREMENTS

The U.S. Census Bureau collects data on the highest education level achieved by workers across all occupations. Exhibit 11 shows California's educational attainment of the current phlebotomist workforce.





■ High school or less ■ Some college ■ Associate ■ Bachelor's ■ Master's or Doctoral

The U.S. Bureau of Labor Statistics (BLS) uses a categorical system to assign typical entry-level education and job requirements to each occupation for which the BLS publishes projection data. These categories include entry-level education, work experience in a related occupation, and on-the-job training. Exhibit 12 shows phlebotomists' typical entry-level job requirements.

Exhibit 12. Typical entry-level job requirements

Occupation	Entry-level Education Requirements	Work Experience Requirements	On-The-Job Training Requirements
Phlebotomists	Postsecondary nondegree award	None	None

EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 13 shows the TOP and CIP codes for educational programs related to phlebotomists.

Exhibit 13. TOP and CIP codes for training programs related to phlebotomists

TOP Programs and Codes	Aligned CIP Programs and Codes
Phlebotomy (1205.10)	Phlebotomy Technician/Phlebotomist (51.1009)

Community College Supply

No community college in the Greater Sacramento subregion conferred any awards in phlebotomy programs over the last three years.

Other Postsecondary Supply

Exhibit 14 compares the average number of degrees that non-community college training providers conferred in the Greater Sacramento subregion over the last two academic years.

Please note that non-community college data often lags by one year, and other postsecondary awards data covers a two-year average due to taxonomy updates from the 2010 to 2020 CIP codes.

Exhibit 14. Other postsecondary awards by program

Program - CIP Code	Provider	Annual Awards 2019-20	Annual Awards 2020-21	2-Yr Annual Awards Average
Phlahatamy Tachnician (MTI College	60	85	73
Phlebotomy Technician/ Phlebotomist (51.1009)	National Career Education	40	49	45
	Grand Total	100	134	117

FINDINGS

This report focuses on phlebotomists (SOC 31-9097).

Occupational Demand

- The Greater Sacramento subregion held 745 jobs for phlebotomists in 2022. These jobs are projected to increase by 14% over the next five years, adding 102 new jobs to the subregion by 2027.
- Jobs for phlebotomists are projected to grow faster in the Greater Sacramento subregion (14%) than in California (13%).
- Over the next five years, there are projected to be 132 annual job openings for phlebotomists in the Greater Sacramento subregion.

Wages

• Wage data shows that phlebotomists earn \$21.35 to \$28.33, which is at least \$2 above the single adult living wage of \$18.72 per hour.

Job Postings

- In the last 12 months, there were 263 online job postings for phlebotomists.
- Quest Diagnostics is the employer with the highest number of job postings (29%).

Education and Training Requirements

• Nearly two-thirds of incumbent phlebotomist workers (61%) have educational attainment levels consistent with community college offerings (some college or associate degrees). Another 10% of workers in this occupation hold a bachelor's degree.

Postsecondary Supply

- North (Greater Sacramento) community colleges do not offer phlebotomist training, so there are no awards from local community colleges.
 - A review of all 116 community colleges in California revealed that only nine (9) conferred awards in the last three years: Bakersfield, Cabrillo, Cuesta, De Anza, LA City, Long Beach, Palo Verde, Saddleback, and San Francisco.
- Between 2019-20 and 2020-21, local, non-community college training providers conferred an average of 117 awards in phlebotomy technician/phlebotomist programs over the last two years. Please note that non-community college awards data often lags by one year.

RECOMMENDATIONS

- A comparison of annual openings to average annual awards in the Greater Sacramento subregion shows a slight undersupply between educational supply and occupational demand.
 - Local private postsecondary training providers issued an average of 117 awards over the last three years. There are no community colleges in the region offering a phlebotomy program.
 - There are 132 projected annual openings for phlebotomists.
- The North (Greater Sacramento) Center of Excellence recommends developing a new phlebotomy training program in the community college space. The Greater Sacramento community and labor market could benefit from access to low-cost training offered through community colleges.

New Program Recommendation				
Move forward with the new program	Proceed with caution	A new program is not recommended		

APPENDIX A. METHODOLOGY AND SOURCES

This report identified Occupations using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O*Net OnLine. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

- "The Chancellor's Office Curriculum Inventory System (COCI)." California Community Colleges Curriculum Inventory (COCI), 2023. <u>https://coci2.ccctechcenter.org/</u>.
- Glasmeier, Amy K. "Living Wage Calculator." Living Wage Calculator, 2023. <u>https://livingwage.mit.edu/</u>.
- Integrated Postsecondary Education Data System (IPEDS). National Center for Education Statistics. U.S. Department of Education. <u>https://nces.ed.gov/ipeds/</u>.
- Labor Market Information Division. California Employment Development Department. <u>https://labormarketinfo.edd.ca.gov/</u>.
- Lightcast (Formerly EMSI/Burning Glass) 2023.3; QCEW Employees, Non-QCEW Employees, and Self-Employed. <u>https://www.economicmodeling.com/</u>. (*Note: EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors)*).
- Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <u>https://datamart.cccco.edu/</u>.
- O*NET OnLine. U.S. Department of Labor/Employment and Training Administration (DOL ETA). https://www.onetonline.org/.
- Self-Sufficiency Standard Tool for California. The University of Washington. <u>http://www.selfsufficiencystandard.org/</u>
- "Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6th Edition. <u>https://www.cccco.edu/-/media/CCCCO-Website/About-</u> <u>Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-</u> <u>do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.ashx</u>
- "TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. June 2021 Edition. http://coeccc.net/

APPENDIX B. GLOSSARY

Key Terms	Definition
Occupation	Occupation refers to a category of jobs, careers, or professions that are similar regarding the work performed and the skills the workers possess. Workers who perform essentially the same tasks are in the same occupation, whether in the same industry. Some occupations are concentrated in a few industries, while others are found in many industries.
	Occupations differ from jobs in that jobs show the number of positions held in each occupation.
	A job is a specific instance of employment and includes any position where a worker provides labor for monetary compensation.
Jobs	Job numbers include employees (those who work for businesses) and proprietors (those who work for themselves). Full- and part-time jobs are included and counted equally (i.e., not adjusted to full-time equivalents). Data for jobs, or employment, are annual averages.
Employment	Employment refers to filled jobs, whether full- or part-time, temporary or permanent. The scope of "who" is counted as employed is noted in Appendix A. Methodology and Sources.
Job Change	Job change is the net increase or decrease of jobs over a given timeframe.
	Job openings are the projected number of positions available for workers entering an occupation.
Job Opening	Openings include growth and replacement job counts. Growth job counts are the positive change in the total number of workers employed. Replacement job counts are the estimates of new workers needed to replace workers permanently leaving the occupation.
Percentile Wage (or wages)	A percentile wage is the value of a wage at which a certain percentage of workers falls below. For example, a 25 th percentile hourly wage of \$15.00 indicates that 25% of workers earn less than \$15.00, while 75% earn more. Percentile wages are specific to the geography shown in the report.
	The 25th-percentile and 75th-percentile hourly wages are used as a proxy for entry- level and experienced-level wages.
Living Wage	The living wage is the level of income a single, working adult with no children must earn to meet basic needs. The living wage is calculated using basic allowances for food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs, and assumes full-time employment (40 hours per week, 52 weeks a year).

Key Terms	Definition
	Beginning in 2023-24, NFN COE adopted the MIT calculations for a living wage better aligned to the economic conditions following the pandemic. For additional information, please visit <u>https://livingwage.mit.edu/</u> .
Educational Attainment	Educational attainment is the highest level of education achieved by workers in an occupation. The data include workers aged 25 years and older.
Typical Entry-level Education	The education level most workers need to gain employment in an occupation. Categories range from "no formal educational credential" and "high school diploma or equivalent" to "doctoral or professional degree." The types most relevant to community training are "some college, no degree," "postsecondary nondegree award," and "associate degree."
	The typical entry-level education may differ from the actual educational levels attained by workers employed in an occupation.
Typical Work Experience	The relevant prior experience a worker needs to gain employment in an occupation. Categories include "5 years or more", "less than five years," and "none."
Typical On-The-Job (OTJ) Training	The level of on-the-job training a worker needs to obtain for competency in the skills required for an occupation. Categories include "none," "short-term (1 month or less)," "moderate-term (more than one month but less than 12 months)," "long-term (more than 12 months)," "apprenticeship," and "internship/residency."
Awards	Awards are the number of certificates and degrees conferred for a specific course of study each year. Awards count "papers" and, as a result, may be greater than the number of students who complete a program.

Funding Acknowledgement: This report was made available with Strong Workforce Program funding from the North Far North Regional Consortium.

COVID-19 Statement: This report includes employment projection data produced by Lightcast (formerly EMSI). Employment projections are developed using models based on historical data, which in this set of projections covers the period through 2021. Most input data, therefore, precedes the pandemic. Employment projections are long-term projections intended to capture structural changes in the economy, not cyclical fluctuations. As such, projections data are not intended to capture the impacts of the recession that began in February 2020. Cyclical fluctuations, like recessions, impact projections when they become part of the historical data set.

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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