

September 2022

Labor Market Analysis

Pharmacy Technician



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Prepared by the Central Valley/Mother Lode Center of Excellence

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COVID-19 Statement: This report includes employment projection data by Lightcast. Lightcast’s projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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Summary

Please note the COVID-19 statement on page 2 when considering this report's findings.

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for Pharmacy Technician. One occupation related to Pharmacy Technician was identified for Modesto Junior College:

- 29-2052, Pharmacy Technicians

Key findings:

- **Occupational demand** — Nearly 1,570 workers were employed in jobs related to Pharmacy Technician in 2021 in the North Central Valley/Northern Mother Lode (NCV/NML) subregion. Pharmacy technicians have 1,564 workers, a projected growth rate of 2% over the next five years, and 120 annual openings.
- **Wages** — Pharmacy technicians earn an entry-level wage of \$17.94/hour in the subregion.
- **Employers** — Employers with the most job postings in the subregion are Walgreens Boots Alliance Inc, Walmart / Sam's, and CVS Health.
- **Occupational titles** — The occupational title is Pharmacy Technicians. The most common job title is Pharmacy Technician.
- **Skills and certifications** — The top baseline skill is communication skills, the top specialized skill is pharmacist assistance, and the top software skill is Microsoft Office. The most in-demand certification is a certified pharmacy technician.
- **Education** — A high school diploma or equivalent is typically required for pharmacy technicians.
- **Supply** — Analysis of postsecondary completions shows that on average 368 awards were conferred in the Central Valley/Mother Lode region each year.

Based on a comparison of occupational demand and supply, there is an undersupply of 73 trained workers in the subregion and an oversupply of 56 workers in the region. The Center of Excellence recommends that Modesto Junior College work with the regional directors, the college's advisory board, and local industry in the development of programs to address the shortage of Pharmacy Technician workers in the subregion.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Modesto Junior College to provide labor market information for Pharmacy Technician. The geographical focus for this report is the North Central Valley/Northern Mother Lode (NCV/NML) subregion, but regional demand and supply data has been included for broader applicability and use. The average living wage for a single adult in the NCV/NML subregion is \$12.63/hour.¹ Analysis of the program and occupational data related to Pharmacy Technician resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 29-2052, Pharmacy Technicians

The occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown below.

Pharmacy Technicians

Job Description: Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.

Knowledge: Customer and Personal Service, Mathematics, Medicine and Dentistry, English Language, Computers and Electronics

Skills: Active Listening, Reading Comprehension, Speaking, Critical Thinking, Active Learning

Occupational Demand

The NCV/NML subregion employed 1,564 workers in Pharmacy Technician occupations in 2021 (Exhibit 1). Pharmacy technicians have 1,564 workers. This occupation is projected to grow by 2% over the next five years and has the greatest number of projected annual openings, 120.

Exhibit 1. Pharmacy Technician employment and occupational projections in the NCV/NML subregion

| Occupation | 2021 Jobs | 2026 Jobs | 5-Year Change | 5-Year % Change | Annual Openings |
|----------------------|--------------|--------------|------------------|-----------------------|--------------------|
| Pharmacy Technicians | 1,564 | 1,598 | 34 | 2% | 120 |
| TOTAL | 1,564 | 1,598 | 34 | 2% | 120 |

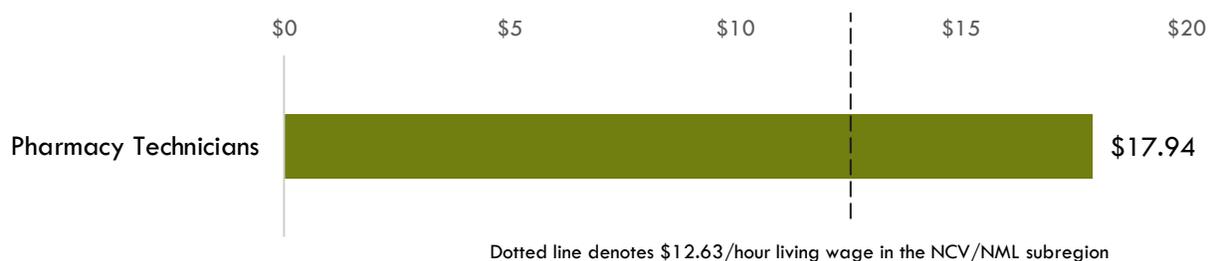
Wages

Exhibit 2 shows the entry-level hourly wages of the Pharmacy Technician occupations. Pharmacy technicians earn the highest entry-level wage, \$17.94/hour in the subregion².

¹ The term "living wage" in Center of Excellence reports is calculated by averaging the self-sufficiency wages from the Insight Center's California Family Needs Calculator for each county in the subregion: <https://insightccd.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

² Entry-level wages are derived from the 25th percentile.

Exhibit 2. Pharmacy Technician entry-level wages in the NCV/NML subregion



Job Postings

There were 327 job postings for the occupation in the NCV/NML subregion from March 2022 to August 2022.³ The employers with the most job postings are listed in Exhibit 3.

Exhibit 3. Top employers of Pharmacy Technician by number of job postings

| Employer | Job Postings | % Job Postings |
|------------------------------|--------------|----------------|
| Walgreens Boots Alliance Inc | 38 | 13% |
| Walmart / Sam's | 37 | 13% |
| CVS Health | 33 | 11% |
| Adventist Health | 14 | 5% |
| Raley's Supermarkets | 13 | 4% |
| Rite Aid Corporation | 13 | 4% |
| Sutter Health | 10 | 3% |
| Tenet Health System | 8 | 3% |
| Kaiser Permanente | 7 | 2% |
| Pharmacy Technician | 7 | 2% |

Exhibit 4 shows how job postings for the targeted occupations in the NCV/NML subregion are distributed across one O*NET OnLine occupations. The occupational title Pharmacy Technicians is listed in 327 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include Pharmacy Technician in 114 job postings, Health and Wellness in 28 job postings, and Certified Pharmacy Technician in 20 job postings.

Exhibit 4. Top occupational titles in job postings for Pharmacy Technician

| Occupational Title | Job Postings | % of Job Postings |
|----------------------|--------------|-------------------|
| Pharmacy Technicians | 327 | 100% |

Salaries

Exhibit 5 shows the “Market Salaries” for Pharmacy Technician occupations. These are calculated by Burning Glass using a machine learning model built off of millions of job postings every year. This accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

³ Other than occupation titles and job titles, the categories below can be counted one or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted in two different skill types, and an employer can indicate more than one education level.

Exhibit 5. Salaries for Pharmacy Technician occupations

| Market Salary Percentile | Salary Amount |
|--------------------------|---------------|
| 10th Percentile | \$28,028 |
| 25th Percentile | \$29,918 |
| 50th Percentile | \$31,978 |
| 75th Percentile | \$35,122 |
| 90th Percentile | \$39,783 |

Education

Of the 327 job postings, 130 listed an education level preferred for the positions being filled. Among those, 99% requested high school or vocational training, and 15% requested an associate degree (Exhibit 6). A job posting can indicate more than one education level. Hence, the percentages shown in the chart below may total more than 100%.

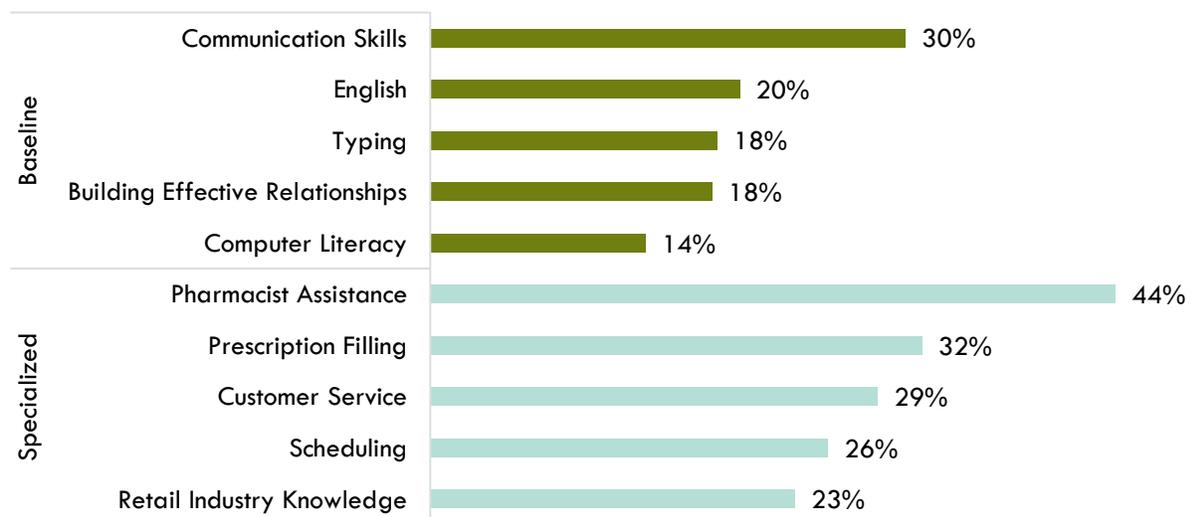
Exhibit 6. Education levels requested in job postings for Pharmacy Technician

| Education Level | Job Postings | % of Job Postings |
|------------------------------------|--------------|-------------------|
| High school or vocational training | 129 | 99% |
| Associate's degree | 19 | 15% |

Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are communication skills, 30% of job postings, English, 20%, and typing, 18%. The top three specialized skills are pharmacist assistance, 44% of job postings, prescription filing, 32%, and customer service, 29%.

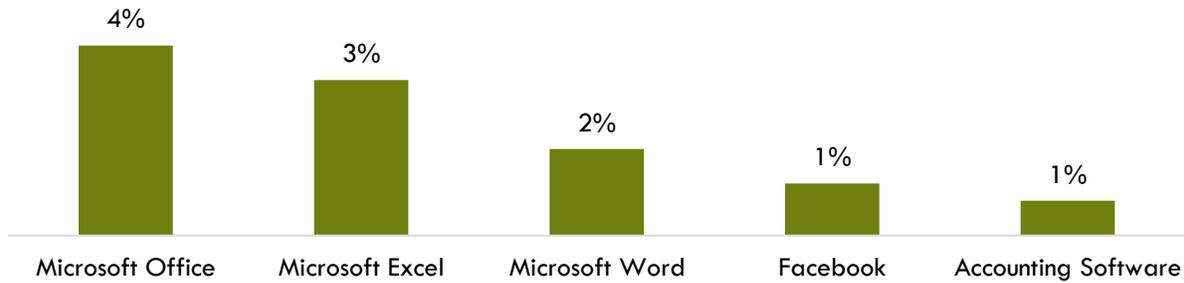
Exhibit 7. In-demand Pharmacy Technician baseline and specialized skills



Software Skills

Analysis also included the software skills most in demand by employers. Microsoft Office and Excel were the top two software skills identified in job postings (Exhibit 8).

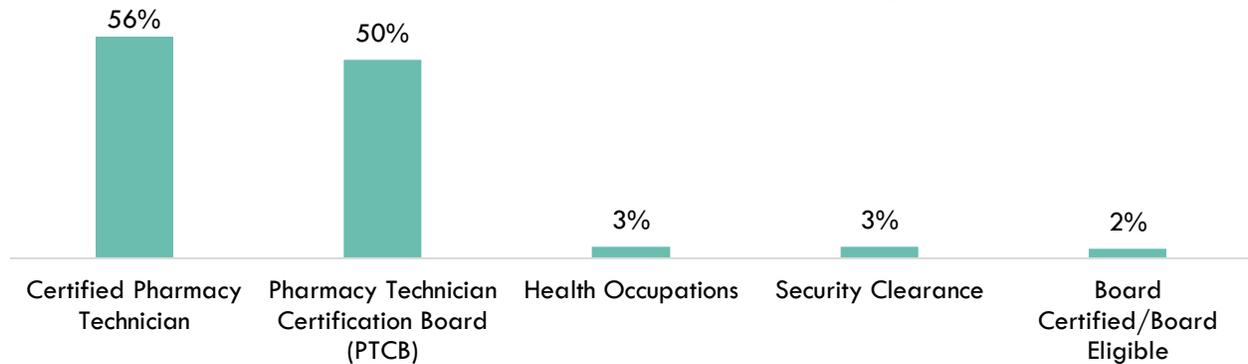
Exhibit 8. In-demand Pharmacy Technician software skills



Certifications

Of the 327 job postings, 167 contained certification data. Among those, 56% indicated a need for a certified pharmacy technician. The next top certifications are Pharmacy Technician Certification Board (PTCB) and health occupations (Exhibit 9). Please note 19% of job posting indicated a need or a driver’s license but it is not a certification.

Exhibit 9. Top Pharmacy Technician certifications requested in job postings



Education, Work Experience & Training

A high school diploma or equivalent is typically required for pharmacy technicians (Exhibit 10).

Exhibit 10. Education, work experience, training, and Current Population Survey results for Pharmacy Technician occupations⁴

| Occupation | Typical Entry-level Education | Work Experience Required | Typical On-The-Job Training | CPS |
|----------------------|-----------------------------------|--------------------------|-----------------------------|-------|
| Pharmacy Technicians | High school diploma or equivalent | None | Moderate-term | 53.7% |

⁴ “Labor Force Statistics from the Current Population Survey,” Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

Supply

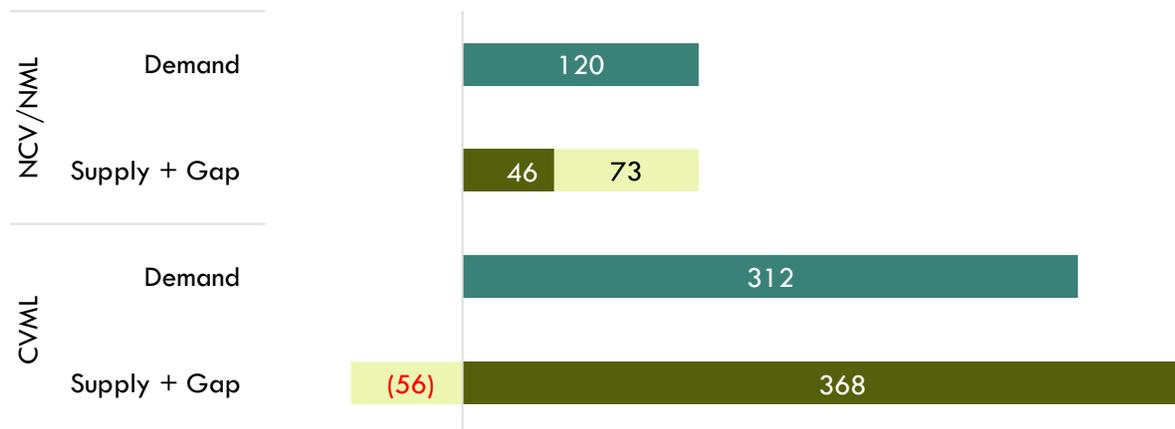
Analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) included the TOP and CIP codes and titles: 122100 - Pharmacy Technology and 51.0805 - Pharmacy Technician/Assistant. Analysis of the last three years of data shows that, on average, 368 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

Exhibit 11. Postsecondary supply for Pharmacy Technician occupations in the region

| TOP/CIP Code- Title | College | Associate Degree | Award 1 < 2 Academic Years | Certificate 6 < 18 Semester Units | Subtotal | |
|------------------------------|-----------------------------------------|-------------------------------------------------|----------------------------|-----------------------------------|------------|----|
| 122100 - Pharmacy Technology | Sequoias | | | 14 | 14 | |
| | Carrington College-Stockton | 9 | 24 | | 33 | |
| | Institute of Technology | | 13 | | 13 | |
| | San Joaquin Valley College-Visalia | 113 | 83 | | 196 | |
| | 51.0805 - Pharmacy Technician/Assistant | Santa Barbara Business College-Bakersfield | 0 | | | 0 |
| | | UEI College-Bakersfield | | 52 | | 52 |
| | | UEI College-Fresno | | 59 | | 59 |
| | | United Education Institute-UEI College Stockton | | 0 | | 0 |
| Total | | 122 | 232 | 14 | 368 | |

There is an undersupply of 73 Pharmacy Technician workers in the NCV/NML subregion and an oversupply of 56 workers in the region (Exhibit 12).

Exhibit 12. Pharmacy Technician workforce demand (annual job openings), postsecondary supply of students (awards), and additional students needed to fill gap in the NCV/NML subregion and region



Student Outcomes

There was no employment and wage outcomes data available from the California Community College Chancellor's Cal-PASS Plus LaunchBoard for the TOP code related to Pharmacy Technician.

Conclusion

The entry-level wages of the occupation exceed the NCV/NML subregion's average living wage. There were 327 job postings in the past six months for occupations related to Pharmacy Technician in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication skills, and the top specialized skill is pharmacist assistance.
- The top software skill is Microsoft Office.
- The top certification is a certified pharmacy technician.

There is an undersupply of trained workers, a shortage of 73 in the NCV/NML subregion and a surplus of 56 in the region.

Recommendation

Based on these findings, it is recommended that Modesto Junior College work with the regional directors, the college's advisory board, and local industry in the development of programs to address the shortage of Pharmacy Technician workers in the subregion.

Appendix A: Methodology & Data Sources

Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor’s Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

| Data Type | Source |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Labor Market Information/Population Estimates and Projections/Educational Attainment | Economic Modeling Specialists, Intl. (LIGHTCAST). LIGHTCAST occupational employment data are based on final LIGHTCAST industry data and final LIGHTCAST 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). Occupational wage estimates also affected by county-level LIGHTCAST earnings by industry: economicmodeling.com. |
| Typical Education Level and On-the-job Training | Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: https://www.bls.gov/emp/tables/educational-attainment.htm . |
| Labor Force, Employment and Unemployment Estimates | California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov . |
| Job Posting and Skills Data | Burning Glass: burning-glass.com/ . |
| Additional Education Requirements/ Employer Preferences | The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: onetonline.org . |

Key Terms and Concepts

Annual Job Openings: Annual openings are calculated by dividing the number of years in the projection period by total job openings.

Education Attainment Level: The highest education attainment level of workers age 25 years or older.

Employment Estimate: The total number of workers currently employed.

Employment Projections: Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (LIGHTCAST) formula that includes historical employment and economic indicators along with national, state and local trends.

Living Wage: The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

Occupation: An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

Percent Change: Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

Replacements: Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

Total Job Openings (New + Replacements): Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

Typical Education Requirement: represents the typical education level most workers need to enter an occupation.

Typical On-The-Job Training: indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.