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Labor Market Analysis

Registered Nursing



POWERED BY



Prepared by the Central Valley/Mother Lode Center of Excellence

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COVID-19 Statement: This report includes employment projection data by Emsi. Emsi’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 Registered Nursing. One occupation related to Registered Nursing were identified for Cerro Coso College:

- 29-1141, Registered Nurses

Key findings:

- **Occupational demand** — Nearly 18,390 workers were employed in jobs related to Registered Nursing in 2021 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is registered nurses with 18,383 workers, a projected growth rate of 10% over the next five years, and 1,358 annual openings.
- **Wages** — Registered nurses earn the highest entry-level wage, \$36.43/hour in the subregion.
- **Employers** — Employers with the most job postings in the subregion are Adventist Health, Aya Healthcare, and Community Health System.
- **Occupational titles** — The most common occupational title in job postings in the subregion is Registered Nurses. The most common job title is Registered Nurse.
- **Skills and certifications** — The top baseline skill is teamwork /collaboration, the top specialized skill is patient care, and the top software skill is Microsoft Excel. The most in-demand certification is a registered nurse.
- **Education** — A bachelor's degree is typically required for registered nurses.
- **Supply** — Analysis of postsecondary completions shows that on average 874 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 755 trained workers in the subregion and 1,228 workers in the region. The Center of Excellence recommends that Cerro Coso College work with the regional directors, the college's advisory board, and local industry in the development of programs to address the shortage of Registered Nursing workers in the region.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Cerro Coso College to provide labor market information for Registered Nursing. The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) 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 SCV/SML subregion is \$11.91/hour.¹ Analysis of the program and occupational data related to Registered Nursing resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 29-1141, Registered Nurses

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.

Registered Nurses

Job Description: Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required.

Knowledge: Psychology, Customer and Personal Service, Medicine and Dentistry, English Language, Administrative

Skills: Social Perceptiveness, Active Listening, Coordination, Critical Thinking, Service Orientation

Occupational Demand

The SCV/SML subregion employed 18,383 workers in Registered Nursing occupations in 2021 (Exhibit 1). The largest occupation is registered nurses with 18,383 workers. This occupation is projected to grow by 10% over the next five years and has the greatest number of projected annual openings, 1358.

Exhibit 1. Registered Nursing employment and occupational projections in the SCV/SML subregion

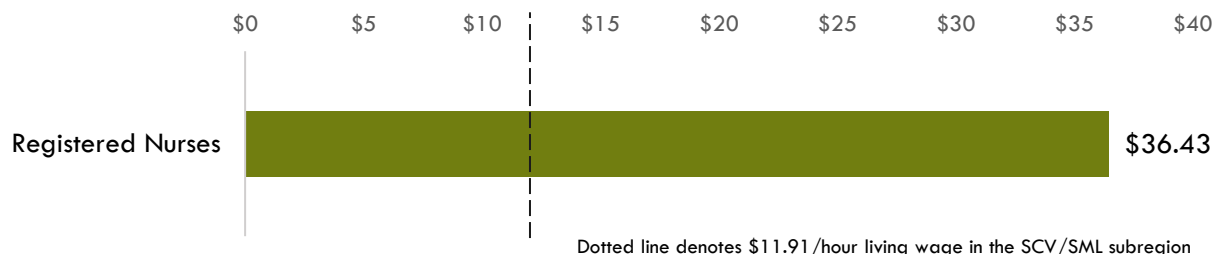
| Occupation | 2021 Jobs | 2026 Jobs | 5-Year Change | 5-Year % Change | Annual Openings |
|-------------------|---------------|---------------|------------------|-----------------------|--------------------|
| Registered Nurses | 18,383 | 20,160 | 1,777 | 10% | 6,791 |
| TOTAL | 18,383 | 20,160 | 1,777 | 10% | 6,791 |

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://insightcced.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

Wages

Exhibit 2 shows the entry-level hourly wages of the Registered Nursing occupations. Registered nurses earn the highest entry-level wage, \$36.43/hour in the subregion².

Exhibit 2. Registered Nursing entry-level wages in the SCV/SML subregion



Job Postings

There were 10,723 job postings for the one occupation in the SCV/SML subregion from December 2021 to May 2022.³ The employers with the most job postings are listed in Exhibit 3.

Exhibit 3. Top employers of Registered Nursing by number of job postings

| Employer | Job Postings | % Job Postings |
|--|--------------|----------------|
| Adventist Health | 483 | 8% |
| Aya Healthcare | 252 | 4% |
| Community Health System | 233 | 4% |
| Community Health Systems Professional Services Corporation | 213 | 3% |
| Asante | 133 | 2% |
| Anthem Blue Cross | 130 | 2% |
| Community Medical Centers Incorporated | 115 | 2% |
| Community Regional Medical | 111 | 2% |
| Trinity Health | 89 | 1% |
| Bluepipes | 88 | 1% |

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across five O*NET OnLine occupations. The occupational title Registered Nurses is listed in 9,257 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include registered nurse in 774 job postings, case manager in 69 job postings, and registered nurse case manager in 64 job postings.

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

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 4. Top occupational titles in job postings for Registered Nursing

| Occupational Title | Job Postings | % of Job Postings |
|--------------------------------------|--------------|-------------------|
| Registered Nurses | 9,257 | 86% |
| Critical Care Nurses | 1,374 | 13% |
| Clinical Nurse Specialists | 68 | 1% |
| Acute Care Nurses | 18 | 0% |
| Advanced Practice Psychiatric Nurses | 6 | 0% |

Salaries

Exhibit 5 shows the “Market Salaries” for Registered Nursing 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.

Exhibit 5. Salaries for Registered Nursing occupations

| Market Salary Percentile | Salary Amount |
|--------------------------|---------------|
| 10th Percentile | \$53,140 |
| 25th Percentile | \$65,180 |
| 50th Percentile | \$74,623 |
| 75th Percentile | \$84,149 |
| 90th Percentile | \$93,057 |

Education

Of the 10,723 job postings, 52 listed an education level preferred for the positions being filled. Among those, and 60% requested an associate degree, 47% requested a bachelor’s degree, and 7% requested high school or vocational training, (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%.

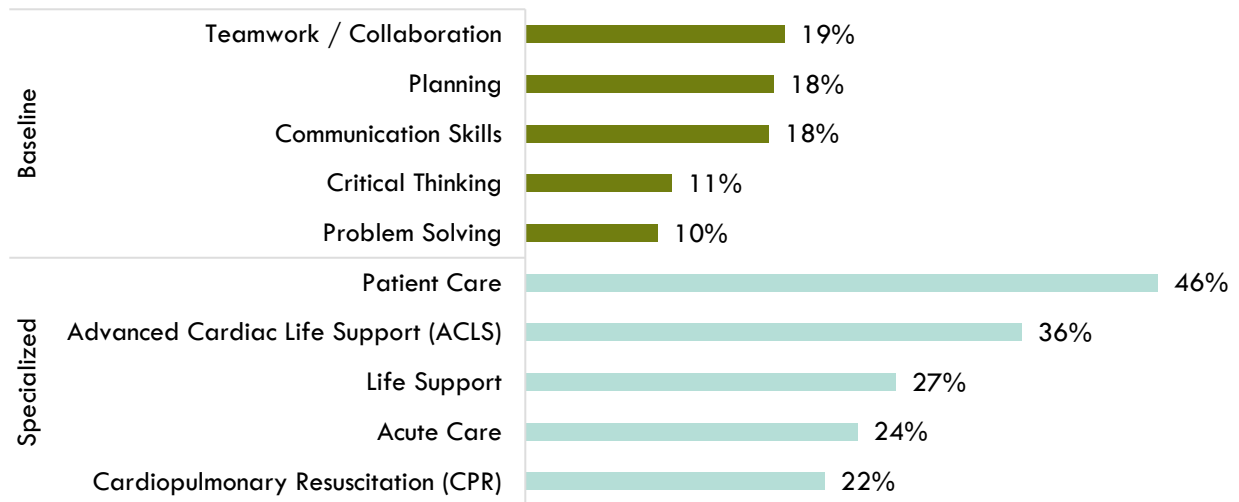
Exhibit 6. Education levels requested in job postings for Registered Nursing

| Education Level | Job Postings | % of Job Postings |
|------------------------------------|--------------|-------------------|
| Associate's degree | 5,339 | 60% |
| Bachelor's degree | 4,163 | 47% |
| High school or vocational training | 603 | 7% |
| Master's degree | 576 | 7% |
| Doctoral degree | 76 | 1% |

Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are teamwork/collaboration, 19% of job postings, planning, 18%, and communication skills, 18%. The top three specialized skills are patient care, 46% of job postings, advanced cardiac life support (ACLS), 36%, and life support, 27%.

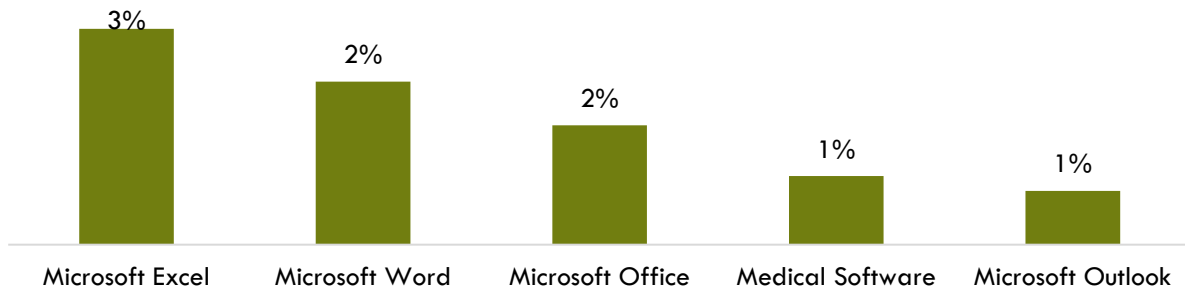
Exhibit 7. In-demand Registered Nursing baseline and specialized skills



Software Skills

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

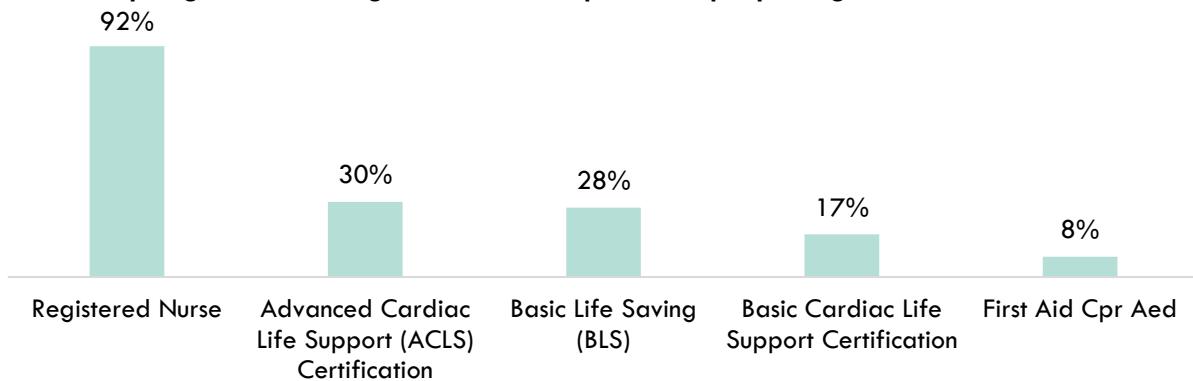
Exhibit 8. In-demand Registered Nursing software skills



Certifications

Of the 10,723 job postings, 9,283 contained certification data. Among those, 92% indicated a need for a registered nurse. The next top certifications are Advanced Cardiac Life Support (ACLS) and Basic Life Saving (BLS) (Exhibit 9).

Exhibit 9. Top Registered Nursing certifications requested in job postings



Education, Work Experience & Training

A bachelor's degree is typically required for registered nurses (Exhibit 10).

Exhibit 10. Education, work experience, training, and Current Population Survey results for Registered Nursing occupations⁴

| Occupation | Typical Entry-level Education | Work Experience Required | Typical On-The-Job Training | CPS |
|-------------------|-------------------------------|--------------------------|-----------------------------|-------|
| Registered Nurses | Bachelor's degree | None | None | 33.3% |

Supply

Analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) included the TOP and CIP codes and titles: 123010 - Registered Nursing and 51.3801 - Registered Nursing/Registered Nurse. Analysis of the last three years of data shows that, on average, 874 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

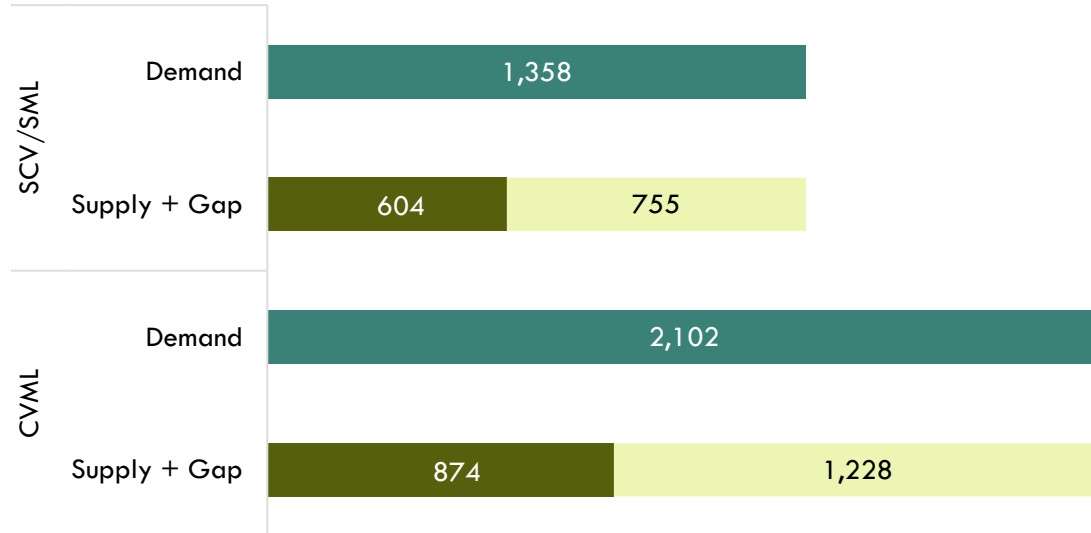
Exhibit 11. Postsecondary supply for Registered Nursing occupations in the region

| Top/ CIP Code- Title | College | Associate Degree | Certificate 18 < 30 Semester Units | Certificate 30 < 60 Semester Units | Subtotal |
|--|------------------------------------|------------------|------------------------------------|------------------------------------|------------|
| 123010 - Registered Nursing | Bakersfield | 118 | | | 118 |
| | Fresno City | 197 | | 34 | 231 |
| | Merced | 56 | | | 56 |
| | Modesto Junior | 110 | | | 110 |
| | Porterville | 19 | | | 19 |
| | Reedley College | 11 | | 4 | 15 |
| | San Joaquin Delta | 103 | | | 103 |
| | Sequoias | 85 | | | 85 |
| | West Hills Lemoore | 31 | | | 31 |
| 51.3801 - Registered Nursing/Registered Nurse | San Joaquin Valley College-Visalia | 104 | | | 104 |
| TOTAL | | 836 | 4 | 34 | 874 |

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

There is an undersupply of 755 Registered Nursing workers in the SCV/SML subregion and 1228 workers in the region (Exhibit 12).

Exhibit 12. Registered Nursing workforce demand (annual job openings), postsecondary supply of students (awards), and additional students needed to fill gap in the SCV/SML subregion and region



Student Outcomes

Exhibit 13 summarizes employment and wage outcomes from the California Community College Chancellor's Cal-PASS Plus LaunchBoard for the TOP code related to Registered Nursing. Of note, 467 students received a degree or certificate or attained apprenticeship journey status; 130 students transferred; 95% of students obtained a job closely related to their field of study; 88% had a median change in earnings; and 82% of students attained a living wage.

Exhibit 13. Regional metrics for the TOP code related to Registered Nursing

| Metric | Registered Nursing 123010 |
|--|------------------------------|
| Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status | 497 |
| Number of Students Who Transferred | 130 |
| Job Closely Related to Field of Study | 95% |
| Median Change in Earnings | 88% |
| Attained a Living Wage | 82% |
| * denotes data not available. | |

Conclusion

The entry-level wages of the occupation exceed the SCV/SML subregion's average living wage. There were 10,723 job postings in the past six months for occupations related to Registered Nursing in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is teamwork/collaboration, and the top specialized skill is patient care.
- The top software skill is Microsoft Excel.
- The top certification is a registered nurse.

There is an undersupply of trained workers, a shortage of 755 in the SCV/SML subregion and 1,228 in the region.

Recommendation

Based on these findings, it is recommended that Cerro Coso College work with the regional directors, the college's advisory board, and local industry in the expansion or development of programs to address the shortage of Registered Nursing workers in the region.

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. (EMSI). 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). Occupational wage estimates also affected by county-level EMSI 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. (EMSI) 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.