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Labor Market Analysis

Respiratory Therapy



Prepared by Central Valley/Mother Lode Center of Excellence



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Summary

The Central Valley/Mother Lode Center of Excellence developed this report for Bakersfield College to determine whether there is demand in the local labor market that is not being met by the supply from postsecondary programs. This report summarizes labor market demand, wages, skills, and postsecondary supply for:

- Respiratory Therapists (SOC 29-1126)

Key Findings

- **Occupational Demand** — *Respiratory Therapists* have a labor market demand of 80 annual job openings in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. Between 2022 and 2027, jobs are projected to increase by 9%.
- **Wages** — The entry-level earnings of \$34.27/hour for Respiratory Therapists are higher than the living wage in the SCV/SML subregion.¹
- **Employers** — Employers in the SCV/SML subregion include Healthcare Employment Network, Adventist Health, and CommonSpirit Health.
- **Skills and Certifications** — The top baseline skill is coordinating; the top specialized skill is respiratory therapy; and the top software skill is HealthStream. The most in-demand certification is a Registered Respiratory Therapist (RRT).
- **Education** — An associate degree is typically required for respiratory therapists.
- **Supply and Demand Analysis** — Based on 80 annual openings (i.e., demand) and 18 postsecondary degrees awarded (i.e., supply), an analysis of supply and demand suggests there is an undersupply of 62 workers in the SCV/SML subregion. In the CVML region, 48 awards were conferred suggesting an undersupply of 72 workers (based on 120 annual openings in the CVML region).

Recommendation

Based on a comparison of demand and supply, there is an undersupply of trained workers in the SCV/SML subregion and the CVML region. The Center of Excellence recommends that Bakersfield College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Respiratory Therapy workers.

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/>.

Introduction

The Central Valley/Mother Lode Center of Excellence developed this report to provide Bakersfield College with labor market information for *Respiratory Therapy*. 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. Analysis of the program and occupational data related to *Respiratory Therapy* is included in the report. The Standard Occupational Classification (SOC) System code and occupational title used in this report from the Bureau of Labor Statistics and O*NET OnLine are shown below.

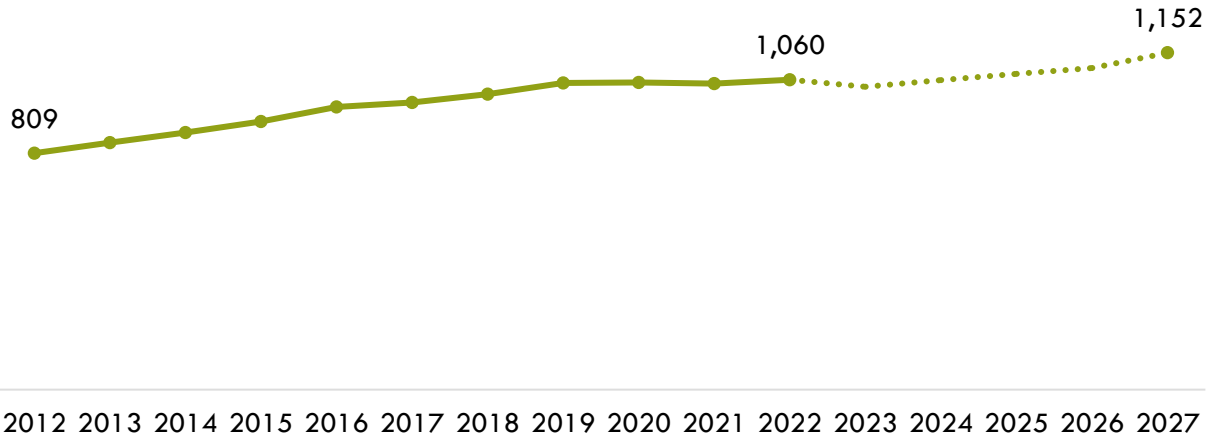
Respiratory Therapists (SOC 29-1126)

- **Job Description:** Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.
- **Knowledge:** Customer and Personal Service, Medicine and Dentistry, English Language, Education and Training, Psychology
- **Skills:** Active Listening, Critical Thinking, Monitoring, Speaking, Active Learning

Employment

Exhibit 1a shows employment trends for *Respiratory Therapy* in the SCV/SML subregion. Between 2022 to 2027, the number of jobs for *Respiratory Therapists* is projected to increase by 92, growing by 9%.

Exhibit 1a. Historical employment and projected occupational demand for *Respiratory Therapists* in the SCV/SML subregion, 2012-2027



In 2022, there were 1,060 jobs for *Respiratory Therapists* in the SCV/SML subregion (Exhibit 1b). *Respiratory therapists* are projected to have annual openings of 80.

Exhibit 1b. Current employment and projected occupational demand for *Respiratory Therapists* in the SCV/SML subregion, 2022-2027

Occupation	2022 Jobs	2027 Jobs	5-Year Change	5-Year % Change	Annual Openings
Respiratory Therapists	1,060	1,152	92	9%	80

Wages

Exhibit 2 shows that respiratory therapists have an entry-level wage of \$34.27/hour,² which is higher than the living wage in the subregion.

Exhibit 2. Hourly wages for *Respiratory Therapists* in the SCV/SML subregion

Occupation	25 th Percentile Hourly Earnings	Median Hourly Earnings	75 th Percentile Hourly Earnings
Respiratory Therapists	\$34.27	\$38.68	\$46.61

Job Postings

There were 230 unique job postings for *Respiratory Therapists* in the SCV/SML subregion from May 2023 to April 2023.³

Top Employers

The top employers with the most job postings are listed in Exhibit 3. The top employers in online job postings were Healthcare Employment Network, Adventist Health, and CommonSpirit Health.

Exhibit 3. Top employers of *Respiratory Therapists*

Employer
Healthcare Employment Network
Adventist Health
CommonSpirit Health
Tenet Healthcare
Apria Healthcare
Sutter Health
Kaiser Permanente
Encompass Health
OneStaff Medical
Valley Children's Hospital

² Note: 10th and 25th percentiles are considered entry-level wages while 75th and 90th are considered experienced wages, which may be obtained through long-term employment or extra training, etc.

³ Other than occupational 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.

Salaries

Exhibit 4 shows the “Market Salaries” for *Respiratory Therapists*. These are calculated by Lightcast using a machine learning model built from millions of job postings every year. This accounts for adjustments based on location, industry, skills, experience, education, among other variables.

Exhibit 4. Market salaries for *Respiratory Therapists*

Market Salary	Job Postings
\$67,000-\$75,999	25
\$76,000-\$84,999	20
\$85,000-\$93,999	20
\$103,000-\$111,999	11
\$94,000-\$102,999	9

Education

Of the 230 unique job postings, 105 listed a preferred or minimum educational requirement for the position being filled. Among those, 43% requested a bachelor’s degree, 25% requested master’s degree, and 23% requested an associate degree (Exhibit 5).

Exhibit 5. Education levels requested in job postings for *Respiratory Therapists*

Education Level	Job Postings	% of Job Postings
Bachelor's degree	45	43%
Master's degree	26	25%
Associate degree	24	23%
High school diploma or GED	10	10%

Baseline, Specialized, and Software Skills

Exhibit 6 depicts the top baseline, specialized, and software skills in job postings. The most requested baseline skill is coordinating. The most requested specialized skill is respiratory therapy. The most requested software skill is HealthStream.

Exhibit 6. In-demand baseline, specialized, and software skills for *Respiratory Therapists* in job postings

Baseline Skills	Specialized Skills	Software Skills
Coordinating	Respiratory Therapy	HealthStream
Communications	Respiratory Care	Epic EMR
Record Keeping	Pulmonology	Microsoft Excel
Quality Control	Patient Treatment	Clinic Management Systems
Management	Cardiopulmonary Resuscitation (CPR)	Database Management Systems

Certifications

Among all the certifications listed in job postings, 19% indicated a need for a Registered Respiratory Therapist (RRT). The next top certification is Respiratory Care Practitioner (Exhibit 7).

Exhibit 7. Top Respiratory Therapy certifications requested in job postings

Certifications	% of Job Postings
Registered Respiratory Therapist (RRT)	19%
Respiratory Care Practitioner	18%
Basic Life Support (BLS) Certification	12%
Advanced Cardiovascular Life Support (ACLS) Certification	12%
Certified Respiratory Therapist (CRT)	11%

Education, Work Experience, & Training

An associate degree is typically required for respiratory therapists (Exhibit 8).

Exhibit 8. Education, work experience, training, and Current Population Survey results for Respiratory Therapists⁴

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Respiratory Therapists	Associate degree	None	None	65%

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

Supply

An analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) for the last three program years shows that, on average, 18 awards were conferred in the SCV/SML subregion (Exhibits 9 and 10).

Exhibit 9. TOP and CIP codes for Respiratory Care/Therapy

TOP Titles	CIP Titles
121000 - Respiratory Care/Therapy	51.0812 - Respiratory Therapy Technician/Assistant
	51.0908 - Respiratory Care Therapy/Therapist

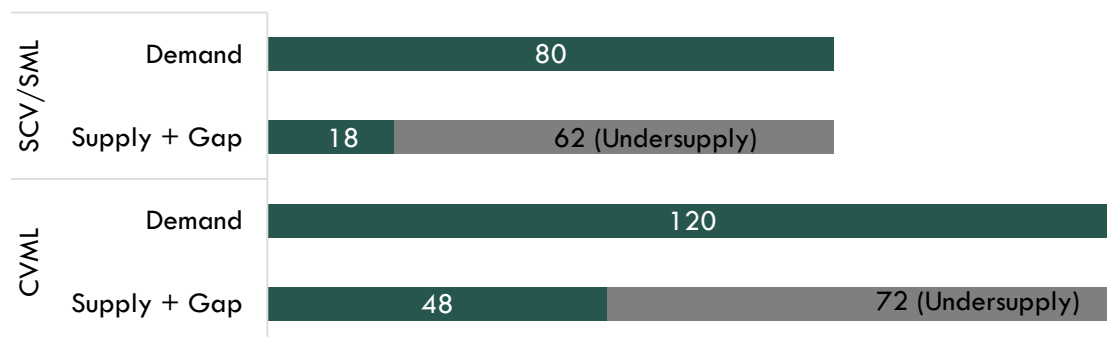
Exhibit 10. Postsecondary supply for Respiratory Care/Therapy Programs, 2020-21 through 2022-23

TOP/ CIP Code- Title	College	Associate Degree	Bachelor's Degree	Total
121000 - Respiratory Care/Therapy	Fresno City	18	0	18*
	Modesto	20	10	30
SCV/ SML Total		18	0	18
CVML Total		38	10	48

*SCV/SML awards

There is an undersupply of 62 Respiratory Therapy workers in the SCV/SML subregion and an undersupply of 72 workers in the CVML region (Exhibit 11).

Exhibit 11. Respiratory Therapy workforce demand (annual job openings), postsecondary awards (supply), and additional students needed to fill gap in the SCV/SML subregion and region



Recommendation

This report suggests there is a shortage of 62 workers in the SCV/SML subregion and a shortage of 72 workers in the CVML region for Respiratory Therapy. Based on these findings, it is recommended that Bakersfield College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Respiratory Therapy workers in the region.

Appendix: 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 .
LaunchBoard	Chancellor’s LaunchBoard. https://www.calpassplus.org/LaunchBoard/SWP.aspx
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov .
Job Posting and Skills Data	Lightcast: https://lightcast.io/ .
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 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.

LaunchBoard (Attained the Living Wage): Among SWP students who exited college and did not transfer to any postsecondary institution, the proportion who attained the district county living wage for a single adult measured immediately following academic year of exit.

LaunchBoard (Median Annual Earnings): Among SWP students who exited the community college system and who did not transfer to any postsecondary institution, median earnings following the academic year of exit.

LaunchBoard (Median Change in Earnings): Among SWP students who exited and who did not transfer to any postsecondary institution, median change in earnings between the second quarter prior to the beginning of the academic year of entry and the second quarter after the end of the academic year of exit from the last college attended.

LaunchBoard (Job Closely Related to Field of Study): Among SWP students who responded to the CTE Outcomes Survey and did not transfer to any postsecondary institution, the proportion who reported that they are working in a job very closely or closely related to their field of study.

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.