

May 2021

Labor Market Analysis

Special Education

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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 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 special education. Three occupations related to special education were identified for College of the Sequoias:

- 25-9045, Teaching Assistants, Except Postsecondary
- 25-2052, Special Education Teachers, Kindergarten and Elementary School
- 25-2051, Special Education Teachers, Preschool

Key findings:

- **Occupational demand** — Nearly 18,550 workers were employed in jobs related to special education in 2019 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is teaching assistants, except postsecondary, with 16,795 workers in 2019, a projected growth rate of 1% over the next five years, and 1,737 annual openings.
- **Wages** — Special education teachers, kindergarten and elementary school, earn the highest entry-level wage, \$30.20/hour in the subregion and \$29.01/hour in the region.
- **Employers** — Employers with the most job postings in the subregion are Visalia Unified School District, Fresno Unified School District, and Language Trainers.
- **Occupational titles** — The most common occupational title in job postings in the subregion is teacher assistants. The most common job title is instructional aide.
- **Skills and certifications** — The top baseline skill is communication, the top specialized skill is teaching, and the top software skill is Microsoft Office. The most in-demand certification is a driver's license.
- **Education** — A bachelor's degree is typically required for both types of special education teachers, those for preschool and those for kindergarten and elementary schools. Some college, no degree is typically required for teaching assistants, except postsecondary.
- **Supply** — Analysis of postsecondary completions in the region shows that on average five 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 1,885 trained workers in the subregion and 2,816 workers in the region. The Center of Excellence recommends that College of the Sequoias work with the college's advisory board, and local industry in the development of programs to address the shortage of special education workers in the region.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by College of the Sequoias to provide labor market information for special education. 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 special education resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 25-9045, Teaching Assistants, Except Postsecondary
- 25-2052, Special Education Teachers, Kindergarten and Elementary School
- 25-2051, Special Education Teachers, Preschool

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. O*NET data was not available for special education teachers, kindergarten and elementary school.

Teaching Assistants, Except Postsecondary

Job Description: Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services.

Knowledge: Data Not Available

Skills: Data Not Available

Special Education Teachers, Preschool

Job Description: Teach academic, social, and life skills to preschool-aged students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Knowledge: English Language, Education and Training, Psychology, Public Safety and Security, Therapy and Counseling

Skills: Speaking, Active Listening, Critical Thinking, Reading Comprehension, Social Perceptiveness

Occupational Demand

The South Central Valley/Southern Mother Lode subregion employed 18,548 workers in special education occupations in 2019 (Exhibit 1). The largest occupation is teaching assistants, except postsecondary with 16,795 workers in 2019. This occupation is projected to grow by 1% over the next five years and has the greatest number of projected annual openings, 1,737.

Exhibit 1. Special education employment and occupational projections in the SCV/SML subregion

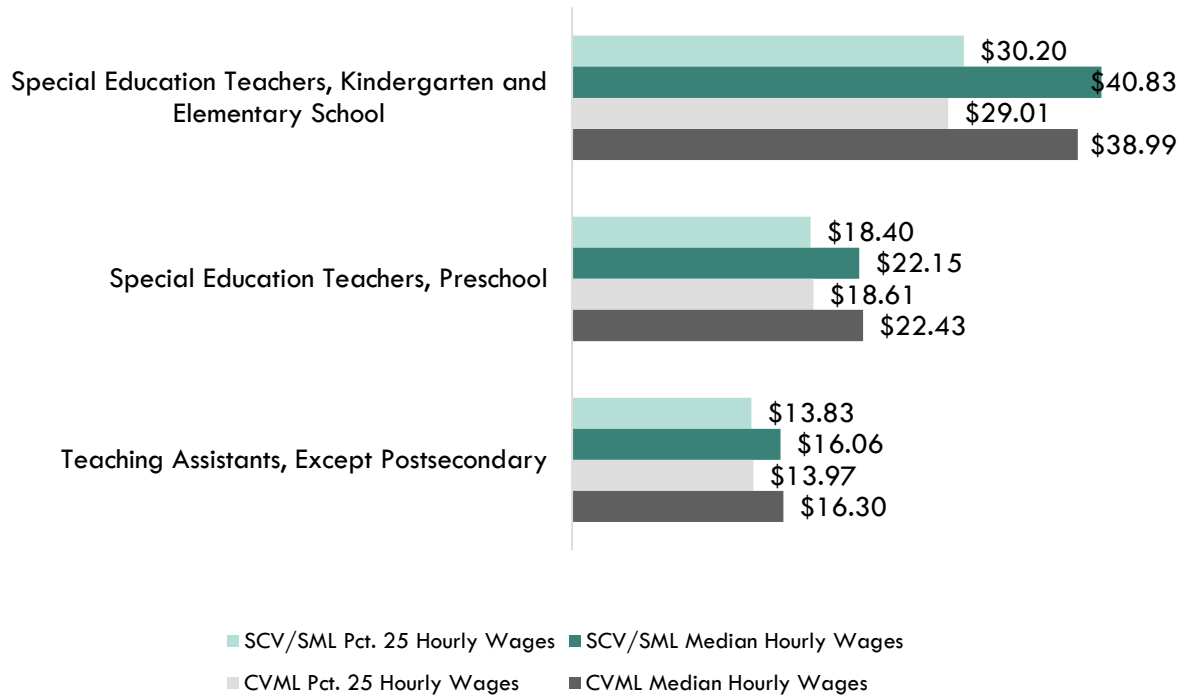
Occupation	2019 Jobs	2024 Jobs	5-Year Change	5-Year % Change	Annual Openings
Teaching Assistants, Except Postsecondary	16,795	16,918	123	1%	1,737
Special Education Teachers, Kindergarten and Elementary School	1,712	1,768	56	3%	139
Special Education Teachers, Preschool	42	91	49	116%	14
TOTAL	18,548	18,777	229	1%	1,890

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/>.

Wages

Exhibit 2 compares the entry-level and experienced wages of the special education occupations. Special education teachers, kindergarten and elementary school, earn the highest entry-level wage, \$30.20/hour in the subregion and \$29.01/hour in the region.

Exhibit 2. Entry-level and experienced wage comparison in the SCV/SML subregion and region



Median salary data from Emsi shows that special education teachers, kindergarten and elementary school, earn the highest median salary in the subregion, \$84,932, followed by special education teachers, preschool, \$46,072.

Exhibit 3. Median salaries for special education occupations in the subregion

Occupation	Median Salary
Special Education Teachers, Kindergarten and Elementary School	\$84,932.55
Special Education Teachers, Preschool	\$46,072.03
Teaching Assistants, Except Postsecondary	\$33,396.31

Job Postings

There were 575 job postings for the three occupations in the SCV/SML subregion from November 2020 to April 2021.² The employers with the most job postings are listed in Exhibit 4.

Exhibit 4. Top employers of special education by number of job postings

Employer	Job Postings	% Job Postings
Visalia Unified School District	55	10%
Fresno Unified School District	34	6%
Language Trainers	27	5%
Central Unified School District	19	4%
Fresno County Superintendent Of Schools	19	4%
Kings Canyon Unified School District	14	3%
Muroc Joint Unified	13	2%
Tehachapi Unified School District	13	2%
Fresno Economic Commission	12	2%
Cutler Orosi Joint Unified	9	2%

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across three O*NET OnLine occupation. The occupational title teacher assistants is listed in 508 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include instructional aide in 29 job postings, behavior interventionist in 11 job postings, and paraprofessional in seven job postings.

Exhibit 5. Top occupational titles in job postings for special education

Occupational Title	Job Postings	% of Job Postings
Teacher Assistants	508	88%
Special Education Teachers, Preschool	41	7%
Special Education Teachers, Kindergarten and Elementary School	26	5%

Education

Of the 575 job postings, 372 listed an education level preferred for the positions being filled. Of those, 83% requested high school or vocational training, 52% requested an associate degree, and 7% requested a bachelor's 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%.

² 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.

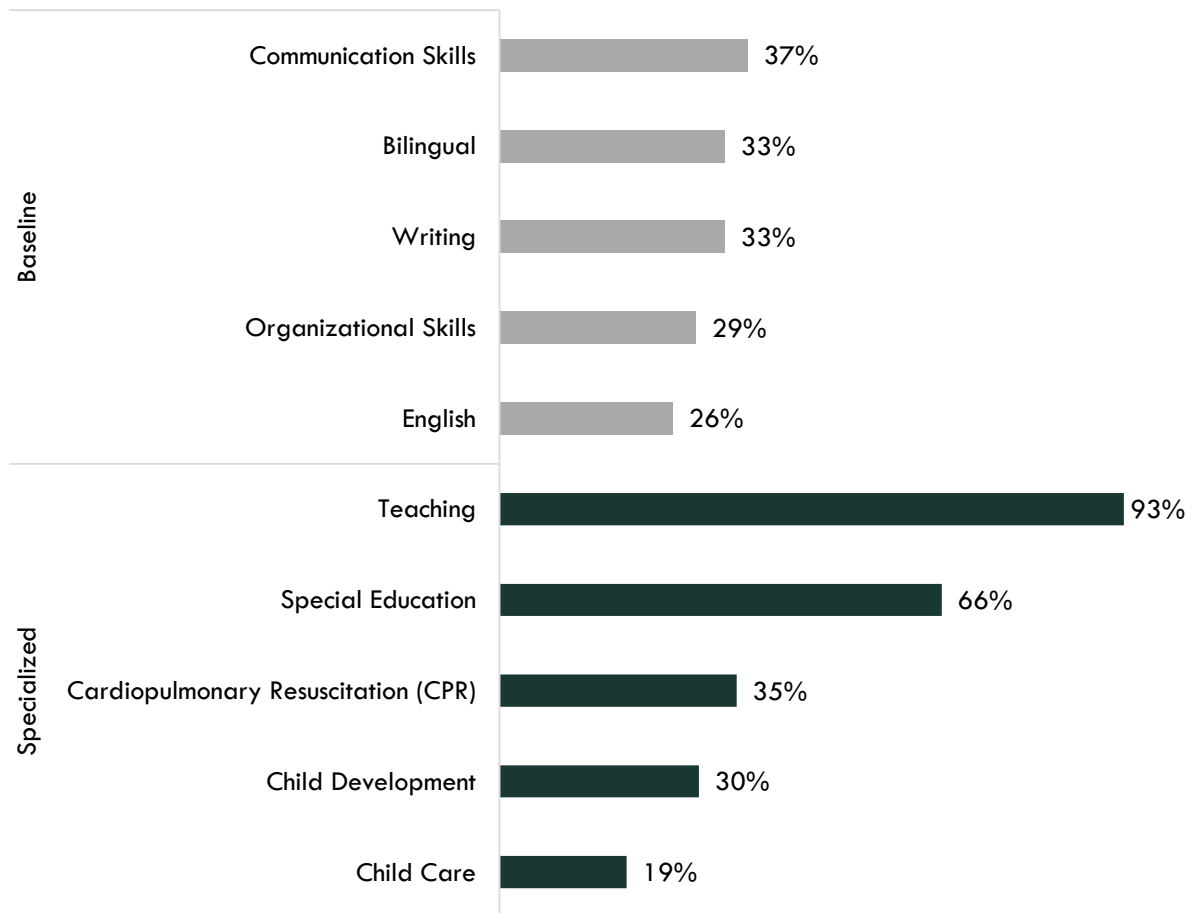
Exhibit 6. Education levels requested in job postings for special education

Education Level	Job Postings	% of Job Postings
High school or vocational training	309	83%
Associate degree	195	52%
Bachelor's degree	25	7%
Master's degree	5	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 communication, 37% of job postings, bilingual, 33%, and writing, 33%. The top three specialized skills are teaching, 93% of job postings, special education, 66%, and CPR, 35%.

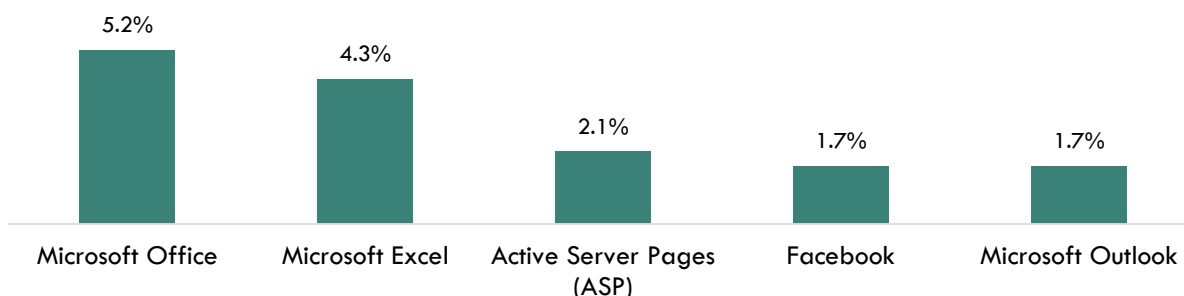
Exhibit 7. In-demand special education baseline and specialized skills



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).

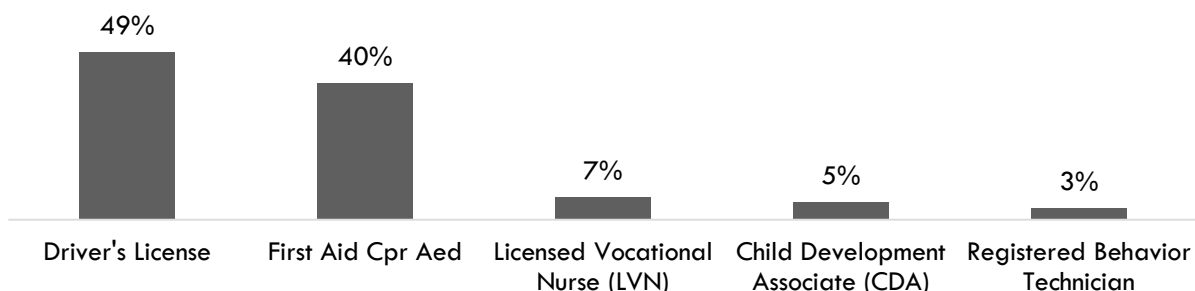
Exhibit 8. In-demand special education software skills



Certifications

Of the 575 job postings, 178 contained certification data. Among those, 49% indicated a need for a driver's license. The next top certifications are First Aid/CPR/AED and licensed vocational nurse (Exhibit 9). (Due to the low number of job postings with certifications listed, the chart below may not be representative of the full sample.)

Exhibit 9. Top special education certifications requested in job postings



Education, Work Experience & Training

A bachelor's degree is typically required for both types of special education teachers, those for preschool and those for kindergarten and elementary schools (Exhibit 10). Some college, no degree is typically required for teaching assistants, except postsecondary.

Exhibit 10. Education, work experience, training, and Current Population Survey results for special education occupations³

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Special Education Teachers, Preschool	Bachelor's degree	None	None	10.7%
Special Education Teachers, Kindergarten and Elementary School	Bachelor's degree	None	None	10.7%
Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	40.6%

³ "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

Supply

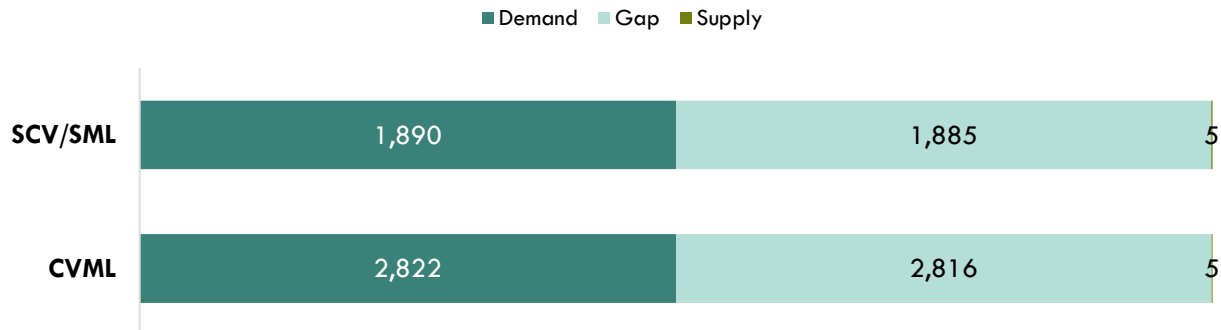
Analysis of program data from the California Community Colleges Chancellor’s Office Data Mart included the TOP code and title: 080900 - Special Education. Analysis of the last three years of data shows that, on average, five awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

Exhibit 11. Postsecondary supply for special education occupations in the region

TOP Code - Title	Colleges	Associate Degree	Certificate 18 < 30 Semester Units	Certificate 30 < 60 Semester Units	Subtotal
080900 - Special Education	Fresno City			2	2
	Taft	1	2		4
TOTAL		1	2	2	5

There is an undersupply of 1,885 special education workers in the SCV/SML subregion and 2,816 workers in the region (Exhibit 12).

Exhibit 12. Special education workforce annual demand and supply in the SCV/SML subregion and region



Student Outcomes

Data for student employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for the TOP code related to special education was not available.

Conclusion

The entry-level wages of the three occupations exceed the SCV/SML subregion’s average living wage. There were 575 job postings in the past six months for occupations related to special education in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication, and the top specialized skill is teaching.
- The top software skill is Microsoft Office.
- The top certification is a driver’s license.

There is an undersupply of trained workers, a shortage of 1,885 in the SCV/SML subregion and 2,816 in the region.

Recommendation

Based on these findings, it is recommended that College of the Sequoias work with the college’s advisory board, and local industry in the development of programs to address the shortage of special education 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.