

JANUARY 2019

LABOR MARKET ANALYSIS

Education Paraprofessionals



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SUMMARY

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills and postsecondary supply for occupations related to education paraprofessionals for Bakersfield College. Five occupations were identified:

- Teacher Assistants (SOC 25-9041);
- Recreation Workers (SOC 39-9032);
- Teachers and Instructors, All Other (SOC 25-3097);
- Instructional Coordinators (SOC 25-9031); and
- Audio-Visual and Multimedia Collections Specialists (SOC 25-9011).

KEY FINDINGS:

- **Occupational demand** — Nearly 22,500 workers were employed in jobs related to education paraprofessionals in 2017. The largest occupation is teacher assistants with 14,317 workers in 2017. This occupation is projected to increase by 9% over the next five years and has the greatest number of projected annual openings, 1,747.
- **Wages** — The entry-level wages for all five occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.29/hour. However, the entry-level wages for recreation workers fall below the average living wage for a single adult in the subregion, \$11.48/hour. Instructional coordinators earn the highest median wages, \$41.37/hour in the region and \$40.94/hour in the subregion.
- **Employers** — Top employers in the region include Visalia Unified School District, Fresno Unified School District and Central Unified School District.
- **Job titles** — The most common occupational title in job postings is teacher assistants. The most common job title is SAT tutor.
- **Skills and certifications** — The top baseline skill is English, the top specialized skill is teaching, and the top software skill is Microsoft Excel. The most in-demand certification is a driver's license.
- **Education** — Two of the five occupations are relevant to community college education. Teacher assistants are typically required to have completed some college, but no degree, and recreation workers are typically required to have a high school diploma and short-term training. The remaining three occupations require a bachelor's degree or master's degree.
- **Supply** — Analysis of postsecondary completions in the region shows that on average five certificates and six degrees 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 2,302 workers in the subregion and 3,585 workers in the region. The Center of Excellence recommends that Bakersfield College work with the college's advisory board and local industry in the creation or expansion of a program to meet the workforce demand for education paraprofessionals.

INTRODUCTION

The Central Valley/Mother Lode Center of Excellence was asked by Bakersfield College to provide labor market information for education paraprofessionals. Review of the Taxonomy of Programs revealed that Educational Aide (Teacher Assistant)-080200, Recreation Assistant-083610 and Special Education-080900 were the appropriate programs for this analysis. 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 education paraprofessionals resulted in the identification of five applicable occupations. The Standard Occupational Classification (SOC) System titles and codes are:

- Teacher Assistants (SOC 25-9041);
- Recreation Workers (SOC 39-9032);
- Teachers and Instructors, All Other (SOC 25-3097);
- Instructional Coordinators (SOC 25-9031); and
- Audio-Visual and Multimedia Collections Specialists (SOC 25-9011).

The SOC codes, occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown in Exhibit 1. O*NET data was not available for Teachers and Instructors, All Other (SOC 25-3097).

EXHIBIT 1. SOC titles, job descriptions, sample job titles, and knowledge and skills for education paraprofessionals

SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
Teacher Assistants (SOC 25-9041)	Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher has ultimate responsibility for the design and implementation of educational programs and services.	Educational Assistant, Instructional Assistant, Paraeducator, Paraprofessional, Special Education Aide, Special Education Paraprofessional, Special Education Teacher Assistant, Teacher Aide, Teacher Assistant, Teaching Assistant	Knowledge English Language Education and Training Public Safety and Security Customer and Personal Service Psychology Skills Active Listening Speaking Instructing Social Perceptiveness Coordination
Recreation Workers (SOC 39-9032)	Conduct recreation activities with groups in public, private, or volunteer agencies or	Activities Assistant, Activities Director, Activity Aide, Activity Assistant, Activity	Knowledge English Language Public Safety and Security

SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
	recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.	Coordinator, Activity Director, Program Assistant, Recreation Assistant, Recreation Coordinator, Recreation Supervisor	Customer and Personal Service Education and Training Law and Government Skills Active Listening Coordination Service Orientation Social Perceptiveness Speaking
Instructional Coordinators (SOC 25-9031)	Develop instructional material, coordinate educational content, and incorporate current technology in specialized fields that provide guidelines to educators and instructors for developing curricula and conducting courses. Includes educational consultants and specialists, and instructional material directors.	Curriculum and Assessment Director, Curriculum and Instruction Director, Curriculum Coordinator, Curriculum Director, Curriculum Specialist, Education Specialist, Instructional Coach, Instructional Systems Specialist, Program Administrator, School Standards Coach	Knowledge Education and Training English Language Administration and Management Mathematics Computers and Electronics Skills Learning Strategies Instructing Speaking Writing Active Listening
Audio-Visual and Multimedia Collections Specialists (SOC 25-9011)	Prepare, plan, and operate multimedia teaching aids for use in education. May record, catalogue, and file materials.	Audio Video Technician, Audio Visual Coordinator, Audio Visual Specialist, Audio Visual Technician, Electronics Technician, Instructional Technology Specialist, Library Media Specialist, Media Specialist, Media Technician, Multimedia Services Coordinator	Knowledge Computers and Electronics Communications and Media Customer and Personal Service English Language Education and Training Skills Active Listening Critical Thinking Judgment and Decision Making Speaking Time Management

The 2014 average self-sufficiency wage for a single adult in the South Central Valley/Southern Mother Lode (SCV/SML) subregion is \$10.29/hour, and the current average living wage for a single adult is \$11.48/hour. Self-sufficiency and living wage data by county and the overall seven-county average are shown in Exhibit 2. In the wages section of this report, Pct. 25 hourly denotes entry-level wages, and median represents experienced wages.

EXHIBIT 2. Self-sufficiency and living wages in the SCV/SML subregion



OCCUPATIONAL DEMAND

The subregion employed nearly 22,500 workers in education paraprofessionals occupations in 2017 in the South Central Valley/Southern Mother Lode subregion (Exhibit 3). The largest occupation is teacher assistants with 14,317 workers in 2017. This occupation is projected to increase by 9% over the next five years and has the greatest number of projected annual openings, 1,747. The next largest occupation is recreation workers with 3,139 jobs in 2017. This occupation projected to grow by 6% over the next five years and will have 565 annual openings.

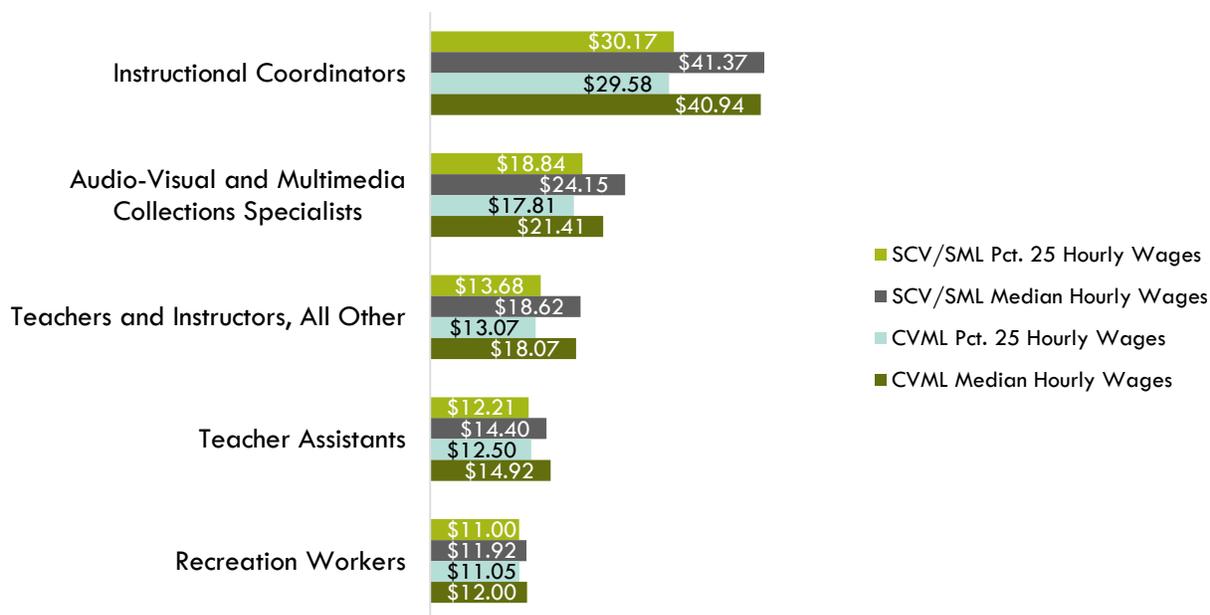
EXHIBIT 3. Employment and occupational projections in the SCV/SML subregion for education paraprofessionals

OCCUPATION	2017 JOBS	2022 JOBS	5-YEAR CHANGE	5-YEAR % CHANGE	ANNUAL OPENINGS
Teacher Assistants	14,317	15,562	1,245	9%	1,747
Recreation Workers	3,139	3,320	181	6%	565
Teachers and Instructors, All Other	3,381	3,604	223	7%	420
Instructional Coordinators	1,541	1,667	126	8%	165
Audio-Visual and Multimedia Collections Specialists	122	132	10	8%	13
TOTAL	22,499	24,285	1,786	8%	2,911

WAGES

Exhibit 4 compares the entry-level and experienced wages of the education paraprofessionals occupations. The entry-level wages for all five occupations are above the average self-sufficiency wage for a single adult in the subregion, \$10.29/hour, and only one occupation, recreation workers, falls below the average living wage for a single adult in the subregion, \$11.48/hour. Instructional coordinators earn the highest median wages, \$41.37/hour in the region and \$40.94/hour in the subregion.

EXHIBIT 4. Entry-level and experienced wage comparison for education paraprofessionals



JOB POSTINGS

There were 2,176 job postings for the five targeted occupations in the subregion from January 2018 through December 2019. The top employers advertising these job postings are shown in Exhibit 5.

EXHIBIT 5. Top employers of education paraprofessionals by number of job postings

EMPLOYER	JOB POSTINGS
Visalia Unified School District	210
Fresno Unified School District	159
Central Unified School District	114
Fresno Unified School District	56
Bakersfield City School District	50
Superprof	38
Kings Canyon Unified School District	34
Cutler Orosi Joint Unified	32
Kern High School District	30
Concordia College	28

Exhibit 6 shows how job postings for the targeted education paraprofessionals occupations in the subregion are distributed across several O*NET OnLine occupations. The majority of job postings, 1,103 in total, use the occupational title teacher assistants, followed by tutors, 374 job postings.

EXHIBIT 6. Occupational titles in job postings for education paraprofessionals

OCCUPATIONAL TITLE & CODE	JOB POSTINGS
Teacher Assistants (25-9041.00)	1,103
Tutors (25-3099.02)	374
Teachers and Instructors, All Other (25-3099.00)	312
Recreation Workers (39-9032.00)	295
Instructional Coordinators (25-9031.00)	71

JOB TITLES

Analysis of the 2,176 advertised job titles for the targeted occupations reveals the top title is SAT tutor, occurring in 180 job postings, followed by instructional aide, 176 job postings (Exhibit 7).

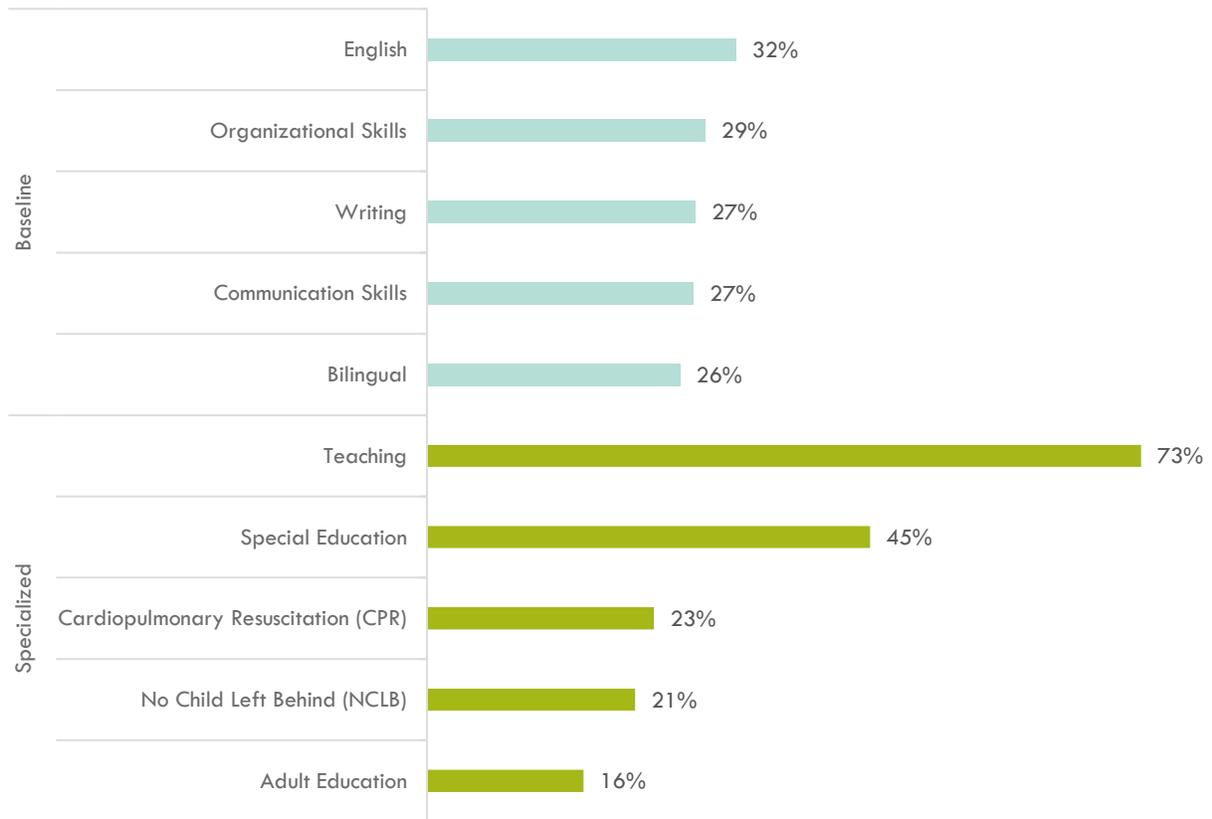
EXHIBIT 7. Top job titles for education paraprofessionals by number of job postings

JOB TITLE	JOB POSTINGS
SAT Tutor	180
Instructional Aide	176
Instructional Assistant	167
Special Education Aide	143
Paraeducator	117
Substitute Teacher	66
Special Education Paraprofessional	62
District Paraprofessional, Elementary School	48
Paraprofessional	42
Activities Assistant	39

SKILLS

Exhibit 8 depicts the top baseline and specialized skills for the five targeted occupations. Just over 1,000 job postings contained skills data. Of these job postings, the three most important baseline skills are English, 32% of job postings, organizational skills, 29%, and writing, 27%. The top three specialized skills are teaching, 73% of job postings, special education, 73%, and CPR, 23%. (Note: 50% of records have been excluded because they do not include a skill. As a result, the chart below may not be representative of the full sample.)

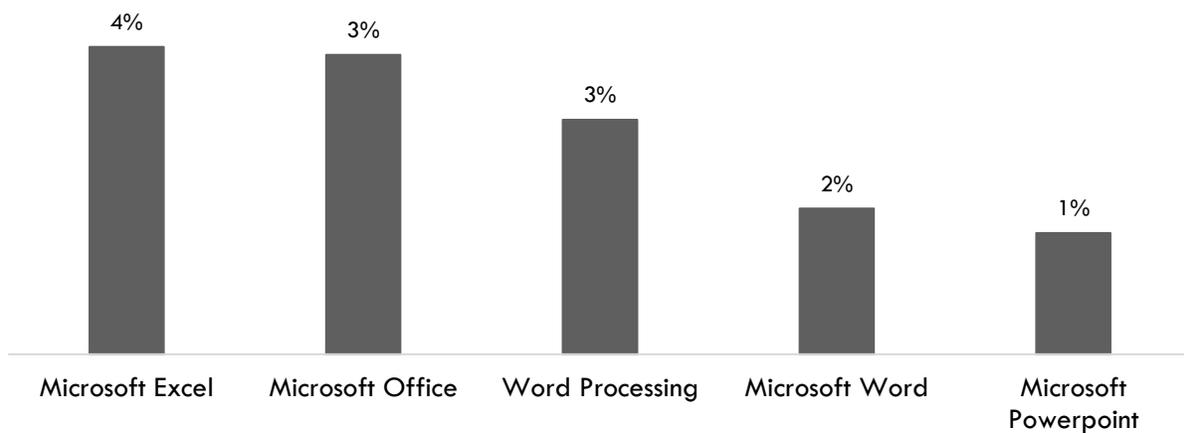
EXHIBIT 8. In-demand baseline and specialized skills related to education paraprofessionals



SOFTWARE SKILLS

Analysis also included the software skills most in demand by employers. Microsoft Excel and Microsoft Office rank first and second (Exhibit 9).

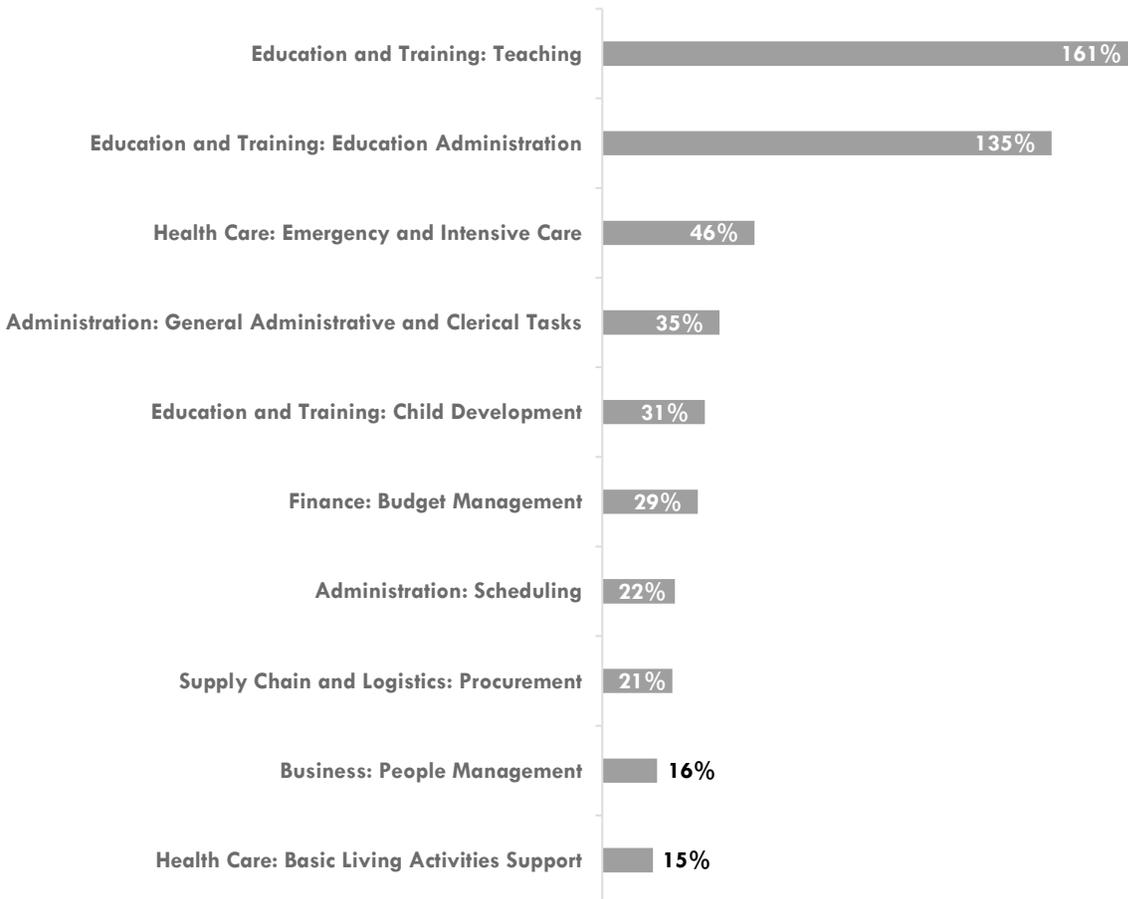
EXHIBIT 9. In-demand software skills for education paraprofessionals



SKILL CLUSTER PROJECTIONS

Only 564 job postings contained skill projections. An evaluation of the top skill clusters that will have the greatest gains in level of importance shows that the top areas are education and training: teaching (161%); education and training: education administration (135%); and health care: emergency and intensive care (46%) (Exhibit 10). (Note: 74% of records have been excluded because they do not include a skill cluster. As a result, the chart below may not be representative of the full sample.)

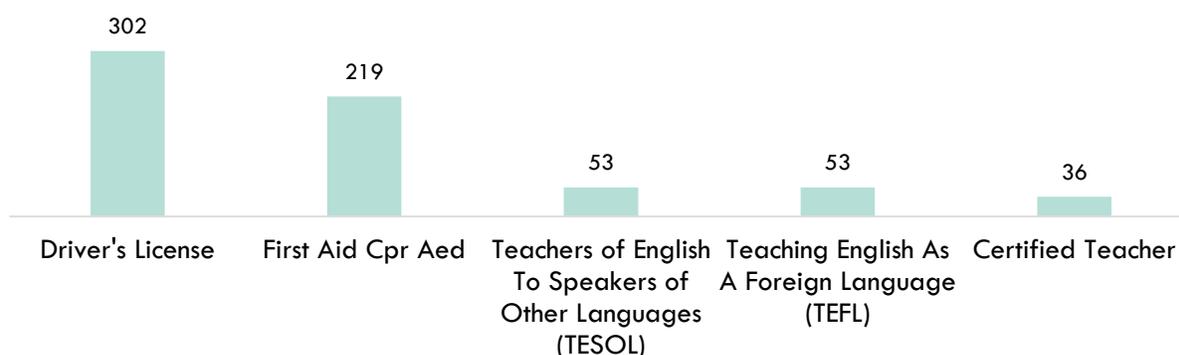
EXHIBIT 10. Skill cluster projections for education paraprofessionals



CERTIFICATIONS

About 560 postings contained certification data. Of the postings with certification data, 302 indicated a need for a driver's license. The next two top certifications are first aid/CPR and TESOL certification (Exhibit 11). (Note: 73% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.)

EXHIBIT 11. Certifications for education paraprofessionals requested in job postings



EDUCATION, WORK EXPERIENCE AND TRAINING

The typical entry-level education for two of the occupations—teachers and instructors (all other) and audio-visual and multimedia collections specialists—is a bachelor’s degree (Exhibit 12). The typical education required for instructional coordinators is a master’s degree. Two of the five occupations are relevant to community college education—teacher assistants who are required to have some college, but no degree, and recreation workers, who are required to have a high school diploma and short-term training. These two occupations qualify as relevant to community colleges due to one or more of the following requirements:

- State of California certification requirements,
- Specialized industry knowledge, and
- Performance of duties that are taught through programs offered by local community colleges.

EXHIBIT 12. Education, work experience, training and Current Population Survey results for education paraprofessionals¹

OCCUPATION	TYPICAL ENTRY-LEVEL EDUCATION	WORK EXPERIENCE REQUIRED	TYPICAL ON-THE-JOB TRAINING	CPS
Teachers and Instructors, All Other	Bachelor's degree	None	None	26.9%
Audio-Visual and Multimedia Collections Specialists	Bachelor's degree	Less than 5 years	None	11.9%
Instructional Coordinators	Master's degree	5 years or more	None	11.9%
Teacher Assistants	Some college, no degree	None	None	40.7%
Recreation Workers	High school diploma or equivalent	None	Short-term	34.1%

¹ “Labor Force Statistics from the Current Population Survey,” Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

SUPPLY

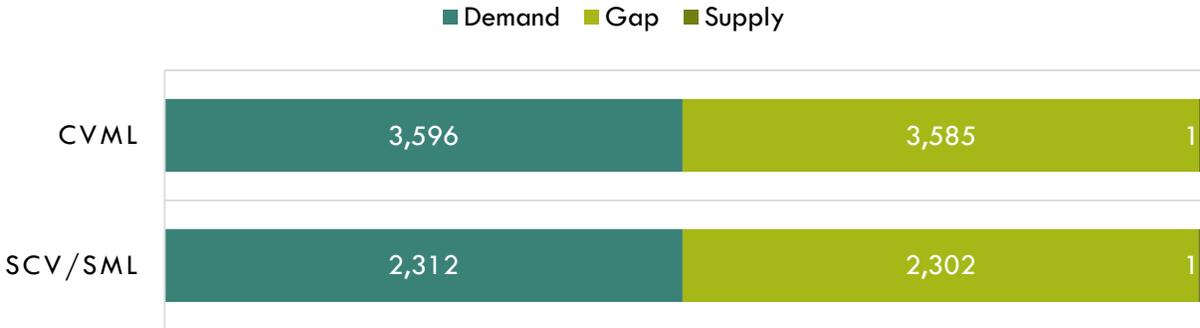
Analysis of California Community Colleges Chancellor’s Office Curriculum Inventory (COCI) program data shows there are three community colleges in the region offering programs contributing to workforce supply for the identified occupations in the TOP codes Educational Aide (Teacher Assistant)-080200, Recreation Assistant-083610 and Special Education-080900. Analysis of the last three years of TOP code data, from 2014 through 2017, shows that, on average, five certificates and six degrees were conferred in the Central Valley/Mother Lode region each year (Exhibit 13).

EXHIBIT 13. Postsecondary supply for education paraprofessionals in the subregion and region

TOP TITE-CODE	COLLEGE	CERTIFICATE	DEGREE	SUBTOTAL
Educational Aide (Teacher Assistant)-080200	Fresno City	3	6	9
Recreation Assistant-083610	San Joaquin Delta	1		1
Special Education-080900	Taft	1	1	2
TOTAL		5	6	11

An undersupply of education paraprofessionals appears to exist in the region and subregion. In the subregion, there is a shortage of 2,302 trained workers. In the region, the shortage is 3,585 trained workers (Exhibit 14).

EXHIBIT 14. Workforce annual demand and supply for education paraprofessionals in the subregion and region



STUDENT OUTCOMES

Exhibit 15 summarizes employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for the three TOP codes related to education paraprofessionals. The highest number of students who received a degree or certificate is 144, within the educational aide TOP code. Nearly 60% of students in this program transferred, compared to 57% of students in recreation assistant programs.

Exhibit 15: Regional metrics for the TOP code related to education paraprofessionals

METRIC	EDUCATIONAL AIDE-080200	RECREATION ASSISTANT-083610	SPECIAL EDUCATION-080900
Course Enrollments	10	*	*
Students Who Got a Degree or Certificate	144	48	*
Number of Students Who Transferred	59% (n=44)	57% (n=21)	*
Employed in the Second Fiscal Quarter after Exit	52% (n=23)	*	*
Attained a Living Wage	66% (n=21)	*	*
Median Change in Earnings	*	*	*

* Denotes data not available.

CONCLUSION

The entry-level wages for all five occupations related to education paraprofessionals exceed the average self-sufficiency wage for a single adult in the subregion, \$10.29/hour. However, one occupation, recreation workers, has entry-level wages that fall below the average living wage for a single adult in the subregion, \$11.48/hour. There were more than 2,000 job postings in the past 12 months for occupations related to education paraprofessionals in the South Central Valley/Southern Mother Lode subregion.

Analysis of skills and certificate requirements in job postings indicates:

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

There are three community colleges in the region offering programs contributing to workforce supply for occupations related to education paraprofessionals. However, there is an undersupply of trained workers, a shortage of 2,302 in the subregion and 3,585 in the region.

RECOMMENDATION

Based on these findings, it is recommended that Bakersfield College with the college’s advisory board and local industry in the creation or expansion of a program to meet the workforce demand for education paraprofessionals.

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 .
Living Wage	A living wage calculator that estimates the cost of living in a specific community or region: livingwage.mit.edu .
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: www.bls.gov/emp/ep_education_tech.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, http://www.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: www.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.

Wages Family Compositions: The living wage calculator estimates the living wage needed to support families. For single adult families, the adult is assumed to be employed full time. For two adult families where both adults are in the labor force, both adults are assumed to be employed full time. For two adult families where one adult is not in the labor force, one of the adults is assumed to be employed full time while the other non-wage-earning adult provides full-time child care for the family's children. Full-time work is assumed to be year-round, 40 hours per week for 52 weeks, per adult. Families with one child are assumed to have a 'young child' (4 years old). Families with two children are assumed to have a 'young child' and a 'child' (9 years old). Families with three children are assumed to have a 'young child,' a 'child,' and a 'teenager' (15 years old).