

2018

LABOR MARKET ANALYSIS: EARLY CHILDHOOD EDUCATION



Prepared by the
Central Valley/Mother Lode
Center of Excellence



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INTRODUCTION

The Central Valley/Mother Lode Center of Excellence was asked by Porterville College to provide labor market information for two certificates: early child care administration specialization and early intervention assistant.

Analysis of Taxonomy of Programs (TOP) code-title data provided 1305.20-Children with Special Needs and 1305.80-Education Administrators as the appropriate TOP codes for inclusion in this report. After conferring with the college, it was determined that they were using the broader four-digit TOP code/tile 1305.00-Early Childhood Education for their early intervention assistant program.

Analysis of the program and occupational data related to early childhood education resulted in the identification of five applicable occupations. The five occupational titles and Standard Occupational Classification (SOC) System codes included in this analysis are:

- Educational Administrators, preschool and childcare center/program (11-9031),
- Social and human service assistants (21-1093),
- Preschool teachers, except special education (25-2011)
- Special education teachers, preschool (25-2051) and
- Childcare workers (39-9011).

The SOC codes, occupational titles, job descriptions, sample job titles, knowledge and skills related to early childhood education from the Bureau of Labor Statistics and O*NET OnLine are shown in Exhibit 1.

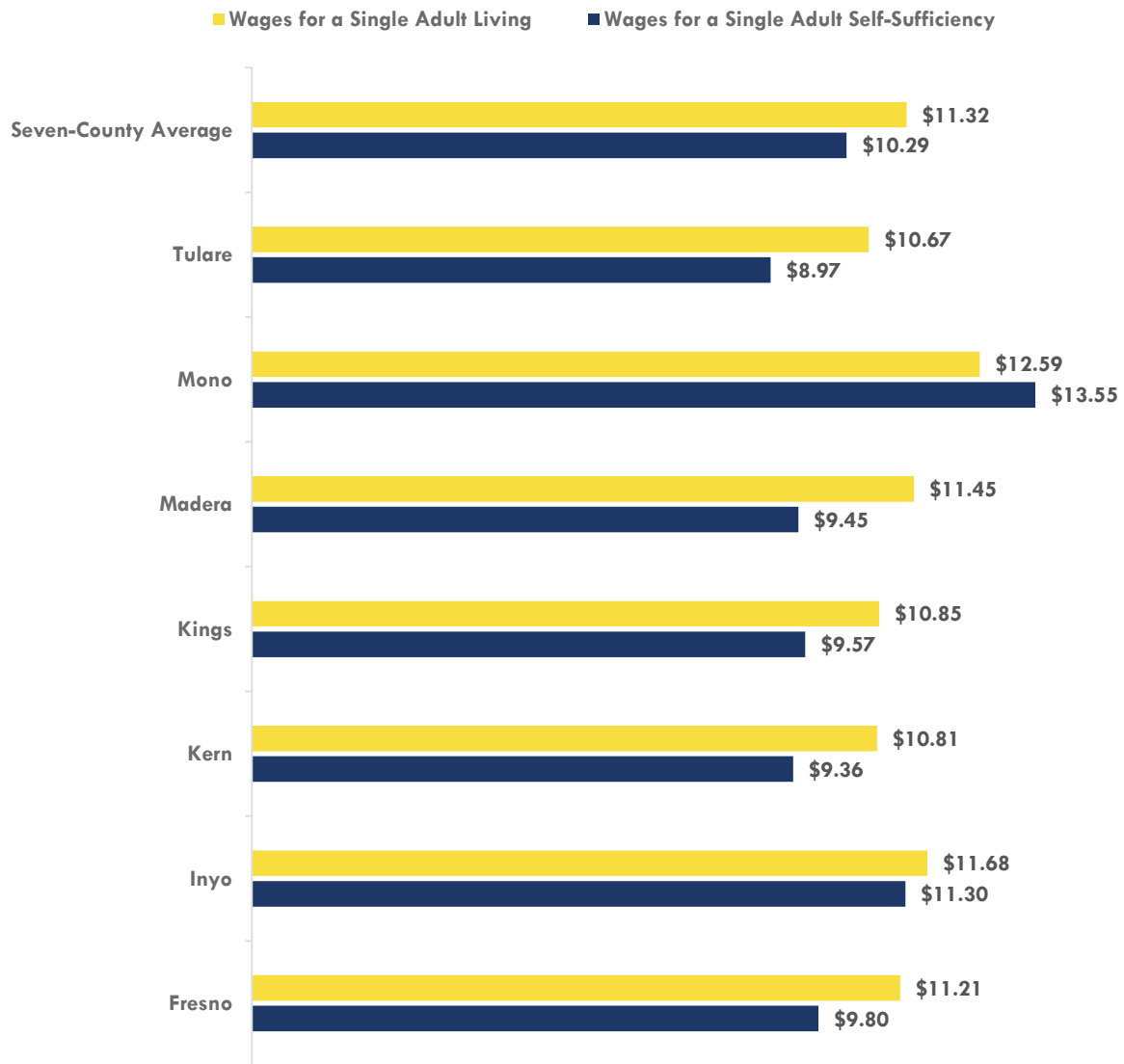
Exhibit 1: Early childhood education occupational titles, job descriptions and sample job titles

SOC Title (SOC Code)	Description	Sample Job Titles	Knowledge and Skills
Education Administrators, Preschool and Childcare Center/Program (11-9031)	Plan, direct, or coordinate the academic and nonacademic activities of preschool and childcare centers or programs.	Childcare Director, Early Head Start Director, Education Coordinator, Education Director, Education Site Manager, Principal, Site Coordinator	Knowledge Administration and Management Education and Training Customer and Personal Service English Language Psychology Skills Active Listening Monitoring Speaking Coordination Critical Thinking
Social and Human Service Assistants (21-1093)	Assist in providing client services in a wide variety of fields, including support for families. May assist clients in identifying and obtaining available	Advocate, Caseworker, Community Coordinator, Family Support Worker,	Knowledge Psychology Customer and Personal Service English Language Therapy and Counseling

SOC Title (SOC Code)	Description	Sample Job Titles	Knowledge and Skills
	benefits and social and community services; social workers with developing, organizing, and conducting programs to prevent and resolve problems.	Home based Assistant, Mental Health Technician, Outreach Specialist	Sociology and Anthropology Skills Active Listening Service Orientation Social Perceptiveness Speaking Writing
Preschool Teachers, Except Special Education (25-2011)	Instruct preschool-aged children in activities designed to promote social, physical and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification.	Early Childhood Teacher, Group Teacher, Head Start Teacher, Lead Teacher, Teacher Assistant, Toddler Teacher	Knowledge Customer and Personal Service Education and Training English Language Psychology Public Safety and Security Skills Speaking Learning Strategies Instructing Active Listening Coordination
Special Education Teachers, Preschool (25-2051)	Teach preschool school subjects to educationally and physically handicapped students. Includes teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.	Early Interventionist, Exceptional Student Education Teacher (ESE Teacher), Intervention Specialist, Resource Teacher	Knowledge None Listed Skills None Listed
Childcare Workers (39-9011)	Attend to children at schools, businesses, private households and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing and overseeing play.	Assistant Teacher, Caregiver, Child Caregiver, Daycare Teacher, Daycare Worker, Infant Teacher, Toddler Teacher	Knowledge Customer and Personal Service Psychology Education and Training English Language Skills Monitoring Service Orientation Speaking Critical Thinking Social Perceptiveness

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 \$11.32/hour. Self-sufficiency and living wage data by county and the overall seven-county average are shown in Exhibit 2. In the wages sections of this report, Pct.10 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 largest Early Childhood Education occupation in the subregion is childcare workers with 9,146 jobs in 2017 and the greatest number of annual openings, 1,310 (Exhibit 3). However, this occupation is projected to decline by 5%, shedding 475 jobs over the next five years.

The next largest occupation is roughly one-third the size; there were 3,295 jobs for social and human and service assistants in 2017. This occupation has a 15% growth projection with 506 annual openings.

Preschool teachers (except special education) is the third largest early childhood education occupation with 2,751 jobs in 2017 and a growth rate of 8%. It has the third largest number of projected annual openings, 318.

The smallest early childhood education occupation in the subregion is special education teachers (preschool) with 185 jobs in 2017. This occupation has the strongest growth rate, 20%, but has the smallest number of annual openings, 21.

Exhibit 3. Early Childhood Education occupational projections in the SCV/SML subregion

Occupation	2017 Jobs	5-Year Change	5-Year % Change	Annual Openings
Childcare Workers	9,146	(475)	(5%)	1,310
Social and Human Service Assistants	3,295	482	15%	506
Preschool Teachers, Except Special Education	2,751	214	8%	318
Education Administrators, Preschool and Childcare Center/Program	435	27	6%	39
Special Education Teachers, Preschool	183	37	20%	21
TOTAL	15,811	283	2%	2,194

WAGES

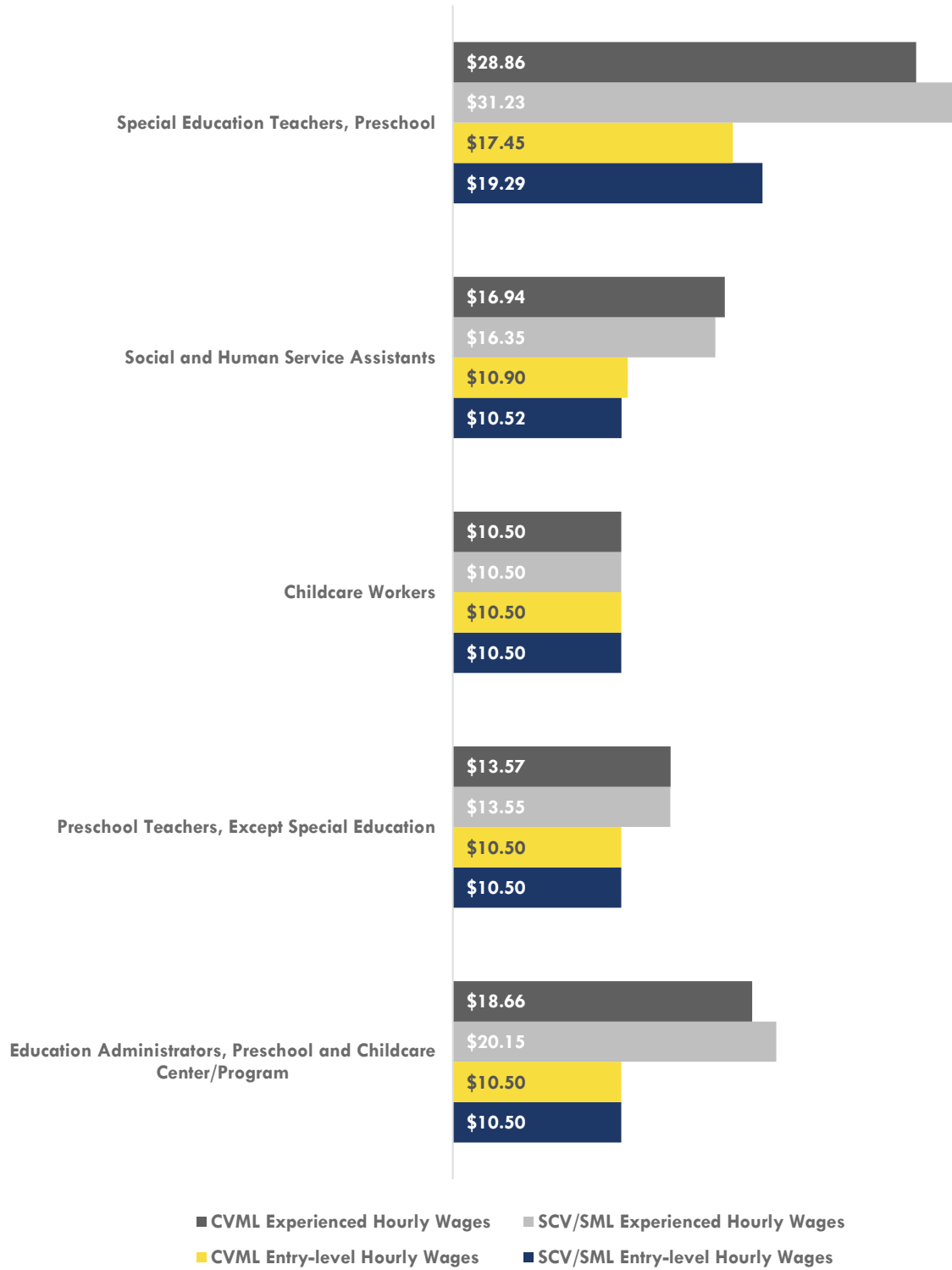
Exhibit 4 compares the entry-level and experienced wages of the four early childhood education occupations at the regional and subregional levels.

The entry-level wages for all five of the occupations exceed the average self-sufficiency wage for a single adult in the seven-county subregion, \$10.27/hour.

The entry-level wages for special education teachers exceeds the subregional average living wage for a single adult \$11.02/hour, but entry-level wages for the remaining four occupations fall short at the regional, subregional and service area levels:

- Social and human service assistants,
- Childcare workers,
- Preschool teachers (except special education) and
- Education administrators (preschool and childcare center program).

Exhibit 4. Entry-level and experienced wage comparison in the region, subregion and service areas



JOB POSTINGS

The following job posting data represents the combined five occupations utilizing their Bureau of Labor Statistics SOC codes and titles. There were 890 early childhood education job postings in the seven counties of the South Central Valley/Southern Mother Lode subregion from March 2017 through February 2018.

Two-thirds of the 890 job postings specified employer information. Of those 589 postings, 46 were from Tulare County Early Childhood Education, 41 were from Fresno County Superintendent of Schools and another 41 were from the Visalia Unified School District. The top 10 employers in terms of number of job postings are shown in Exhibit 5.

Exhibit 5. Early childhood education employers by number of job postings

Employer	Job Postings
Tulare County Early Childhood Education	46
Fresno County Superintendent of Schools	41
Visalia Unified School District	41
Urbansitter	26
Fresno County Economic Commission	20
The Mentor Network	18
Childtime Learning Centers	17
Community Action Partnership of San Luis Obispo County Inc.	17
Kaweah Delta Health Care Dst	17
Kings County Office of Education	14

The greatest number of postings is for preschool teachers (except special education), 351 in total, followed by childcare workers, 235, and nannies, which is a subgroup of childcare workers, 162. The combined number of these two latter postings makes childcare workers the largest occupational group overall in terms of job postings (Exhibit 6).

Exhibit 6. Early childhood education occupational titles by number of job postings

Occupation	Job Postings
Preschool Teachers, Except Special Education (25-2011.00)	351
Childcare Workers (39-9011.00)	235
Nannies (39-9011.01)	162
Social and Human Service Assistants (21-1093.00)	90
Education Administrators, Preschool and Childcare Center/Program (11-9031.00)	26
Special Education Teachers, Preschool (25-2051.00)	26

Job Titles

Analysis of the 890 advertised job titles for the five targeted occupations reveals that most postings are for babysitters and preschool teachers.

Exhibit 7 contains the top 10 job titles among the 890 postings.

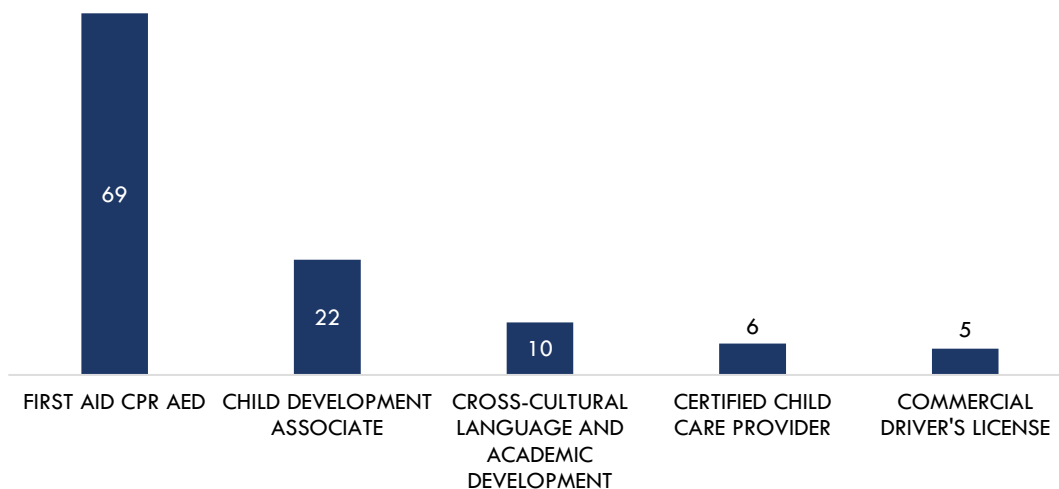
Exhibit 7. early childhood education job titles by number of job postings

Title	Job Postings
Babysitter	133
Preschool Teacher	96
Nanny	76
Kindergarten Teacher	68
Preschool Aide	56
Paraeducator	22
Child Care Services For	12
Lead Teacher/Teacher	12
Childcare Teacher	10
Early Intervention Specialist	9

Certifications

Less than 15% of the early childhood education job postings contain certification data. The three top certifications are FIRST AID CPR AED, requested in 69 job postings, followed by Child Development Associate, 22 job postings, and cross-cultural language and academic development, 10 job postings (Exhibit 8).

Exhibit 8. Early childhood education certifications requested in job postings

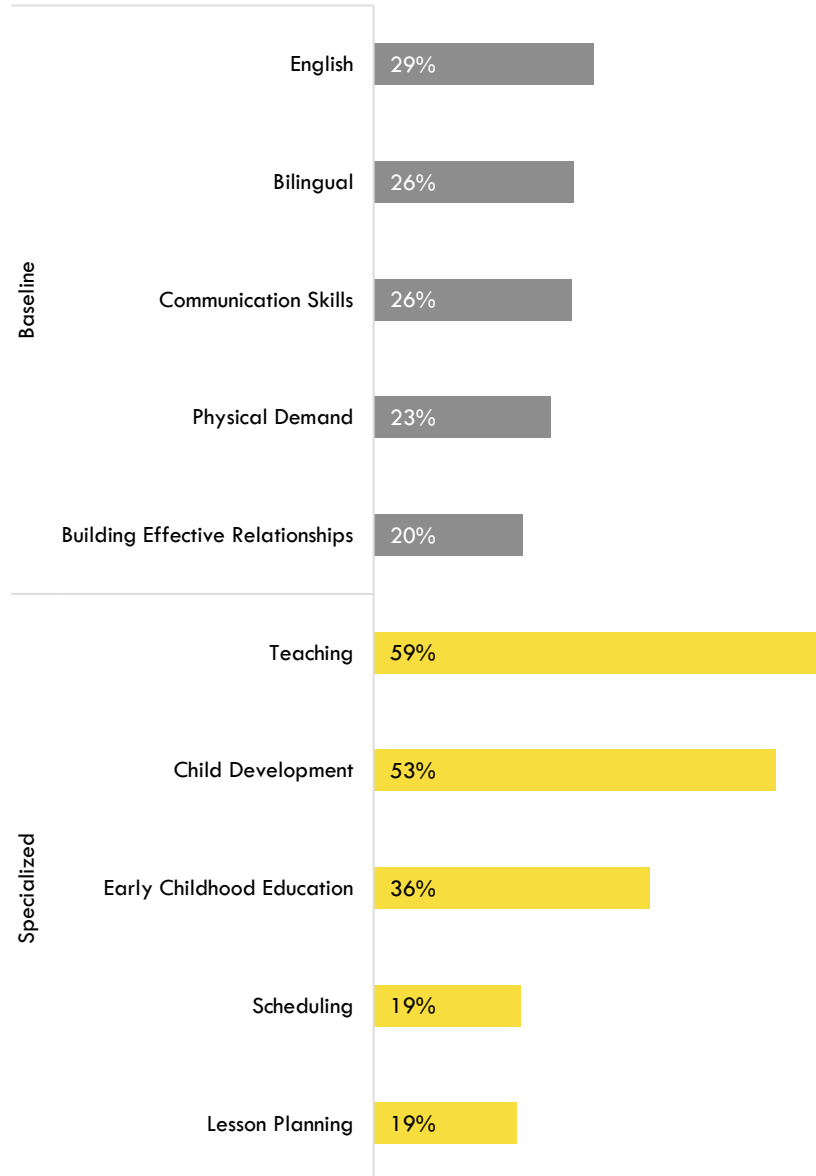


Skills

Exhibit 9 depicts the top baseline and specialized skills for the three early childhood education occupations. Just over 40% of the early childhood education job postings contain skills data.

Of the 890 job postings that contain skills data, the three most important baseline skills are English, 29% of job postings, bilingual, 26%, and communication skills, 26%. The top three specialized skills are teaching, 59% of job postings, child development, 53%, and early childhood education, 36%.

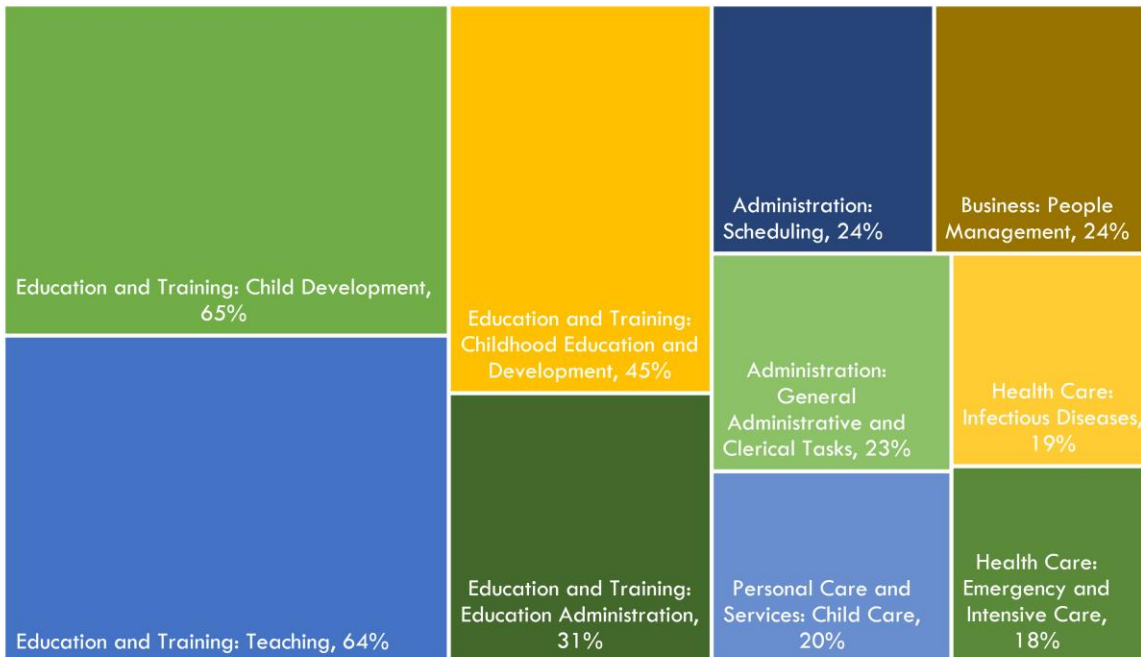
Exhibit 9. Early childhood education baseline and specialized skills



Skill Cluster Projections

Roughly one-third of the early childhood education job postings contain skill cluster projections data. Analysis of this information reveals that the skill cluster that will have the greatest gains in level of importance is education and training: child development, 65%. Other clusters with large gain projections include education and training: teaching, 64%; childhood education and development, 45%; education administration, 31%; and administration: scheduling, 24% (Exhibit 10).

Exhibit 10. Top 10 skill cluster projections for early childhood education occupations



EDUCATION, WORK EXPERIENCE AND TRAINING

Education administrators (preschool and childcare center/program) and special education teachers (preschool) have a typical entry-level education level of a bachelor's degree (Exhibit 11). Preschool teachers (except special education) has a typical entry-level education of an associate degree.

Social and human service assistants and childcare workers have a typical entry-level education of a high school diploma; however, both occupations qualify as community college relevant because of the following:

- state licensing and/or certification requirements,
- specialized industry knowledge and
- performance of duties that are taught in local early childhood development programs.¹

¹ "California Child Care Center Licensing Regulation Highlights," California Department of Social Services, January 2007, accessed March 29, 2018, <http://cclcd.ca.gov/res/pdf/CCCRRegulationHighlights.pdf>.

Exhibit 11. Education, work experience, training and Current Population Survey results²

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-the-Job Training	CPS
Education Administrators, Preschool and Childcare Center/Program	Bachelor's degree	Less than 5 years	None	12.4%
Social and Human Service Assistants	High school diploma or equivalent	None	Short-term	35.6%
Preschool Teachers, Except Special Education	Associate degree	None	None	38.8%
Special Education Teachers, Preschool	Bachelor's degree	None	None	11.3%
Childcare Workers	High school diploma or equivalent	None	Short-term	36.9%

SUPPLY

Research of the region’s community college data shows there are currently 52 active 130500-Child Development/Early Care and Education programs distributed across every college in the region. There are three active 130580-Child Development Administration Management programs in the same number of colleges.

Analysis of the last three years of program awards data, from 2014 through 2017, at the subregional level provides the following three-year average completion results:

- Child development/early care and education – 1,169 awards (894 certificates and 275 degrees) conferred.
- Child development administration and management – 2 certificates conferred.

Analysis of the last three years of program awards data, from 2014 through 2017, at the regional level provides the following three-year average completion results:

- Child development/early care and education – 1,481 awards (1,108 certificates and 373 degrees) conferred.
- Child development administration and management – 10 certificates conferred.

Exhibit 12 contains the three-year (2014-2017) completion data by program, college and award type.

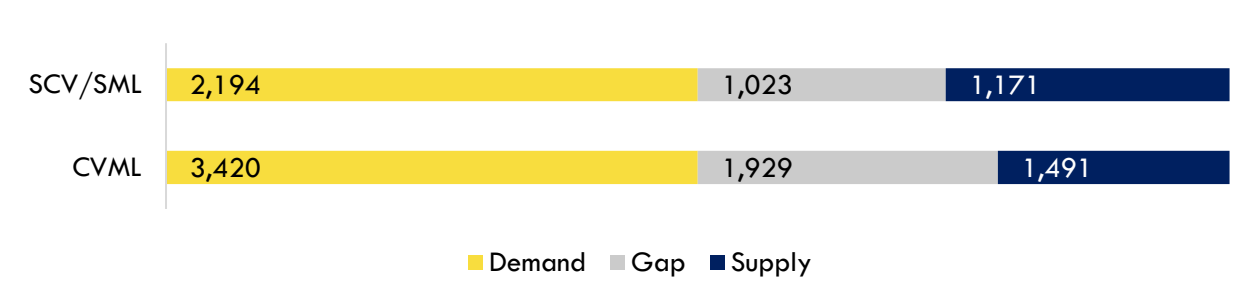
² “Labor Force Statistics from the Current Population Survey,” Bureau of Labor Statistics, accessed March 19, 2018, <https://www.bls.gov/cps/>.

Exhibit 12. Early Childhood Education program completions in the subregion and region

College and Program	3-Year Average	
	Certificates	Degrees
Child Development/Early Care and Education-130500		
Bakersfield	244	51
Cerro Coso	31	8
Clovis Community	6	8
Columbia	13	12
Fresno City	57	52
Merced	7	44
Modesto Junior	145	39
Porterville	10	28
Reedley	43	44
San Joaquin Delta	49	4
Sequoias	176	37
Taft	25	20
West Hills Coalinga	155	13
West Hills Lemoore	146	13
SUBTOTAL	1,108	373
Child Development Administration and Management-130580		
Cerro Coso	2	
Modesto Junior	6	
San Joaquin Delta	1	
SUBTOTAL	10	
TOTAL	1,117	373

A gap in supply exists for early childhood education workers in the region and subregion. There is a shortage of 1,023 trained workers in the subregion and a shortage of 1,929 trained workers in the region (Exhibit 13).

Exhibit 13. Early childhood education workforce demand and supply in the region and subregion



CONCLUSION

The entry-level wages for the four early childhood education occupations targeted in this report exceed the average self-sufficiency wage for a single adult in the seven-county subregion. However, entry-level wages for four of the five occupations fall short of the subregion's average living wage.

There were 890 job postings in 2017 for the five early childhood education occupations in the South Central Valley/Southern Mother Lode subregion.

Analysis of skills and certificate requirements in job postings indicates:

- The top baseline skill requirement is English, and the top specialized skill is teaching.
- The top certification is FIRST AID CPR AED.

There are two programs that are contributing to workforce supply in the region, but there remains a substantial annual undersupply of trained workers in the region and subregion.

Programs related to early childhood education offered through local community colleges are uniquely positioned to provide education and training to aspiring workers.

RECOMMENDATION

It is recommended that Porterville College work with its early childhood education advisory board and local industry in the expansion of its existing early childhood education program.



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).