

September 2022

# Labor Market Analysis

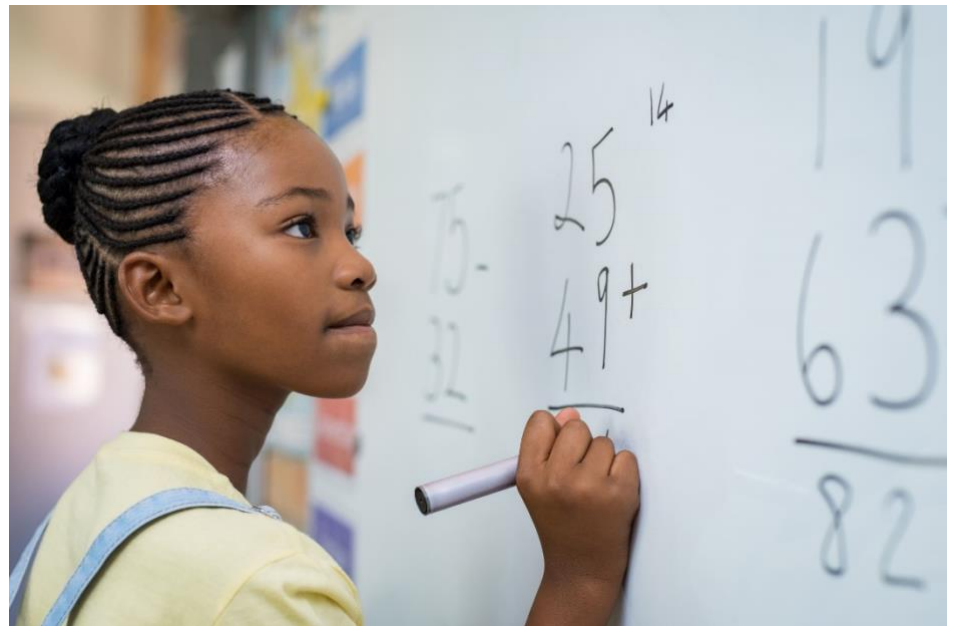
## Child Development



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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 Lightcast. Lightcast’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 Child Development. Three occupations related to Child Development were identified for Madera College:

- 25-2011, Preschool Teachers, Except Special Education
- 25-9045, Teaching Assistants, Except Postsecondary
- 39-9011, Childcare Workers

## Key findings:

- **Occupational demand** — There were 25,167 workers employed in jobs related to Child Development in 2021 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is teaching assistants, except postsecondary with 13,656 workers, a projected growth rate of 5% over the next five years, and 1,414 annual openings.
- **Wages** — Teaching assistants, except postsecondary earn the highest entry-level wage, \$14.35/hour in the subregion.
- **Employers** — Employers with the most job postings in the subregion are Mammoth Mountain Ski Area, Community Action Partnership of San Luis Obispo, and Learning Care.
- **Occupational titles** — The most common occupational title in job postings in the subregion is Preschool Teachers, Except Special Education. The most common job title is Dog Walker Pet Sitter.
- **Skills and certifications** — The top baseline skill is communication skills, the top specialized skill is teaching, and the top software skill is Microsoft Excel. The most in-demand certification is a First Aid Cpr Aed.
- **Education** — A high school diploma or equivalent is typically required for childcare workers. Some college, no degree is typically required for teaching assistants, except postsecondary. An associate degree is typically required for preschool teachers, except special education.
- **Supply** — Analysis of postsecondary completions shows that on average 2,196 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 1,242 trained workers in the subregion and 2,290 workers in the region. The Center of Excellence recommends that Madera College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Child Development workers in the region.

# Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Madera College to provide labor market information for Child Development. 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.<sup>1</sup> Analysis of the program and occupational data related to Child Development resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 25-2011, Preschool Teachers, Except Special Education
- 25-9045, Teaching Assistants, Except Postsecondary
- 39-9011, Childcare Workers

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. Please note there was no O\*Net data available for teaching assistants, except postsecondary.

## **Preschool Teachers, Except Special Education**

**Job Description:** Instruct preschool-aged students, following curricula or lesson plans, in activities designed to promote social, physical, and intellectual growth.

**Knowledge:** Education and Training, English Language, Public Safety and Security, Customer and Personal Service, Psychology

**Skills:** Instructing, Speaking, Active Listening, Learning Strategies, Coordination

## **Childcare Workers**

**Job Description:** Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.

**Knowledge:** Customer and Personal Service, English Language, Education and Training, Public Safety and Security, Psychology

**Skills:** Monitoring, Service Orientation, Social Perceptiveness, Active Listening, Coordination

# Occupational Demand

The SCV/SML subregion employed 25,167 workers in Child Development occupations in 2021 (Exhibit 1). The largest occupation is teaching assistants, except postsecondary with 13,656 workers in 2021. This occupation is projected to grow by 5% over the next five years and has the greatest number of projected annual openings, 1,414.

**Exhibit 1. Child Development employment and occupational projections in the SCV/SML subregion**

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Teaching Assistants, Except Postsecondary	13,656	14,375	719	5%	1,414
Childcare Workers	8,142	7,913	(228)	(3%)	1,153
Preschool Teachers, Except Special Education	3,369	3,787	418	12%	435
<b>TOTAL</b>	<b>25,167</b>	<b>26,076</b>	<b>909</b>	<b>4%</b>	<b>3,002</b>

<sup>1</sup> 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

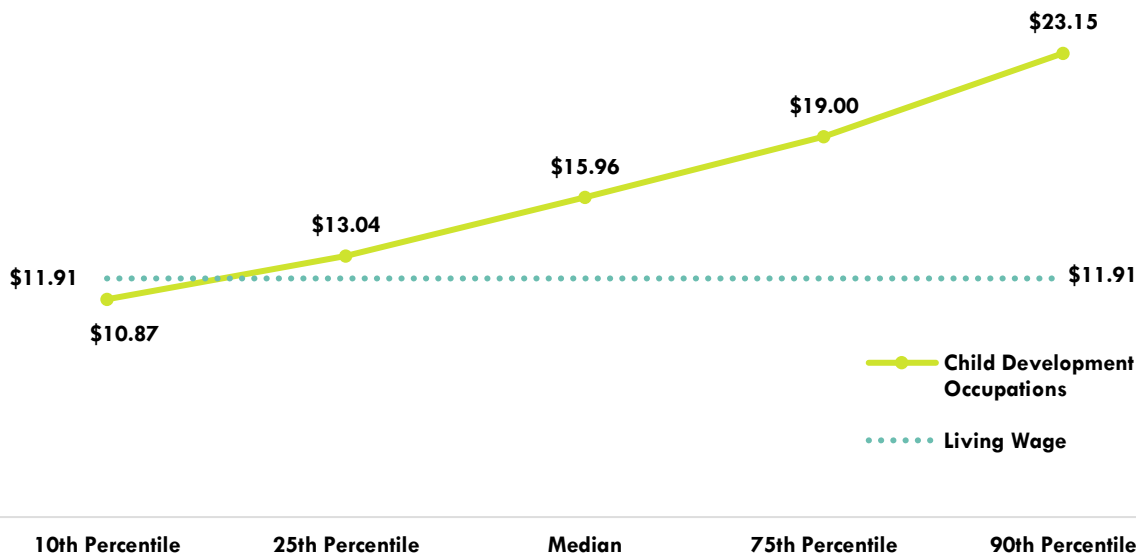
Exhibit 2a shows the hourly wages of the Child Development occupations. Teaching assistants, except postsecondary earn the highest entry-level wage, \$14.35/hour in the subregion<sup>2</sup>. Please note 10<sup>th</sup> and 25<sup>th</sup> percentiles are considered entry-level wages while 75<sup>th</sup> and 90<sup>th</sup> are considered experienced wages, either by gained by long term employment, received extra training, etc.

**Exhibit 2a. Child Development hourly wages in the SCV/SML subregion**

Occupation	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings
Teaching Assistants, Except Postsecondary	\$14.35	\$17.35	\$18.51
Preschool Teachers, Except Special Education	\$14.03	\$16.42	\$21.06
Childcare Workers	\$10.72	\$14.10	\$17.44

Exhibit 2b shows the average hourly wages for Child Development occupations, and the average entry-level wage exceeds the average living wage for the South Central Valley/Southern Mother Lode SCV/SML subregion. Please note the average 10<sup>th</sup> percentile wage earns less than the average living wage for the SCV/ SML subregion.

**Exhibit 2b. Child Development average hourly wages in the SCV/SML subregion**



# Job Postings

There were 815 job postings for the three occupations in the SCV/SML subregion from March 2022 to August 2022.<sup>3</sup> The employers with the most job postings are listed in Exhibit 3.

<sup>2</sup> Entry-level wages are derived from the 25<sup>th</sup> percentile.

<sup>3</sup> 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 3. Top employers of Child Development by number of job postings**

Employer	Job Postings	% Job Postings
Mammoth Mountain Ski Area	19	4%
Community Action Partnership of San Luis Obispo	17	3%
Learning Care	17	3%
Childtime Learning Centers	15	3%
Petsitter Com	15	3%
Fresno Economic Commission	13	2%
Kern Community College District	13	2%
Sitter	13	2%
Kindercare	10	2%
Petsitter	10	2%

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across three O\*NET OnLine occupations. The occupational title Preschool Teachers, Except Special Education is listed in 398 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include Dog Walker Pet Sitter in 52 job postings, Pre-School Teacher in 52 job postings, and Nanny in 29 job postings.

**Exhibit 4. Top occupational titles in job postings for Child Development**

Occupational Title	Job Postings	% of Job Postings
Preschool Teachers, Except Special Education	398	49%
Childcare Workers	327	40%
Nannies	90	11%

**Salaries**

Exhibit 5 shows the “Market Salaries” for Child Development 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 Child Development occupations**

Market Salary Percentile	Salary Amount
10th Percentile	\$23,251
25th Percentile	\$26,064
50th Percentile	\$30,680
75th Percentile	\$41,250
90th Percentile	\$54,256

**Education**

Of the 815 job postings, 407 listed an education level preferred for the positions being filled. Among those, 64% requested high school or vocational training, 55% requested an associate degree, and 36% 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%.

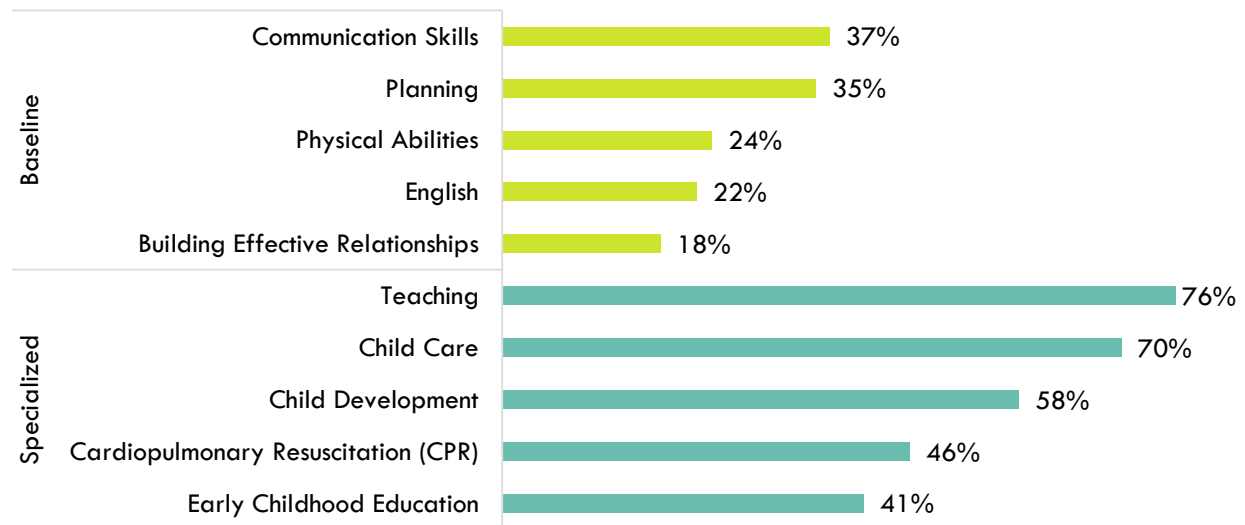
**Exhibit 6. Education levels requested in job postings for Child Development**

Education Level	Job Postings	% of Job Postings
High school or vocational training	260	64%
Associate's degree	223	55%
Bachelor's degree	147	36%
Master's degree	14	3%

**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 skills, 37% of job postings, planning, 35%, and physical abilities, 24%. The top three specialized skills are teaching, 76% of job postings, child care, 70%, and child development, 58%.

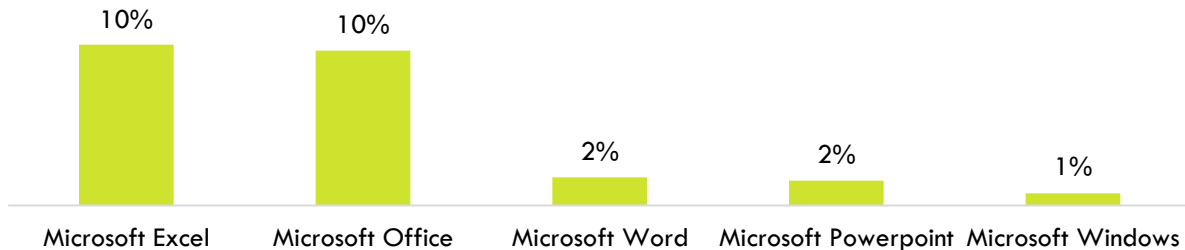
**Exhibit 7. In-demand Child Development baseline and specialized skills**



**Software Skills**

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

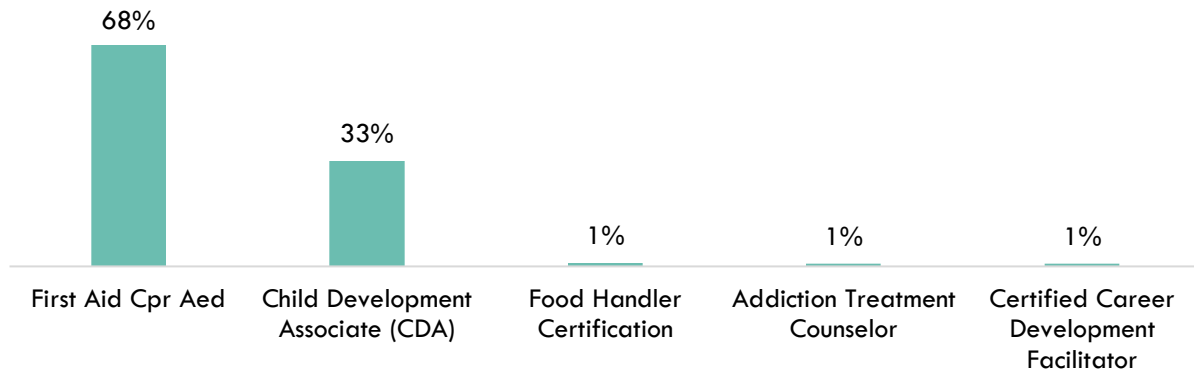
**Exhibit 8. In-demand Child Development software skills**



**Certifications**

Of the 815 job postings, 352 contained certification data. Among those, 68% indicated a need for a First Aid Cpr Aed. The next top certifications are Child Development Associate (CDA) and Food Handler (Exhibit 9). Please note 41% of job posting indicated a need for a driver’s license, but it is not a certification.

**Exhibit 9. Top Child Development certifications requested in job postings**



## Education, Work Experience & Training

A high school diploma or equivalent is typically required for childcare workers. Some college, no degree is typically required for teaching assistants, except postsecondary. An associate degree is typically required for preschool teachers, except special education (Exhibit 10).

**Exhibit 10. Education, work experience, training, and Current Population Survey results for Child Development occupations<sup>4</sup>**

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Childcare Workers	High school diploma or equivalent	None	Short-term	35.1%
Preschool Teachers, Except Special Education	Associate's degree	None	None	31.6%
Teaching Assistants, Except Postsecondary	Some college, no degree	None	None	38.6%

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



# Supply

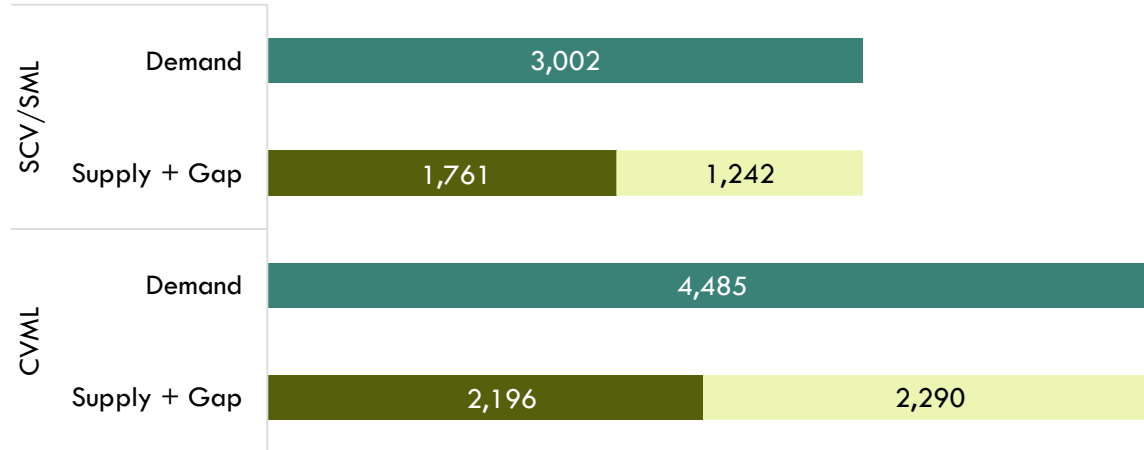
Analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) included the TOP and CIP codes and titles: 080200 - Educational Aide (Teacher Assistant), 13.1210 - Early Childhood Education and Teaching, and 130500 - Child Development/Early Care and Education. Analysis of the last three years of data shows that, on average, 2196 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

**Exhibit 11. Postsecondary supply for Child Development occupations in the region**

TOP/ CIP Code- Title	College	Associate Degree	Associate for Transfer Degree	Certificate 12 < 18 Semester Units	Certificate 16 < 30 Semester Units	Certificate 18 < 30 Semester Units	Certificate 30 < 60 Semester Units	Certificate 6 < 18 Semester Units	Certificate 8 < 16 Semester Units	Subtotal
<b>080200 - Educational Aide (Teacher Assistant)</b>	Fresno City	1				1				2
	<b>13.1210 - Early Childhood Education and Teaching</b>	Humphreys University-Stockton and Modesto Campuses	9							9
<b>130500 - Child Development/Early Care and Education</b>	Bakersfield	30	89				38	272		428
	Cerro Coso	1	11		16	24	18			71
	Clovis	5	18		4	10				38
	Columbia	6	2	4	2	1			2	16
	Fresno City	16	44	10	15	71			5	162
	Merced	25	34				10			69
	Modesto Junior	47	36	104	13	23	16		46	284
	Porterville	31	12				22			65
	Reedley College	24	38	36	52	71			8	230
	San Joaquin Delta		4		0	41	12			57
	Sequoias	38	52		18	39		292		440
	Taft	21	17	21	8	8	1	20	11	106
	West Hills Coalinga	5	4			4		71		84
	West Hills Lemoore	19	9		2	10		95		134
<b>TOTAL</b>		<b>277</b>	<b>369</b>	<b>175</b>	<b>132</b>	<b>303</b>	<b>117</b>	<b>750</b>	<b>72</b>	<b>2,196</b>

There is an undersupply of 1,242 Child Development workers in the SCV/SML subregion and 2,290 workers in the region (Exhibit 12).

**Exhibit 12. Child Development 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 Child Development. Of note, 715 child development/early care and education students received a degree or certificate or attained apprenticeship journey status; 834 students transferred; 74% of students obtained a job closely related to their field of study; 19% had a median change in earnings; and 53% of students attained a living wage.

**Exhibit 13. Subregional metrics for the TOP code related to Child Development**

Metric	Child Development/Early Care and Education 130500	Educational Aide (Teacher Assistant) 080200
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	715	*
Number of Students Who Transferred	834	112
Job Closely Related to Field of Study	74%	*
Median Change in Earnings	19%	93%
Attained a Living Wage	53%	53%
* denotes data not available.		

# Conclusion

The entry-level wages of the three occupations exceed the SCV/SML subregion's average living wage. There were 815 job postings in the past six months for occupations related to Child Development in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication skills, and the top specialized skill is teaching.
- The top software skill is Microsoft Excel.
- The top certification is a First Aid Cpr Aed.

There is an undersupply of trained workers, a shortage of 1,242 in the SCV/SML subregion and 2,290 in the region.

# Recommendation

Based on these findings, it is recommended that Madera College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Child Development 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. (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: <a href="http://economicmodeling.com">economicmodeling.com</a> .
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: <a href="https://www.bls.gov/emp/tables/educational-attainment.htm">https://www.bls.gov/emp/tables/educational-attainment.htm</a> .
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: <a href="http://labormarketinfo.edd.ca.gov">labormarketinfo.edd.ca.gov</a> .
Job Posting and Skills Data	Burning Glass: <a href="http://burning-glass.com/">burning-glass.com/</a> .
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: <a href="http://onetonline.org">onetonline.org</a> .

## 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.

**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.