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# Labor Market Analysis

## Child Development



Prepared by Central Valley/Mother Lode Center of Excellence



POWERED BY



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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

The Central Valley/Mother Lode Center of Excellence developed this report for Columbia College to determine whether there is demand in the local labor market that is not being met by the supply from community college programs. This report summarizes labor market demand, wages, skills, and postsecondary supply for *Child Development-relevant occupations*, which include:

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

## Key Findings

- **Occupational Demand** — *Child Development-relevant occupations* have a labor market demand of 1,721 annual job openings in the North Central Valley/Northern Mother Lode (NCV/NML) subregion. Between 2021 and 2026, teaching assistants, except postsecondary are projected to have the most demand with 1,058 annual job openings and a projected growth rate of 12 percent. There were 5,110 annual jobs in the Central Valley/Mother Lode region.
- **Wages** — Average entry-level earnings of \$15.17/hour for *Child Development-relevant occupations* are higher than the living wage in the NCV/NML subregion, which is \$12.65/hour for a single adult.<sup>1</sup> Teaching assistants, except postsecondary earn the highest entry-level wage, \$16.79/hour.
- **Employers and Occupational Titles** — Employers in the NCV/NML subregion include University of California, Sitter, and KinderCare. The most common occupational title in job postings in the subregion is preschool teachers, except special education. The most common job title is preschool teacher.
- **Skills and Certifications** — The top baseline skill is communication, the top specialized skill is child development, and the top software skill is Microsoft Excel. The most in-demand certification is a Cardiopulmonary Resuscitation (CPR) Certification.
- **Education** — High school diploma or equivalent is typically required for childcare workers. Some college, no degree is typically required teaching assistants, except postsecondary. An associate degree is typically required for preschool teachers, except special education.
- **Supply and Demand Analysis** — Based on 1,721 annual openings (demand), and 152 postsecondary degrees awarded (supply), an analysis of supply and demand suggests there is an undersupply of 1,569 workers in the NCV/NML subregion. In the CVML region, 2,195 awards were conferred suggesting an undersupply of 2,915 workers (when considering the 5,110 annual job openings in the CVML).

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<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/>.

## Recommendation

Based on a comparison of demand and supply, there is an undersupply of trained workers in the NCV/NML subregion and the CVML region. The Center of Excellence recommends that Columbia 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.

# Introduction

The Central Valley/Mother Lode Center of Excellence developed this report to provide Columbia College with labor market information for Child Development. The geographical focus for this report is the North Central Valley/Northern Mother Lode (NCV/NML) subregion, but regional demand and supply data has been included for broader applicability and use. Analysis of the program and occupational data related to Child Development resulted in the identification of applicable occupations, known as *Child Development-relevant occupations*. The Standard Occupational Classification (SOC) System code and occupational titles used in this report from the Bureau of Labor Statistics and O\*NET OnLine are shown below. Please note that there is no data available for teaching assistants, except postsecondary (SOC 25-9045).

### Preschool Teachers, Except Special Education (SOC 25-2011)

- **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

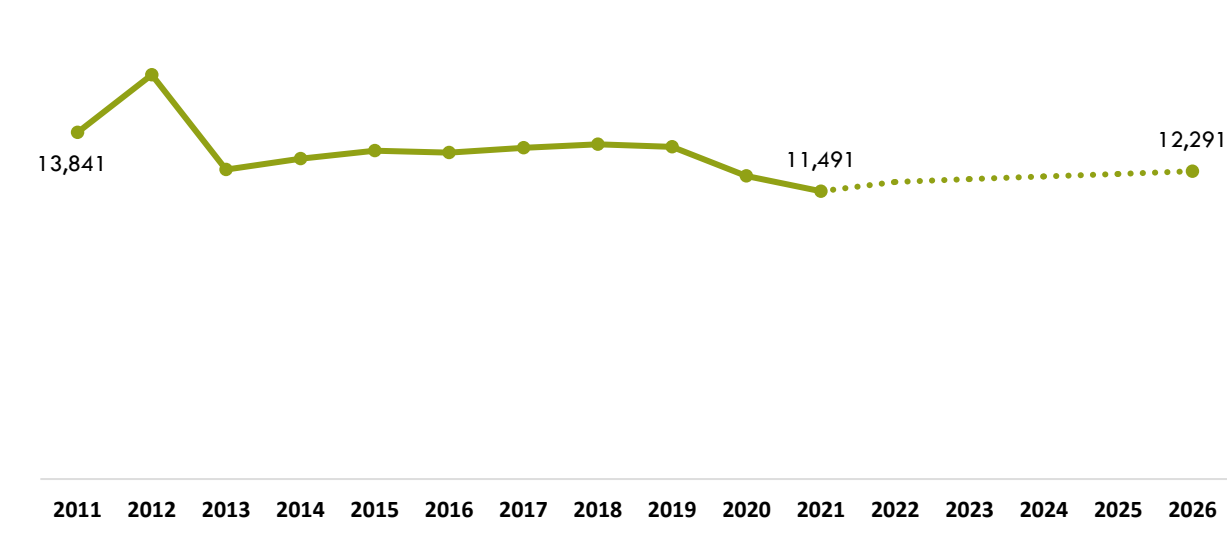
### Childcare Workers (SOC 39-9011)

- **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

Exhibit 1a shows trends for *Child Development-relevant occupations* in the NCV/NML subregion. Between 2021 to 2026, the number of jobs for *Child Development Occupations* is projected to increase by 800 jobs, or seven percent.

**Exhibit 1a. Occupational projections for *Child Development Occupations* in the NCV/NML subregion**



Between 2021 to 2026, demand for *Child Development-relevant occupations* in the NCV/NML subregion is 1,721 annual openings (Exhibit 1b). Teaching assistants, except postsecondary are projected to have the most demand with 1,058 annual job openings and a projected growth rate of 12 percent.

**Exhibit 1b. Occupational projections for *Child Development Occupations* in the NCV/NML subregion**

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Teaching Assistants, Except Postsecondary	7,191	8,023	832	12%	1,058
Preschool Teachers, Except Special Education	1,707	1,797	90	5%	215
Childcare Workers	2,592	2,470	(122)	(5%)	448
<b>TOTAL</b>	<b>11,490</b>	<b>12,290</b>	<b>800</b>	<b>7%</b>	<b>1,721</b>

# Wages

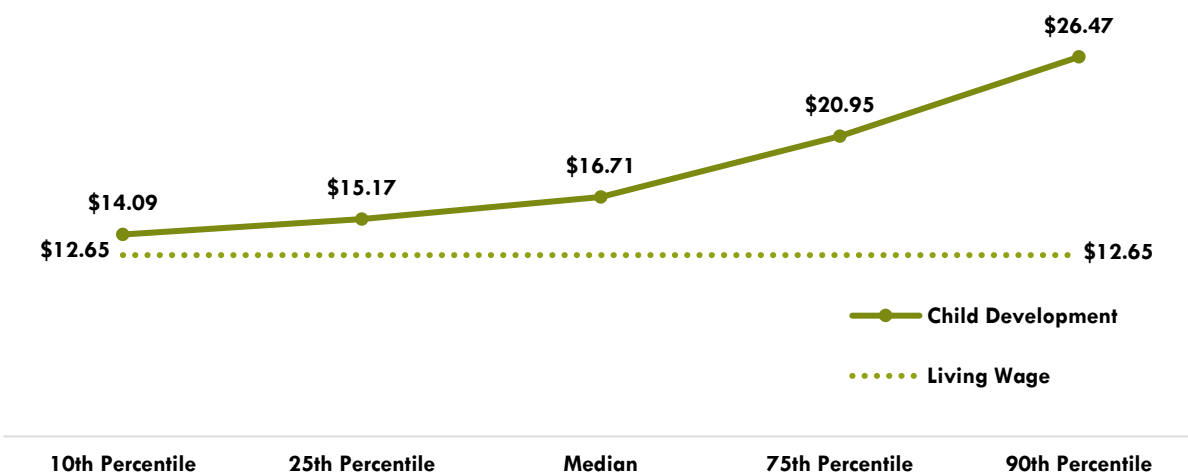
The average living wage for a single adult in the NCV/NML subregion is \$12.65/hour.<sup>2</sup> Exhibit 2a shows the hourly wages of *Child Development Occupations*. Teaching assistants, except postsecondary earn the highest entry-level wage, \$16.79/hour in the subregion.<sup>3</sup> Please note 10<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, extra training, etc.

**Exhibit 2a. *Child Development Occupations* hourly wages in the NCV/NML subregion**

Occupation	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings
Teaching Assistants, Except Postsecondary	\$16.79	\$17.80	\$21.78
Preschool Teachers, Except Special Education	\$14.65	\$17.61	\$23.36
Childcare Workers	\$14.08	\$14.72	\$17.72

Exhibit 2b shows the average hourly wages for *Child Development Occupations*; the average entry-level wage is more than the average entry-level living wage for the NCV/NML subregion.

**Exhibit 2b. *Child Development Occupations* average hourly wages in the NCV/NML subregion**



<sup>2</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/>.

<sup>3</sup> Entry-level wages are derived from the 25<sup>th</sup> percentile.

# Job Postings

There were 730 job postings for *Child Development Occupations* in the NCV/NML subregion from August 2022 to January 2023.<sup>4</sup>

## Top Employers

The top employers with the most job postings are listed in Exhibit 3. The top employers in online job postings were University of California, Sitter, and Kindercare.

### Exhibit 3. Top employers of *Child Development Occupations* by number of job postings

Employer
University of California
Sitter
KinderCare
Community Action Partnership of San Luis Obispo
Creative Child Care
United Cerebral Palsy Associations
Point Quest
Catalyst Family
The Resource Connection of Amador and Calaveras Counties
Child Abuse Prevention Council

## Top Occupational Titles

Exhibit 4 shows the O\*NET OnLine occupational titles for *Child Development Occupations* in the NCV/NML subregion. Common job titles in postings include: Pre-School Teacher, Baby Sitters, and Nannies.

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

Occupational Title
Preschool Teachers, Except Special Education
Childcare Workers
Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education
Nannies
Teaching Assistants, All Other
Teaching Assistants, Special Education

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<sup>4</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.

## Salaries

Exhibit 5 shows the “Market Salaries” for *Child Development Occupations*. 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 5. Market salaries for *Child Development Occupations***

Market Salary	Job Postings
\$31,000-\$34,999	175
\$35,000-\$38,999	97
\$39,000-\$42,999	60
\$43,000-\$46,999	69
\$47,000-\$50,999	15

## Education

Of the 730 job postings, 563 listed a preferred or minimum educational requirement for the position being filled. Among those, 38% requested high school or GED, 20% requested an associate degree, and 16% requested a bachelor’s degree (Exhibit 6).

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

Education Level	Job Postings	% of Job Postings
High school or GED	281	38%
Associate degree	144	20%
Bachelor's degree	116	16%
Ph.D. or professional degree	13	2%
Master's degree	9	1%

## Baseline, Specialized, and Software Skills

Exhibit 7 depicts the top baseline, specialized, and software skills in job postings. The three most important baseline skills are communication, teaching, and planning. The top three specialized skills are child development, preschool education, and early childhood education. The top software is Microsoft Excel.

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

Baseline Skills	Specialized Skills	Software Skills
Communication Skills	Child Development	Microsoft Excel
Teaching	Preschool Education	Google Workspace
Planning	Early Childhood Education	Zoom (Video Conferencing Tool)
Lifting Ability	Working with Children	Google Classroom
Computer Literacy	Individualized Education Programs (IEP)	Productivity Software



## Certifications

Of the 730 job postings, 398 contained certification data. Among those, 30% indicated a need for a Cardiopulmonary Resuscitation (CPR) Certification. The next top certification is First Aid Certification (Exhibit 8).

**Exhibit 8. Top Child Development Occupations certifications requested in job postings**

Certifications	% of Job Postings
Cardiopulmonary Resuscitation (CPR) Certification	30%
First Aid Certification	26%
No Child Left Behind Act (NCLB) Standards	6%
American Society For Quality (ASQ) Certified	4%
Functional Skills Qualification	3%

## Education, Work Experience, & Training

An associate degree is typically required for preschool teachers, except special education. Some college, no degree is typically required for teaching assistants, except postsecondary. A high school diploma or equivalent is typically required for childcare workers (Exhibit 9).

**Exhibit 9. Education, work experience, training, and Current Population Survey results Child Development Occupations<sup>5</sup>**

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

<sup>5</sup> "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, 152 awards were conferred in the NCV/NML subregion (Exhibit 10 and 11).

## **Exhibit 10. TOP and CIP codes for *Child Development Occupations***

TOP Titles	CIP Titles
0802.00 - Educational Aide (Teacher Assistant)	13.1501 - Teacher Assistant/Aide 13.1210 - Early Childhood Education and Teaching
1305.00 - Child Development/Early Care and Education	19.0706 - Child Development. 19.0709 - Child Care Provider/Assistant

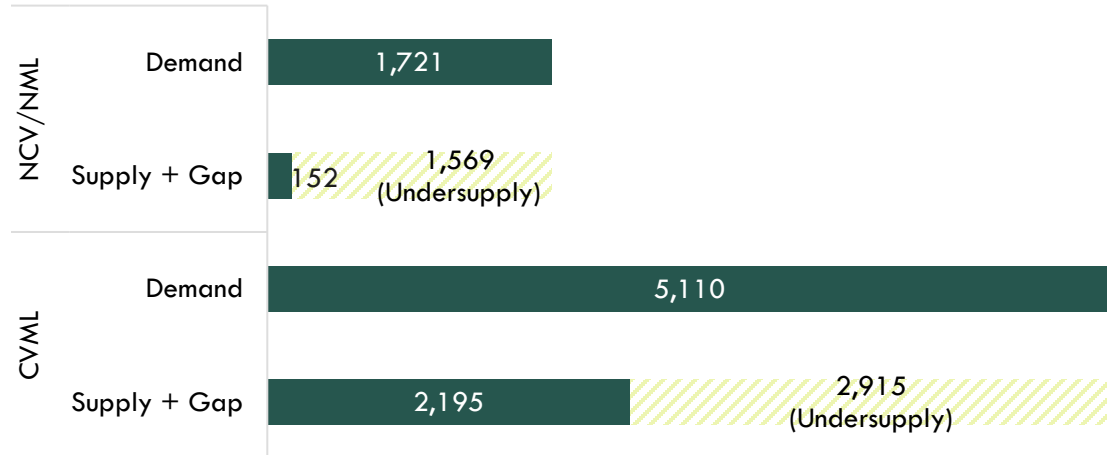
**Exhibit 11. Postsecondary supply for Child Development Occupations**

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		429
	Cerro Coso	1	11		16	24	18			70
	Clovis	5	18		4	10				37
	Columbia	6	2	4	2	1			2	17*
	Fresno City	16	44	10	15	71			5	161
	Merced	25	34				10			69*
	Modesto	47	36	104	13	23	16		46	285
	Porterville	31	12				22			65
	Reedley College	24	38	36	52	71			8	229
	San Joaquin Delta		4			41	12			57*
	Sequoias	38	52		18	39		292		439
	Taft	21	17	21	8	8	1	20	11	107
	West Hills Coalinga	5	4			4		71		84
	West Hills Lemoore	19	9		2	10		95		135
	<b>NCV/NML TOTAL</b>		<b>40</b>	<b>40</b>	<b>4</b>	<b>2</b>	<b>42</b>	<b>22</b>	<b>0</b>	<b>2</b>
<b>CVML TOTAL</b>		<b>278</b>	<b>370</b>	<b>175</b>	<b>130</b>	<b>303</b>	<b>117</b>	<b>750</b>	<b>72</b>	<b>2,195</b>

\*NCV/NML awards

There is an undersupply of 1,569 Child Development workers in the NCV/NML subregion and an undersupply of 2,915 workers in the region (Exhibit 12).

**Exhibit 12. Child Development Occupations workforce demand (annual job openings), postsecondary awards (supply), and additional students needed to fill gap in the NCV/NML subregion and region**



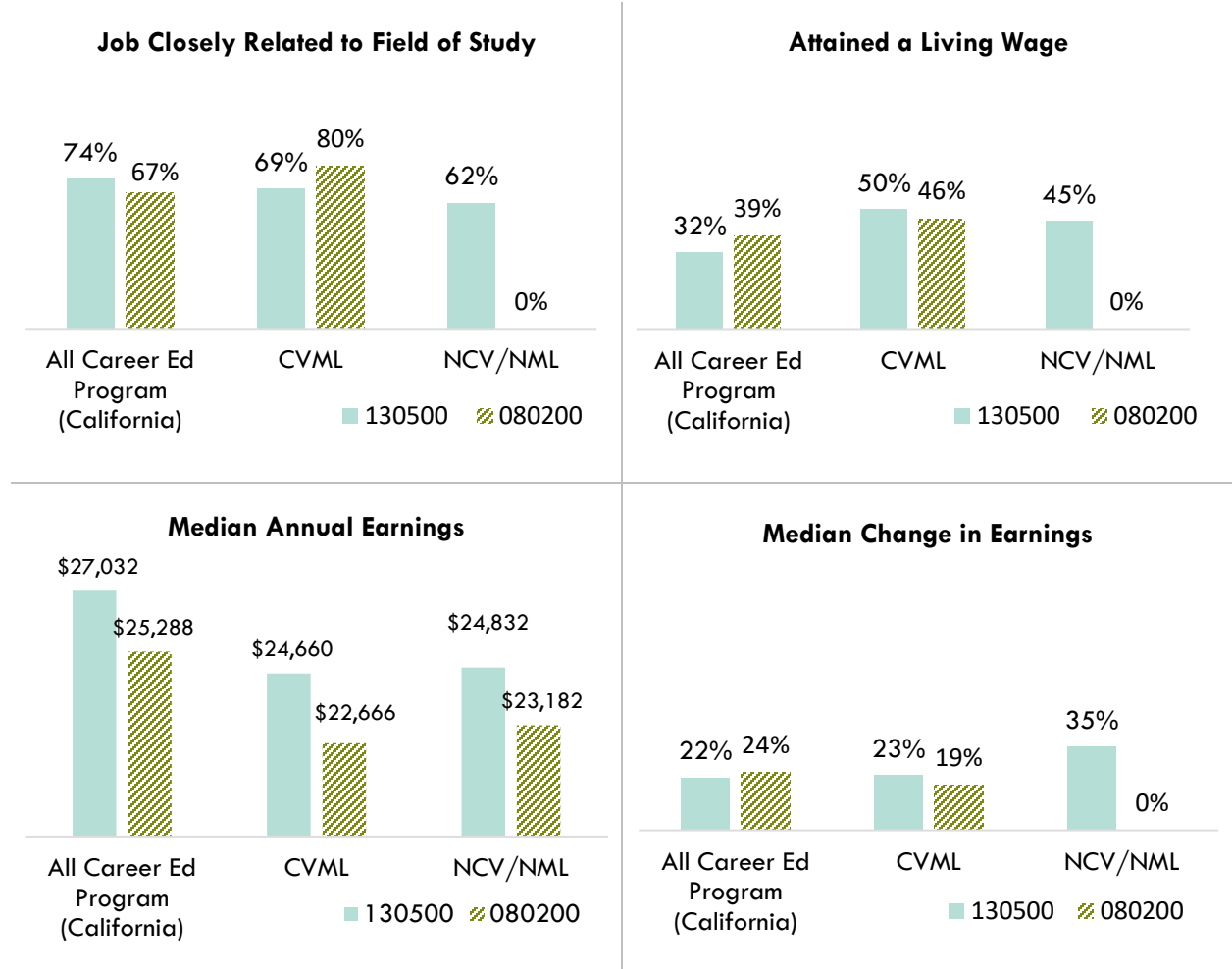
## Student Outcomes

Exhibits 13a -13b summarize outcomes from California Community College Chancellor’s Cal-PASS Plus LaunchBoard for TOP codes related to *Child Development Occupations*. Notably, 62% of students obtained a job closely related to their field of study in the subregion and 45% attained a living wage.

**Exhibit 13a. Regional metrics for TOP 130500 - Child Development/Early Care and Education and TOP 080200 - Educational Aide (Teacher Assistant)**

Metric	1305.00 - Child Development/Early Care and Education	0802.00 - Educational Aide (Teacher Assistant)
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	319	*
Number of Students Who Transferred	436	42
*denotes data not available in table and charts		

**Exhibit 13b. Metrics for TOP 1305.00 - Child Development/Early Care and Education and TOP 0802.00 - Educational Aide (Teacher Assistant)**



## Recommendation

This report suggests there is a shortage of 1,569 workers in the NCV/NML subregion and a shortage of 2,915 workers in the CVML region for *Child Development Occupations*. Based on these findings, it is recommended that Columbia 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: 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: <a href="https://www.bls.gov/emp/tables/educational-attainment.htm">https://www.bls.gov/emp/tables/educational-attainment.htm</a> .
LaunchBoard	Chancellor’s Cal-PASS Plus LaunchBoard. <a href="https://www.calpassplus.org/LaunchBoard/SWP.aspx">https://www.calpassplus.org/LaunchBoard/SWP.aspx</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	Lightcast.
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.

**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.