

February 2021

# Labor Market Analysis

## Early Childhood Educators



Prepared by the Central Valley/Mother Lode Center of Excellence

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**COVID-19 Statement:** This report includes employment projection data by Emsi. Emsi’s projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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# Summary

Please note the COVID-19 statement on page 2 when considering this report's findings.

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for early childhood educators. Four occupations related to early childhood educators were identified for Merced College:

- 25-9045, Teaching Assistants, Except Postsecondary
- 39-9011, Childcare Workers
- 25-2011, Preschool Teachers, Except Special Education
- 11-9031, Education and Childcare Administrators, Preschool and Daycare

## Key findings:

- **Occupational demand** — Nearly 15,640 workers were employed in jobs related to early childhood educators in 2019 in the North Central Valley/Northern Mother Lode (NCV/NML) subregion. The largest occupation is teaching assistants, except postsecondary with 8,049 workers in 2019, a projected growth rate of 3% over the next five years, and 845 annual openings.
- **Wages** — Teaching assistants (except postsecondary) earn the highest entry-level wage, \$14.25/hour in the subregion and \$13.46/hour in the region.
- **Employers** — Employers with the most job postings in the subregion are Sitter, Merced County Office Education, and Lincoln Unified School District.
- **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 Nanny For 1 Child.
- **Skills and certifications** — The top baseline skill is communication, the top specialized skill is child care, and the top software skill is Facebook. The most in-demand certification is a first aid/CPR/AED.
- **Education** — Some college, no college is typically required for teaching assistants (except postsecondary), and a high school diploma or the equivalent is the typical entry-level education required for childcare workers. Preschool teachers (except special education) typically have an associate degree, and education and childcare administrators (preschool and daycare) typically have a bachelor's degree.
- **Supply** — Analysis of postsecondary completions in the region shows that on average 2,056 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 1,402 trained workers in the subregion and 3,342 workers in the region. The Center of Excellence recommends that Merced College work with the regional director, the college's advisory board, and local industry in the expansion or development of programs to address the shortage of early childhood educators workers in the region.

# Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Merced College to provide labor market information for early childhood educators. 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. The average living wage for a single adult in the North Central Valley/Northern Mother Lode (NCV/NML) subregion is \$10.27/hour.<sup>1</sup> Analysis of the program and occupational data related to early childhood educators resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 25-9045, Teaching Assistants, Except Postsecondary
- 39-9011, Childcare Workers
- 25-2011, Preschool Teachers, Except Special Education
- 11-9031, Education and Childcare Administrators, Preschool and Daycare

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.

## **Teaching Assistants, Except Postsecondary**

**Job Description:** Teach vocational courses intended to provide occupational training below the baccalaureate level in subjects such as construction, mechanics/repair, manufacturing, transportation, or cosmetology, primarily to students who have graduated from or left high school. Teaching takes place in public or private schools whose primary business is academic or vocational education.

**Knowledge:** Education and Training, English Language, Mechanical, Customer and Personal Service, Mathematics

**Skills:** Active Listening, Instructing, Learning Strategies, Active Learning, Reading Comprehension

## **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

## **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

## **Education and Childcare Administrators, Preschool and Daycare**

**Job Description:** Plan, direct, or coordinate academic or nonacademic activities of preschools or childcare centers and programs, including before- and after-school care.

**Knowledge:** Customer and Personal Service, Education and Training, Administration and Management, English Language, Psychology

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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/>.

**Skills:** Active Listening, Coordination, Critical Thinking, Monitoring, Reading Comprehension

## Occupational Demand

The North Central Valley/Northern Mother Lode subregion employed 15,636 workers in early childhood educator occupations in 2019 (Exhibit 1). The largest occupation is teaching assistants, except postsecondary with 8,049 workers in 2019. This occupation is projected to grow by 3% over the next five years and has the greatest number of projected annual openings, 845.

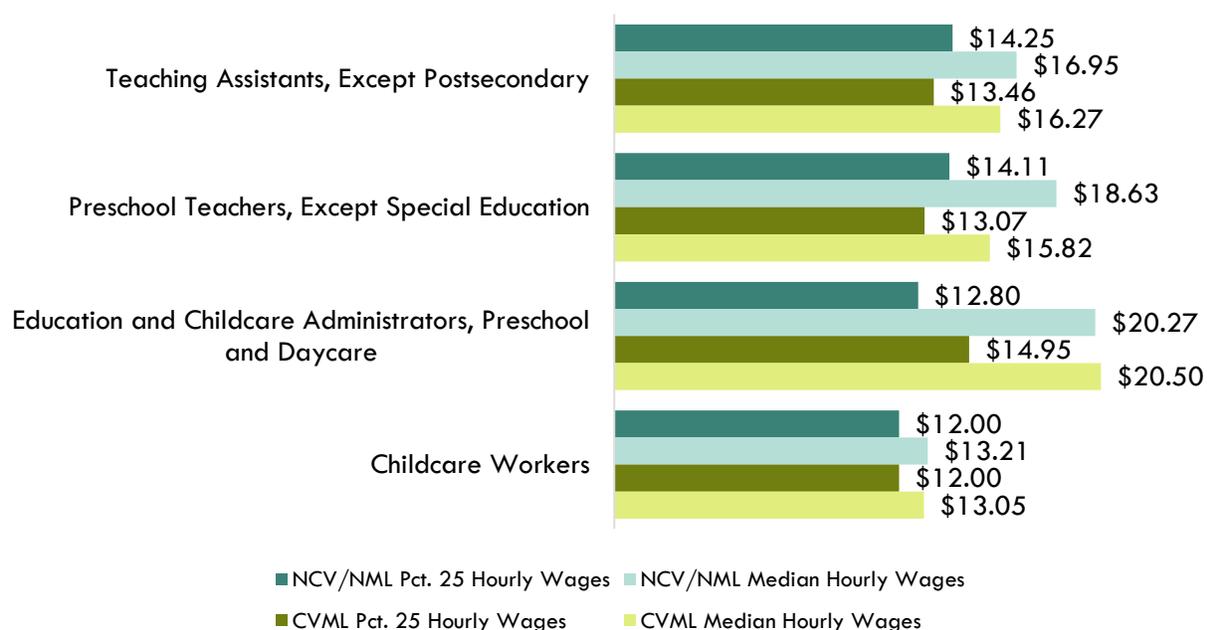
**Exhibit 1. Early childhood educators employment and occupational projections in the NCV/NML subregion**

Occupation	2019 Jobs	2024 Jobs	5-Year Change	5-Year % Change	Annual Openings
Teaching Assistants, Except Postsecondary	8,049	8,323	274	3%	854
Childcare Workers	5,521	4,890	(631)	(11%)	716
Preschool Teachers, Except Special Education	1,831	1,753	(78)	(4%)	167
Education and Childcare Administrators, Preschool and Daycare	234	222	(13)	(6%)	16
<b>TOTAL</b>	<b>15,636</b>	<b>15,187</b>	<b>(448)</b>	<b>(3%)</b>	<b>1,753</b>

## Wages

Exhibit 2 compares the entry-level and experienced wages of the early childhood educator occupations. Teaching assistants (except postsecondary) earn the highest entry-level wage, \$14.25/hour in the subregion and \$13.46/hour in the region.

**Exhibit 2. Entry-level and experienced wage comparison in the NCV/NML subregion and region**



## Job Postings

There were 527 job postings for the four occupations in the NCV/NML subregion from August 2020 to January 2021.<sup>2</sup> The employers with the most job postings are listed in Exhibit 3.

**Exhibit 3. Top employers of early childhood educators by number of job postings**

Employer	Job Postings	% Job Postings
Sitter	12	3%
Merced County Office Education	9	2%
Lincoln Unified School District	7	2%
Creative Child Care Incorporated	6	1%
Kids Place To Explore And Learn LLC	6	1%
Lodi Unified School District	6	1%
Noble Healthcare At Home Inc	6	1%
Petsitter	6	1%
The Resource Connection Of Amador And Calaveras Counties, Inc	6	1%
Childtime Learning Centers	5	1%

Exhibit 4 shows how job postings for the targeted occupations in the NCV/NML subregion are distributed across four O\*NET OnLine occupations. The occupational title preschool teachers, except special education is listed in 201 job postings. Note how this occupational title dominates the job posting results, as does childcare workers. Common job titles in postings include Nanny For 1 Child in 41 job postings, Preschool Teacher in 35 job postings, and Regular Babysitter for 1 Child in 35 job postings.

**Exhibit 4. Top occupational titles in job postings for early childhood educators**

Occupational Title	Job Postings	% of Job Postings
Preschool Teachers, Except Special Education	201	38%
Childcare Workers	196	37%
Nannies	121	23%
Education Administrators, Preschool and Childcare Center/Program	9	2%

**Salaries**

Exhibit 5 shows the “Market Salaries” for early childhood educators occupations that are calculated by Burning Glass which uses a machine learning model built off of millions of job postings every year, and accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

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<sup>2</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 5. Salaries for early childhood educators

Market Salary Percentile	Salary Amount
10th Percentile	\$24,865
25th Percentile	\$27,733
50th Percentile	\$34,506
75th Percentile	\$45,876
90th Percentile	\$58,841

### Education

Of the 527 job postings, 188 listed an education level preferred for the positions being filled. Of those, 60% requested high school or vocational training, 42% requested an associate degree, and 24% 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 total more than 100%.

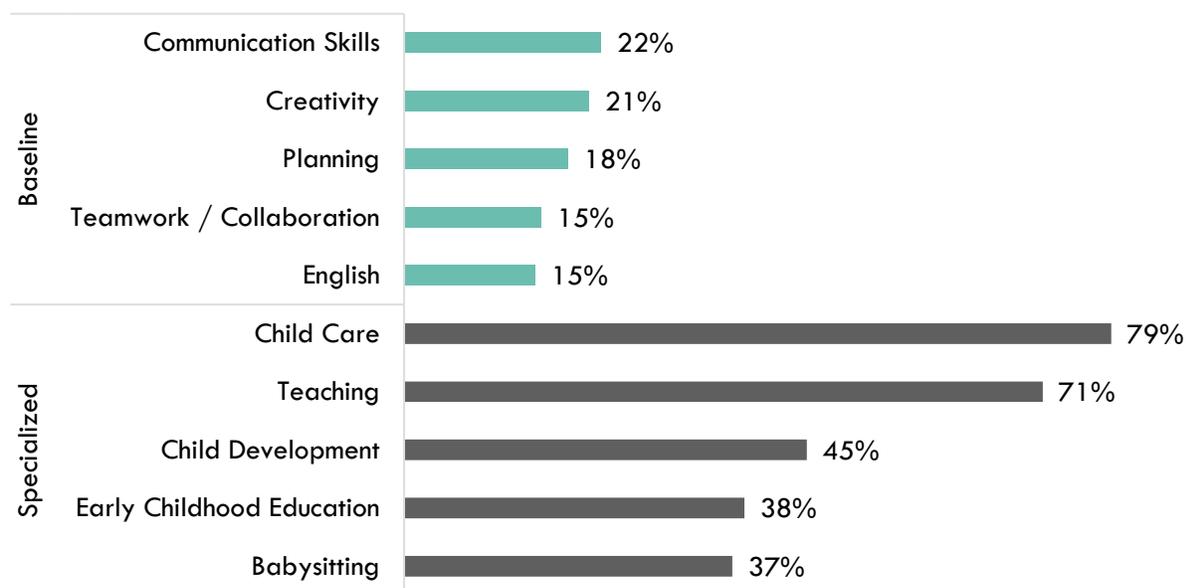
### Exhibit 6. Education levels requested in job postings for early childhood educators

Education level	Job Postings	% of Job Postings
High school or vocational training	113	60%
Associate degree	79	42%
Bachelor's degree	46	24%
Master's degree	6	3%
Doctoral degree	2	1%

### Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are communication, 22% of job postings, creativity, 21%, and planning, 18%. The top three specialized skills are child care, 79% of job postings, teaching, 71%, and child development, 45%.

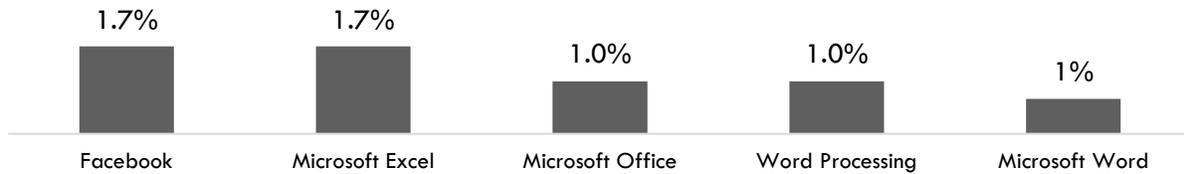
### Exhibit 7. In-demand early childhood educators baseline and specialized skills



## Software Skills

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

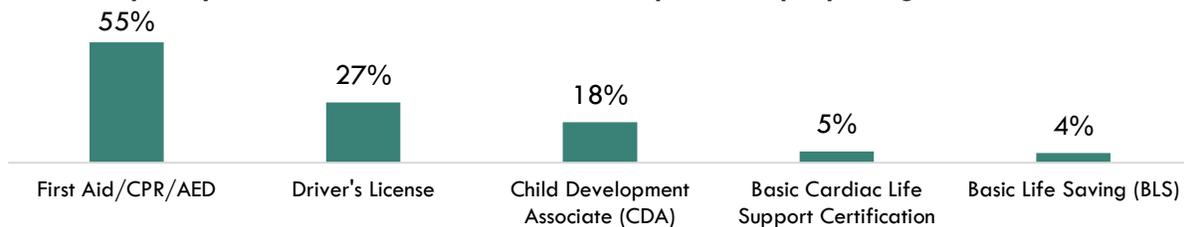
**Exhibit 8. In-demand early childhood educator software skills**



## Certifications

Of the 527 job postings, 157 contained certification data. Among those, 55% indicated a need for a first aid/CPR/AED. The next top certifications are driver's license and Child Development Associate (Exhibit 9). (Due to the low number of job postings with certifications listed, the chart below may not be representative of the full sample.)

**Exhibit 9. Top early childhood educator certifications requested in job postings**



# Education, Work Experience & Training

Some college, no college is typically required for teaching assistants (except postsecondary), and a high school diploma or the equivalent is the typical entry-level education required for childcare workers (Exhibit 10). Preschool teachers (except special education) typically have an associate degree, and education and childcare administrators (preschool and daycare) typically have a bachelor's degree.

**Exhibit 10. Education, work experience, training, and Current Population Survey results for early childhood educators occupations<sup>3</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	40.6%
Childcare Workers	High school diploma or equivalent	None	Short-term	37.6%
Preschool Teachers, Except Special Education	Associate degree	None	None	39.1%
Education and Childcare Administrators, Preschool and Daycare	Bachelor's degree	Less than 5 years	None	12.4%

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

# Supply

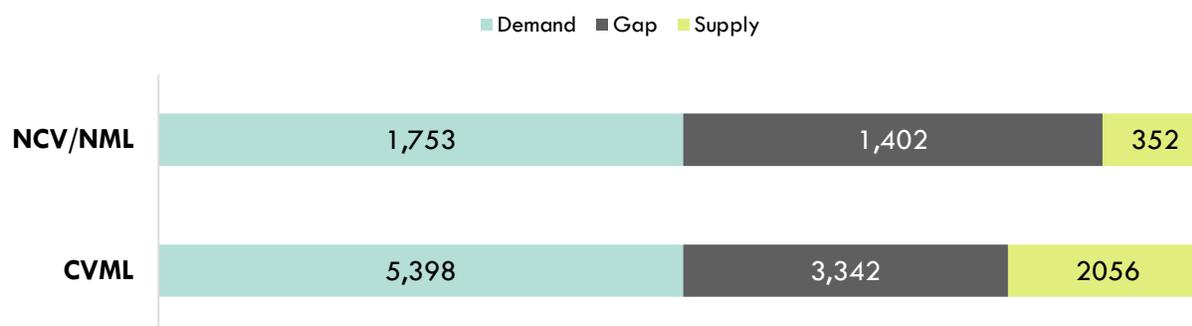
Analysis of program data from the California Community Colleges Chancellor’s Office Data Mart included four TOP codes. Analysis of the last three years of data shows that, on average, 2,056 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

**Exhibit 11. Postsecondary supply for early childhood educators occupations in the region**

TOP Code - Title	Colleges	Associate Degree	Associate for Transfer Degree	Certificate 12 < 18 Semester Units	Certificate 18 < 30 Semester Units	Certificate 30 < 60 Semester Units	Certificate 6 < 18 Semester Units	Certificate 60+ Semester Units	Subtotal	
080200 - Educational Aide (Teacher Assistant)	Fresno City	4			2				6	
	Bakersfield	31	56			42	278		407	
	Cerro Coso	4	7		29	12			52	
	Clovis	3	16			16			35	
	Columbia	6	4	7	1				17	
	Fresno City	19	49	15	76				160	
	Merced	23	27				9		59	
130500 - Child Development/Early Care and Education	Modesto	44	21	136	34	19			254	
	Porterville	30	5			19			54	
	Reedley College	23	34	39	79				175	
	San Joaquin Delta		4		58	11			74	
	Sequoias	35	25		46		295		401	
	Taft	20	10	22	10	1	24		88	
	West Hills Coalinga	9	4		8		99		120	
	West Hills Lemoore	17	7		15		102		140	
	130580 - Child Development Administration and Management	Cerro Coso					2			2
		Modesto					6			6
San Joaquin Delta								1	1	
130590 - Infants and Toddlers	Fresno City			6					6	
<b>TOTAL</b>		<b>270</b>	<b>268</b>	<b>225</b>	<b>372</b>	<b>121</b>	<b>799</b>	<b>1</b>	<b>2,056</b>	

There is an undersupply of 1,402 early childhood educators workers in the NCV/NML subregion and 3,342 workers in the region (Exhibit 12).

**Exhibit 12. Early childhood educators workforce annual demand and supply in the NCV/NML 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 codes related to early childhood educators. There were 1,033 child development/early care and education students who received a degree or certificates or attained apprenticeship journey status, 1,031 who transferred, 73% who obtained a job closely related to their field of study, 29% who reported a median change in earnings, and 52% who attained a living wage. By comparison, there were 25 educational aide (teacher assistant) students who received a degree or certificates or attained apprenticeship journey status, 132 who transferred, 83% who obtained a job closely related to their field of study, 42% who reported a median change in earnings, and 46% who attained a living wage.

**Exhibit 13. Regional metrics for the TOP codes related to early childhood educators**

Metric	Child Development/ Early Care and Education 130500	Child Development Administration and Management 130580	Infants and Toddlers 130590	(Educational Aide (Teacher Assistant) 080200
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	1,033	12	*	25
Number of Students Who Transferred	1,031	21	42	132
Job Closely Related to Field of Study	73%	100%	85%	83%
Median Change in Earnings	29%	24%	19%	42%
Attained a Living Wage	52%	87%	54%	46%
* denotes data not available.				

## Conclusion

The entry-level wages of the four occupations exceed the NCV/NML subregion's average living wage. There were 527 job postings in the past six months for occupations related to early childhood educators in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is communication, and the top specialized skill is child care.
- The top software skill is Facebook.
- The top certification is a first aid/CPR/AED.

There is an undersupply of trained workers, a shortage of 1,402 in the NCV/NML subregion and 3,342 in the region.

## Recommendation

Based on these findings, it is recommended that Merced College work with the college's advisory board, and local industry in the expansion of programs to address the shortage of early childhood educators in the region.

# Appendix A: Methodology & Data Sources

## Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor’s Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

Data Type	Source
Labor Market Information/Population Estimates and Projections/Educational Attainment	Economic Modeling Specialists, Intl. (EMSI). EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry: <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. (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.