

Labor Market Analysis for Program Recommendation: 0102.00/Animal Science (Certificate of Achievement)

CVML Center of Excellence, January 2026



Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input checked="" type="checkbox"/>	Endorsed: Some LMI Criteria Met <input type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
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Program LMI Endorsement Criteria

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Supply Gap:	<i>Comments:</i> There are projected to be 259 annual job openings throughout the SCV/SML subregion for <i>veterinary assistant and animal care</i> -related occupations, which are more than the 108 awards conferred by educational institutions in the SCV/SML subregion (CC + Non-CC).	
Living Wage: (Entry-Level, 25th):	<i>Comments:</i> All three <i>veterinary assistant and animal care</i> -related occupations included in this report have an entry-level hourly wage above the SCV/SML living wage of \$16.08.	
Education:	<i>Comments:</i> The typical entry-level education for <i>Veterinary Technologists and Technicians</i> is an associate degree, and the typical entry-level education for <i>Veterinary Assistants and Laboratory Animal Caretakers and Animal Trainers</i> is a high school diploma or equivalent. Additionally, between 34% and 58% have completed some college or an associate degree as their highest level of education.	

Emerging Occupations(s)	
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Comments: N/A	

The Central Valley/Mother Lode Center of Excellence for Labor Market Research (CVML COE) prepared this report to determine whether there is a supply gap in the South Central Valley/Southern Mother Lode regional labor market related to the following middle-skill occupations:

- Veterinary Technologists and Technicians (29-2056)
- Veterinary Assistants and Laboratory Animal Caretakers (31-9096)
- Animal Trainers (39-2011)

Based on the available data, there appears to be a supply gap for *veterinary assistant and animal care*-related occupations. In addition to the occupations in this report having entry-level wages above the subregion's living wage, between 34% and 58% of workers in this field have completed some college or an associate degree as their highest level of education. **Therefore, due to all regional labor market criteria being met, the COE endorses this proposed program.**

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for *veterinary assistant and animal care*-related occupations.

Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Veterinary Technologists and Technicians (29-2056)	NCV/NML: 52 SCV/SML: 62	NCV/NML: 94 SCV/SML: 108	NCV/NML: \$21.83 SCV/SML: \$21.22	Associate degree	58%
Veterinary Assistants and Laboratory Animal Caretakers (31-9096)	NCV/NML: 89 SCV/SML: 106		NCV/NML: \$17.78 SCV/SML: \$17.50	High school diploma or equivalent	46%
Animal Trainers (39-2011)	NCV/NML: 44 SCV/SML: 91		NCV/NML: \$15.11 SCV/SML: \$16.38	High school diploma or equivalent	34%
Total	443	202	-	-	-

Demand:

- The number of jobs related to the three *veterinary assistant and animal care*-related occupations in this report are projected to increase 4% through 2030. There will be 259 annual job openings in the SCV/SML subregion.
- All three *veterinary assistant and animal care*-related occupations have an entry-level hourly wage above the living wage of \$16.08 in the SCV/SML subregion.
- There were 240 online job postings for *veterinary assistant and animal care*-related occupations over the past 12 months.
- The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *Veterinary Assistants and Laboratory Animal Caretakers* and *Animal Trainers*, and lists an associate degree as the typical entry-level education for *Veterinary Technologists and Technicians*.
- National-level educational attainment data indicates that between 34% and 58% of workers in the field have completed some college or an associate degree as their highest level of education.

Supply:

- Between 2021 and 2024, there was an average of 0 awards conferred by community colleges in the SCV/SML subregion.
- Between 2020 and 2023, non-community college institutions in the SCV/SML subregion conferred an average of 108 awards in relevant programs.

Demand

Occupational Projections

Exhibit 2 shows the annual percent change in jobs for the three *veterinary assistant and animal care*-related occupations from 2020 through 2030. The SCV/SML subregion experienced the highest growth in 2022 at 11%, compared to the 5% growth across all CA occupations. The SCV/SML subregion experienced a -1% growth in 2024, compared to the 1% growth across all CA occupations. From 2026 to 2030, growth is projected to remain steady (between 0% and 1%) in the SCV/SML subregion, similar to all occupations in California.

Exhibit 2: Annual Percent Change in Jobs for Veterinary Assistant and Animal Care-Related Occupations, 2020-2030

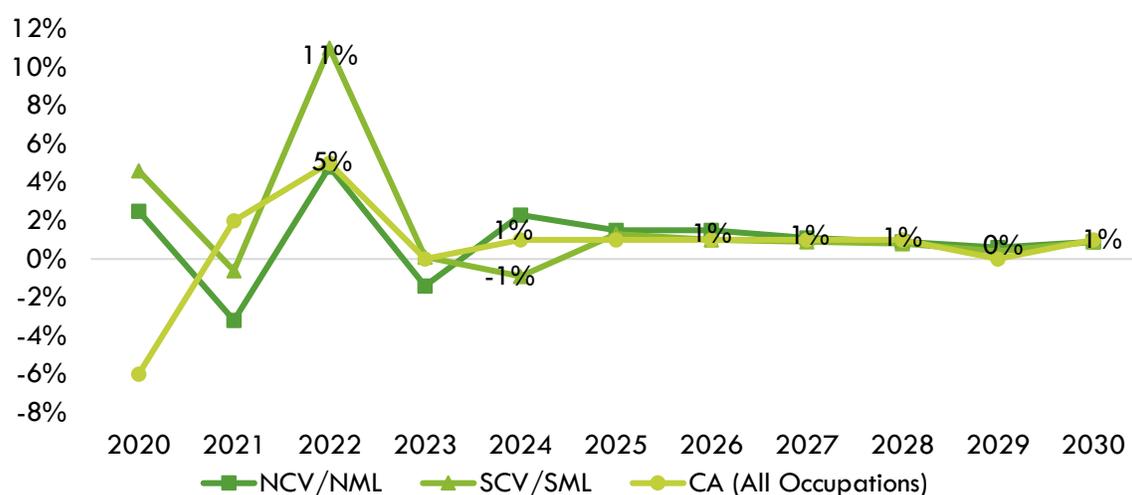


Exhibit 3 shows the five-year occupational demand projections for the three *veterinary assistant and animal care*-related occupations. In the SCV/SML subregion, the number of jobs related to these occupations are projected to increase by 4% through 2030. There are projected to be 259 jobs available annually in the SCV/SML subregion.

Exhibit 3: Occupational Demand in NCV/NML, SCV/SML, and CVML¹

Geography	2025 Jobs	2030 Jobs	2025-2030 Change	2025-2030 % Change	Annual Openings
NCV/NML	1,135	1,194	59	5%	185
SCV/SML	1,585	1,648	63	4%	259
CVML	2,720	2,842	122	4%	444

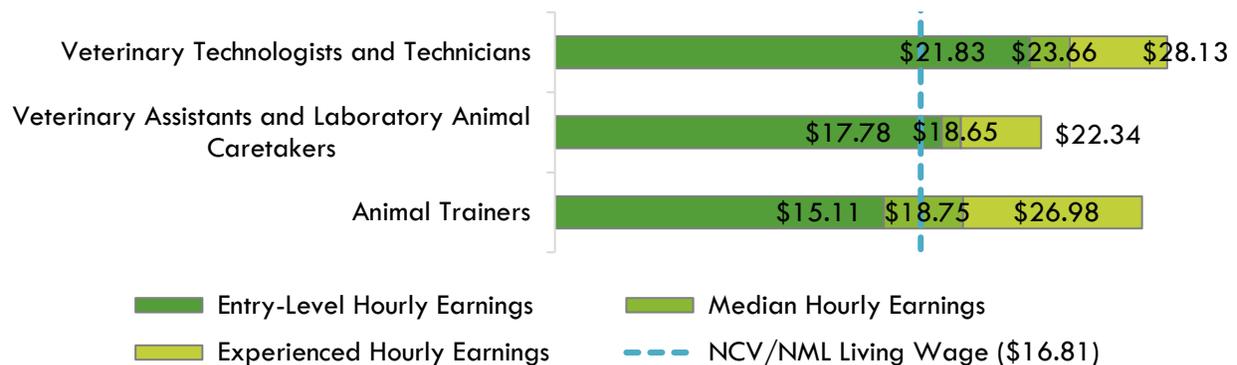
¹Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Wages:

The labor market endorsement in this report considers the entry-level hourly wages for the three *veterinary assistant and animal care*-related occupations as they relate to the subregions and region's living wage. NCV/NML, SCV/SML, and CVML wages are included below to provide a complete analysis of the region.

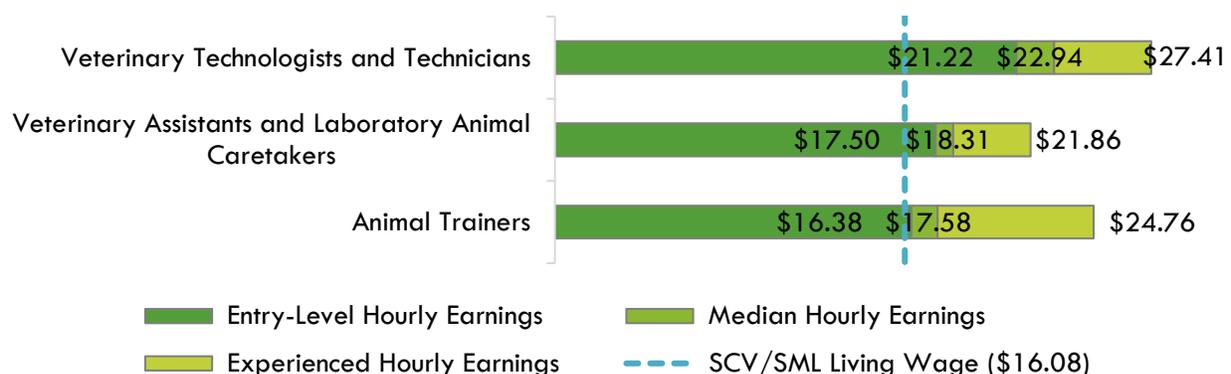
Two of the three *veterinary assistant and animal care*-related occupations have an entry-level hourly wage above the living wage for one adult in the NCV/NML subregion (\$16.81). The NCV/NML subregion average wage for these occupations is \$23.31, which is below the average statewide wage of \$24.74. Exhibit 4a shows the wage range for *veterinary assistant and animal care*-related occupations and how they compare to the NCV/NML subregion's living wage.

Exhibit 4a: Wages by Occupation in NCV/NML



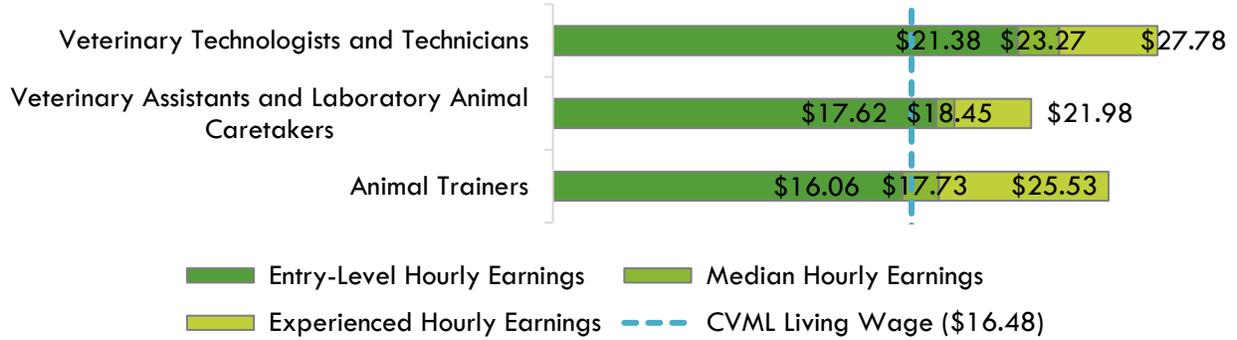
All three *veterinary assistant and animal care*-related occupations have an entry-level hourly wage above the living wage for one adult in the SCV/SML subregion (\$16.08). The SCV/SML subregion average wage for these occupations is \$22.54, which is below the average statewide wage of \$24.74. Exhibit 4b shows the wage range for *veterinary assistant and animal care*-related occupations and how they compare to the SCV/SML subregion's living wage.

Exhibit 4b: Wages by Occupation in SCV/SML



Two of the three *veterinary assistant and animal care*-related occupations have an entry-level hourly wage above the living wage for one adult in the CVML region (\$16.48). The CVML region average wage for these occupations is \$22.86, which is below the average statewide wage of \$24.74. Exhibit 5 shows the wage range for *veterinary assistant and animal care*-related occupations and how they compare to the CVML region's living wage.

Exhibit 5: Wages by Occupation in CVML



Job Postings:

Important Online Job Postings Data Note: Online job postings data is sourced from Lightcast, a labor market analytics firm that scrapes, collects, and organizes data from online job boards such as LinkedIn, Indeed, Glassdoor, Monster, GovernmentJobs.com, and thousands more. Lightcast uses natural language processing (NLP) to determine the related company, industry, occupation, and other information for each job posting. However, NLP has limitations that include understanding contextual words of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors.² For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast’s database.

Additionally, there are several limitations when analyzing job postings. A single job posting may not represent a single job opening, as employers may be creating a pool of candidates for future openings or hiring for multiple positions with a single posting. Additionally, not all jobs are posted online, and jobs may be filled through other methods such as internal promotion, word-of-mouth advertising, physical job boards, or a variety of other channels.

There were 240 online job postings related to *veterinary assistant and animal care*-related occupations listed in the past 12 months (Exhibit 6).

Exhibit 6: Number of Job Postings by Occupation (n=240)

Occupations	Job Postings	Percentage of Job Postings
Veterinary Technologists and Technicians	101	42%
Veterinary Assistants and Laboratory Animal Caretakers	101	42%
Animal Trainers	38	16%

The top employers in the region for *veterinary assistant and animal care*-related occupations, by number of job postings, are shown in Exhibit 7.

Exhibit 7: Top Employers by Number of Job Postings (n=240)

Employer	Job Postings	Percentage of Job Postings
University of California-Davis	35	15%
PetCo	17	7%
PetSmart	14	6%
Denny's	9	4%
PetVet Care Centers	6	2%
Oakhurst Veterinary Hospital	6	2%
Shotvet	6	2%

²K. R. Chowdhary, *Fundamentals of Artificial Intelligence* (Basingstoke: Springer Nature, 2020), <https://link.springer.com/book/10.1007/978-81-322-3972-7>

Employer	Job Postings	Percentage of Job Postings
Hope Company	5	2%
College of the Sequoias	5	2%
Banfield Pet Hospital	5	2%

The top specialized, common, and software skills for *veterinary assistant and animal care*-related occupations are listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 8.

Exhibit 8: Top Skills by Number of Job Postings (n=240)

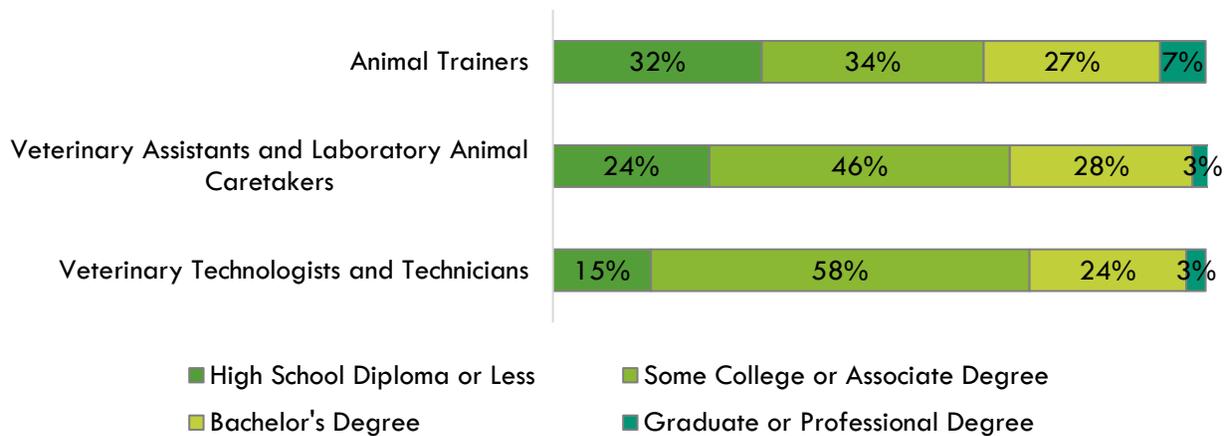
Top Specialized Skills	Top Soft Skills	Top Computer Skills
Surgery (59)	Communication (124)	Atlassian Bamboo (7)
Animal Care (42)	Customer Service (68)	Microsoft Excel (4)
Medication Administration (40)	Detail Oriented (39)	R (Programming Language) (4)
Anesthesia (35)	Compassion (36)	Medical Software (2)
Veterinary Medicine (33)	Complex Problem Solving (35)	Microsoft Outlook (2)
Medical Records (33)	Research (34)	Software Systems (2)
Collective Bargaining (32)	Investigation (34)	Database Systems (1)
Judicial Opinion (32)	Negotiation (32)	Microsoft Windows (1)
Numerical Analysis (32)	Multitasking (31)	Business Software (1)
Screen Reader (30)	Organizational Skills (29)	Microsoft Office (1)

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists an associate degree as the typical entry-level education for *Veterinary Assistants and Laboratory Animal Caretakers* and *Animal Trainers* and lists an associate degree as the typical entry-level education for *Veterinary Technologists and Technicians*. National-level educational attainment data indicates that between 34% and 58% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 9 shows the educational attainment for the three *veterinary assistant and animal care-related* occupations.

Of the 240 online job postings, 15% (equivalent to 36 postings) of cumulative job postings for the three *veterinary assistant and animal care-related* occupations listed a minimum education requirement in the SCV/SML subregion. Of the 36 postings, 94% (34) requested a high school or GED.

Exhibit 9: National-level Educational Attainment for Veterinary Assistant and Animal Care-Related Occupations



Educational Supply

Community College Supply:

Exhibit 10 shows the annual and three-year average number of awards conferred by community colleges in the programs that have historically trained for the occupations included in this report.

**Exhibit 10: NCV/NML Community College Awards (Certificates and Degrees)
2021-22 through 2023-24**

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
0102.10	Veterinary Technician (Licensed)	Modesto	63	50	59	57
Subtotal/Average			63	50	59	57
NCV/NML Supply Grand Total			63	50	59	57

Community college supply also shows the annual average community college awards by type from 2021-22 through 2023-24. No awards were conferred by SCV/SML community colleges.

Community College Student Outcomes:

Exhibit 11 shows the Strong Workforce Program (SWP) metrics for Animal Science programs in Kern Community College District (KCCD), the SCV/SML subregion, the CVML region, and California.

Of the 4,045 animal science program students statewide in the 2023-2024 academic year, 48% (1,956) attended a CVML institution. KCCD students that exited animal science programs in the 2022-2023 academic year had greater median annual earnings (\$25,896) compared to all animal science students in SCV/SML subregion (\$24,196). Notably, 36% of CVML region animal science students attained a living wage, which is greater than the percentage of students who attained a living wage statewide (29%).

Exhibit 11: Animal Science (0102.00) Strong Workforce Program Metrics

SWP Metric	KCCD	SCV/SML Subregion	CVML Region	California
SWP Students	302	870	1,956	4,045
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	38%	39%	39%	39%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	93%	93%	89%	83%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	8%	9%	6%	6%
SWP Students Who Transferred to a Four-Year Postsecondary Institution	4%	6%	6%	5%
SWP Students with a Job Closely Related to Their Field of Study	N/A	60%	58%	62%
Median Annual Earnings for SWP Exiting Students	\$25,896 (\$12.45)	\$24,196 (\$11.63)	\$26,404 (\$12.69)	\$28,780 (\$13.84)
Median Change in Earnings for SWP Exiting Students	22%	47%	57%	45%
SWP Exiting Students Who Attained the Living Wage	45%	35%	36%	29%



Non-Community College Supply:

For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for the occupations studied in this report. Exhibits 13a and 13b show the annual and three-year average number of awards conferred by non-community college institutions in programs that have historically trained for the occupations of interest.

Between 2020 and 2023, non-community college institutions in the SCV/SML subregion conferred an average of 108 awards annually in related programs.

Exhibit 13a: NCV/NML Subregional Non-Community College Awards, 2020-2023

CIP Code	Program	Institution	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Award Average
01.8301	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	Carrington College-Stockton	20	15	34	23
		Stellar Career College	7	24	10	14
Subtotal/Average			27	39	44	37
NCV/NML Supply Grand Total			27	39	44	37

Exhibit 13b: SCV/SML Subregional Non-Community College Awards, 2020-2023

CIP Code	Program	Institution	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Award Average
01.8301	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	San Joaquin Valley College-Bakersfield	55	38	64	52
		San Joaquin Valley College-Fresno	88	32	46	55
Subtotal/Average			143	70	110	108
SCV/SML Supply Grand Total			143	70	110	108

Appendix A: Methodology

The CVML COE prepared this report by analyzing data from occupations and education programs.

Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies. Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

Using a TOP-SOC crosswalk, the CVML COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

The CVML COE determined labor market supply for an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a "supply table" with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP code data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data), also known as IPEDS. TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the CVML COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees but is not a perfect measure of the quantity of open positions.

All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see https://lightcast.io/</p>
Living Wage	<p>The living wage is derived from the Insight Center's California Family Needs Calculator, which measures the income necessary for an individual of family to afford basic expenses. The data assesses the cost of housing, food, childcare, health care, transportation, and taxes. For more information, see: https://selfsufficiencystandard.org/California/</p> <p>Wage figures are used by the CCCCCO to calculate the percentage of students that attained the regional living wage.</p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. BLS uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. For more information, see https://www.bls.gov/emp/documentation/education/tech.htm</p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see https://www.onetonline.org/help/online/</p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu</p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</p>
Student Metrics and Demographics	<p>DataVista, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: https://datavista.cccco.edu/</p>
Population and Occupation Demographics	<p>The Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: https://www.census.gov/programs-surveys/acs</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: https://usa.ipums.org/usa/about.shtml</p>

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