

Labor Market Analysis for Program Recommendation: 1006.00/Technical Theater Theater Certificate Programs

CVML Center of Excellence, January 2025



FOR LABOR MARKET RESEARCH
CENTRAL VALLEY/MOTHER LODGE

Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met ☒	Endorsed: Some LMI Criteria Met ☐	Not LMI Endorsed ☐
Program LMI Endorsement Criteria			
	Yes ☒	No ☐	
Supply Gap:	Comments: There is projected to be 19 annual job openings throughout the NCV/NML subregion for <i>Technical Theatre-related occupations</i> , which is more than the three-year average of 2 awards conferred by NCV/NML educational institutions .		
	Yes ☒	No ☐	
Living Wage: (Entry-Level, 25 th)	Comments: Of the five <i>Technical Theatre-related occupations</i> , four have entry-level hourly wages above the NCV/NML living wage of \$16.81.		
	Yes ☒	No ☐	
Education:	Comments: Nearly half of all annual openings (47%) for the occupations studied in this report typically require a postsecondary nondegree award. Additionally, between 29% and 41% of workers in the field have completed some college or an associate degree as their highest level of education .		
Emerging Occupation(s)			
	Yes ☐	No ☒	
Comments: N/A			

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

- Set and Exhibit Designers (SOC 27-1027)
- Sound Engineering Technicians (SOC 27-4014)
- Lighting Technicians (SOC 27-4015)
- Costume Attendants (SOC 39-3092)
- Makeup Artists, Theatrical and Performance (SOC 39-5091)

Based on the available data, there appears to be a supply gap for *Technical Theatre-related occupations*. Four of the five occupations have entry-level hourly wages above the subregion's living wage, and nearly half of the annual openings (47%) for the occupations have a typical entry-level education of a postsecondary nondegree award. **Due to all of the 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 *Technical Theatre-related occupations*.

Exhibit 1: Labor Market Endorsement Summary¹

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th percentile)	Typical Entry-Level Education	Community College Educational Attainment
Set and Exhibit Designers (27-1027)	NCV/NML: 3 SCV/SML: 4	NCV/NML: 2 SCV/SML: 2	NCV/NML: \$11.84 SCV/SML: \$14.06	Bachelor's degree	29%
Sound Engineering Technicians (27-4014)	NCV/NML: 4 SCV/SML: 11		NCV/NML: \$19.23 SCV/SML: \$21.18	Postsecondary nondegree award	41%
Lighting Technicians (27-4015)	NCV/NML: 2 SCV/SML: 3		NCV/NML: \$21.86 SCV/SML: \$19.88	High school diploma or equivalent	41%
Costume Attendants (39-3092)	NCV/NML: 5 SCV/SML: 9		NCV/NML: \$20.79 SCV/SML: \$20.21	High school diploma or equivalent	36%
Makeup Artists, Theatrical and Performance (39-5091)	NCV/NML: 5 SCV/SML: 20		NCV/NML: \$22.84 SCV/SML: \$21.53	Postsecondary nondegree award	39%
Total	66	4	-	-	-

Demand:

- The number of jobs for *Technical Theater-related occupations* is projected to increase 10% through 2028. There will be 19 annual job openings (NCV/NML).
- The entry-level hourly wage for *Technical Theater-related occupations* is between \$11.84 and \$22.84 in the North Central Valley/Northern Mother Lode subregion.
- There were 77 online job postings for *Technical Theater-related occupations* in the past 12 months.
- The Bureau of Labor Statistics (BLS) lists a bachelor's degree as the typical entry-level education for *Set and Exhibit Designers*; a postsecondary nondegree award for *Sound Engineering Technicians* and *Makeup Artists, Theatrical and Performance*; and a high school diploma or equivalent for *Lighting Technicians* and *Costume Attendants*.
- Between 29% and 41% of workers in the field have completed some college or an associate degree as their highest level of education.

Supply:

- Between 2020 and 2023, there was an average of 2 awards conferred by one community college in the NCV/NML subregion.
- Between 2019 and 2022, non-community college institutions in the NCV/NML subregion did not confer any awards.

¹ Due to the change in the occupation name, the 31% for Buyers and Purchasing Agents in Exhibit 1, is associated with SOC 13-1020, per the educational attainment data provided by the Bureau of Labor Statistics.

Demand

Occupational Projections

Exhibit 2 shows the annual percent change in jobs for *Technical Theater-related occupations* from 2018 through 2028. Employment in these occupations experienced a 25% decrease in 2021 but then in 2022 there was a 12% increase (NCV/NML), compared to a 5% increase across all occupations in 2022 (CVML). Employment projections through 2028 for *Technical Theater-related occupations* are projected to remain steady across the two subregions and CVML region.

Exhibit 2: Annual Percent Change for Jobs in Technical Theatre-Related Occupations, 2018-2028

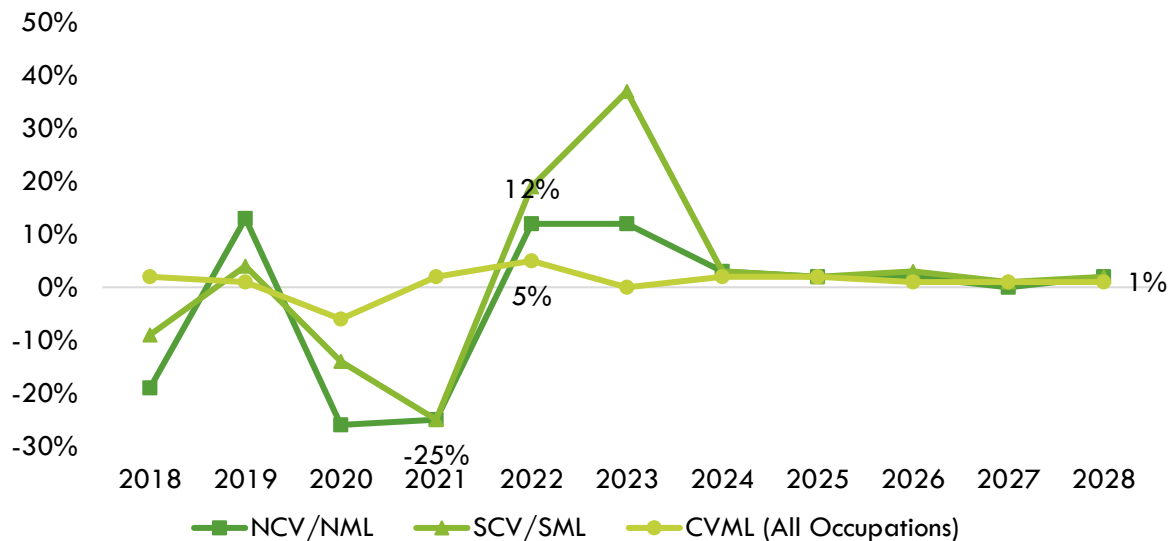


Exhibit 3 shows the five-year occupational demand projections for the five *Technical Theatre-related occupations*. In the NCV/NML subregion, the number of jobs related to these occupations is projected to increase by 10% through 2028. There are projected to be 19 jobs available annually in the NCV/NML subregion.

Exhibit 3: Occupational Demand in NCV/NML, SCV/SML and CVML²

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
NCV/NML	123	136	13	10%	19
SCV/SML	288	320	32	11%	47
CVML	411	456	45	11%	66

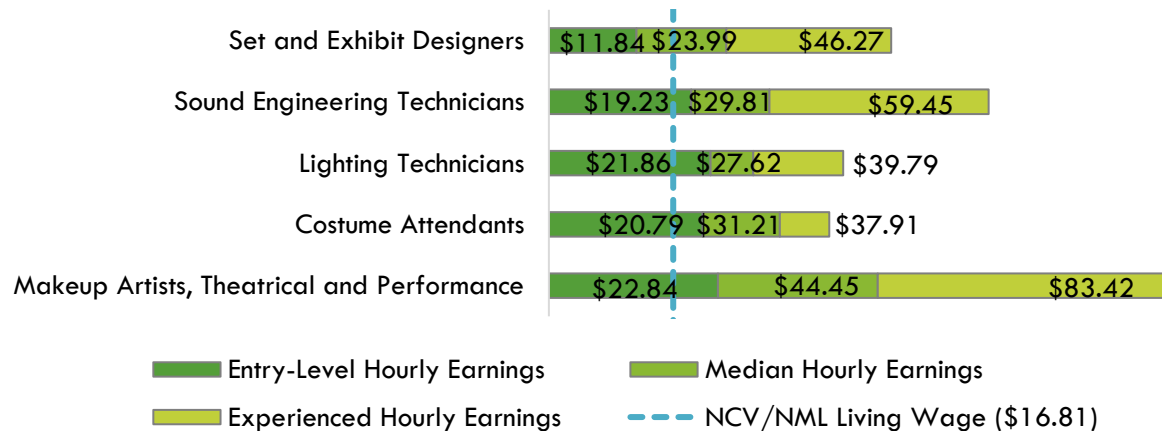
² Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Wages:

The labor market endorsement in this report considers the entry-level hourly wages for the five occupations of interest 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 subregions and region.

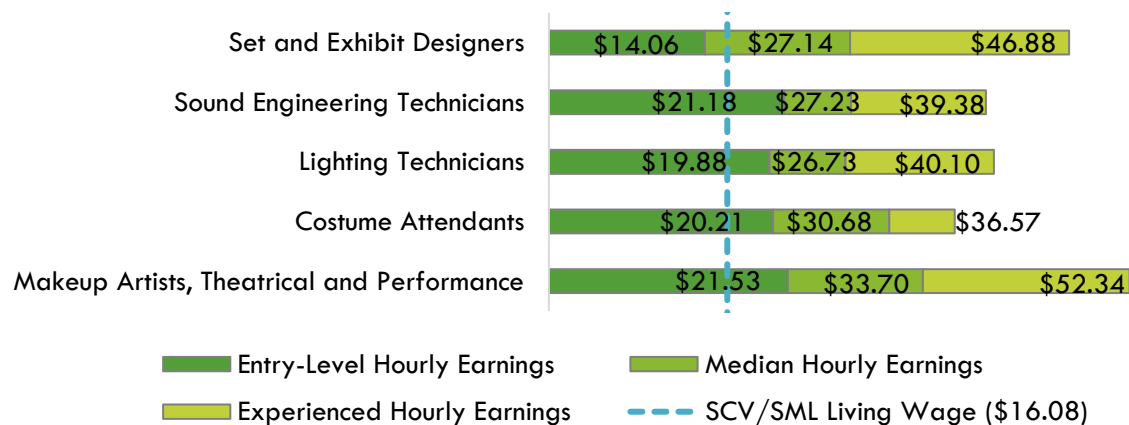
The typical entry-level hourly wage for *Sound Engineering Technicians* (\$19.23), *Lighting Technicians* (\$21.86), *Costume Attendants* (\$20.79), and *Makeup Artists, Theatrical and Performance* (\$22.84) are above the living wage for one adult in the NCV/NML subregion (\$16.81). The NCV/NML average wage for these occupations is \$47.54, which is above the average statewide wage of \$43.90. Exhibit 4a shows the wage range for the five occupations of interest and how they compare to the NCV/NML subregion's living wage.

Exhibit 4a: Wages by Occupation in NCV/NML



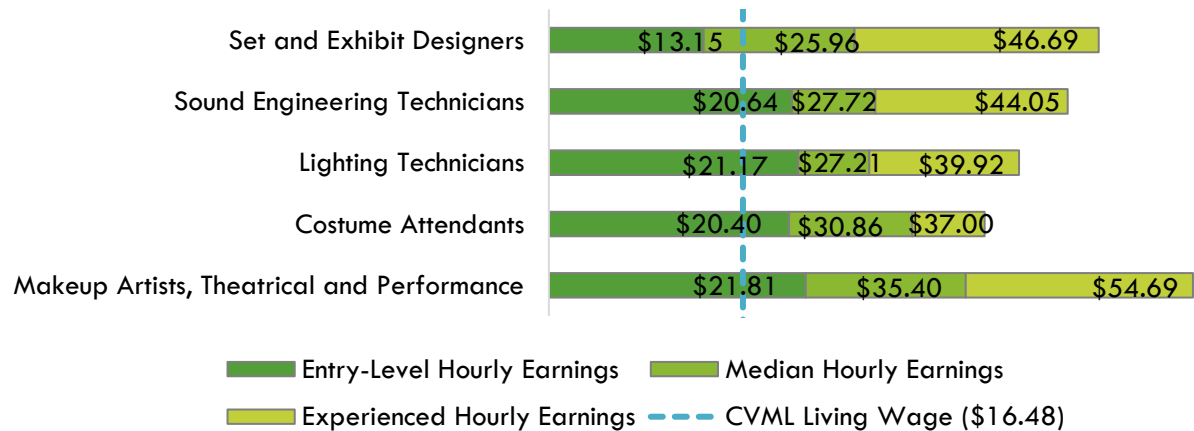
The typical entry-level hourly wage for *Sound Engineering Technicians* (\$21.18), *Lighting Technicians* (\$19.88), *Costume Attendants* (\$20.21), and *Makeup Artists, Theatrical and Performance* (\$21.53) are above the living wage for one adult in the SCV/SML subregion (\$16.08). The SCV/SML average wage for these occupations is \$41.71, which is below the average statewide wage of \$43.90. Exhibit 4b shows the wage range for the five occupations of interest and how they compare to the SCV/SML subregion's living wage.

Exhibit 4b: Wages by Occupation in SCV/SML



The typical entry-level hourly wage for *Sound Engineering Technicians* (\$20.64), *Lighting Technicians* (\$21.17), *Costume Attendants* (\$20.40), and *Makeup Artists, Theatrical and Performance* (\$21.81) are above the living wage for one adult in the CVML region (\$16.48). The CVML average wage for these occupations is \$43.46, which is below the average statewide wage of \$43.90. Exhibit 5 shows the wage range for the five occupations of interest and how they compare to the CVML living wage.

Exhibit 5: Wages by Occupation in CVML



Job Postings:

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 or phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors. 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 77 online job postings for the Technical Theatre-related occupations listed in the past 12 months. Exhibit 6 shows the number of job postings for these occupations.

Exhibit 6: Number of Job Postings by Occupation (n=77)

Occupation	Job Postings	Percentage of Job Postings
Makeup Artists, Theatrical and Performance	71	92%
Lighting Technicians	5	6%
Set and Exhibit Designers	1	1%
Sound Engineering Technicians	0	0%
Costume Attendants	0	0%

The top employers in the region for *Technical Theatre-related occupations* by number of job postings, are shown in Exhibit 7.

Exhibit 7: Top Employers by Number of Job Postings (n=77)

Employer	Job Postings	Percentage of Job Postings
Kohl's	34	44%
Target	23	30%
Sephora	4	5%
Headkount	2	3%
Charlotte Tilbury Limited	1	1%
The Beauty Lounge	1	1%
Envy Salon	1	1%
Ulta Beauty	1	1%

The top specialized, common, and software skills for *Technical Theatre-related occupations* 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=77)

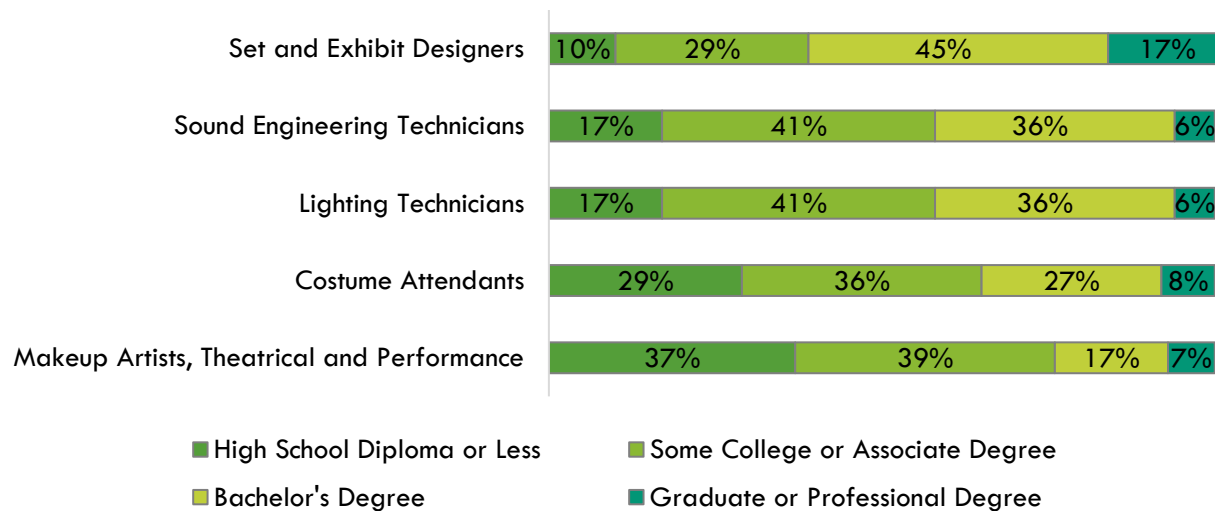
Top Specialized Skills	Top Common Skills	Top Software Skills
Inventory Management (57)	Sales (65)	Swivel (1)
Merchandising (56)	Influencing Skills (58)	-
Visual Merchandising (48)	Operations (35)	-
Product Knowledge (37)	Cleanliness (34)	-
Service Industries (35)	Verbal Communication Skills (34)	-
Product Demonstration (33)	Customer Service (33)	-
Upselling (33)	Consultative Approaches (31)	-
Product Assortment (23)	Lifting Ability (27)	-
Promotional Strategies (23)	Ethical Standards and Conduct (23)	-
General Mathematics (23)	Body Language (23)	-

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists a bachelor's degree as the typical entry-level education for *Set and Exhibit Designers*; a postsecondary nondegree award for *Sound Engineering Technicians* and *Makeup Artists, Theatrical and Performance*; and a high school diploma or equivalent for *Lighting Technicians* and *Costume Attendants*. National-level educational attainment data indicates that between 29% and 41% of workers have completed some college or an associate degree as their highest level of education, Exhibit 9.

Of the 77 online job postings, 4% (equivalent to 3 postings) of cumulative job postings for the occupations of interest listed a minimum education requirement in the NCV/NML subregion. Of the 3 postings, 67% (2) requested an associate degree.

Exhibit 9: National-level Educational Attainment for Technical Theatre-Related Occupations



Educational Supply

Community College Supply:

Exhibits 10a and 10b show the annual and three-year average number of awards conferred by community colleges in the programs that have historically trained for any of the five occupations included in this report.

Exhibit 10a: NCV/NML Community College Awards (Certificates and Degrees) 2020-21 through 2022-23

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
1006.00	Technical Theater	San Joaquin Delta	-	2	2	2
		Subtotal/Average	-	2	2	2
NCV/NML Supply Grand Total			-	2	2	2

Exhibit 10b: SCV/SML Community College Awards (Certificates and Degrees) 2020-21 through 2022-23

TOP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
1006.00	Technical Theater	Fresno City	2	1	4	2
		Subtotal/Average	2	1	4	2
SCV/SML Supply Grand Total			2	1	4	2

Exhibit 11 shows the annual average community college awards by type from 2020-21 through 2022-23. Of the 4 awards conferred in the CVML region, all awards were for an associate degree (4).

Exhibit 11: Annual Average Community College Awards by Type, 2020-21 through 2022-23



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 any of the five occupations studied in this report. Between 2019 and 2022, there were no non-community colleges in the region that offered a program crosswalked to Technical Theater.

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	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/
Living Wage	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/ Wage figures are used by the CCCCCO to calculate the percentage of students that attained the regional living wage.
Typical Education and Training Requirements, and Educational Attainment	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
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	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/
Educational Supply	The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu 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
Student Metrics and Demographics	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/

Data Type	Source
Population and Occupation Demographics	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 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

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