Labor Market Analysis for Program Review:

3D Animator in Greater Sacramento

Prepared by the North Far North Center of Excellence
September 2025

POWERED BY

California Community Colleges

CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH
NORTH FAR NORTH

Summary

The North Far North Center of Excellence for Labor Market Research (NFN COE) prepared this report to provide an analysis of occupational demand and educational supply for the studied occupations employed across the 22-county North Far North region. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers, with a primary focus on training that leads to living wage jobs in middle-skilled occupations.[1]

Key Findings

- **Special Effects Artists and Animators positions are growing at a faster rate in the Greater Sacramento region compared to California as a whole.** This occupation is expected to grow 9% by 2029 in the Greater Sacramento region compared to only 3% in California as a whole.
- **Entry-level wages for Special Effects Artists and Animators are low, but wages have a wide range.** The 25th percentile for earnings is only $10.31 per hour, which is below the living wage threshold. However, the median is $25.36, and the 75th percentile is $51.64. Amongst the limited online job postings, the median advertised salary was much higher at $47.14 per hour.
- **The majority of those in Special Effects Artists and Animator positions attain at least a bachelor's degree as their highest level of educational attainment.** 56% of those in the occupation had educational attainment of at least a bachelor's degree. This is consistent with job postings, where 43% of postings required at least a bachelor's degree.
- **There is a very slight supply gap for Special Effects Artists and Animators.** There are 22 annual openings, and 11 annual awards conferred (all at the community college level).

Recommendation

Based on the findings, the North Far North COE recommends that community colleges not proceed with creating new programs related to 3D Animation and Technical Direction. However, the COE will defer to the community colleges for program modifications. Key considerations include:

- Entry-level wages for Special Effects Artists and Animators are very low. This is primarily due to the high proportion of self-employment within the occupations.
- The majority of Special Effects Artists and Animators hold at least a bachelor's degree.
- The supply gap for Special Effects Artists and Animators roles is very small.

[1] Pursuant to California Education Code §78015, labor market information (LMI) is required for all new career education certificate and degree program proposals, and the North Far North Regional Consortium (NFNRC) requires LMI to come from the NFN COE. This report should serve to satisfy those requirements.

Introduction

The North Far North Center of Excellence (COE) was asked to provide labor market information for a newly proposed career education program at a regional community college. (See Appendix A for methodology and data sources.)

This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- Special Effects Artists and Animators (27-1014)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are appropriate for inclusion in this report:

- Animation (0614.40)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Animation, Interactive Technology, Video Graphics, and Special Effects. (10.0304)

Occupational Demand

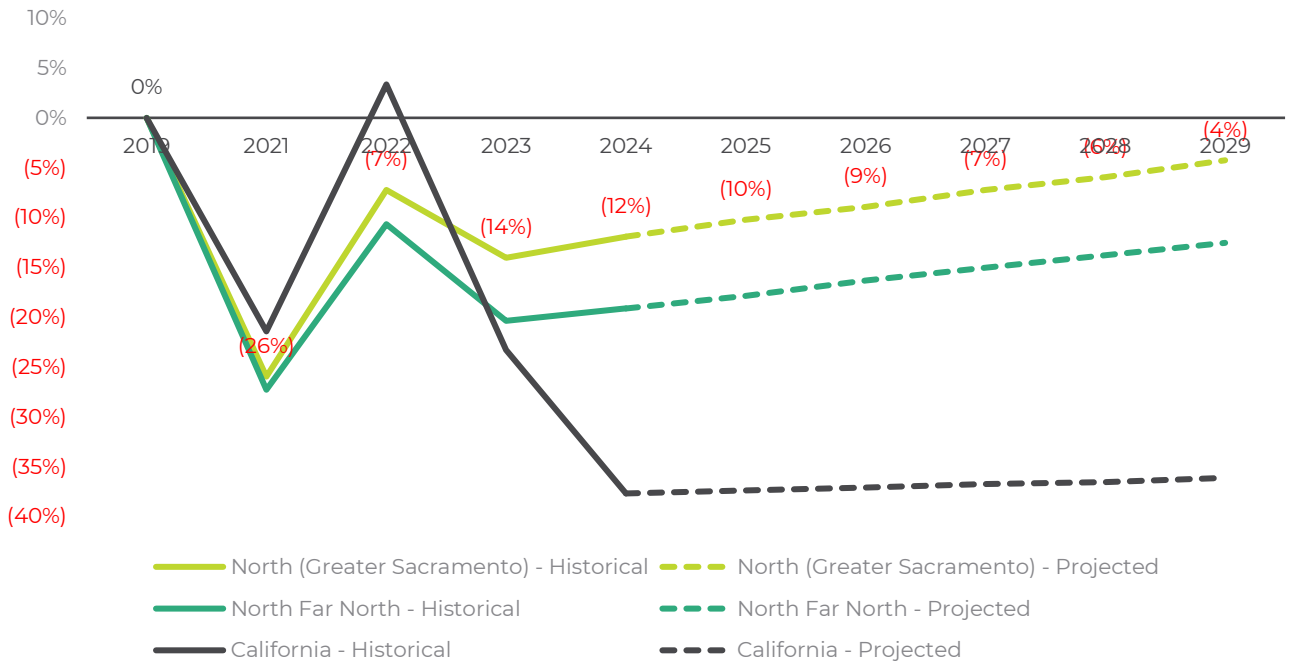
Exhibit 1 summarizes the five-year projected job growth for the targeted occupational groups in the Greater Sacramento subregion, the 22-county North Far North region, and California.[2]

Exhibit 1. Current employment and projected occupational demand, 2024-2029

Occupational Group	2024 Jobs	2024-2029 Change	2024-2029 % Change	2024-2029 Annual Openings
Special Effects Artists and Animators	207	18	9%	22
Greater Sacramento	**207**	**18**	**9%**	**22**
Special Effects Artists and Animators	258	21	8%	27
North Far North	**258**	**21**	**8%**	**27**
Special Effects Artists and Animators	10,774	270	3%	1,011
California	**10,774**	**270**	**3%**	**1,011**

Exhibit 2 compares historical and projected annual change in employment for the period 2019 to 2029, with the base number of jobs in 2019 for the selected subregion and in the 22-county North Far North region and California.

Exhibit 2. Changes in employment, 2019-2029



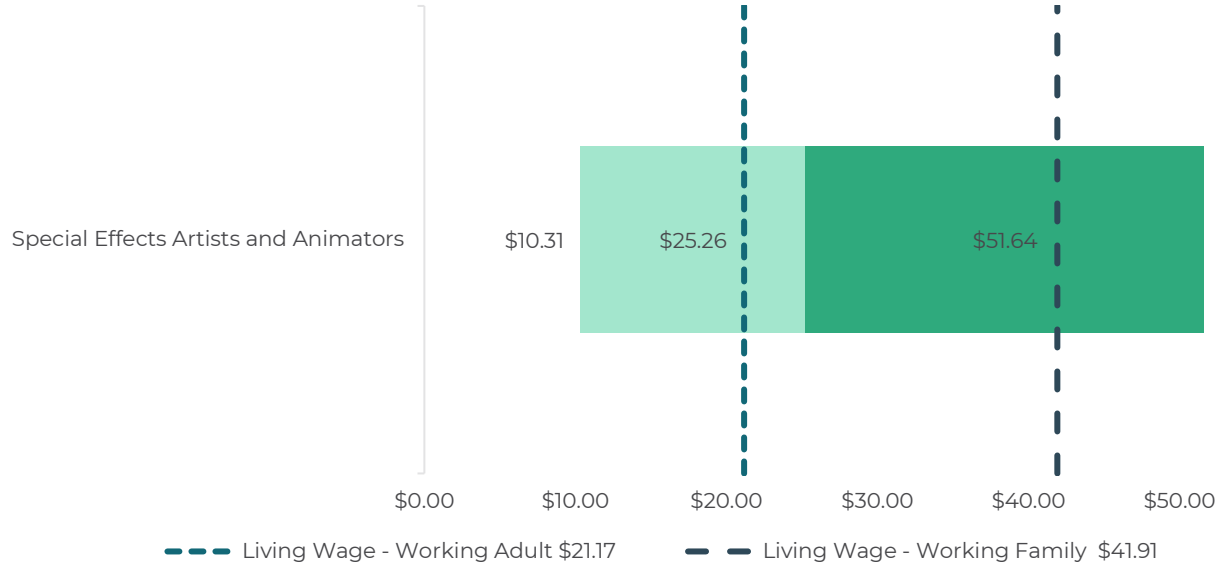
[2] The 22-county North Far North is a dual region. It is represented by the North (Greater Sacramento) subregion that covers seven counties, including El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, and Yuba, and the 15-county Far North subregion which includes Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity.

Earnings

Exhibit 3 compares the percentile hourly earnings for the selected occupations to the living wage for a single working adult and a working family residing in the county of the community college district that requested this report.[3,4] Earnings data include wages from employed and self-employed workers. Also, it's important to note that living wage thresholds vary by county, and in the Greater Sacramento subregion, range from $17 to $24 per hour for a single working adult.

Exhibit 3. Hourly earnings compared to the community college district's living wage

Requesting College	Living Wage – Working Adult	Living Wage – Working Family
American River College	$21.17	$41.91



[3] A "living wage" is defined as the level of income one working adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. Please note that the 25th-percentile and 75th-percentile hourly wages are used as proxies for entry-level and experienced-level wages.

[4] A "working family" is defined as one working adult and one infant (between the ages of 0 and 2 years).

Job Postings

Analysis of online job postings can offer additional insights into recent labor market changes not reflected in historical trends. However, it is important to note that job postings do not equate to actual labor market demand, which is based on projected annual job openings.

There are several limitations to interpreting online job postings. Employers may repost the same position multiple times to attract more applicants, or job postings may remain active even if the position is no longer being filled. Additionally, a single job posting can be used to hire for multiple openings, and not all job opportunities are advertised online. Despite these limitations, job posting analyses can be valuable for guiding community college curriculum development and identifying potential employers for targeted experiential learning opportunities.

The North Far North COE identified 14 online job postings for the selected occupations across the Greater Sacramento subregion. Job posts were evaluated to ensure they included only postings with animation or special effects. Job posting data comes from and represents unique advertisements posted online during the last 12 months, from September 2024 to August 2025.

Exhibit 4. Job postings by occupation

Occupation	Number of Job Postings	Share of Postings	Median Advertised Salary
Special Effects Artists and Animators	14	100%	$47.14
Total	**14**	**100%**	**$47.14**

Top employers

Exhibit 5 shows all the employers with job postings for the selected occupations across the studied subregion.

Exhibit 5. Employers with the most job postings

Employer	Number of Job Postings
Meta	4
Stride K12	3
Ford	2
Calbright College	2
Educational Testing Service	1
Disney	1
Vituity	1

Top titles

Exhibit 6 shows the job titles with the most job postings for the selected occupations across the studied subregion.

Exhibit 6. Job titles with the most job postings

Job title	Number of Job Postings
Multimedia Designers	3
Creative Design Interns	2
Motion Designers	2
VFX Artists	2

Skills and qualifications

Exhibit 7 shows the most requested skills in job postings by occupation in the studied subregion.[5]

Exhibit 7. Most requested in-demand skills in job postings

Specialized Skills	Common or Employability Skills	Software and Technology Skills
• Animations • Graphic Design • Visual Design • Workflow Management • Motion Graphics • Visual Storytelling • Marketing • Project Management • Multimedia • Product Design	• Communication • Problem Solving • Innovation • Leadership • Time Management • Research • Presentations • Writing • Collaboration • Detail-Oriented	• Adobe Photoshop • Autodesk Maya • Adobe After Effects • Adobe Illustrator • JavaScript • Adobe Creative Suite • Canva • Houdini (3D Animation Software) • Adobe Premiere Pro • Unreal Engine

Exhibit 8 shows the employer-preferred minimum level of education in job postings related to the selected occupations in the subregion.

[5] Specialized skills are those primarily required to perform specific tasks in an occupation. Common skills are typically related to employability; these are skills that are prevalent across many occupations and usually include a mix of interpersonal attributes and soft skills. Software skills are specific to any software tool or programming component used to accomplish tasks in a job.

Exhibit 8. Employer-preferred education levels for the studied occupations

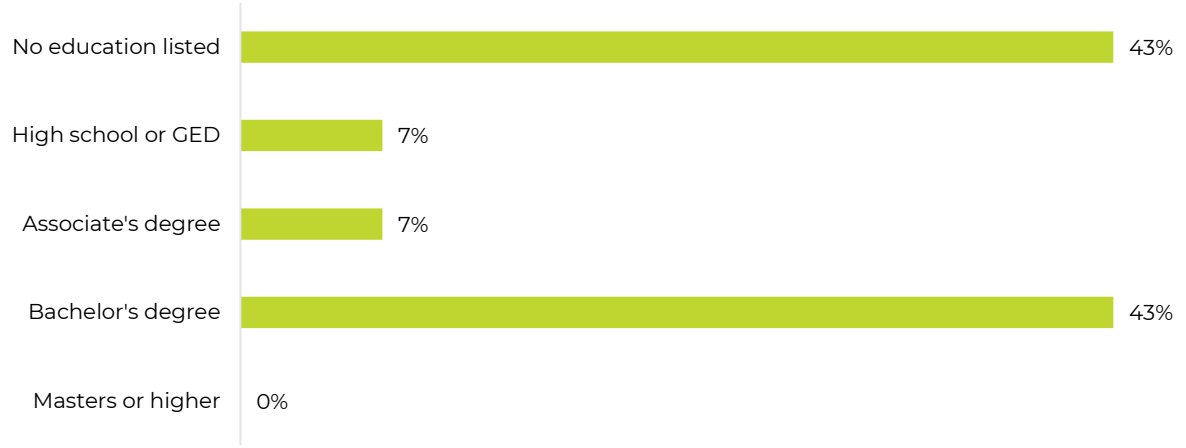
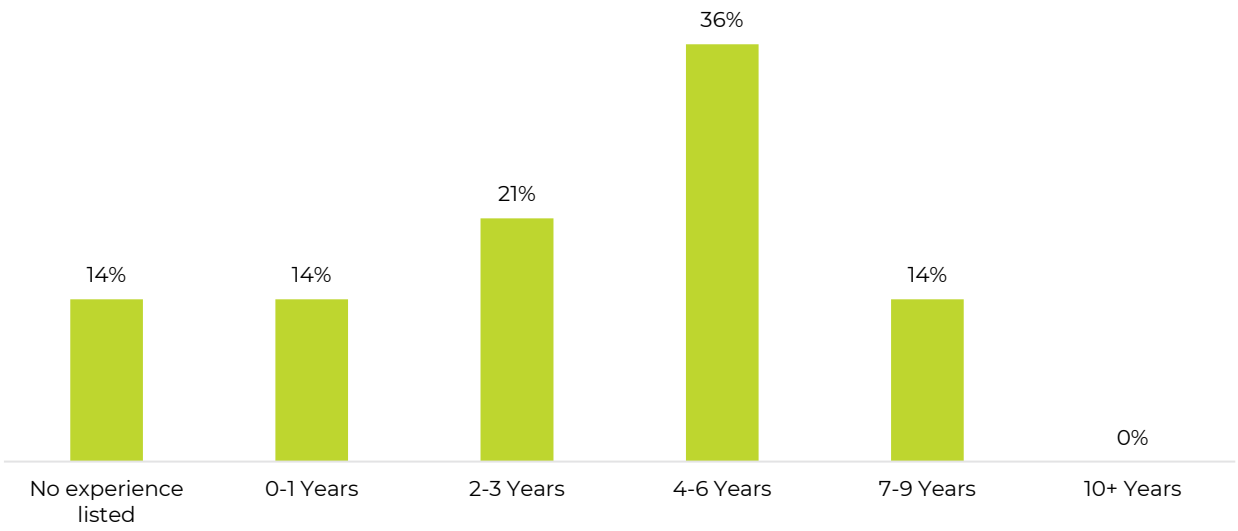


Exhibit 9 shows the employer-preferred minimum level of experience in job postings related to the selected occupations in the subregion.

Exhibit 9. Employer-preferred experience levels for the studied occupations



Education and Training Requirements

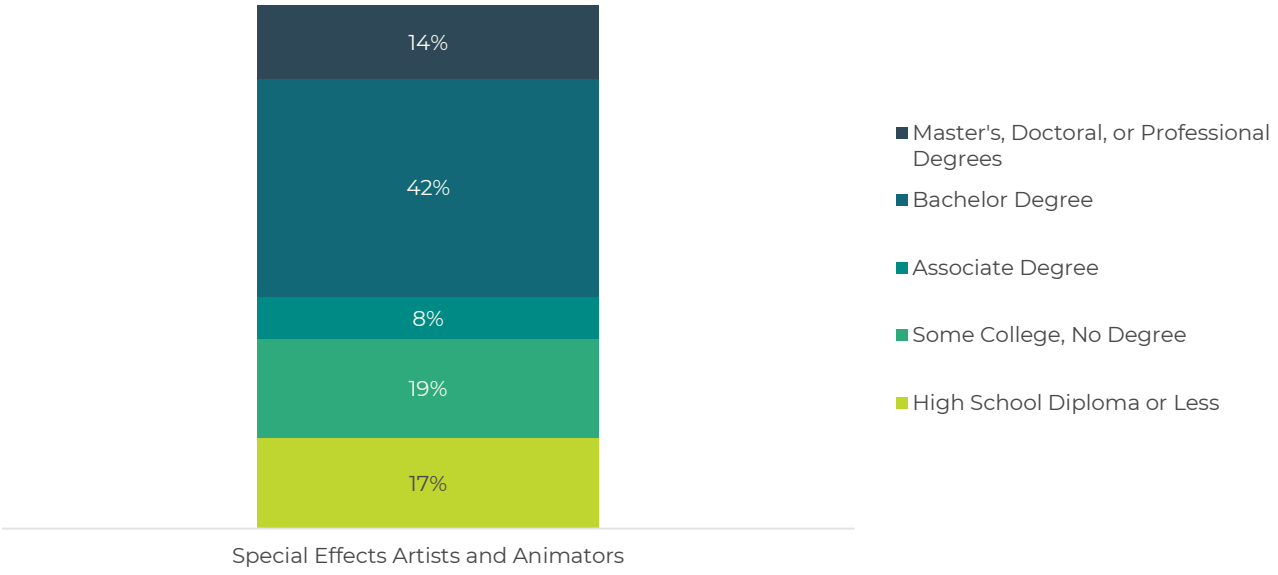
The U.S. Bureau of Labor Statistics (BLS) assigns each occupation a typical entry-level education, related work experience, and on-the-job training category in its projection data. Exhibit 10 summarizes these requirements by occupation.

Exhibit 10. Typical entry-level job requirements for the studied occupations

Occupation	Entry-Level Education	Work Experience	On-The-Job Training
Special Effects Artists and Animators	Bachelor's degree	None	None

The U.S. Census Bureau tracks the highest education level attained by workers in all occupations. Exhibit 11 presents this data for the current U.S. workforce in the studied occupations.

Exhibit 11. Educational attainment for workers 25 years and older by occupation, 2021-22



Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.

Community college supply

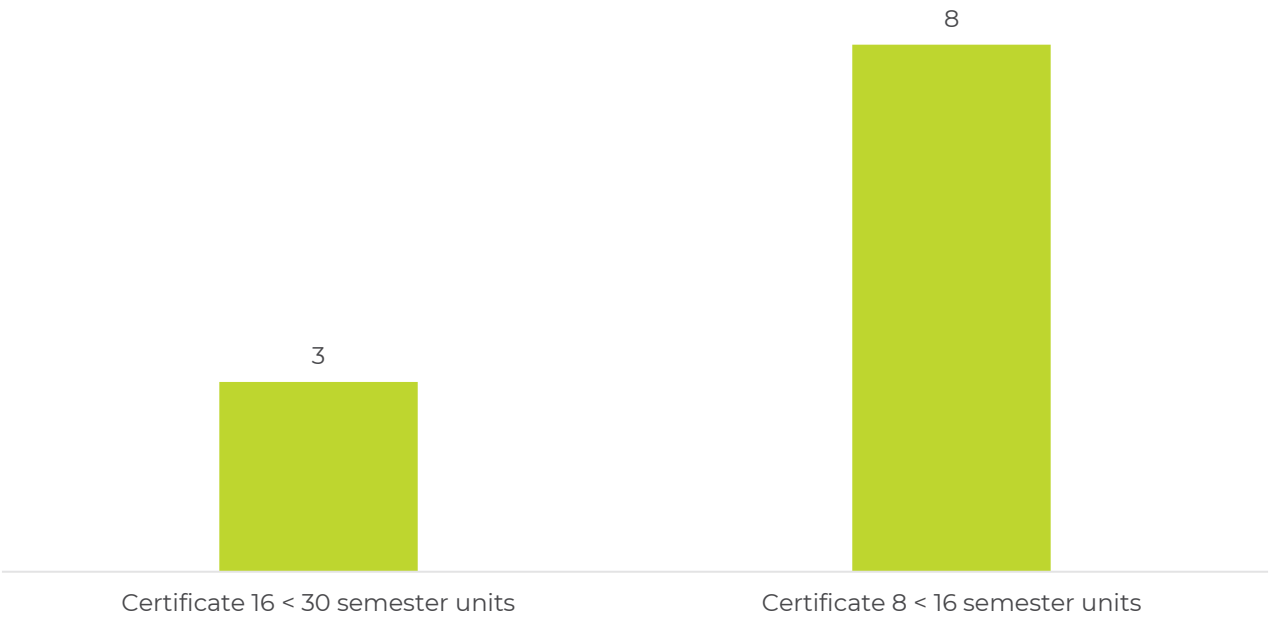
Exhibits 12 and 13 summarize the three-year average of awards (certificates and degrees) conferred by the subregion's community college programs relevant to the occupations studied. There are no other post-secondary institutions in the Greater Sacramento subregion conferring awards in the CIP code Animation, Interactive Technology, Video Graphics, and Special Effects (10.0304).

Exhibit 12. Average annual community college awards by TOP program

TOP Program and Code	College	2022-23 Annual Awards	2023-24 Annual Awards	2024-25 Annual Awards	Three-Year Average Awards
Animation (0614.40)	American River	0	1	4	2
	Sacramento City	13	12	4	10
Totals		**13**	**13**	**8**	**11**

Note: Values in the table are rounded to the nearest whole number. However, subtotals and totals are calculated using unrounded values.

Exhibit 13. Average annual community college awards by award type and program area



Conclusion and Recommendations

Data insights

Demand— Special Effects Artists and Animators positions are growing at a faster rate in the Greater Sacramento region compared to California as a whole. This occupation is expected to grow 9% by 2029 in the Greater Sacramento region compared to only 3% in California as a whole.

Living Wage— Entry-level wages for Special Effects Artists and Animators are low, but wages have a wide range. The 25th percentile for earnings is only $10.31 per hour, which is below the living wage threshold. Low entry-level wages are largely the result of the occupation's high share of self-employed workers, who make up nearly three-quarters of the jobs.[6] However, the median is $25.36, and the 75th percentile is $51.64. Amongst the limited online job postings, the median advertised salary was much higher at $47.14 per hour.

Education— The majority of those in Special Effects Artists and Animator positions attain at least a bachelor's degree as their highest level of educational attainment. 56% of those in the occupation had educational attainment of at least a bachelor's degree. This is consistent with job postings, where 43% of postings required at least a bachelor's degree.

Supply Gap— There are 22 annual openings, and 11 annual awards conferred (all at the community college level), leading to a slight supply gap.

Recommendation

Based on the current analysis, the North Far North COE recommends that community colleges **not proceed** in creating new programs related to 3D Animation and Technical Direction. However, the COE will **defer to the community colleges** for program modifications**.**

New Program Recommendation		
Proceed	Use Caution	Do Not Proceed
☐	☐	☒

Support for Program Modification	
Yes	No
☒	☐

[6] Lightcast 2025.3; QCEW employees, non-QCEW employees, and self-employed workers.

Appendix A. Methodology and Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Occupations were identified by using the Center of Excellence TOP-to-CIP-to-SOC Crosswalk: http://coeccc.net/. This report's findings were primarily determined with labor market and educational supply data from the Bureau of Labor Statistics (BLS), the economic modeling firm and job postings aggregator Lightcast, and the California Community Colleges Chancellor's Office.

Data Sources

The following table summarizes the data sources used in this study.

Data Type	Source
Labor Market Information and Job Postings	Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast's 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 employee classes of worker) and the American Community Survey (self-employed and extended proprietors). 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 or family to afford basic expenses. The data assesses the cost of housing, food, childcare, health care, transportation, and taxes. The Chancellor's Office uses wage data to calculate the percentage of students who attained a regional living wage. For more information, visit https://selfsufficiencystandard.org/California/.
Typical Education Level, On-the-job Training, 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, visit 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, knowledge areas, work activities, and interests associated with occupations. For more information, visit https://www.onetonline.org/help/online/.
Labor Force, Employment and Unemployment Estimates	The California Employment Development Department's Labor Market Information Division is a source of labor market and workforce data. For more information, visit labormarketinfo.edd.ca.gov.
Educational Supply	The CCCCO Management Information Systems (MIS) Data Mart provides information about students, courses, student services, outcomes, and faculty and staff. For more information, visit https://datamart.cccco.edu. The Chancellor's Office Curriculum Inventory System (COCI) collects data on courses and programs offered by the California Community Colleges. For more information, visit https://coci2.ccctechcenter.org/. The National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) collects data from providers of postsecondary education, including the number of postsecondary awards earned (completions). For more information, visit https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions.
Student Metrics and Demographics	DataVista, a statewide data system supported by the 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, visit https://datavista.cccco.edu/.

Living Wage

Beginning in October 2024, to determine if an occupation meets the living wage threshold, the NFN COE compared the 25th percentile hourly wage of an occupation in the subregion to the living wage for a single adult (no dependents) living in the county where the requesting community college district was located.

This change aligned with the Chancellor's Office methodology for calculating the share of students earning a living wage after leaving the California Community College system, as reported in the Data Vista living wage metric (802S). For details, see the *DataVista Metric Definition Dictionary*.

The NFN COE updated this practice as needed to remain consistent with the Chancellor's Office. The table below summarizes hourly living wages by community college district and county.

		2024 Single Adult Living Wage	
Community College District	**County**	**Hourly**	**Annual**
Butte-Glenn	Butte	$16.77	$35,416
Feather River	Plumas	$15.11	$31,909
Lake Tahoe	El Dorado	$22.11	$46,703
Lassen	Lassen	$14.81	$31,274
Los Rios	Sacramento	$21.17	$44,709
Mendocino-Lake	Mendocino	$17.06	$36,039
Redwoods	Humboldt	$16.59	$35,046
Shasta-Tehama-Trinity Joint	Shasta	$16.99	$35,874
Sierra Joint	Placer	$23.92	$50,519
Siskiyou Joint	Siskiyou	$14.51	$30,639
Yuba	Sutter	$17.08	$36,074
California Minimum Wages			
All industries, except fast food and healthcare (Effective January 2025)		$16.00	$33,280
Fast food (Effective April 2024)		$20.00	$41,600
Healthcare (Effective October 2024)		$18.00-$23.00, depending on facility type	$37,440-$47,840

Sources: University of Washington Self Sufficiency Standard and State of California Department of Industrial Relations, "Minimum Wage," https://www.dir.ca.gov/dlse/minimum_wage.htm

For more information, contact:

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Funding Acknowledgement:

This publication was supported through Strong Workforce Program funding from the North Far North Regional Consortium and the California Community Colleges Chancellor's Office Economic and Workforce Development Grant.

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