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Labor Market Analysis

Commercial Arts



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 Porterville 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 *Commercial Arts Occupations*, which include:

- Art Directors (SOC 27-1011)
- Commercial and Industrial Designers (SOC 27-1021)
- Graphic Designers (SOC 27-1024)
- Camera and Photographic Equipment Repairers (SOC 49-9061)

Key Findings

- **Occupational Demand** — *Commercial Arts Occupations* have a labor market demand of 91 annual job openings in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. Between 2021 and 2026, graphic designers are projected to have the most demand with 65 annual job openings and a projected growth rate of 10 percent.
- **Wages** — Average entry-level earnings of \$20.91/hour for *Commercial Arts Occupations* are higher than the living wage in the SCV/SML subregion, which is \$11.91/hour for a single adult.¹ Art Directors earn the highest entry-level wage, \$39.80/hour.
- **Employers and Occupational Titles** — Employers in the SCV/SML subregion include Trillium International Group, Root Creative Marketing, and Warrior Fitness. The most common job titles in postings include Graphic Designers/Artists, Product Engineers, and Print Graphic Designers.
- **Skills and Certifications** — The top baseline skill is communications, the top specialized skill is graphic design, and the top software skill is Adobe Illustrator. The most in-demand certification is a DOT Certification.
- **Education** — A bachelor's degree is typically required for three out of the four *Commercial Arts Occupations*.
- **Supply and Demand Analysis** — Based on 91 annual openings (i.e., demand), and 78 postsecondary degrees awarded (i.e., supply), an analysis of supply and demand suggests there is an undersupply of 13 workers in the SCV/SML subregion. In the CVML region, 130 awards were conferred suggesting an undersupply of 32 workers – based on 162 annual openings in the CVML region.

Recommendation

Based on a comparison of demand and supply, there is an undersupply of trained workers in the SCV/SML subregion and the CVML region. The Center of Excellence recommends that Porterville College work with the regional directors, the college's advisory board, and local industry when discussing the expansion or modification of relevant programs.

¹ 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/>.

Introduction

The Central Valley/Mother Lode Center of Excellence developed this report to provide Porterville College with labor market information for Commercial Arts. The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) subregion, but regional demand and supply data has been included for broader applicability and use. Analysis of the program and occupational data related to Commercial Arts resulted in the identification of applicable occupations, known as *Commercial Arts 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.

Art Directors (SOC 27-1011)

- **Job Description:** Formulate design concepts and presentation approaches for visual productions and media, such as print, broadcasting, video, and film. Direct workers engaged in artwork or layout design.
- **Knowledge:** Sales and Marketing, English Language, Communications and Media, Computers and Electronics, Customer and Personal Service
- **Skills:** Active Listening, Speaking, Judgment and Decision Making, Time Management, Complex Problem Solving

Camera and Photographic Equipment Repairers (SOC 49-9061)

- **Job Description:** Repair and adjust cameras and photographic equipment, including commercial video and motion picture camera equipment.
- **Knowledge:** Mechanical, Computers and Electronics, Customer and Personal Service, English Language, Engineering and Technology
- **Skills:** Troubleshooting, Repairing, Critical Thinking, Equipment Maintenance, Quality Control Analysis

Commercial and Industrial Designers (SOC 27-1021)

- **Job Description:** Design and develop manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.
- **Knowledge:** Design, Engineering and Technology, Mechanical, Production and Processing, Computers and Electronics
- **Skills:** Active Listening, Reading Comprehension, Complex Problem Solving, Critical Thinking, Speaking

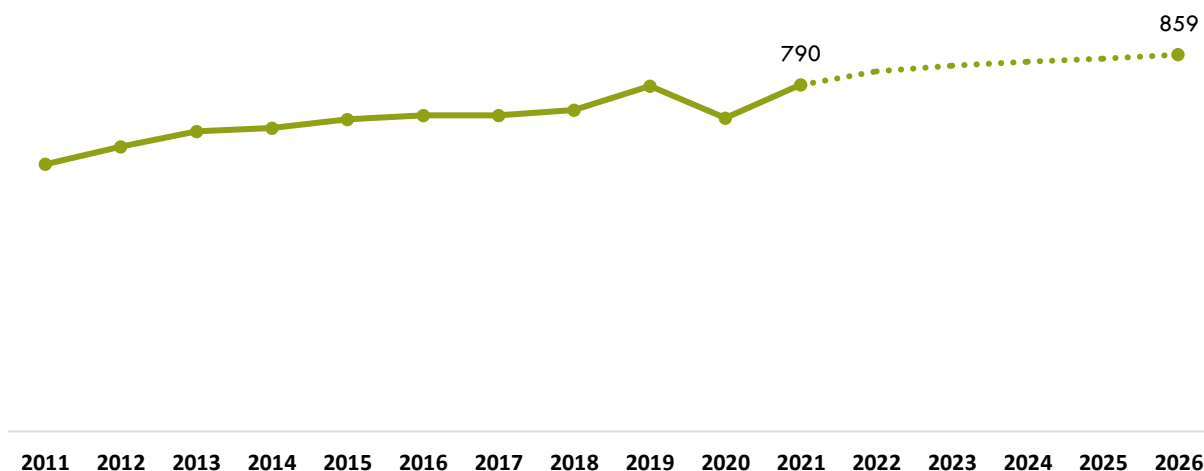
Graphic Designers (SOC 27-1024)

- **Job Description:** Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.
- **Knowledge:** Design, Communication and Media, English Language, Fine Arts, Computers and Electronics
- **Skills:** Active Listening, Critical Thinking, Speaking, Reading Comprehension, Active Learning

Occupational Demand

Exhibit 1a shows trends for *Commercial Arts Occupations* in the SCV/SML subregion. Between 2021 to 2026, the number of jobs for *Commercial Arts Occupations* is projected to increase by 69 jobs, or nine percent.

Exhibit 1a. Occupational projections for *Commercial Arts Occupations* in the SCV/SML subregion



Between 2021 to 2026, demand for *Commercial Arts Occupations* in the SCV/SML subregion is 91 annual openings (Exhibit 1b). Graphic designers are projected to have the most demand with 65 annual job openings and a projected growth rate of 10 percent.

Exhibit 1b. Occupational projections for *Commercial Arts Occupations* in the SCV/SML subregion

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Graphic Designers	564	618	54	10%	65
Art Directors	136	142	6	4%	16
Commercial and Industrial Designers	38	43	5	13%	4
Camera and Photographic Equipment Repairers	52	57	5	10%	6
TOTAL	790	859	69	9%	91

Wages

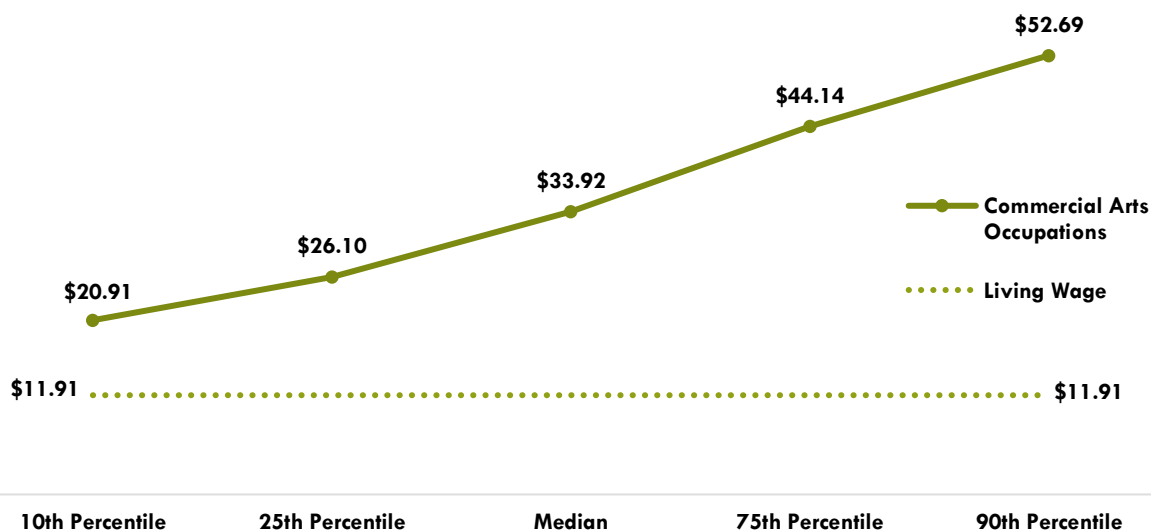
The average living wage for a single adult in the SCV/SML subregion is \$11.91/hour.² Exhibit 2a shows the hourly wages of *Commercial Arts Occupations*. Art directors earn the highest entry-level wage, \$39.80/hour in the subregion.³ Please note 10th and 25th percentiles are considered entry-level wages while 75th and 90th are considered experienced wages, either by gained by long-term employment, extra training, etc.

Exhibit 2a. Commercial Arts Occupations hourly wages in the SCV/SML subregion

Occupation	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings
Art Directors	\$39.80	\$52.40	\$60.96
Commercial and Industrial Designers	\$27.26	\$37.71	\$55.93
Graphic Designers	\$18.06	\$23.42	\$31.56
Camera and Photographic Equipment Repairers	\$19.27	\$22.16	\$28.13

Exhibit 2b shows the average hourly wages for *Commercial Arts Occupations*; the average entry-level wage is more than the average entry-level living wage for the SCV/SML subregion.

Exhibit 2b. Commercial Arts Occupations average hourly wages in the SCV/SML subregion



² 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/>.

³ Entry-level wages are derived from the 25th percentile.

Job Postings

There were 221 job postings for *Commercial Arts Occupations* in the SCV/SML subregion from April 2022 to March 2023.⁴

Top Employers

The top employers with the most job postings are listed in Exhibit 3. The top employers in online job postings were Trillium International Group, Root Creative Marketing, and Warrior Fitness.

Exhibit 3. Top employers of *Commercial Arts Occupations*

Employer
Trillium International Group
Root Creative Marketing
Warrior Fitness
Randstad
Vineyard Vines
Bakersfield Condors
Nexstar Media Group
Nutrien
Disney
Vineyards Management Group

Top Titles

Exhibit 4 shows the top job titles for *Commercial Arts Occupations* in the SCV/SML subregion. Common job titles in postings include Graphic Designers/Artists, Product Engineers, and Print Graphic Designers.

Exhibit 4. Top titles in job postings for *Commercial Arts Occupations*

Job Title
Graphic Designers/Artists
Product Engineers
Print Graphic Designers
Social Media Graphic Designers
Product Development Technicians
Visual Designers

⁴ 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 *Commercial Arts 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 Commercial Arts Occupations

Market Salary	Job Postings
\$90,000-\$156,000	18
\$36,000-\$41,999	13
\$30,000-\$35,999	11
\$42,000-\$47,999	10
\$54,000-\$59,999	7

Education

Of the 221 job postings, 115 listed a preferred or minimum educational requirement for the position being filled. Among those, 50% requested a bachelor’s degree, 21% requested an associate degree, and 19% requested high school or GED (Exhibit 6).

Exhibit 6. Education levels requested in job postings for Commercial Arts Occupations

Education Level	Job Postings	% of Job Postings
Bachelor's degree	58	50%
Associate degree	24	21%
High school or GED	22	19%
Master's degree or higher	11	10%

Baseline, Specialized, and Software Skills

Exhibit 7 depicts the top baseline, specialized, and software skills in job postings. The most important baseline skills are communications, sales, and detail oriented. The top specialized skills are graphic design and marketing. The top software is Adobe Illustrator.

Exhibit 7. In-demand Commercial Arts Occupations baseline, specialized, and software skills

Baseline Skills	Specialized Skills	Software Skills
Communications	Graphic Design	Adobe Illustrator
Sales	Marketing	Adobe Photoshop
Detail Oriented	Adobe Illustrator	Adobe Creative Suite
Self-Motivation	Adobe Photoshop	Adobe InDesign
Presentations	Adobe Creative Suite	Adobe After Effects

Certifications

Of the 221 job postings, 38 contained certification data. Among those, 10% indicated a need for a DOT Certification. The next top certification is an Engineer in Training (Exhibit 8).

Exhibit 8. Top Commercial Arts Occupations certifications requested in job postings

Certifications	% of Job Postings
DOT Certification	10%
Engineer in Training	10%
Epic EMR Certification	10%
Secret Clearance	5%

Education, Work Experience, & Training

A bachelor's degree is typically required for three out of the four *Commercial Arts Occupations* (Exhibit 9).

Exhibit 9. Education, work experience, training, and Current Population Survey Results for Commercial Arts Occupations⁵

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Graphic Designers	Bachelor's degree	None	None	27%
Art Directors	Bachelor's degree	5 years or more	None	28%
Commercial and Industrial Designers	Bachelor's degree	None	None	17%
Camera and Photographic Equipment Repairers	High school diploma or equivalent	None	Long-term on-the-job training	48%

⁵ "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, four awards were conferred in the SCV/SML subregion (Exhibits 10 and 11).

Exhibit 10. TOP and CIP codes for Commercial Arts Occupations

TOP Titles	CIP Titles
0614.00 – Digital Media	50.0402 – Commercial and Advertising Art
0614.60 – Computer Graphics and Digital Imagery	50.0409 – Graphic Design
1013.00 – Commercial Art	
1030.00 – Graphic Art and Design	

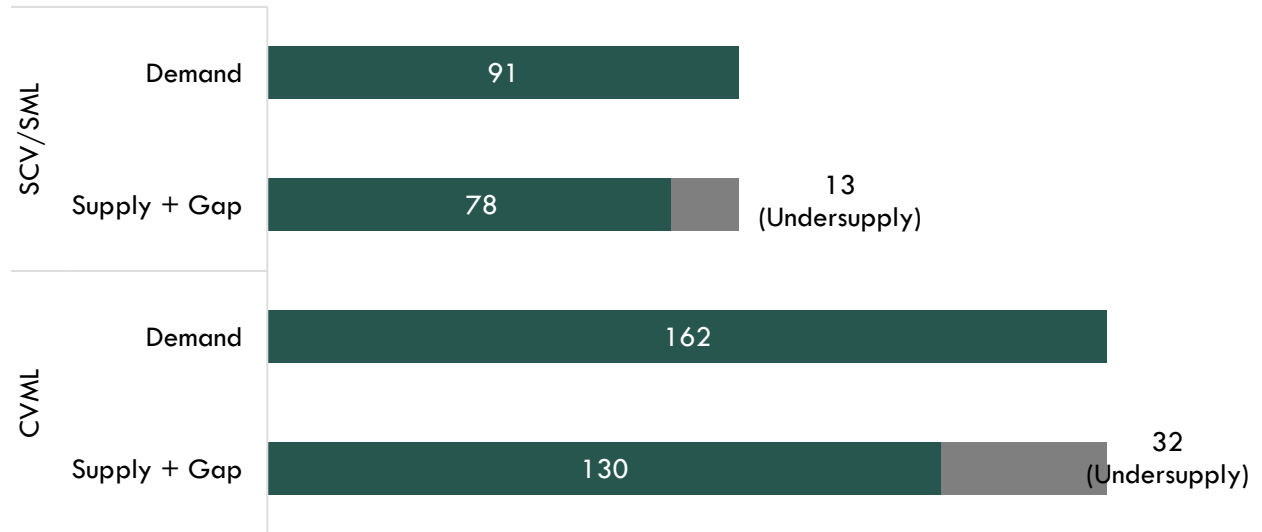
Exhibit 11. Postsecondary supply for Commercial Arts Occupations

TOP/CIP Code- Title	College	3-Year Average
0614.00 – Digital Media	Cerro Coso	1*
	Columbia	3
	Merced	0
0614.60 – Computer Graphics and Digital Imagery	Modesto	26
	Porterville	4*
1013.00 - Commercial Art	Sequoias	0*
	Bakersfield	10*
1030.00 – Graphic Art and Design	Fresno City	12*
	San Joaquin Delta	16
	Sequoias	13*
50.0402 – Commercial and Advertising Art	University of the Pacific	7
	CSU, Fresno	34*
50.0409 – Graphic Design	Fresno Pacific University	4*
	SCV/SML TOTAL	78
CVML TOTAL	130	

*SCV/SML awards

When considering the six programs that have historically trained for the occupations of interest, there seems to be an undersupply of 13 Commercial Arts workers in the SCV/SML subregion and an undersupply of 32 workers in the region (Exhibit 12).

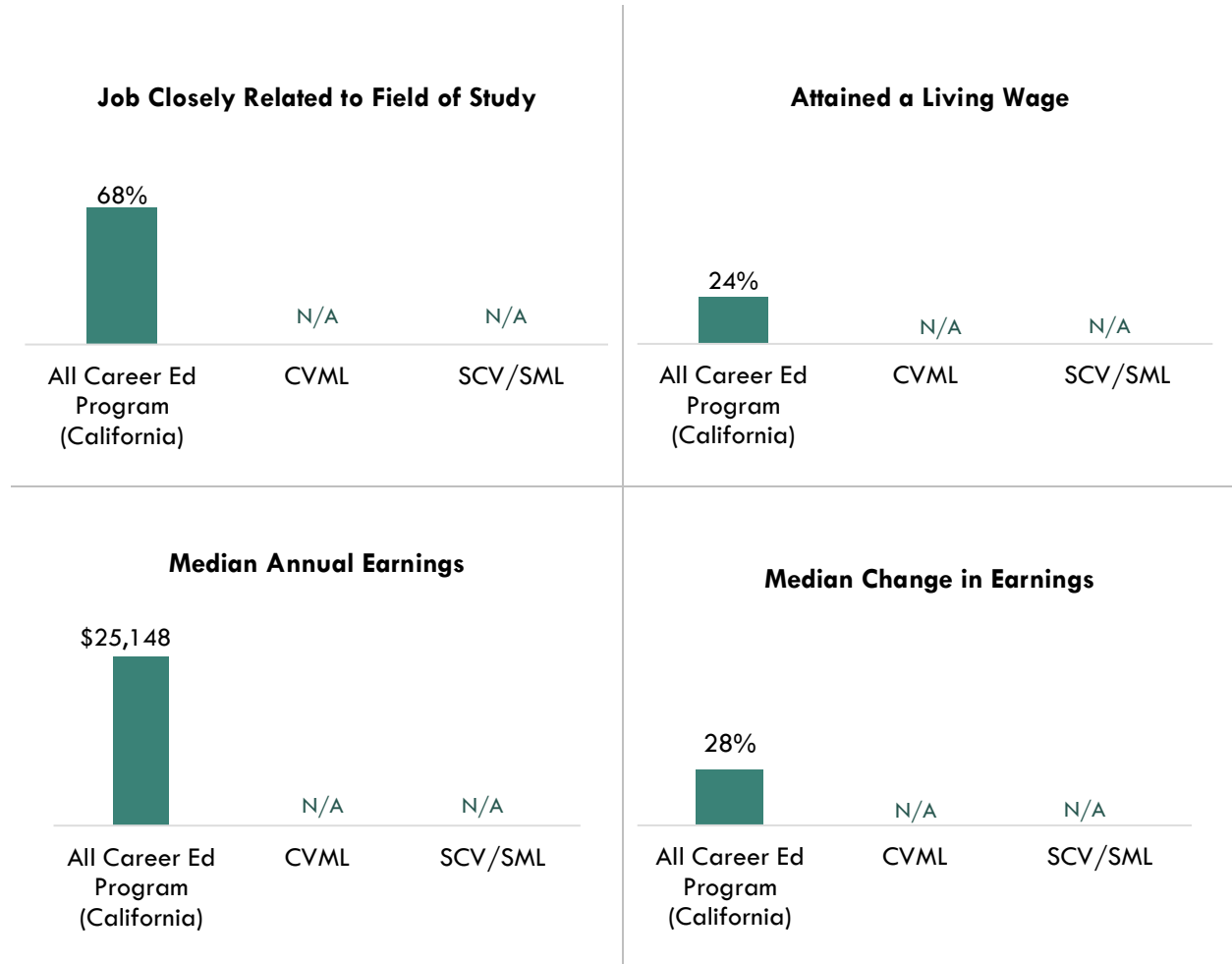
Exhibit 12. Commercial Arts Occupations workforce demand (annual job openings), postsecondary awards (supply), and additional students needed to fill gap in the SCV/SML subregion and region



Student Outcomes

Exhibits 13a – 13b summarize outcomes from California Community College Chancellor’s LaunchBoard for TOP codes related to *Commercial Arts Occupations*. There is no data available for the subregion and region.

Exhibit 13. Metrics for TOP 1013.00 - Commercial Art



Recommendation

This report suggests there is a shortage of 13 workers in the SCV/SML subregion and a shortage of 32 workers in the CVML region for *Commercial Arts Occupations*. Based on these findings, it is recommended that Porterville College work with the regional directors, the college’s advisory board, and local industry when discussing the expansion or modification of relevant programs.

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: https://www.bls.gov/emp/tables/educational-attainment.htm .
LaunchBoard	Chancellor's LaunchBoard. https://www.calpassplus.org/LaunchBoard/SWP.aspx
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov .
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: onetonline.org .

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.