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# Labor Market Analysis

## Commercial Arts



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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.

*If for any reason this document is not accessible or if you have specific needs for readability, please contact us and we will do our utmost to accommodate you with a modified version. To make a request, contact Nora Seronello by phone at (209) 575-6894 or by email [seronellon@mjc.edu](mailto:seronellon@mjc.edu).*

# 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 Commercial Arts. Two occupations related to Commercial Arts were identified for Porterville College:

- 27-1021, Commercial and Industrial Designers
- 27-1024, Graphic Designers

## Key findings:

- **Occupational demand** — Nearly 890 workers were employed in jobs related to Commercial Arts in 2021 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is graphic designers with 809 workers, a projected growth rate of 4% over the next five years, and 80 annual openings.
- **Wages** — Commercial and industrial designers earn the highest entry-level wage, \$18.88/hour in the subregion.
- **Employers** — Employers with the most job postings in the subregion are Beer Monument Works Incorporated, Dell, and Dv Kap Home.
- **Occupational titles** — The most common occupational title in job postings in the subregion is Graphic Designers. The most common job title is Graphic Designer.
- **Skills and certifications** — The top baseline skill is creativity, the top specialized skill is graphic design, and the top software skill is Adobe Illustrator. The most in-demand certification is a driver's license.
- **Education** — A bachelor's degree is typically required for the two occupations.
- **Supply** — Analysis of postsecondary completions shows that on average 5 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 83 trained workers in the subregion and 147 workers in the region. The Center of Excellence recommends that Porterville College work with the regional directors, the college's advisory board, and local industry in the expansion of programs to address the shortage of Commercial Arts workers in the region.

# Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Porterville College to provide 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. The average living wage for a single adult in the SCV/SML subregion is \$11.91/hour.<sup>1</sup> Analysis of the program and occupational data related to Commercial Arts resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 27-1021, Commercial and Industrial Designers
- 27-1024, Graphic Designers

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.

## **Commercial and Industrial Designers**

**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**

**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, Communications and Media, English Language, Fine arts, Computers and Electronics

**Skills:** Active Listening, Critical Thinking, Speaking, Reading Comprehension, Active Learning

# Occupational Demand

The SCV/SML subregion employed 884 workers in Commercial Arts occupations in 2021 (Exhibit 1). The largest occupation is graphic designers with 809 workers in 2021. This occupation is projected to grow by 4% over the next five years and has the greatest number of projected annual openings, 80.

**Exhibit 1. Commercial Arts employment and occupational projections in the SCV/SML subregion**

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Graphic Designers	809	839	30	4%	80
Commercial and Industrial Designers	74	78	3	5%	8
<b>TOTAL</b>	<b>884</b>	<b>917</b>	<b>33</b>	<b>4%</b>	<b>88</b>

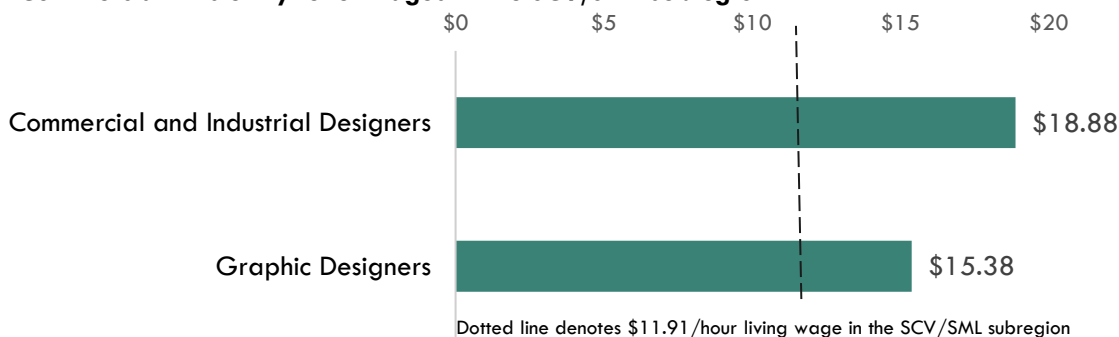
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<sup>1</sup> The term "living wage" in Center of Excellence reports is calculated by averaging the self-sufficiency wages from the Insight Center's California Family Needs Calculator for each county in the subregion: <https://insightccd.org/tools-metrics/self-sufficiency-standard-tool-for-california/>.

# Wages

Exhibit 2 shows the entry-level hourly wages of the Commercial Arts occupations. Commercial and industrial designers earn the highest entry-level wage, \$18.88/hour in the subregion<sup>2</sup>.

**Exhibit 2. Commercial Arts entry-level wages in the SCV/SML subregion**



# Job Postings

There were 130 job postings for the two occupations in the SCV/SML subregion from October 2021 to March 2022.<sup>3</sup> The employers with the most job postings are listed in Exhibit 3.

**Exhibit 3. Top employers of Commercial Arts by number of job postings**

Employer	Job Postings	% Job Postings
Beer Monument Works Incorporated	4	4%
Dell	4	4%
Dv Kap Home	3	3%
Fastsigns	3	3%
Fastsigns 62102	3	3%
Johnson & Johnson	3	3%
Minuteman Press	3	3%
Thermo Fisher Scientific Inc	3	3%
Tribune Company	3	3%
state of california	3	3%

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across two O\*NET OnLine occupations. The occupational title Graphic Designers is listed in 100 job postings. Note how this occupational title dominates the job posting results. Common job titles in postings include Graphic Designer in 30 job postings, Senior Graphic Designer in five job postings, and Artist I, Graphic in four job postings.

<sup>2</sup> Entry-level wages are derived from the 25<sup>th</sup> percentile.

<sup>3</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 4. Top occupational titles in job postings for Commercial Arts

Occupational Title	Job Postings	% of Job Postings
Graphic Designers	100	77%
Commercial and Industrial Designers	30	23%

#### Salaries

Exhibit 5 shows the “Market Salaries” for Commercial Arts occupations. These are calculated by Burning Glass using a machine learning model built off of millions of job postings every year. This accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

#### Exhibit 5. Salaries for Commercial Arts occupations

Market Salary Percentile	Salary Amount
10th Percentile	\$34,878
25th Percentile	\$40,168
50th Percentile	\$50,218
75th Percentile	\$70,877
90th Percentile	\$93,038

#### Education

Of the 130 job postings, 80 listed an education level preferred for the positions being filled. Among those, 73% requested a bachelor’s degree, 20% requested a master’s degree, and 18% requested high school or vocational training (Exhibit 6). A job posting can indicate more than one education level. Hence, the percentages shown in the chart below may total more than 100%.

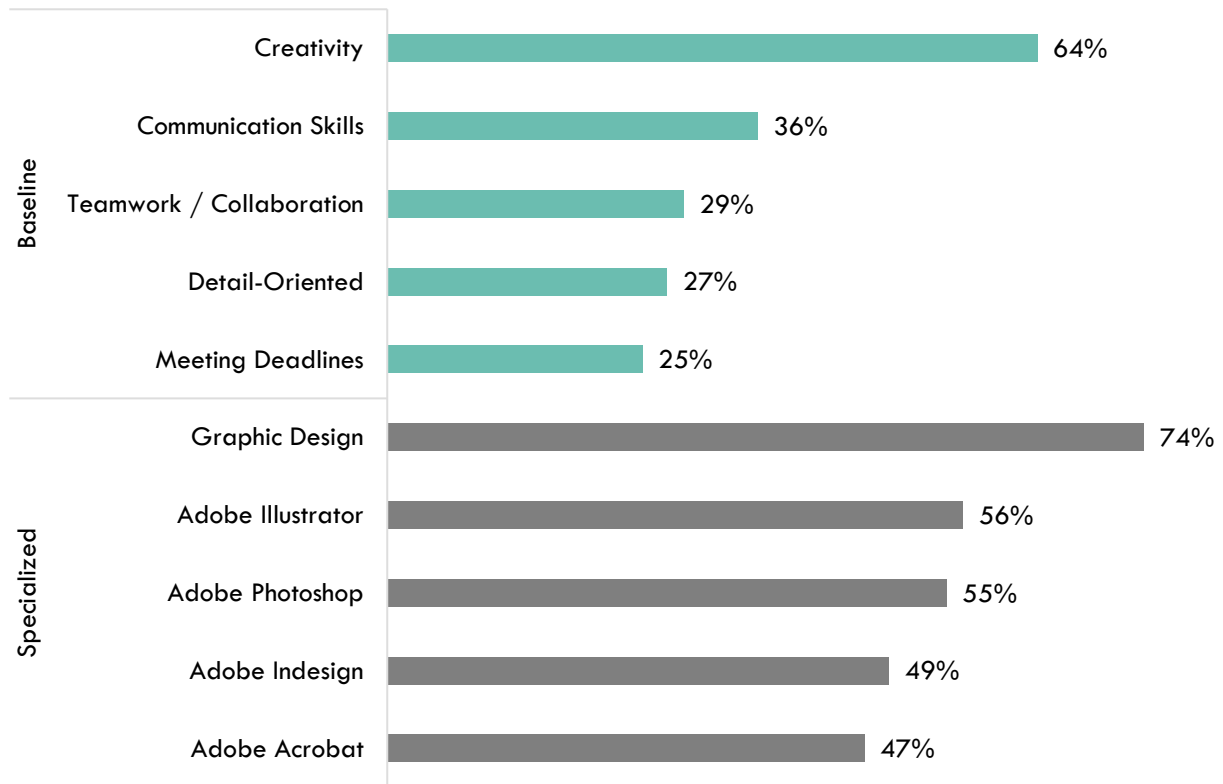
#### Exhibit 6. Education levels requested in job postings for Commercial Arts

Education Level	Job Postings	% of Job Postings
Bachelor's degree	58	73%
Master's degree	16	20%
High school or vocational training	14	18%
Associate's degree	9	11%
Doctoral degree	8	10%

#### Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are creativity, 64% of job postings, communication skills, 36%, and teamwork / collaboration, 29%. The top three specialized skills are graphic design, 74% of job postings, Adobe Illustrator, 56%, and Adobe Photoshop, 55%.

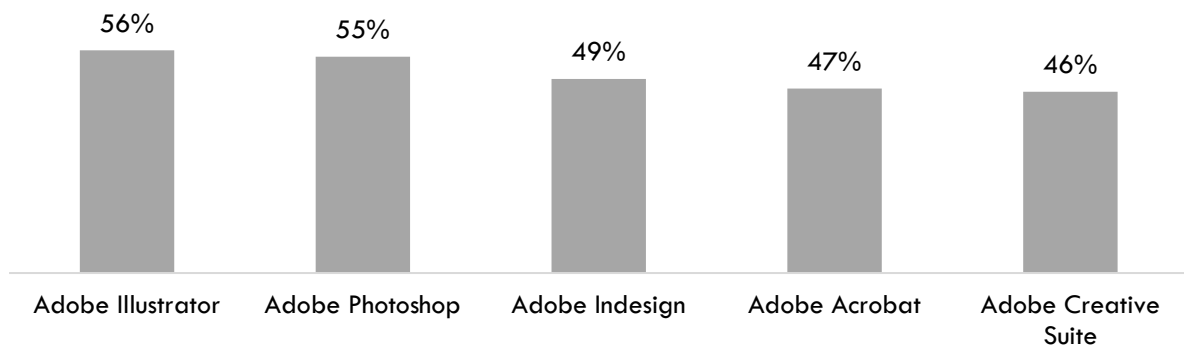
**Exhibit 7. In-demand Commercial Arts baseline and specialized skills**



**Software Skills**

Analysis also included the software skills most in demand by employers. Adobe Illustrator and Adobe Photoshop were the top two software skills identified in job postings (Exhibit 8).

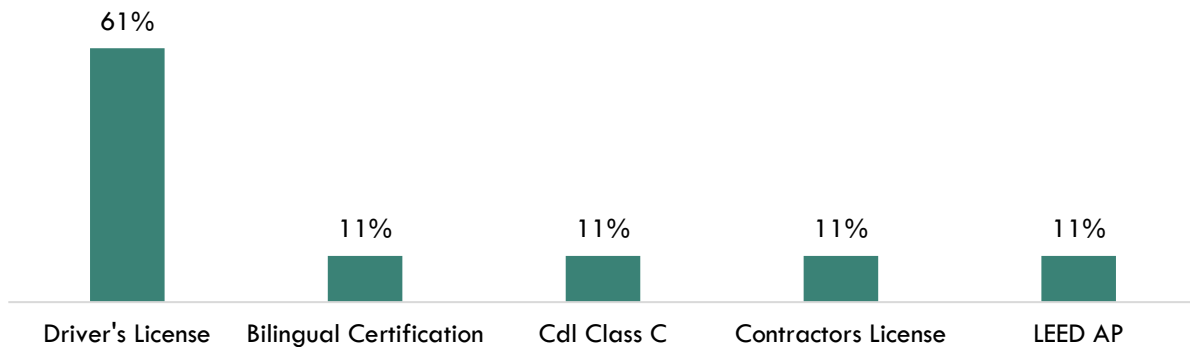
**Exhibit 8. In-demand Commercial Arts software skills**



**Certifications**

Of the 130 job postings, 18 contained certification data. Among those, 61% indicated a need for a driver's license. The next top certifications are a bilingual certification and CdI Class C (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 Commercial Arts certifications requested in job postings**



## Education, Work Experience & Training

A bachelor's degree is typically required for the two occupations (Exhibit 10).

**Exhibit 10. Education, work experience, training, and Current Population Survey results for Commercial Arts occupations<sup>4</sup>**

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Commercial and Industrial Designers	Bachelor's degree	None	None	17.1%
Graphic Designers	Bachelor's degree	None	None	26.4%

## Supply

Analysis of program data from the Integrated Postsecondary Education Data System (IPEDS) included the TOP code and title: 101300 - Commercial Art. Analysis of the last three years of data shows that, on average, 5 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

**Exhibit 11. Postsecondary supply for Commercial Arts occupations in the region**

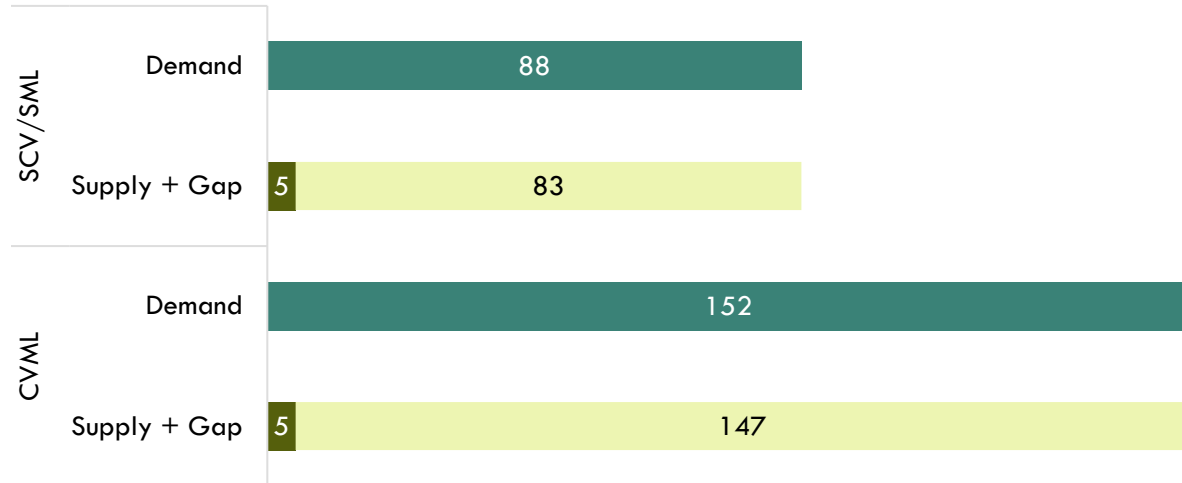
TOP/CIP Code- Title	College	Associate Degree	Certificate 30 < 60 Semester Units	Subtotal
101300 - Commercial Art	Porterville	4		4
	Sequoias		1	1
<b>TOTAL</b>		<b>4</b>	<b>1</b>	<b>5</b>

<sup>4</sup> "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.



There is an undersupply of 83 Commercial Arts workers in the SCV/SML subregion and 147 workers in the region (Exhibit 12).

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



## Student Outcomes

There was no employment and wage outcomes from the California Community College Chancellor’s Cal-ASS Plus LaunchBoard data available for the TOP code related to Commercial Arts.

## Conclusion

The entry-level wages of the two occupations exceed the SCV/SML subregion’s average living wage. There were 130 job postings in the past six months for occupations related to Commercial Arts in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is creativity, and the top specialized skill is graphic design.
- The top software skill is Adobe Illustrator.
- The top certification is a driver's license.

There is an undersupply of trained workers, a shortage of 83 in the SCV/SML subregion and 147 in the region.

## Recommendation

Based on these findings, it is recommended that Porterville College work with the regional director, the college’s advisory board, and local industry in the expansion of programs to address the shortage of Commercial Arts 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.