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# Labor Market Analysis

## Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging



Prepared by Central Valley/Mother Lode Center of Excellence



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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.

*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

The Central Valley/Mother Lode Center of Excellence developed this report for San Joaquin Delta 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 *Social Media Strategy*, *Digital Media Content Entrepreneurship*, and *Digital Imaging Occupations*, which include:

- Special Effects Artists and Animators (SOC 27-1014)
- Graphic Designers (SOC 27-1024)
- Media and Communication Workers, All Other (SOC 27-3099)
- Audio and Video Technicians (SOC 27-4011)

## Key Findings

- **Occupational Demand** — *Social Media Strategy*, *Digital Media Content Entrepreneurship*, and *Digital Imaging Occupations* have a labor market demand of 72 annual job openings in the North Central Valley/Northern Mother Lode (NCV/NML) subregion. Between 2021 and 2026, graphic designers are projected to have the most demand with 39 annual job openings and a projected to decrease by 3%.
- **Wages** — Average entry-level earnings of \$23.62/hour for *Social Media Strategy*, *Digital Media Content Entrepreneurship*, and *Digital Imaging Occupations* are higher than the living wage in the NCV/NML subregion, which is \$12.65/hour for a single adult.<sup>1</sup> Special effects artists and animators the highest entry-level wage, \$29.08/hour.
- **Employers and Occupational Titles** — Employers in the NCV/NML subregion include University of the Pacific, Quad-C Management, and Premier Staffing. The most common occupational title in job postings in the subregion is Graphic Designers. The most common job title is Graphic Designers.
- **Skills and Certifications** — The top baseline skill is sales, the top specialized skill is marketing, and the top software skill is Adobe Illustrator. The most in-demand certification is an AVIXA Certified Technology Specialist.
- **Education** — A high school diploma or equivalent is typically required for all media and communication workers, all other. Postsecondary nondegree award is typically required for audio and video technicians. A bachelor's degree is typically required for graphic designers and special effects artists and animators.
- **Supply and Demand Analysis** — Based on 72 annual openings (i.e., demand), and 30 postsecondary degrees awarded (i.e., supply), an analysis of supply and demand suggests there is an undersupply of 42 workers in the NCV/NML subregion. In the CVML region, 36 awards were conferred suggesting an undersupply of 134 workers.

## Recommendation

Based on a comparison of demand and supply, there is an undersupply of trained workers in the NCV/NML subregion and the CVML region. The Center of Excellence recommends that San Joaquin Delta College work with the regional directors, the college's advisory board, and local industry in the expansion

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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/>.

of programs to address the shortage of Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging workers.

## Introduction

The Central Valley/Mother Lode Center of Excellence developed this report to provide San Joaquin Delta College with labor market information for Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging. The geographical focus for this report is the North Central Valley/Northern Mother Lode (NCV/NML) subregion, but regional demand and supply data has been included for broader applicability and use. Analysis of the program and occupational data related to Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging resulted in the identification of applicable occupations, known as *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging 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. Please note that there is no data available for media and communication workers, all other (SOC 27-3099).

### Special Effects Artists and Animators (SOC 27-1014)

- **Job Description:** Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.
- **Knowledge:** Computer and Electronics, English Language, Design, Communications and Media, Customer and Personal Service
- **Skills:** Active Listening, Critical Thinking, Reading Comprehension, Speaking, Active Learning

### 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, Communications and Media, English Language, Fine Arts, Computers and Electronics
- **Skills:** Active Listening, Critical Thinking, Speaking, Reading Comprehension, Active Learning

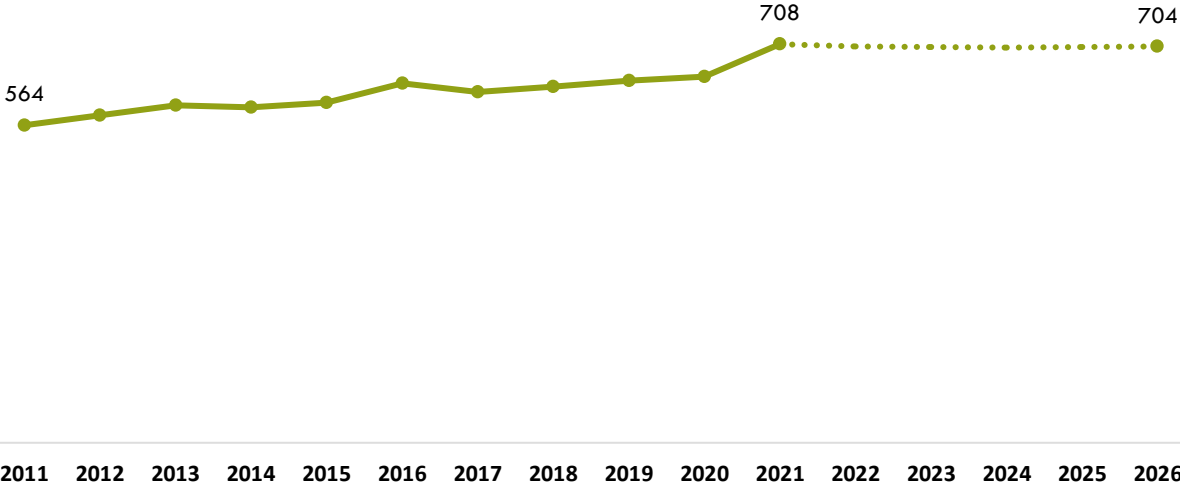
### Audio and Video Technicians (SOC 27-4011)

- **Job Description:** Set up, maintain, and dismantle audio and video equipment, such as microphones, sound speakers, connecting wires and cables, sound and mixing boards, video cameras, video monitors and servers, and related electronic equipment for live or recorded events, such as concerts, meetings, conventions, presentations, podcasts, news conferences, and sporting events.
- **Knowledge:** Computers and Electronics, Communications and Media, English Language, Telecommunications, Fine Arts
- **Skills:** Monitoring, Critical Thinking, Operation Monitoring, Reading Comprehension, Complex Problem Solving

# Occupational Demand

Exhibit 1a shows trends for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations* in the NCV/NML subregion. Between 2021 to 2026, the number of jobs for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations* is projected to decrease by 4 jobs, or 1%.

**Exhibit 1a. Occupational projections for Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations in the NCV/NML subregion**



Between 2021 to 2026, demand for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations* in the NCV/NML subregion is 72 annual openings (Exhibit 1b). Graphic designers are projected to have the most demand with 39 annual job openings and is projected to decrease by 3%.

**Exhibit 1b. Occupational projections for Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations in the NCV/NML subregion**

Occupation	2021 Jobs	2026 Jobs	5-Year Change	5-Year % Change	Annual Openings
Graphic Designers	408	396	(11)	(3%)	39
Audio and Video Technicians	133	143	10	8%	16
Special Effects Artists and Animators	134	132	(2)	(1%)	14
Media and Communication Workers, All Other	34	33	(1)	(4%)	3
<b>TOTAL</b>	<b>708</b>	<b>704</b>	<b>(4)</b>	<b>(1%)</b>	<b>72</b>

# Wages

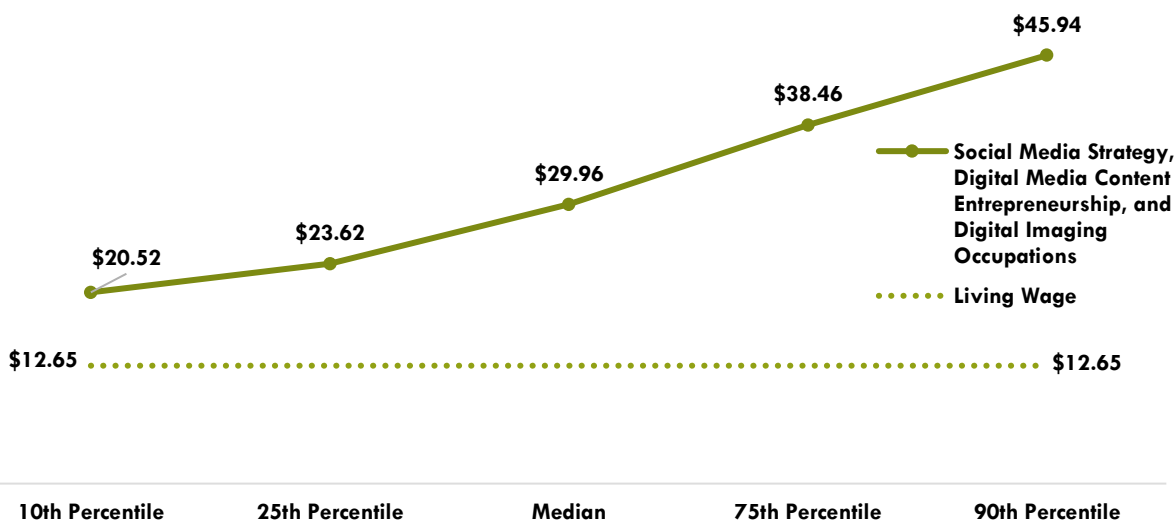
The average living wage for a single adult in the NCV/NML subregion is \$12.65/hour.<sup>2</sup> Exhibit 2a shows the hourly wages of *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations*. Special effects artists and animators earn the highest entry-level wage, \$29.08/hour in the subregion.<sup>3</sup> Please note 10<sup>th</sup> and 25<sup>th</sup> percentiles are considered entry-level wages while 75<sup>th</sup> and 90<sup>th</sup> are considered experienced wages, either by gained by long-term employment, extra training, etc.

**Exhibit 2a. Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations hourly wages in the NCV/NML subregion**

Occupation	Pct. 25 Hourly Earnings	Median Hourly Earnings	Pct. 75 Hourly Earnings
Special Effects Artists and Animators	\$29.08	\$39.14	\$48.07
Media and Communication Workers, All Other	\$26.12	\$33.25	\$43.56
Audio and Video Technicians	\$21.08	\$22.58	\$31.88
Graphic Designers	\$18.21	\$24.85	\$30.31

Exhibit 2b shows the average hourly wages for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations*; the average entry-level wage is more than the average entry-level living wage for the NCV/NML subregion.

**Exhibit 2b. Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations average hourly wages in the NCV/NML subregion**



<sup>2</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/>.

<sup>3</sup> Entry-level wages are derived from the 25<sup>th</sup> percentile.

# Job Postings

There were 56 job postings for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations* in the NCV/NML subregion from July 2022 to December 2022.<sup>4</sup>

## Top Employers

The top employers with the most job postings are listed in Exhibit 3. The top employers in online job postings were University of the Pacific, Quad-C Management, and Premier Staffing.

**Exhibit 3. Top employers of *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations* by number of job postings**

Employer
University of the Pacific
Quad-C Management
Premier Staffing
San Joaquin County
Rhythm Tech Productions
Ireland Sound Systems
Quad
Willey Printing
Childhood Cancer Society
Giva

## Top Occupational Titles

Exhibit 4 shows the O\*NET OnLine occupational titles for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations* in the NCV/NML subregion. Common job titles in postings include: Graphic Designers, Production Artists, and Audiovisual Technicians.

**Exhibit 4. Top occupational titles in job postings for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations***

Occupational Title
Graphic Designers
Production Artists
Audiovisual Technicians
Graphic Designers/Prepress Technicians
Commercial Credit Managers
Graphics Specialists
Equipment Operators

<sup>4</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.

## Occupational Title

Audio Technicians

Partner Graphic Designers

Graphic and Website Designers

Graphic Designers

## Salaries

Exhibit 5 shows the “Market Salaries” for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging 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 *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations*

Market Salary	Job Postings
\$40,000-\$44,999	8
\$35,000-\$39,999	5
\$50,000-\$54,999	3
\$55,000-\$59,999	3
\$45,000-\$49,999	2

## Education

Of the 56 job postings, 26 listed a preferred or minimum educational requirement for the position being filled. Among those, 30% requested a bachelor’s degree and 14% requested high school or GED (Exhibit 6).

### Exhibit 6. Education levels requested in job postings for *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations*

Education Level	Job Postings	% of Job Postings
Bachelor's degree	17	30%
High school or GED	8	14%
Associate degree	1	2%



## Baseline, Specialized, and Software Skills

Exhibit 7 depicts the top baseline, specialized, and software skills in job postings. The three most important baseline skills are communication skills, presentation, and customer service. The top three specialized skills are Adobe Illustrator, Adobe Photoshop, and Graphic Design. The top software is Adobe Illustrator.

### Exhibit 7. In-demand Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations baseline and specialized skills

Baseline Skills	Specialized Skills	Software Skills
Communications	Adobe Illustrator	Adobe Illustrator
Presentations	Adobe Photoshop	Adobe Photoshop
Customer Service	Graphic Design	Adobe InDesign
Sales	Adobe InDesign	Adobe Creative Suite
Multitasking	Marketing	Adobe After Effects

## Certifications

Of the 56 job postings, 9 contained certification data. Among those, 22% indicated a need for an AVIXA Certified Technology Specialist. The next top certification is audiovisual certification and Cisco Certified Network Associate (Exhibit 8).

### Exhibit 8. Top Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations certifications requested in job postings

Certifications	% of Job Postings
AVIXA Certified Technology Specialist	22%
Audiovisual Certification	11%
Cisco Certified Network Associate	11%
CompTIA Project+	11%
Crestron Certified Programmer	11%

# Education, Work Experience, & Training

A high school diploma or equivalent is typically required for all media and communication workers, all other. Postsecondary nondegree award is typically required for audio and video technicians. A bachelor's degree is typically required for graphic designers and special effects artists and animators (Exhibit 9).

**Exhibit 9. Education, work experience, training, and Current Population Survey results *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations*<sup>5</sup>**

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Audio and Video Technicians	Postsecondary nondegree award	None	Short-term	36.9%
Media and Communication Workers, All Other	High school diploma or equivalent	None	Short-term	20.7%
Graphic Designers	Bachelor's degree	None	None	26.5%
Special Effects Artists and Animators	Bachelor's degree	None	None	27.7%

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<sup>5</sup> "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, no awards were conferred in the NCV/NML subregion (Exhibit 10 and 11).

## Exhibit 10. TOP and CIP codes for Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations

TOP Titles	CIP Titles
	09.0702 - Digital Communication and Media/Multimedia
061400 - Digital Media	10.0303 - Prepress/Desktop Publishing and Digital Imaging Design
	50.0102 - Digital Art
061410 - Multimedia	10.0304 - Animation, Interactive Technology, Video Graphics and Special Effects
061440 - Animation	
	110803 - Computer Graphics
061460 - Computer Graphics and Digital Imagery	110899 - Computer Software and Media Applications, Other

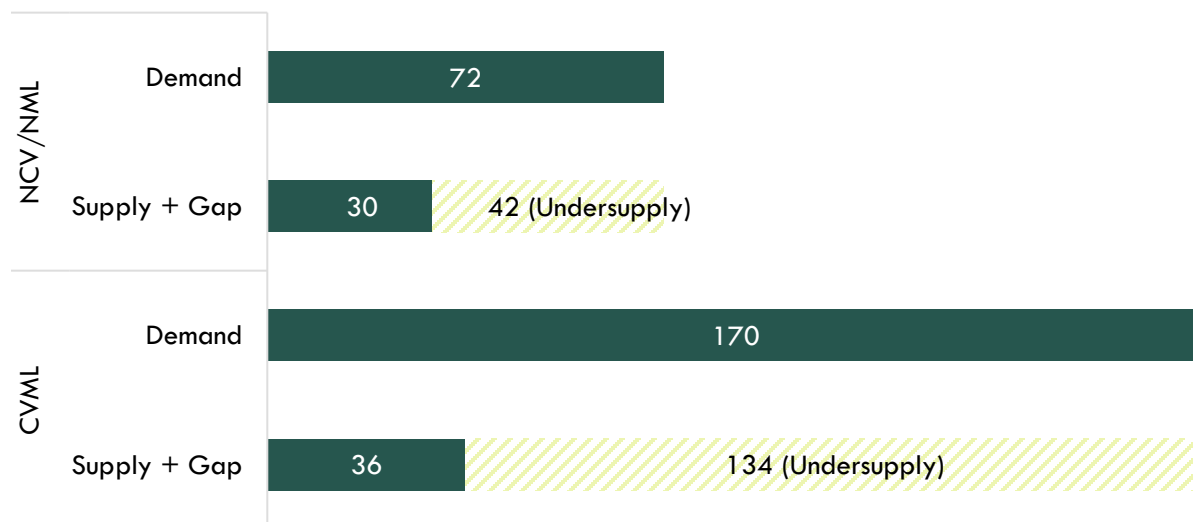
## Exhibit 11. Postsecondary supply for Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations

TOP/CIP Code- Title	College	Associate Degree	Certificate 16 < 30 Semester Units	Certificate 18 < 30 Semester Units	Certificate 30 < 60 Semester Units	Certificate 6 < 18 Semester Units	Subtotal
061400 - Digital Media	Columbia	2	0	0			2*
	Merced	0					0*
	Sequoias					0	0
061410 - Multimedia	Bakersfield				6		6
061460 - Computer Graphics and Digital Imagery	Modesto	22	2	4			28*
<b>TOTAL NCV/NML</b>		<b>24</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>30</b>
<b>TOTAL CVML</b>		<b>24</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>0</b>	<b>36</b>

\*NCV/NML awards

There is an undersupply of 42 Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging workers in the NCV/NML subregion and an undersupply of 134 workers in the region (Exhibit 12).

**Exhibit 12. Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations workforce demand (annual job openings), postsecondary awards (supply), and additional students needed to fill gap in the NCV/NML subregion and region**



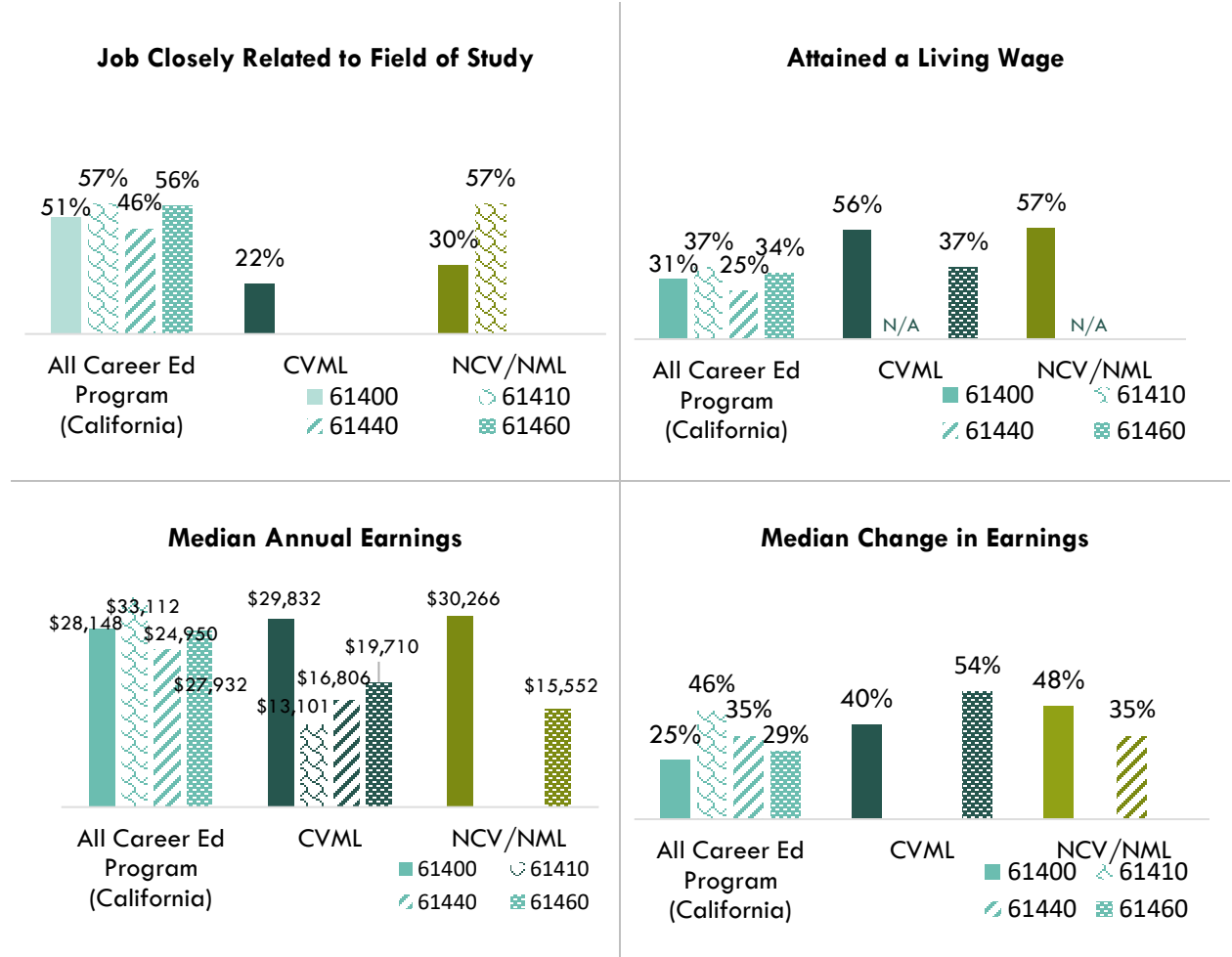
## Student Outcomes

Exhibits 13 summarize outcomes from California Community College Chancellor’s Cal-PASS Plus LaunchBoard for TOP codes related to *Social Media Strategy, Digital Media Content Entrepreneurship, and Digital Imaging Occupations*. Notably, 51% of students obtained a job closely related to their field of study in the subregion and 31% attained a living wage.

**Exhibit 13a. Regional metrics for TOP 061400 - Digital Media and 061460 - Computer Graphics and Digital Imagery**

Metric	061400 - Digital Media	061460 - Computer Graphics and Digital Imagery
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	*	25
Number of Students Who Transferred	25	17
* denotes data not available.		

**Exhibit 13b. Metrics for TOP 061400 - Digital Media, 061410 – Multimedia, 061440 – Animation, and 061460 - Computer Graphics and Digital Imagery**



## Recommendation

This report suggests there is a shortage of 42 workers in the NCV/NML subregion and a shortage of 134 workers in the CVML region for *Social Media Strategy*, *Digital Media Content Entrepreneurship*, and *Digital Imaging Occupations*. Based on these findings, it is recommended that San Joaquin Delta College work with the regional directors, the college’s advisory board, and local industry in the expansion of programs to address the shortage of *Social Media Strategy*, *Digital Media Content Entrepreneurship*, and *Digital Imaging* workers in the region.

# 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: <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> .
LaunchBoard	Chancellor's Cal-PASS Plus LaunchBoard. <a href="https://www.calpassplus.org/LaunchBoard/SWP.aspx">https://www.calpassplus.org/LaunchBoard/SWP.aspx</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	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: <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. (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.