

APRIL 2019

LABOR MARKET ANALYSIS

Social Media



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SUMMARY

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills and community college supply for occupations related to social media for San Joaquin Delta College. Seven occupations were identified:

- Market Research Analysts and Marketing Specialists
- Graphic Designers
- Computer Occupations, All Other
- Advertising and Promotions Managers
- Multimedia Artists and Animators
- Media and Communication Workers, All Other
- Desktop Publishers

KEY FINDINGS:

- **Occupational demand** — More than 2,500 workers were employed in jobs related to social media in 2017. The largest occupation is Market Research Analysts and Marketing Specialists with 1,139 workers in 2017, a projected growth rate of 15% over the next five years, and 130 annual openings.
- **Wages** — The entry-level wages for all seven occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.27/hour and the average living wage for a single adult in the subregion, \$11.02/hour. The occupation earning the highest median wages is computer occupations (all other), \$37.83/hour in the region and \$30.54/hour in the subregion.
- **Employers** — Top employers in the region include Anthem Blue Cross, Pmz Real Estate, and Staples.
- **Job titles** — The most common occupational title in job postings is computer occupations, all other. The most common job title is marketing associate.
- **Skills and certifications** — The top baseline skill is communication, the top specialized skill is marketing, and the top software skill is Microsoft Excel. The most in-demand certification is a driver's license.
- **Education** — The typical education required for five of the seven occupations is a bachelor's degree.
- **Supply** — Analysis of community college completions in the region shows that on average 41 awards related to social media 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 41 trained workers in the subregion and 702 workers in the region. The Center of Excellence recommends that San Joaquin Delta College work with the region's ICT/Digital media deputy sector navigator, the college's advisory board and local industry in the development of a social media program.

INTRODUCTION

The Central Valley/Mother Lode Center of Excellence was asked by San Joaquin Delta College to provide labor market information for social media and 061010 – Mass Communication was the provided Taxonomy of Program (TOP). Review of the TOP code manual revealed five appropriate programs for this analysis:

- 061000 – Mass Communication
- 061400 - Digital Media
- 061410 - Multimedia
- 061430 - Website Design and Development
- 061460 - Computer Graphics and Digital Imagery

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.

Four job titles were provided; however, an analysis of program and occupational data related to social media resulted in the identification of seven applicable occupations. The Standard Occupational Classification (SOC) System titles and codes are:

- Market Research Analysts and Marketing Specialists (SOC 13-1161)
- Graphic Designers (SOC 27-1024)
- Computer Occupations, All Other (SOC 15-1199)
- Advertising and Promotions Managers (SOC 11-2011)
- Multimedia Artists and Animators (SOC 27-1014)
- Media and Communication Workers, All Other (SOC 27-3099)
- Desktop Publishers (SOC 43-9031)

The SOC codes, occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown in Exhibit 1. O*Net data was not available for Computer Occupations, All Other (SOC 15-1199) and Media and Communication Workers, All Other (SOC 27-3099).

EXHIBIT 1. SOC titles, job descriptions, sample job titles, and knowledge and skills for social media

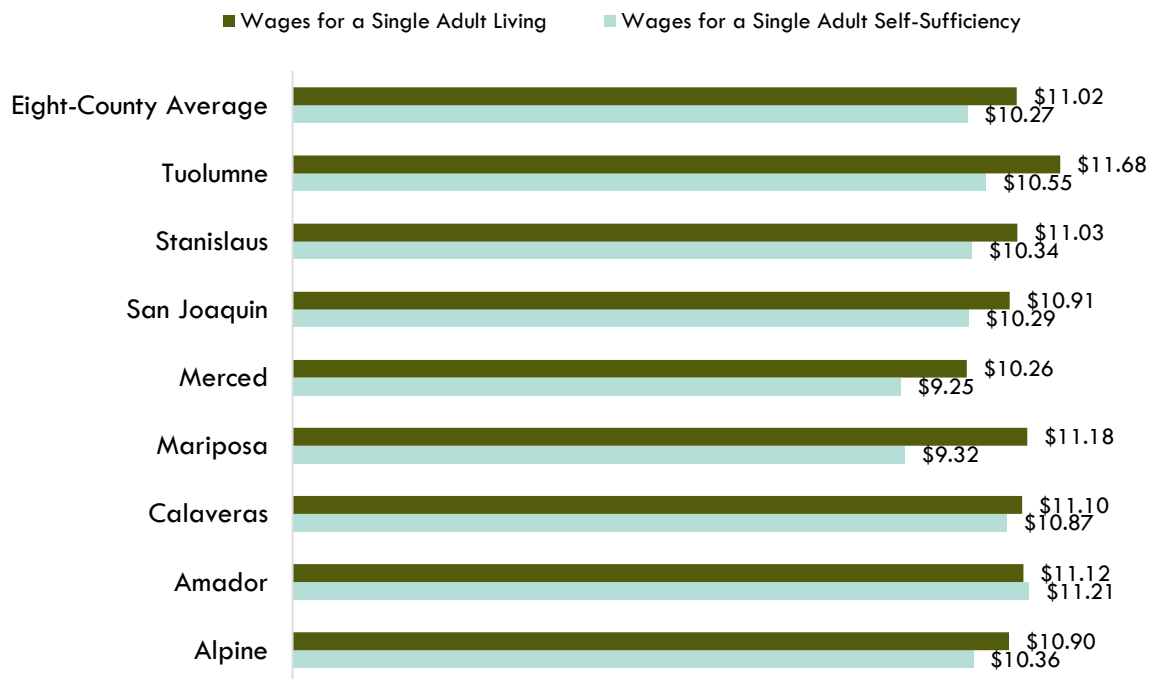
SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
Market Research Analysts and Marketing Specialists (SOC 13-1161)	Research market conditions in local, regional, or national areas, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of	Business Development Specialist, Client Service and Consulting Manager, Communications Specialist, Demographic Analyst, Market Analyst, Market Research Analyst, Market Research Consultant, Market Research Specialist, Market	Knowledge
			English Language
			Customer and Personal Service
			Sales and Marketing
			Mathematics
			Administration and Management
			Skills
			Critical Thinking
			Reading Comprehension
			Writing

SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
	marketing and distribution.	Researcher, Marketing Research Coordinator	Active Listening Complex Problem Solving
Graphic Designers (SOC 27-1024)	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.	Artist, Creative Director, Creative Manager, Design Director, Designer, Graphic Artist, Graphic Designer, Online Producer, Production Artist, Publications Designer	Knowledge Design Communications and Media English Language Fine Arts Computers and Electronics Skills Active Listening Critical Thinking Speaking Reading Comprehension Active Learning
Advertising and Promotions Managers (SOC 11-2011)	Plan, direct, or coordinate advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or give-aways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.	Account Executive, Advertising Manager (Ad Manager), Advertising Sales Manager, Classified Advertising Manager, Communications Director, Communications Manager, Creative Services Director, Marketing and Promotions Manager, Promotions Director, Promotions Manager	Knowledge Sales and Marketing English Language Communications and Media Customer and Personal Service Administration and Management Skills Active Listening Critical Thinking Social Perceptiveness Speaking Judgment and Decision Making
Multimedia Artists and Animators (SOC 27-1014)	Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.	3D Animator, 3D Artist, Animation Director, Animator, Art Director, Artist, Creative Director, Graphic Artist, Graphic Designer, Illustrator	Knowledge Communications and Media Design Fine Arts Computers and Electronics English Language Skills Active Listening Reading Comprehension Critical Thinking Time Management

SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
Desktop Publishers (SOC 43-9031)	Format typescript and graphic elements using computer software to produce publication-ready material.	Advertising Associate, Art Director, Computer Typesetter, Creative Director, Desktop Publishing Specialist, Electronic Console Display Operator, Electronic Imager, Graphic Artist, Mac Operator, Production Manager	Coordination
			Knowledge
			Computers and Electronics
			Design
			English Language
			Production and Processing
			Communications and Media
			Skills
			Critical Thinking
			Reading Comprehension
Active Listening			
Judgment and Decision Making			
Speaking			

The 2014 average self-sufficiency wage for a single adult in the North Central Valley/Northern Mother Lode (NCV/NML) subregion is \$10.27/hour, and the current average living wage for a single adult is \$11.02/hour. Self-sufficiency and living wage data by county and the overall eight-county average are shown in Exhibit 2. In the wages sections of this report, Pct. 25 hourly denotes entry-level wages, and median represents experienced wages.

EXHIBIT 2. Self-sufficiency and living wages in the NCV/NML subregion



OCCUPATIONAL DEMAND

The subregion employed more than 2,300 workers in social media occupations in 2017 in the North Central Valley/Northern Mother Lode subregion (Exhibit 3). The largest community college level occupation is graphic designers with 609 workers in 2017. This occupation has negligible growth over the next five years, but has the second largest number of projected annual openings, 60.

EXHIBIT 3. Social media employment and occupational projections in the NCV/NML subregion

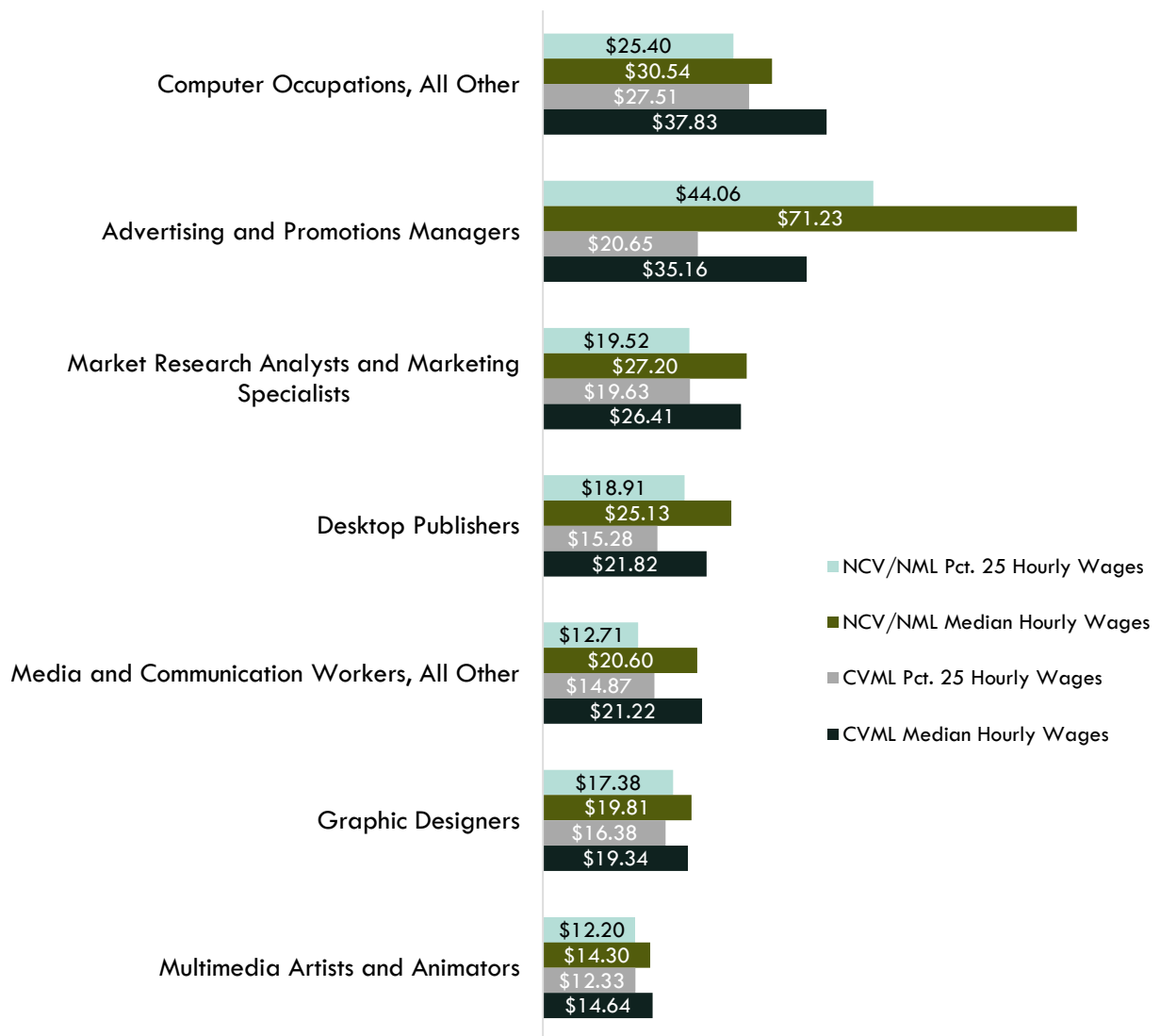
OCCUPATION	2017 JOBS	2022 JOBS	5-YEAR CHANGE	5-YEAR % CHANGE	ANNUAL OPENINGS
Market Research Analysts and Marketing Specialists	988	1,139	151	15%	130
Graphic Designers	609	618	9	1%	60
Computer Occupations, All Other	561	598	37	7%	46
Advertising and Promotions Managers	73	72	(1)	(1%)	7
Multimedia Artists and Animators	67	69	2	3%	6
Media and Communication Workers, All Other	43	47	4	9%	5
Desktop Publishers	21	19	(2)	(10%)	2
TOTAL	2,362	2,562	200	4%	256



WAGES

Exhibit 4 compares the entry-level and experienced wages of the seven social media occupations. The entry-level wages for all seven occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.27/hour, and the average living wage for a single adult in the subregion, \$11.02/hour. The occupation earning the highest median wages is computer occupations (all other), \$37.83/hour in the region and \$30.54/hour in the subregion.

EXHIBIT 4. Entry-level and experienced wage comparison for social media occupations in the subregion and region



JOB POSTINGS

There were roughly 1,150 job postings for the seven occupations in the North Central Valley/Northern Mother Lode subregion from April 2018 through March 2018. The top employers advertising these job postings are listed in Exhibit 5.

EXHIBIT 5. Top social media employers by number of job postings

EMPLOYER	JOB POSTINGS
Anthem Blue Cross	86
Pmz Real Estate	52
Staples	27
Sutter Health	18
Ej Gallo Winery	15
Sutter Health Sacramento Sierra Region	14
Sutter Medical Center	14
University Pacific	12
Ej Gallo	10
State of California	10

Exhibit 6 shows how job postings for the seven targeted social media occupations in the subregion are distributed across several O*NET OnLine occupations. The majority of job postings, 813 in total, use the occupational title computer occupations (all other), followed by market research analysts and marketing specialists, 274 job postings.

EXHIBIT 6. Top occupational titles in job postings for social media

OCCUPATIONAL TITLE & CODE	JOB POSTINGS
Computer Occupations, All Other (15-1199)	813
Market Research Analysts and Marketing Specialists (13-1161)	274
Graphic Designers (27-1024)	51
Advertising and Promotions Managers (11-2011)	5
Multimedia Artists and Animators (27-1014)	4

JOB TITLES

Analysis of 1,123 advertised job titles for the targeted occupations reveals the top title is marketing associate, occurring in 87 job postings, followed by systems engineer, 44 job postings (Exhibit 7).

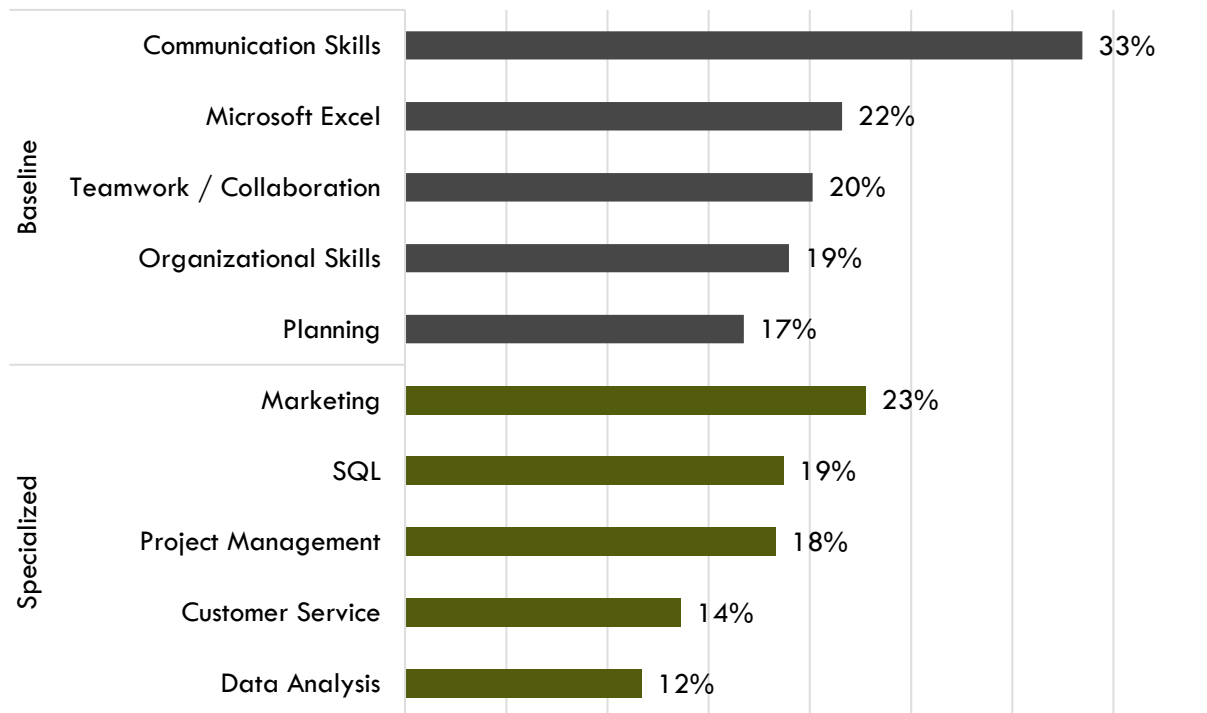
EXHIBIT 7. Top social media job titles by number of job postings

JOB TITLE	JOB POSTINGS
Marketing Associate	87
Systems Engineer	44
Marketing Assistant	36
Data Analyst	35
Information Technology Manager	31
Graphic Designer	25
Marketing Coordinator	25
Marketing Specialist	22
Sap Analyst	18
Business Analyst	17

SKILLS

Exhibit 8 depicts the top baseline and specialized skills for the seven targeted occupations. Approximately 1,000 job postings contained skills data. Of these job postings, the three most important baseline skills are communication skills, 33% of job postings, Microsoft Excel, 22%, and teamwork/collaboration, 20%. The top three specialized skills are marketing, 23% of job postings, SQL, 19%, and project management, 12%.

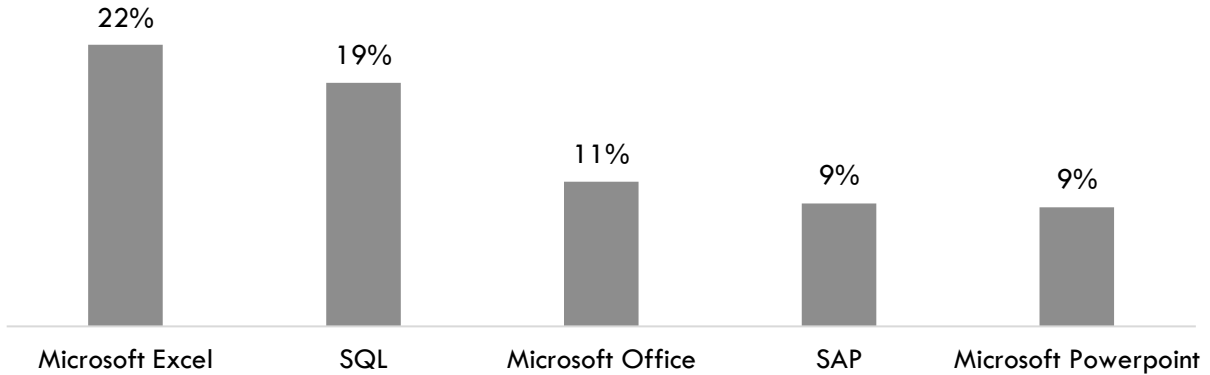
EXHIBIT 8. In-demand social media baseline and specialized skills



SOFTWARE SKILLS

Analysis also included the software skills most in demand by employers. Microsoft Excel and SQL rank first and second (Exhibit 9).

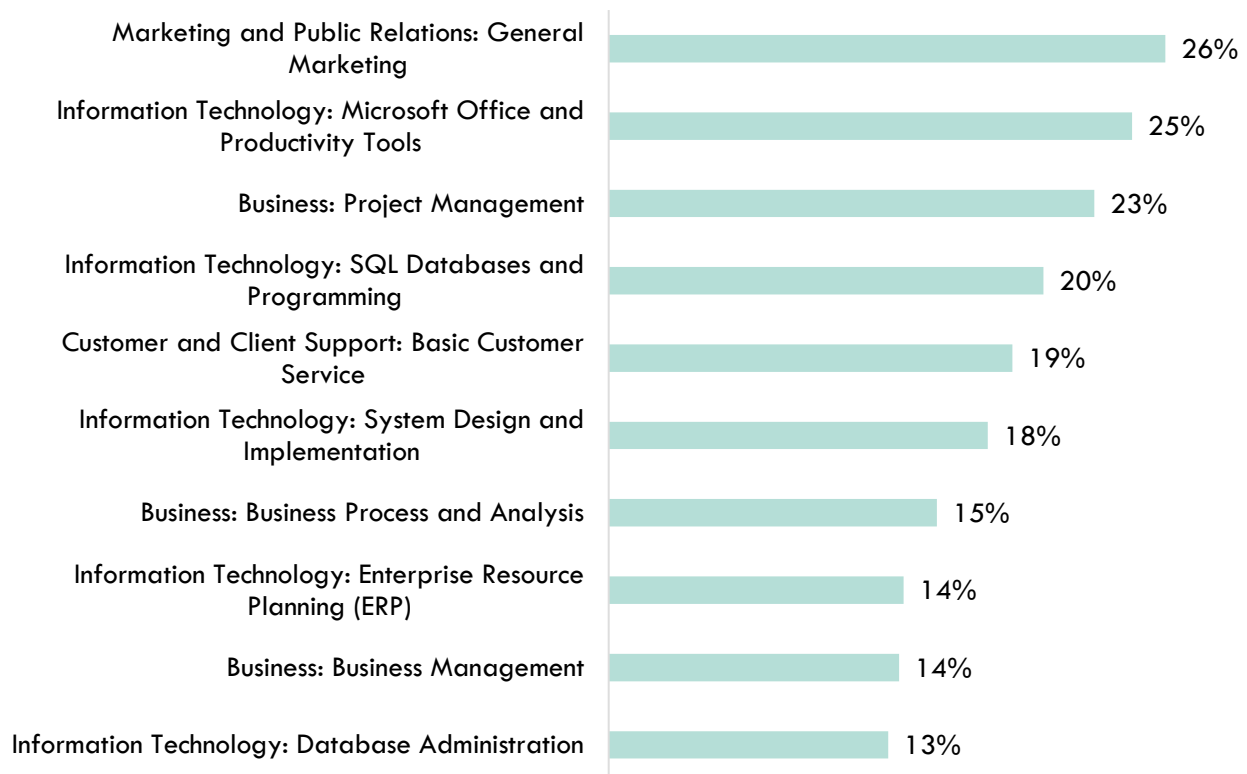
EXHIBIT 9. In-demand social media software skills



SKILL CLUSTER PROJECTIONS

Nearly 1,000 job postings contained skill projections. An evaluation of the top skill clusters that will have the greatest gains in level of importance shows that the top areas are marketing and public relations: general marketing (26%); information technology: Microsoft Office and productivity tools (25%); and business: project management (23%) (Exhibit 10).

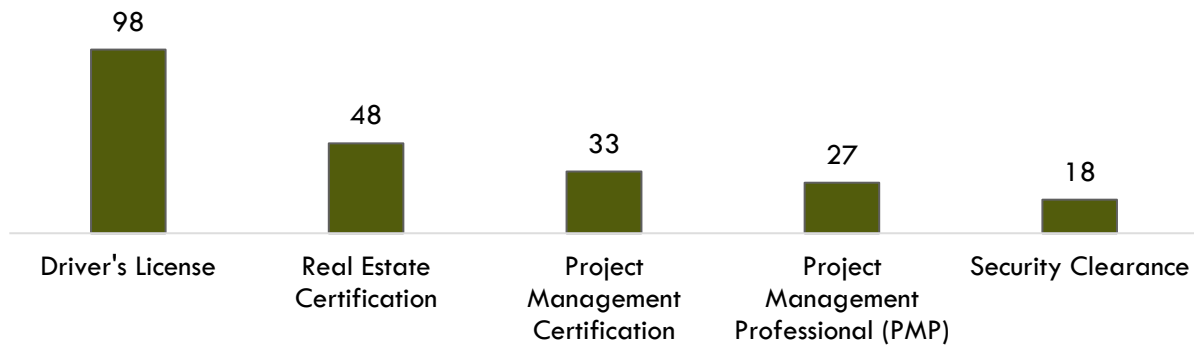
EXHIBIT 10. Skill cluster projections for social media occupations



CERTIFICATIONS

Of the postings with certification data, 98 indicated a need for a driver's license. The next two top certifications are real estate certification and project management certification (Exhibit 11). (Note: 80% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.)

EXHIBIT 11. Top social media certifications requested in job postings



EDUCATION, WORK EXPERIENCE AND TRAINING

The typical entry-level education for five of the seven occupations related to social media is a bachelor's degree. However, 35% of workers in computer occupations (all other) have less than a bachelor's degree, making this occupation relevant to community college education (Exhibit 12). Desktop publishers typically have an associate degree with short-term on-the-job training. Media and communication workers typically have a high school diploma with short-term on-the-job training.

EXHIBIT 12. Education, work experience, training and Current Population Survey results for occupations related to social media¹

OCCUPATION	TYPICAL ENTRY-LEVEL EDUCATION	WORK EXPERIENCE REQUIRED	TYPICAL ON-THE-JOB TRAINING	CPS
Advertising and Promotions Managers	Bachelor's degree	Less than 5 years	None	15.5%
Market Research Analysts and Marketing Specialists	Bachelor's degree	None	None	14.7%
Computer Occupations, All Other	Bachelor's degree	None	None	35.3%
Multimedia Artists and Animators	Bachelor's degree	None	None	27.1%
Graphic Designers	Bachelor's degree	None	None	29.2%
Media and Communication Workers, All Other	High school diploma or equivalent	None	Short-term	32.2%
Desktop Publishers	Associate degree	None	Short-term	41.5%

¹ "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

SUPPLY

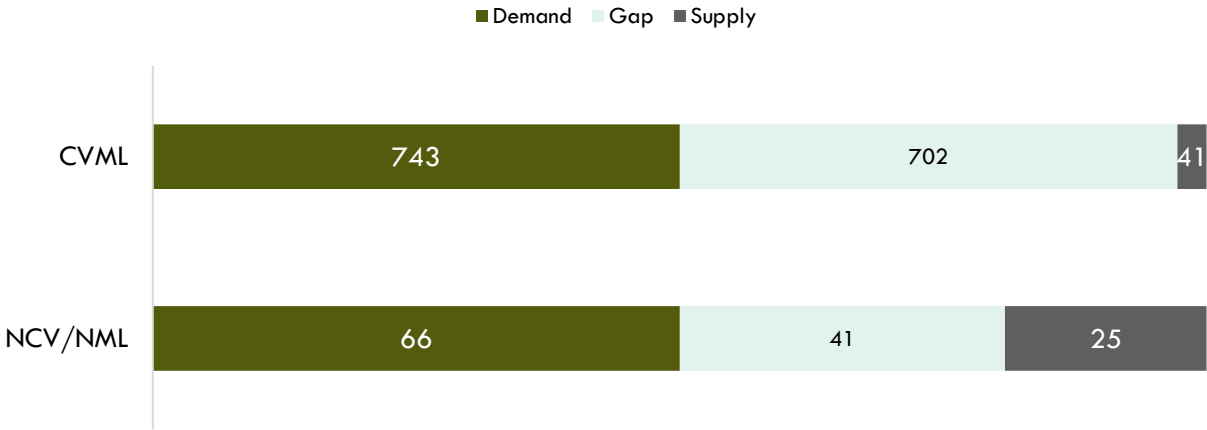
Analysis of California Community Colleges Chancellor’s Office Curriculum Inventory (COCI) program data shows there are 13 programs distributed among seven colleges contributing to workforce supply for the identified occupations in the TOP codes. Analysis of the last four years of TOP code data, from 2013 through 2017, shows that, on average, 41 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 13). There are currently zero 061000 – Mass Communication programs in the region.

EXHIBIT 13. Community college supply for social media occupations in the subregion and region

TOP4 PROGRAM TITLE	2013-14	2014-15	2015-16	2016-17	4-YEAR AVERAGE
061400 - Digital Media	-	-	-	-	-
061400 - Digital Media	-	9	2	7	6
061430 - Website Design and Development	-	13	9	2	8
061460 - Computer Graphics and Digital Imagery	-	14	18	28	20
11.0801 - Web Page, Digital/Multimedia and Information Resources Design	18	4	-	-	7
061400 - Digital Media Total	18	40	29	37	41
TOTAL	18	40	29	37	41

Even with the two above middle-skill occupations removed from total demand, an undersupply of social media workers appears to exist in the region and subregion. In the subregion, there is a shortage of 41 trained workers. In the region, the shortage is 702 trained workers (Exhibit 14).

EXHIBIT 14. Social media workforce annual demand and supply in the subregion and region



STUDENT OUTCOMES

Exhibit 15 summarizes employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for two TOP codes related to social media. Across the region, course transfers were highest for digital media, 94. More than 50% of digital media students were employed in the second fiscal quarter after exit, and 37% attained a living wage.

Exhibit 15: Regional metrics for the TOP codes related to social media

METRIC	MASS COMMUNICATION-061000	DIGITAL MEDIA-061400
Students Who Got a Degree or Certificate	*	28
Number of Students Who Transferred	14	94
Employed in the Second Fiscal Quarter after Exit	*	51% (n=110)
Attained a Living Wage	*	37% (n=63)
Median Change in Earnings	*	44% (n=42)
Job Closely Related to Field of Study	*	*
* denotes data not available.		

CONCLUSION

The entry-level wages for all seven occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.27/hour, and the average living wage for a single adult in the subregion, \$11.02/hour. There were nearly 1,150 job postings in the past 12 months for occupations related to social media in the North Central Valley/Northern Mother Lode subregion. Analysis of skills and certificate requirements in job postings indicates:

- The top baseline skill is communication, and the top specialized skill is marketing.
- The top software skill is Microsoft Excel.
- The top certification is a driver’s license.

There are seven community colleges in the region offering programs contributing to workforce supply for occupations related to social media. However, there is an undersupply of trained workers, a shortage of 41 in the subregion and 702 in the region.

RECOMMENDATION

Based on these findings, it is recommended that San Joaquin Delta College work with the region’s ICT/Digital Media deputy sector navigator, the college’s advisory board and local industry in the development of a social media program.

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: economicmodeling.com .
Living Wage	A living wage calculator that estimates the cost of living in a specific community or region: livingwage.mit.edu .
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: www.bls.gov/emp/ep_education_tech.htm .
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division, labormarketinfo.edd.ca.gov
Job Posting and Skills Data	Burning Glass, http://www.burning-glass.com/
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: www.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. (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.

Wages Family Compositions: The living wage calculator estimates the living wage needed to support families. For single adult families, the adult is assumed to be employed full time. For two adult families where both adults are in the labor force, both adults are assumed to be employed full time. For two adult families where one adult is not in the labor force, one of the adults is assumed to be employed full time while the other non-wage-earning adult provides full-time child care for the family's children. Full-time work is assumed to be year-round, 40 hours per week for 52 weeks, per adult. Families with one child are assumed to have a 'young child' (4 years old). Families with two children are assumed to have a 'young child' and a 'child' (9 years old). Families with three children are assumed to have a 'young child,' a 'child,' and a 'teenager' (15 years old).