








Digital Video Occupations

Labor Market Analysis: San Diego County

October 2022

Summary

NEW PROGRAM RECOMMENDATION?	EVIDENCE OF A SUPPLY GAP?	AT OR ABOVE THE LIVING WAGE?	EXPECTED EDUCATION FOR MAJORITY OF OCCUPATIONS ANALYZED
 Do Not Proceed with New Program	 	 	<input checked="" type="checkbox"/> Bachelor's Degree+ <input type="checkbox"/> Associate Degree <input type="checkbox"/> Some College or Certificate <input type="checkbox"/> HS Diploma or Equivalent <input type="checkbox"/> Less than a HS Diploma <input type="checkbox"/> Apprenticeship
SUPPORT FOR PROGRAM MODIFICATION?	NUMBER OF INSTITUTIONS THAT PROVIDE TRAINING	NUMBER OF ANNUAL JOB OPENINGS	
The COE defers to the region	<div style="background-color: #4a7c9c; color: white; padding: 2px; font-weight: bold;">HIGH</div> 	<div style="background-color: #4a7c9c; color: white; padding: 2px; font-weight: bold;">LOW</div> 	

This brief provides labor market information about *Digital Video Occupations* to assist the San Diego and Imperial Counties Community Colleges with program development and strategic planning. *Digital Video Occupations* include “Audio and Video Technicians,” “Camera Operators, Television, Video, and Film,” “Film and Video Editors,” and “Graphic Designers.” According to available labor market information, *Digital Video Occupations* in San Diego County have a labor market demand of 491 annual job openings (while average demand for a single occupation in San Diego County is 245 annual job openings), and 23 institutions supply 1,305 awards for these occupations, suggesting that there is an oversupply in the labor market. Entry-level and median wages are above the living wage. This brief recommends that the colleges do not proceed with developing a new program for these occupations but defers to the region for a program modification because 1) although, on average, these occupations’ entry-level wages are above the living wage; 2) a low number of annual job openings exist for these occupations; and 3) there is an oversupply in San Diego County. Colleges should note that **the percentage of students who complete a related program and earn a living wage is lower than students who complete Career Education programs in general.**

Introduction

This report provides labor market information in San Diego County for the following occupational codes in the Standard Occupational Classification (SOC)¹ system:

- **Audio and Video Technicians** (SOC 27-4011): 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.
- **Camera Operators, Television, Video, and Film** (SOC 27-4031): Operate television, video, or film camera to record images or scenes for television, video, or film productions.
- **Film and Video Editors** (SOC 27-4032): Edit moving images on film, video, or other media. May work with a producer or director to organize images for final production. May edit or synchronize soundtracks with images.
- **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.

For the purpose of this report, these occupations are referred to as *Digital Video Occupations*.

¹ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. [bls.gov/soc](https://www.bls.gov/soc).

Projected Occupational Demand

Between 2021 and 2026, *Digital Video Occupations* are projected to increase by 78 net jobs or two percent (Exhibit 1a). Employers in San Diego County will need to hire 491 workers annually to fill new jobs and backfill jobs due to attrition caused by turnover and retirement, for example.

Exhibit 1a: Number of Jobs for Digital Video Occupations (2011-2026)²

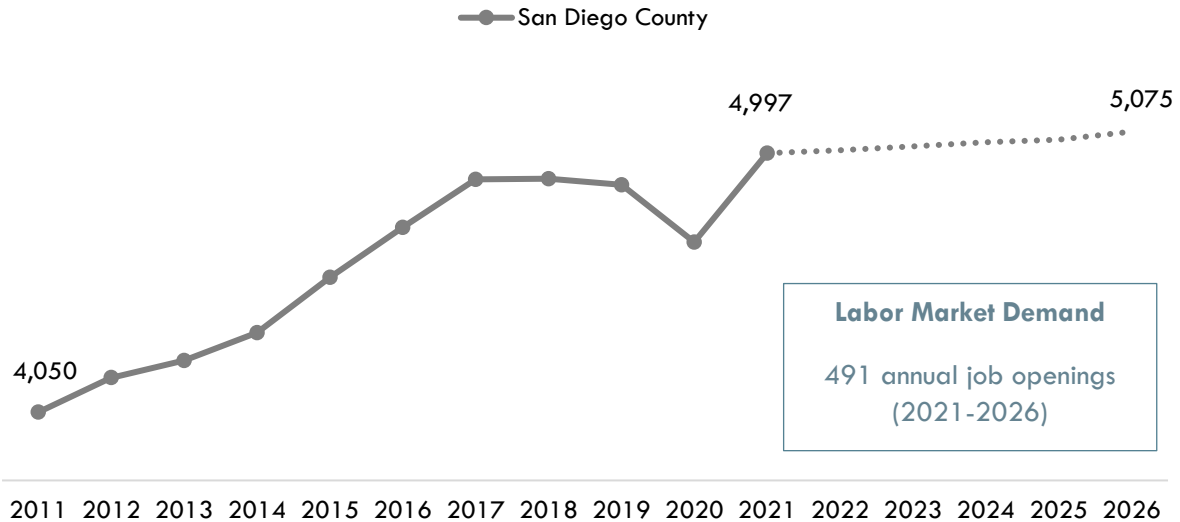


Exhibit 1b disaggregates the projected number of jobs change by occupation. “Graphic Designers” are projected to have the most labor market demand between 2021 and 2026, with 326 annual job openings.

Exhibit 1b: Number of Jobs for Digital Video Occupations in San Diego County (2021-2026)³

Occupational Title	2021 Jobs	2026 Jobs	2021 - 2026 Net Jobs Change	2021-2026 % Net Jobs Change	Annual Job Openings (Demand)
Graphic Designers	3,520	3,511	-9	0%	326
Audio and Video Technicians	735	765	30	4%	80
Film and Video Editors	459	493	34	7%	52
Camera Operators, Television, Video, and Film	283	306	23	8%	33
Total	4,997	5,075	78	2%	491

² EMSI 2022.03; QCEW, Non-QCEW, Self-Employed.

³ EMSI 2022.03; QCEW, Non-QCEW, Self-Employed.

Earnings

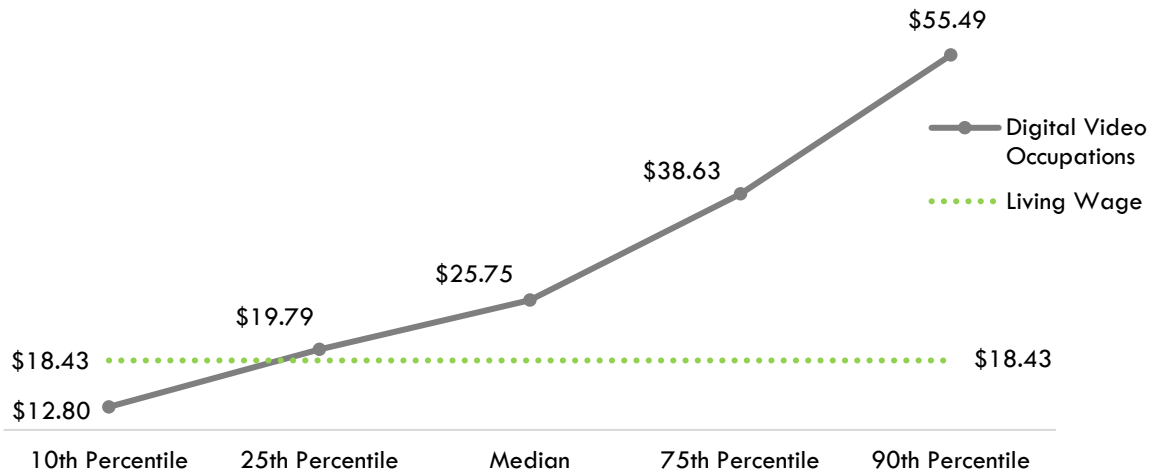
Exhibit 2a disaggregates hourly earnings by occupation. The entry-level hourly earnings for *Digital Video Occupations* range from \$17.44 to \$21.60.

Exhibit 2a: Hourly Earnings for *Digital Video Occupations* in San Diego County⁴

Occupational Title	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Audio and Video Technicians	\$21.60	\$23.47	\$31.09
Film and Video Editors	\$20.53	\$24.42	\$45.50
Graphic Designers	\$19.58	\$28.08	\$38.18
Camera Operators, Television, Video, and Film	\$17.44	\$27.03	\$39.74

On average, the entry-level hourly earnings for *Digital Video Occupations* are \$19.79; this is more than the living wage for a single adult in San Diego County, which is \$18.43 per hour (Exhibit 2b).⁵

Exhibit 2b: Average Hourly Earnings⁶ for *Digital Video Occupations* in San Diego County⁷



⁴ EMSI 2022.03; QCEW, Non-QCEW, Self-Employed.

⁵ "Family Needs Calculator (formerly the California Family Needs Calculator)," Insight: Center for Community Economic Development, last updated 2021. insightccd.org/family-needs-calculator/.

⁶ 10th and 25th percentiles could be considered entry-level wages, and 75th and 90th percentiles could be considered experienced wages for individuals who may have been in the occupation longer, received more training than others, etc.

⁷ EMSI 2022.03; QCEW, Non-QCEW, Self-Employed.

Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.⁸ There are 10 TOP codes and 15 CIP codes related to *Digital Video Occupations* (Exhibit 3).

Exhibit 3: Related TOP and CIP Codes for *Digital Video Occupations*⁹

TOP or CIP Code	TOP or CIP Program Title
TOP 0509.10	Advertising
TOP 0604.00	Radio and Television
TOP 0604.20	Television (including combined TV/Film/Video)
TOP 0612.20	Film Production
TOP 0614.00	Digital Media
TOP 0614.10	Multimedia
TOP 0614.30	Website Design and Development
TOP 0614.40	Animation
TOP 0614.60	Computer Graphics and Digital Imagery
TOP 1030.00	Graphic Art and Design
CIP 09.0701	Radio and Television
CIP 09.0702	Digital Communication and Media/Multimedia
CIP 09.0903	Advertising
CIP 10.0202	Radio and Television Broadcasting Technology/Technician
CIP 10.0301	Graphic Communications, General
CIP 10.0303	Prepress/Desktop Publishing and Digital Imaging Design
CIP 10.0304	Animation, Interactive Technology, Video Graphics and Special Effects
CIP 11.0801	Web Page, Digital/Multimedia and Information Resources Design
CIP 11.0803	Computer Graphics
CIP 11.0899	Computer Software and Media Applications, Other
CIP 50.0102	Digital Arts
CIP 50.0401	Design and Visual Communications, General
CIP 50.0409	Graphic Design
CIP 50.0602	Cinematography and Film/Video Production
CIP 50.0699	Film/Video and Photographic Arts, Other

⁸ TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data).

⁹ This brief uses a conservative estimate of program supply and only calculates awards from the TOP codes in Exhibit 3.

According to TOP data, eight community colleges supply the region with awards for these occupations: Cuyamaca College, Grossmont College, MiraCosta College, Palomar College, San Diego College of Continuing Education, San Diego City College, San Diego Mesa College, and Southwestern College.

According to CIP data, 15 non-community-college institutions supply the region with awards: Ashford University, ATA College, California Institute of Arts & Technology, California Institute of Arts & Technology – National City, Escondido Adult School, John Paul the Great Catholic University, National University, Newschool of Architecture and Design, Platt College-San Diego, Point Loma Nazarene University, Poway Adult School, San Diego Global Knowledge University, San Diego State University, Southern States University, and University of California-San Diego (Exhibit 4).

**Exhibit 4: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions
(Program Year 2017-18 through Program Year 2020-21 Average)**

TOP6 or CIP Code	TOP6 or CIP Program Title	3-Yr Annual Average CC Awards (PY18-19 to PY20-21)	Other Educational Institutions 3-Yr Annual Average Awards (PY17-18 to PY19-20)	3-Yr Total Average Supply (PY17-18 to PY20-21)
0509.10	Advertising	14	0	14
	• Palomar	14	0	
0604.00	Radio and Television	15	0	15
	• Palomar	10	0	
	• San Diego City	2	0	
	• Southwestern	3	0	
0604.20	Television (including combined TV/Film/Video)	52	0	52
	• Grossmont	10	0	
	• MiraCosta	6	0	
	• Palomar	9	0	
	• San Diego City	11	0	
	• Southwestern	16	0	
0612.20	Film Production	18	0	18
	• San Diego City	9	0	
	• Southwestern	9	0	

TOP6 or CIP Code	TOP6 or CIP Program Title	3-Yr Annual Average CC Awards (PY18-19 to PY20-21)	Other Educational Institutions 3-Yr Annual Average Awards (PY17-18 to PY19-20)	3-Yr Total Average Supply (PY17-18 to PY20-21)
0614.00	Digital Media	167	0	167
	• MiraCosta	14	0	
	• Palomar	21	0	
	• San Diego Cont Ed	132	0	
0614.10	Multimedia	32	0	32
	• MiraCosta	5	0	
	• Palomar	3	0	
	• San Diego Cont Ed	8	0	
	• San Diego Mesa	16	0	
0614.30	Website Design and Development	455	0	455
	• Cuyamaca	4	0	
	• MiraCosta	11	0	
	• Palomar	2	0	
	• San Diego Cont Ed	411	0	
	• San Diego Mesa	14	0	
	• Southwestern	13	0	
0614.40	Animation	11	0	11
	• Palomar	8	0	
	• Southwestern	3	0	
0614.60	Computer Graphics and Digital Imagery	144	0	144
	• MiraCosta	32	0	
	• Palomar	5	0	
	• San Diego Cont Ed	107	0	
	• San Diego Mesa	0	0	
	• San Diego Miramar	0	0	

TOP6 or CIP Code	TOP6 or CIP Program Title	3-Yr Annual Average CC Awards (PY18-19 to PY20-21)	Other Educational Institutions 3-Yr Annual Average Awards (PY17-18 to PY19-20)	3-Yr Total Average Supply (PY17-18 to PY20-21)
1030.00	Graphic Art and Design	65	0	66
	• Cuyamaca	14	0	
	• Palomar	6	0	
	• San Diego City	35	0	
	• Southwestern	10	0	
09.0701	Radio and Television	0	84	84
	• San Diego State University	0	84	
09.0702	Digital Communication and Media/Multimedia	0	6	6
	• National University	0	5	
	• Platt College-San Diego	0	1	
10.0304	Animation, Interactive Technology, Video Graphics and Special Effects	0	5	5
	• Newschool of Architecture and Design	0	5	
	• Platt College-San Diego	0	0	
11.0801	Web Page, Digital/Multimedia and Information Resources Design	0	15	15
	• Ashford University	0	0	
	• California Institute of Arts & Technology	0	2	
	• California Institute of Arts & Technology – National City	0	0	
	• Platt College-San Diego	0	0	
	• San Diego Global Knowledge University	0	13	
11.0803	Computer Graphics	0	0	0
	• Platt College-San Diego	0	0	

TOP6 or CIP Code	TOP6 or CIP Program Title	3-Yr Annual Average CC Awards (PY18-19 to PY20-21)	Other Educational Institutions 3-Yr Annual Average Awards (PY17-18 to PY19-20)	3-Yr Total Average Supply (PY17-18 to PY20-21)
11.0899	Computer Software and Media Applications, Other	0	70	70
	• ATA College	0	3	
	• Escondido Adult School	0	29	
	• Platt College-San Diego	0	0	
	• Poway Adult School	0	26	
	• Vista Adult School	0	12	
50.0102	Digital Arts	0	1	1
	• Point Loma Nazarene University	0	1	
50.0401	Design and Visual Communications, General	0	19	19
	• University of California-San Diego	0	19	
50.0409	Graphic Design	0	77	77
	• California Institute of Arts & Technology	0	0	
	• Newschool of Architecture and Design	0	0	
	• Platt College-San Diego	0	61	
	• Point Loma Nazarene University	0	16	
50.0602	Cinematography and Film/Video Production	0	55	55
	• John Paul the Great Catholic University	0	55	
50.0699	Film/Video and Photographic Arts, Other	0	0	0
	• Southern States University	0	0	
			Total	1,305

Demand vs. Supply

Comparing labor demand (annual openings) with labor supply¹⁰ suggests that there is an **oversupply** for these occupations in San Diego County, with **491** annual openings and **1,297** awards. Comparatively, there are **8,758** annual openings in California and **10,652** awards, suggesting that there is also a supply gap across the state¹¹ (Exhibit 5).

Exhibit 5: Labor Demand (Annual Openings) Compared with Labor Supply (Average Annual Awards)

	Demand (Annual Openings)	Supply¹² (Total Annual Average Supply)	Supply Gap or Oversupply
San Diego	491	1,297	806
California	8,758	10,652	1,894

Please note: This is a basic analysis of supply and demand of labor. The data does not include workers currently in the labor force who could fill these positions or workers who are not captured by publicly available data. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed.

¹⁰ Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

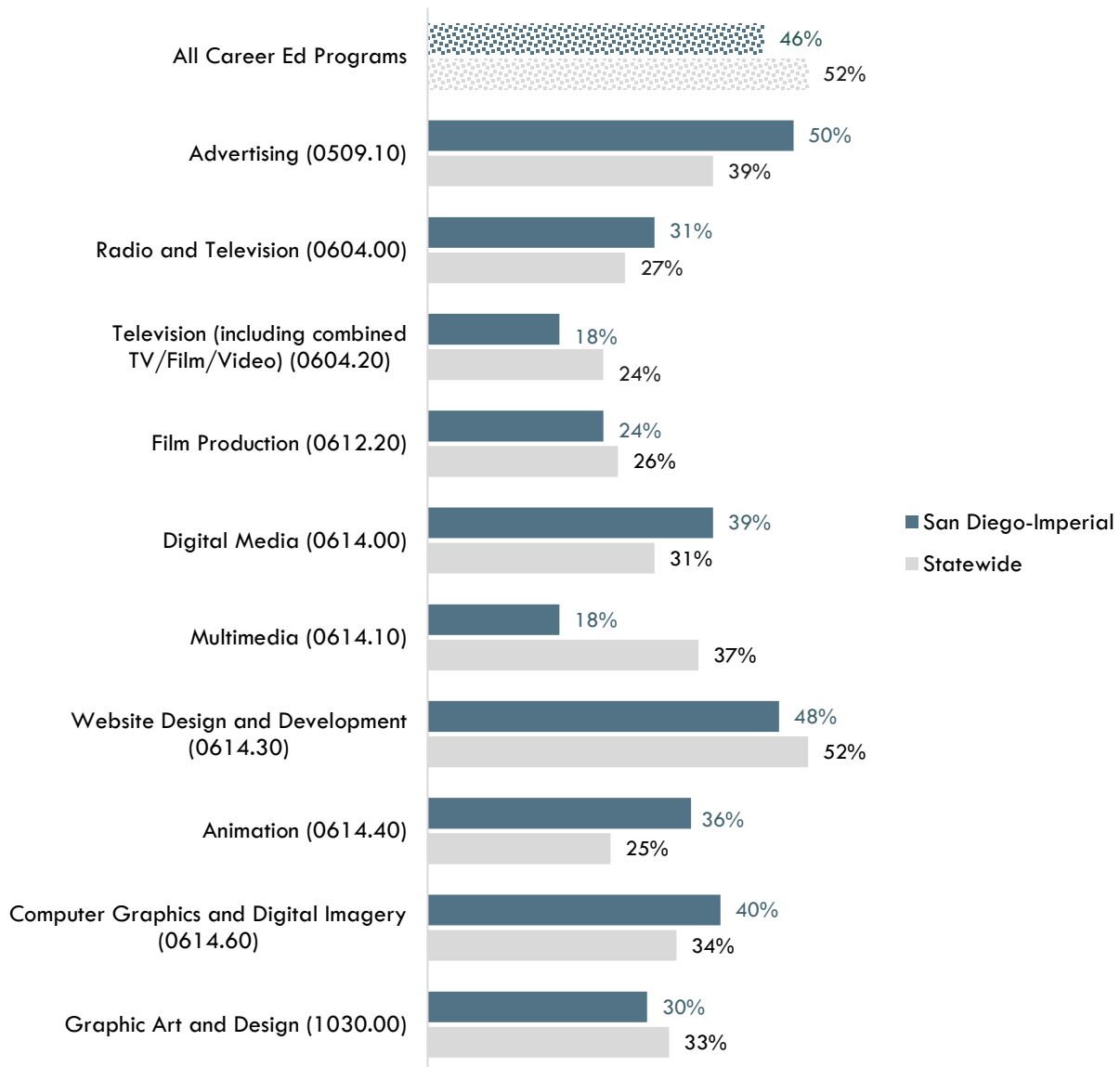
¹¹ "Supply and Demand," Centers of Excellence Student Outcomes, <https://coecc.net/our-resources/>.

¹² Awards included: associate degree; award <1 year; award 1<2 years; and postsecondary awards

Student Outcomes and Regional Comparisons

According to the California Community Colleges LaunchBoard, 18 to 50 percent of students in the San Diego-Imperial region earned a living wage after completing a program related to *Digital Video Occupations*, compared 24 to 52 percent statewide and 52 percent of students in Career Education programs in general across the state (Exhibit 6a).¹³

Exhibit 6a: Percentage of Students Who Earned a Living Wage by Program, PY2019-20¹⁴



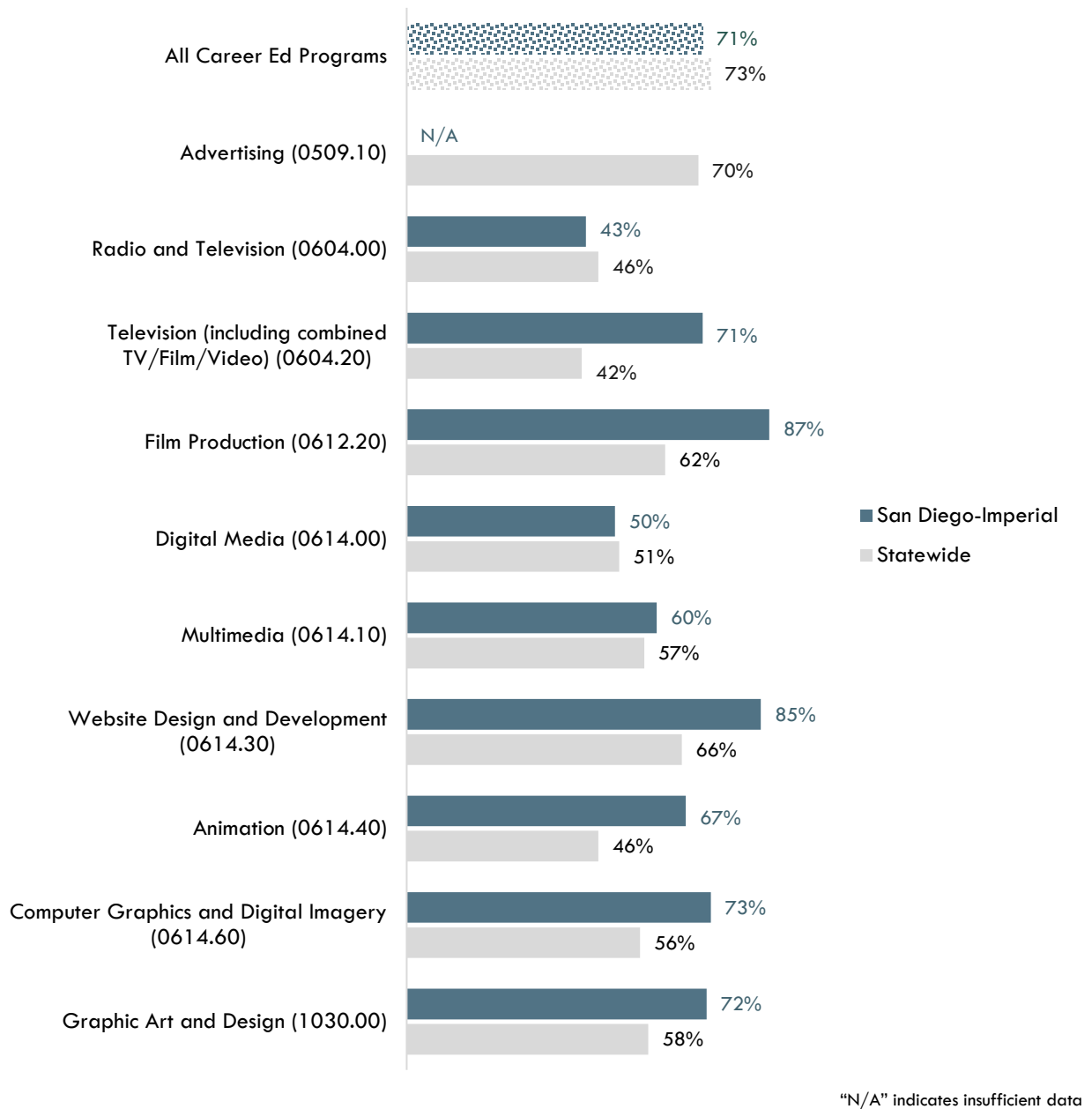
"N/A" indicates insufficient data

¹³ "California Community Colleges Strong Workforce Program," California Community Colleges, calpassplus.org/LaunchBoard/SWP.aspx.

¹⁴ Most recent year with available data is Program Year 2019-20. Among completers and skills builders who exited, the percentage of students who attained a living wage.

According to the California Community Colleges LaunchBoard, 43 to 87 percent of students in the San Diego-Imperial region obtained a job closely related to their field of study after completing a program related to *Digital Video Occupations*, compared to 42 to 70 percent statewide and 73 percent of students in Career Education programs in general across the state (Exhibit 6b).¹⁵

Exhibit 6b: Percentage of Students in a Job Closely Related to Field of Study by Program, PY2018-19¹⁶



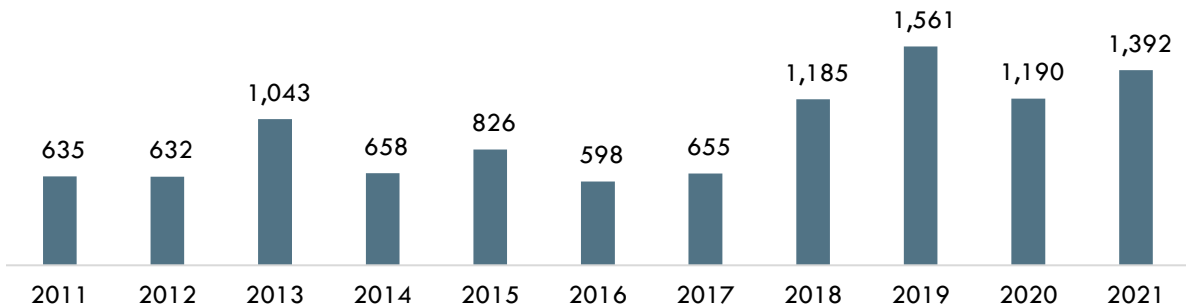
¹⁵ "California Community Colleges Strong Workforce Program," California Community Colleges, calpassplus.org/LaunchBoard/SWP.aspx.

¹⁶ Most recent year with available data is Program Year 2018-19. Percentage of Students in a Job Closely Related to Field of Study: Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

Online Job Postings

This report analyzes not only historical and projected (traditional LMI) data, but also recent data from online job postings (real-time LMI). Online job postings may provide additional insight about recent changes in the labor market that are not captured by historical data. Between 2011 and 2021, there was an average of 943 online job postings per year for *Digital Video Occupations* in San Diego County (Exhibit 7). Please note that online job postings do **not** equal labor market demand; demand is represented by annual job openings (see Exhibit 1 b). While this brief includes online jobs postings data to help with curriculum development, the community colleges should note that this type of data is impacted by several variables: employers may post a position multiple times to increase the pool of applicants; a job posting can remain posted after a business decides not to fill a position; or an employer may use one posting to fill multiple positions, for example.

Exhibit 7: Number of Online Job Postings for *Digital Video Occupations* in San Diego County (2011-2021)¹⁷



¹⁷ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2011-2021.

Top Employers

Between January 1, 2019 and December 31, 2021, the top five employers in San Diego County for *Digital Video Occupations* were [Qualcomm](#), [PSAV Presentation Services](#), [Kalo](#), [University of California San Diego](#), and [Living Healthy](#) based on online job postings (Exhibit 8).

Exhibit 8: Top Employers for *Digital Video Occupations* in San Diego County¹⁸

Top Employers	
<ul style="list-style-type: none">• Qualcomm• PSAV Presentation Services• Kalo• University of California San Diego• Living Healthy	<ul style="list-style-type: none">• Cornerstone First Mortgage• AVI Systems• Audio Visual Management Solutions• Apple Inc.• SHS Incorporated

Education, Skills, and Certifications

Digital Video Occupations have a national educational attainment ranging from a [postsecondary non-degree](#) to a [bachelor's degree](#) (Exhibit 9a).

Exhibit 9a: National Educational Attainment for *Digital Video Occupations*¹⁹

Occupational Title	Typical Entry-Level Education
Camera Operators, Television, Video, and Film	Bachelor's degree
Film and Video Editors	Bachelor's degree
Graphic Designers	Bachelor's degree
Audio and Video Technicians	Postsecondary non-degree

¹⁸ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2019-2021.

¹⁹ EMSI 2022.03; QCEW, Non-QCEW, Self-Employed.

Based on online job postings between January 1, 2019 and December 31, 2021 in San Diego County, employers posted a **bachelor's degree** as the educational requirement for *Digital Video Occupations* (Exhibit 9b).²⁰

Exhibit 9b: Educational Requirements for *Digital Video Occupations* in San Diego County²¹

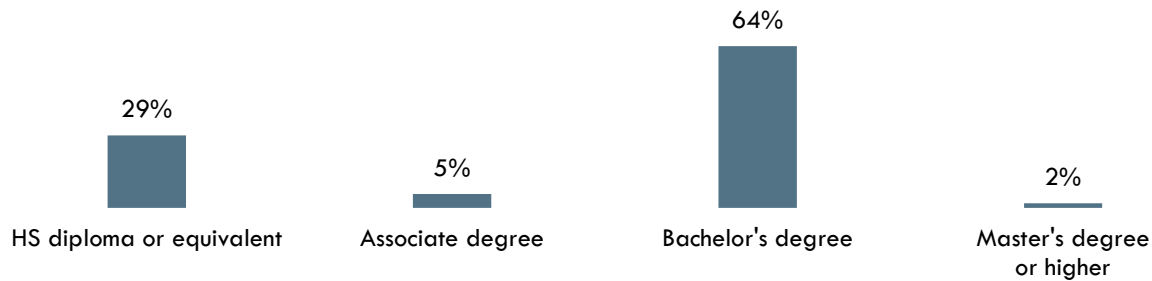


Exhibit 10 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2019 and December 31, 2021.

Exhibit 10: Top Skills for *Digital Video Occupations* in San Diego County²²

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> • Graphic Design • Social Media • Web Site Design • Typesetting • Video Editing • Project Management • Digital Design • Adobe Aftereffects • Videography • Customer Service • Visual Design • Photography • Packaging • Marketing Materials • Budgeting 	<ul style="list-style-type: none"> • Creativity • Communication Skills • Detail-Oriented • Teamwork / Collaboration • Organizational Skills • Editing • Meeting Deadlines • Problem Solving • Multi-Tasking • Troubleshooting • Time Management • Physical Abilities • Writing • Planning • Self-Starter 	<ul style="list-style-type: none"> • Adobe Photoshop • Adobe InDesign • Adobe Illustrator • Adobe Acrobat • Adobe Creative Suite • Microsoft PowerPoint • Adobe Aftereffects • Microsoft Excel • Visual Design • Adobe Premiere • Microsoft Word • Infographics • Facebook • HTML5 • Design Software

²⁰ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2019-2021.

²¹ "Educational Attainment for Workers 25 Years and Older by Detailed Occupation," Bureau of Labor Statistics, last modified April 9, 2021. bls.gov/emp/tables/educational-attainment.htm.

²² Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2019-2021.

Exhibit 11 lists the top certification that appeared in online job postings between January 1, 2019 and December 31, 2021.

Exhibit 11: Top Certification for *Digital Video Occupations* in San Diego County²³

Top Certification in Online Job Postings

1. Security Clearance
 2. Casino Gaming License
 3. CompTIA Security+
 4. Adobe InDesign (Certified)
 5. Audiovisual (AV) Certification
 6. Project Management Certification
 7. Makeup Artist
 8. Graphic Design Certification
 9. Certified Graphic Designer
-

²³ Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool." 2019-2021.

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Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and the report findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

This workforce demand report uses state and federal job projection data that was developed before the economic impact of COVID-19. The COE is monitoring the situation and will provide more information as it becomes available. Please consult with local employers to understand their current employment needs.