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CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

PROGRAM ENDORSEMENT BRIEF

FILM, TELEVISION, AND ELECTRONIC MEDIA OCCUPATIONS IN THE GREATER SACRAMENTO REGION

North (Greater Sacramento)
Center of Excellence

AUGUST 2021

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SUMMARY

The North/Far North Center of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled career pathways in the North (Greater Sacramento) subregion. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations. These occupations typically require education beyond a high school diploma but less than a bachelor's degree. However, this report may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this type of analysis due to the lessened barriers for entry-level work, such as no formal education and on-the-job training requirements.

Key findings include:

- The North (Greater Sacramento) region held 1,445 film and video production jobs in 2020. Film and video production jobs are projected to increase by 4% over the next five years, adding 57 new jobs to the subregion by 2025.
- Film and video production occupations are estimated to have 160 annual openings in the North (Greater Sacramento) region between 2020 and 2025. Annual job openings are near equally split between middle (45%, n= 72) and high skilled (55%, n = 88) occupations.
- Entry-level wage data shows that film and video production occupations earn approximately \$2 to \$8 above the subregion's living wage of \$13.18 per hour.
- Awards data analysis shows that North (Greater Sacramento) training providers conferred an average of 67 awards (certificates, associate and bachelor's degrees) in film and video production programs over the last three academic years.

Recommendations include:

- The North/Far North Center of Excellence recommends moving forward with program development.
- North (Greater Sacramento) Community colleges should consider including coursework focused on social media within their film and video production programs, as the social media skill was requested in 25% of job postings.
- The North/Far North Center of Excellence recommends that community colleges develop both terminal (ending at the associate degree level) and transfer career pathways so that students have clearly articulated training options for their futures.

INTRODUCTION

The North (Greater Sacramento) Center of Excellence was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupations and codes:

- These middle-skill occupations require more education and training beyond a high school diploma but less than a four-year degree:
 - Audio and Video Technicians (27-4011)
 - Broadcast Technicians (27-4012)
- Students who transfer and earn a four-year degree could pursue the following high-skill occupations:
 - Producers and Directors (27-2012)
 - Film and Video Editors (27-4032)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are appropriate for inclusion in this report:

- Television, including combined TV/Film/Video (0604.20)
- Film Production (0612.20)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Radio and Television (09.0701)
- Radio and Television Broadcasting (10.0202)
- Cinematography and Film/Video Production (50.0602)

OCCUPATIONAL DEMAND

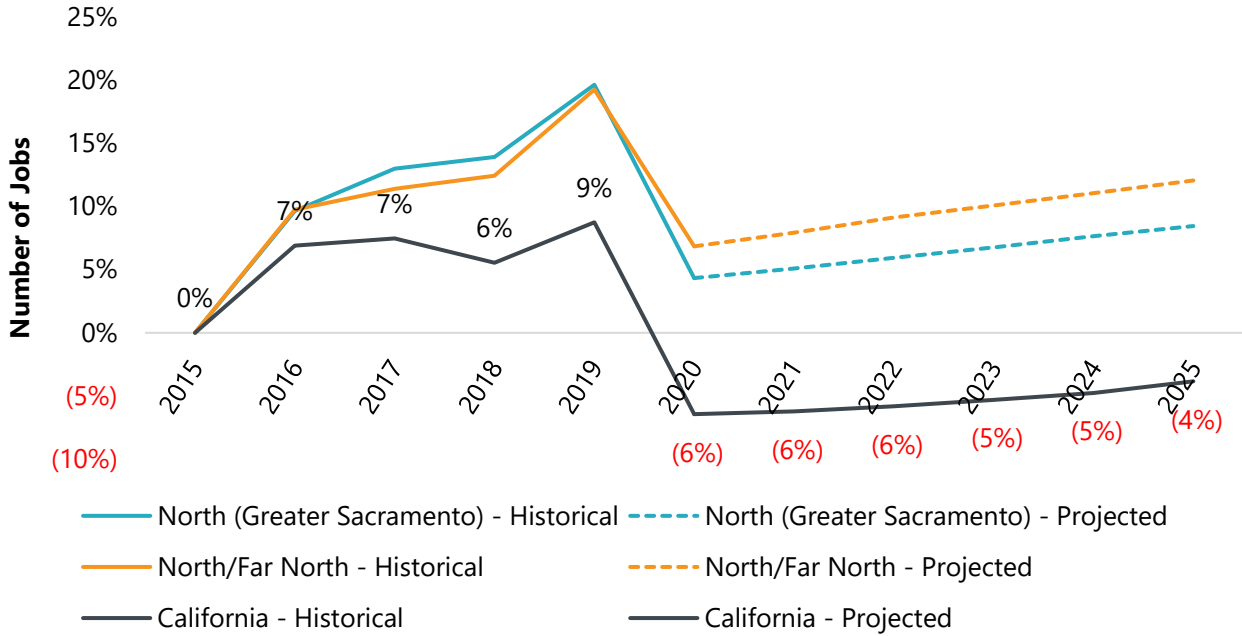
Exhibit 1 summarizes the five-year projected job growth for middle-skill and high-skill occupations in the North (Greater Sacramento) selected occupations, North/Far North, and California.

Exhibit 1. Employment and projected demand, 2020-2025

Occupation	2020 Jobs	2025 Jobs	2020-2025 Jobs Change	2020-2025 Jobs % Change	2020-2025 Annual Openings
Producers and Directors	695	713	18	3%	66
Audio and Video Technicians	393	417	24	6%	50
Broadcast Technicians	199	194	(6)	(3%)	22
Film and Video Editors	157	178	21	14%	22
North (Greater Sacramento)	1,445	1,502	57	4%	160
Producers and Directors	816	847	31	4%	82
Audio and Video Technicians	519	556	36	7%	68
Broadcast Technicians	285	280	(5)	(2%)	31
Film and Video Editors	215	242	27	13%	30
North/Far North	1,835	1,924	89	5%	212
Producers and Directors	35,739	36,064	325	1%	3,129
Audio and Video Technicians	11,785	12,175	390	3%	1,349
Broadcast Technicians	3,085	3,144	59	2%	343
Film and Video Editors	12,673	13,655	983	8%	1,488
California	63,283	65,038	1,756	3%	6,309

Exhibit 2 compares the percent change in jobs between 2015 through 2020 and the projected changes through 2025. The rate of change is indexed to the total number of jobs in 2015.

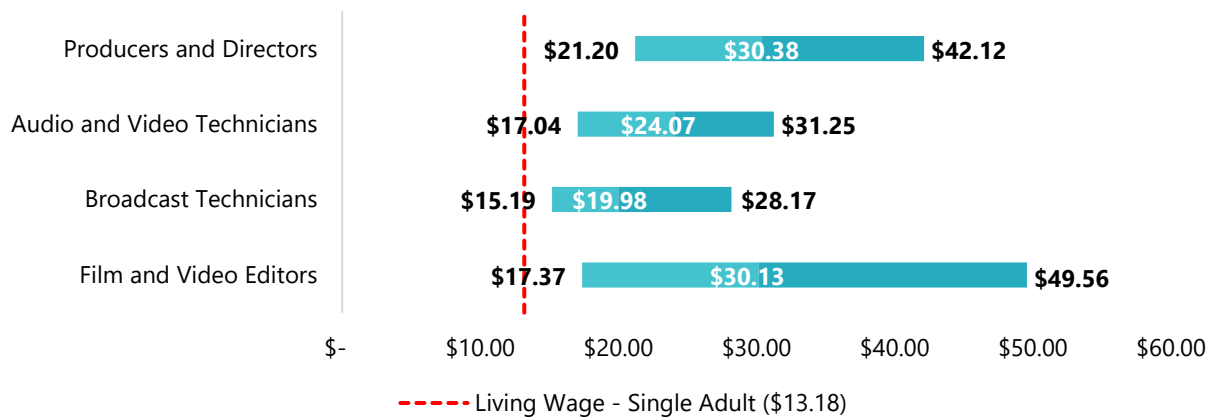
Exhibit 2. Changes in employment, 2015-2025



WAGES

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupations to the North (Greater Sacramento) living wage for a single adult - \$13.18 per hour.¹

Exhibit 3. Comparison of wages by occupation, 2020



¹ Living wage is defined as the level of income a single adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. The 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

JOB POSTINGS

This section of the report analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends.

The NFN COE identified 202 online job postings for the selected occupations in the North (Greater Sacramento) region. Job postings data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from August 1, 2020, to July 31, 2021.

Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupations.

Exhibit 4. Number of job postings by occupation

Occupation	Skill Level	Job Postings	Share of Job Postings
Producers and Directors	High	116	57%
Broadcast Technicians	Middle	42	21%
Audio and Video Technicians	Middle	28	14%
Film and Video Editors	High	16	8%
Total Job Postings	--	202	100%

Exhibit 5 shows the top 10 job titles with the most job postings and the share. All job postings included a job title. Please note that there is a high degree of variability in job titles; therefore, this list is a sampling of possible job titles aligned to the selected occupations.

Exhibit 5. Top jobs titles

Job Title	Job Postings	Share of Job Postings
Producer	27	13%
Board Operator	14	7%
News Producer	9	4%
Producer Afternoon News	7	3%
Producer Kfbk News	7	3%

Job Title	Job Postings	Share of Job Postings
Video Editor	7	3%
Digital Producer	6	3%
Technician, Director/Td	6	3%
Associate Producer	5	2%
Regional Video/Audio Lead	4	2%

Employers

Exhibit 6 shows the top 10 employers with the most job postings for the selected occupations. Eleven percent (n = 22) of job postings did not include an employer.

Exhibit 6. Employers with the most job postings

Employer	Job Postings	Share of Job Postings
Iheart Media	41	20%
Hearst Media Services (KCRA)	9	4%
Tribune Company	8	4%
Nexstar Broadcasting Group	7	3%
CBS Broadcasting	7	3%
Hearst Communications (KCRA)	4	2%
Educational Media Foundation	4	2%
Tegna (ABC10)	4	2%
KWES-TV Midland	3	1%
Viacom CBS	2	1%

Certifications, Skills, and Experience

Exhibit 7 shows the most relevant certifications requested by employers for the selected occupations. Most job postings, or 90% (n = 181), did not include certification information.

Exhibit 7. Most in-demand certifications

Certification	Job Postings	Share of Job Postings
Driver's License	13	6%
Automation certification	7	3%

Exhibit 8 shows the specialized, software, and foundational skills most requested by employers for the selected occupations.

Exhibit 8. Most in-demand specialized skills

Specialized Skills	Skill Postings	Share of Skill Postings
Broadcast Industry Knowledge	98	49%
Music	57	28%
Social Media	51	25%
Scheduling	50	25%
Media Production	49	24%
Budgeting	48	24%
Journalism	41	20%
Radio Production	38	19%
Video Editing	37	18%
Broadcast Industry Knowledge	98	49%
Data and Software Skills	Skill Postings	Share of Skill Postings
Microsoft Office	51	25%
Adobe Photoshop	25	12%
Adobe Premiere	23	11%
Adobe Indesign	20	10%

Adobe Acrobat	15	7%
Adobe Creative Suite	15	7%
Adobe Aftereffects	12	6%
Facebook	12	6%
Adobe Illustrator	10	5%
Final Cut Pro	10	5%
Foundational Skills	Skill Postings	Share of Skill Postings
Editing	107	53%
Creativity	104	51%
Communication Skills	78	39%
Writing	63	31%
Teamwork / Collaboration	59	29%
Multi-Tasking	56	28%
Meeting Deadlines	55	27%
Research	53	26%
Microsoft Office	51	25%
Planning	41	20%

Exhibit 9 shows the minimum level of education required by employers for job postings for the selected occupations. Thirty percent (n = 61) of job postings did not include a preferred education level.

Exhibit 9. Employer-preferred minimum education levels

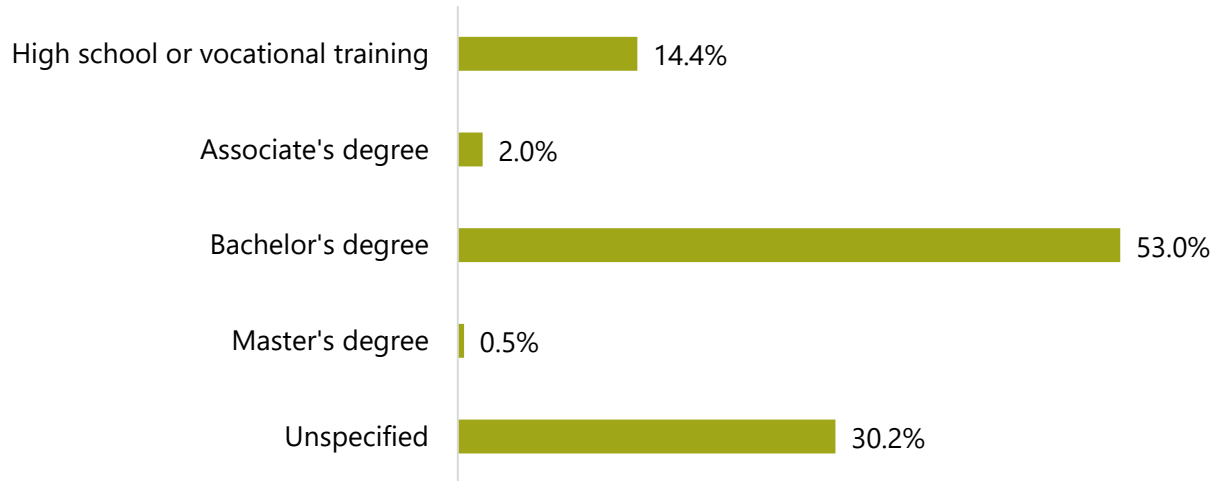


Exhibit 10 shows the experience levels required by employers for job postings for the selected occupations. Forty-five percent (n = 91) of job postings did not include a preferred education level.

Exhibit 10. Employer-preferred experience levels

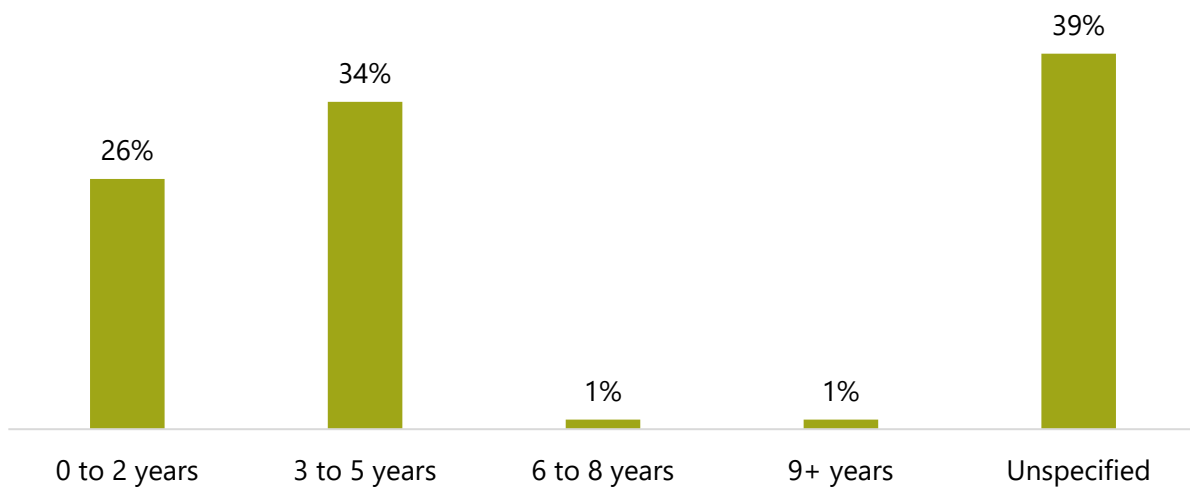
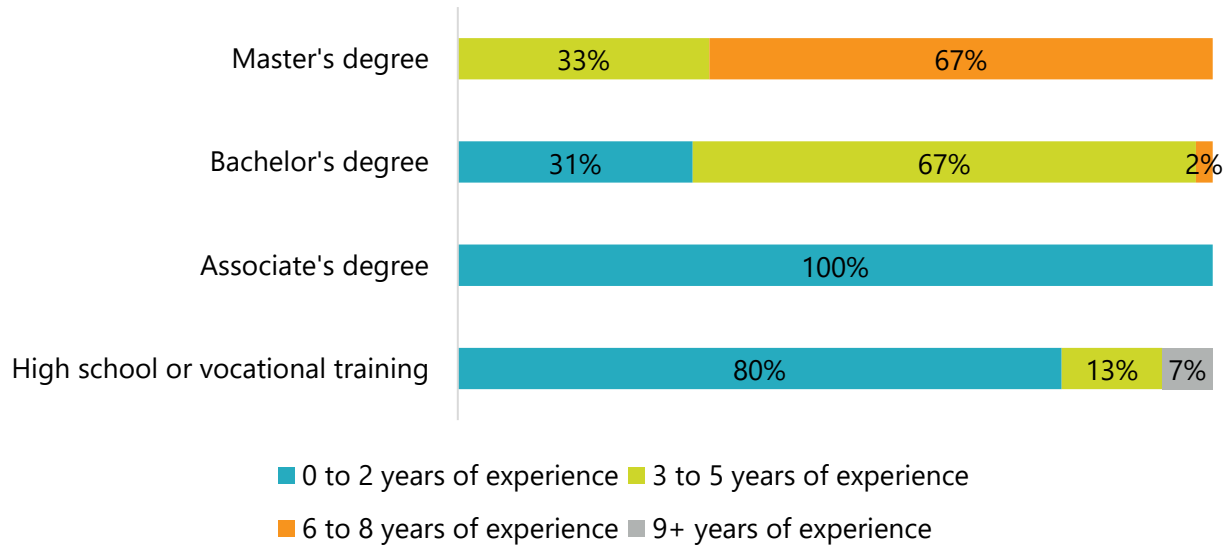


Exhibit 11 provides information on the employer-preferred experience and minimum level of education required in the job postings. Please note that a job posting may be counted more than once in the educational categories shown below. Forty-seven percent (n = 95) of job

postings were excluded from this exhibit because they did not include both an education level and an experience requirement.

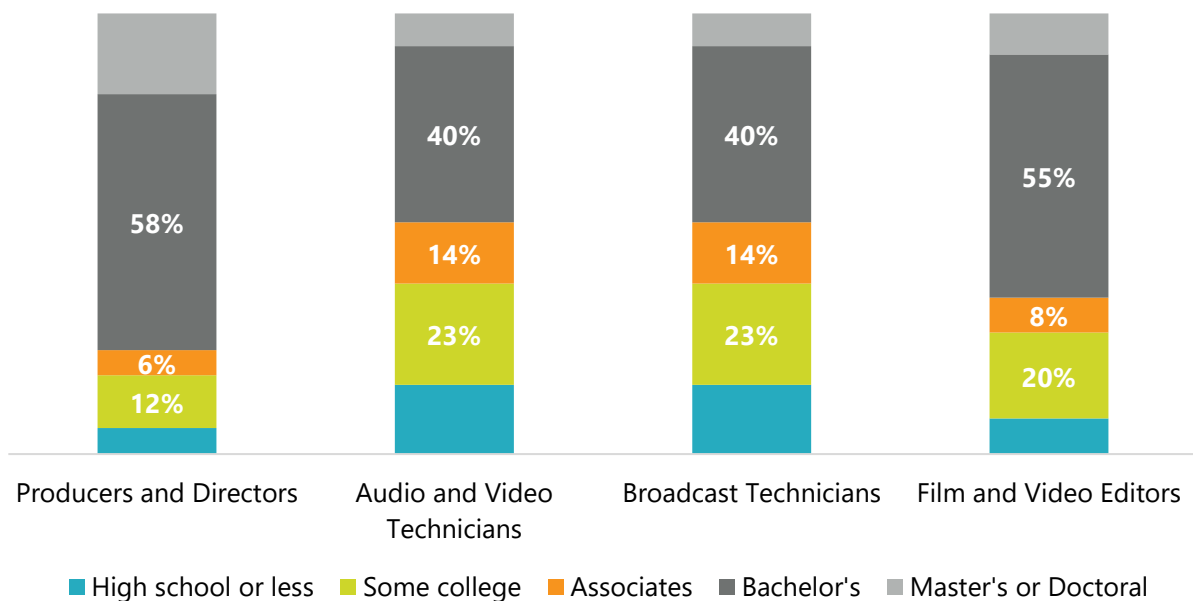
Exhibit 11. Employer-preferred experience by education level



EDUCATION AND TRAINING

The U.S. Census Bureau and Bureau of Labor Statistics collected data on education achieved by workers employed in occupations. Exhibit 12 shows the national-level educational attainment of the current workforce in the selected occupations.

Exhibit 12. National worker educational attainment for selected occupations, 2019



The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which the BLS publishes projections data. Exhibit 13 shows the skill level and entry-level job requirements for the selected occupations.

Exhibit 13. Typical education, work experience, and on-the-job training requirements

Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Producers and Directors	Bachelor's degree	Less than five years	None
Audio and Video Technicians	Postsecondary nondegree award	None	Short-term on-the-job training
Broadcast Technicians	Associate's degree	None	Short-term on-the-job training
Film and Video Editors	Bachelor's degree	None	None

EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 14 shows the TOP and CIP codes for educational programs related to the selected occupations.

Exhibit 14. TOP and CIP codes for training programs related to the selected occupations

TOP Programs and Codes	Aligned CIP Programs and Codes
Television, including combined TV/Film/Video (0604.20)	Radio and Television (09.0701) Radio and Television Broadcasting (10.0202)
Film Production (0612.20)	Cinematography and Film/Video Production (50.0602)

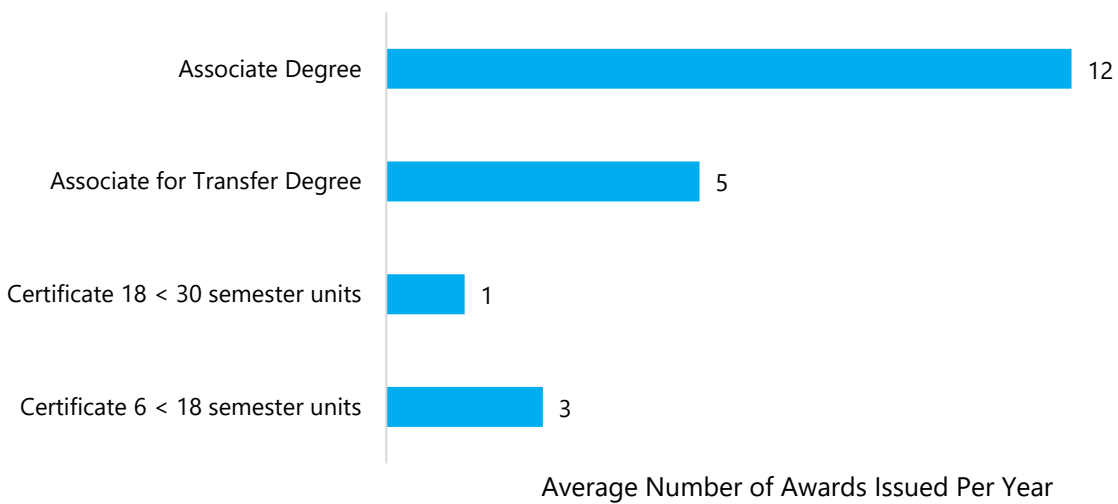
Community College Supply

Exhibits 15 and 16 compare the average number of certificates and degrees conferred in selected community college programs over the last three academic years.

Exhibit 15. Annual average community college awards by program, 2017-18 through 2019-20

Program - TOP Code	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Yr Annual Awards Average
Television, including combined TV/Film/Video (0604.20)	Cosumnes River	13	5	19	12
	Subtotal	13	5	19	12
Film Production (0612.20)	Cosumnes River	6	7	10	8
	Sacramento City	0	4	0	1
	Subtotal	6	11	10	9
Grand Total		19	16	29	21

Exhibit 16. Annual average community college awards by type, 2017-18 through 2019-20



Other Postsecondary Supply

Exhibit 17 compares the average number of degrees that non-community college training providers conferred in the North (Greater Sacramento) area over the last three academic years. Please note that non-community college data often lags by one year.

Exhibit 17. Other postsecondary awards by program, 2017-18 through 2019-20

Program - CIP Code	College	Annual Awards 2017-18	Annual Awards 2018-19	Annual Awards 2019-20	3-Yr Annual Awards Average
Cinematography and Film/Video Production (50.0602)	CSU Sacramento (Bachelor's Degree)	46	40	52	46
	Subtotal	46	40	52	46
	Grand Total	46	40	52	46

FINDINGS

This report focuses on four occupations with relevant career pathways in film, television, and electronic media, including audio and video technicians, broadcast technicians, film and video editors, and producers and directors. This occupational group is referred to as "film and video production" occupations or jobs in this report.

- The North (Greater Sacramento) region held 1,445 film and video production jobs in 2020.
- North (Greater Sacramento) film and video production jobs are projected to increase by 4% over the next five years, adding 57 new jobs to the subregion by 2025. Jobs for film and video production occupations are projected to grow faster in the North (Greater Sacramento) subregion than California.
- Film and video production occupations are estimated to have 160 annual openings in the North (Greater Sacramento) region between 2020 and 2025. Annual job openings are near equally split between middle (45%, n= 72) and high skilled (55%, n = 88) occupations.
- Wage data shows that film and video production occupations earn approximately \$2 to \$8 above the subregion's living wage of \$13.18 per hour. Entry-level wages are highest for producers and directors at \$21.20 per hour and the lowest for broadcast technicians at \$15.19 per hour.

- According to real-time labor market information, there were about 202 online job postings for film and video production occupations between August 1, 2020, and July 31, 2021. Sixty-five percent (n = 132) of job postings were for high skill occupations (producers/directors, and film/video editors), while 35% of job postings (n = 70) were for middle-skill occupations (broadcast technicians and audio video technicians).
- Between 25% and 50% of job postings required the following specialized skills: knowledge of the broadcast industry, music, social media, and media production.
- The most desired foundational skills included editing (53%) and creativity (51%).
- Comparing the employer-preferred experience to the required education level provides insight into where students who complete a community college program in film and video production might find entry-level work. For instance, nearly 100% of all jobs requiring an associate degree also need zero to two years of relevant work experience, suggesting this is a prime spot for entry-level work. About 80% of jobs requiring a high school diploma or vocational training and 31% requiring a bachelor's degree also require zero to two years of experience.
- Between 18% and 37% of incumbent workers in film and video production occupations have educational attainment levels consistent with community college offerings (some college or associate degrees). The share of workers in high-skilled occupations holding up to an associate's degree is lower (18-28%) than workers in middle-skilled occupations (37%). More than half of workers in high skilled occupations hold at least a bachelor's degree.
- As of fall 2021, three North (Greater Sacramento) community colleges offer degrees and certificates in film and video production programs. Together, these programs conferred an average of 21 awards (certificates and associate degrees) in film and video production programs over the last three academic years (2017-18 through 2019-20).
- California State University Sacramento offers a four-year degree in [film and video production](#), a potential pathway for an articulated transfer agreement between North (Greater Sacramento) community colleges. Between 2017-18 and 2019-20, CSU Sacramento conferred an average of 46 bachelor's degrees in its film and video production program.

RECOMMENDATIONS

- Based on a three-year average of annual awards in North (Greater Sacramento) region substance abuse counseling training programs and projected yearly openings, the supply gap analysis shows that the region seems to have room for additional training.

- Together, community colleges and other postsecondary training providers issued an average of 67 awards over the last three years.
- There are 1,308 projected annual openings for substance abuse counseling occupations.
- Based on a three-year average of annual awards in North (Greater Sacramento) region film and video production programs and projected yearly openings, the supply gap analysis shows that the area seems to have room for additional training.
 - Together, community colleges and other postsecondary training providers issued an average of 67 awards over the last three years. There are 160 projected annual openings for film and video production occupations.
 - Furthermore, there are gaps between the occupational demand and educational supply at both the middle-skill (72 annual openings vs. 21 awards) and high-skill (88 annual openings vs. 46 awards) occupation levels.
- Social media skills² were mentioned in 25% of job postings for the selected film and video production occupations. Community colleges should consider including coursework focused on social media within their film and video production programs.
- The North/Far North Center of Excellence recommends that community colleges develop both terminal (ending at the associate degree level) and transfer career pathways so that students have clearly articulated training options for their futures.
- The North/Far North Center of Excellence recommends moving forward with the program.

COE Recommendation		
Move forward with the program	Proceed with caution	Program is not recommended
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

² The social medial skills is defined by Burning Glass as "computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks."

APPENDIX A. METHODOLOGY AND SOURCES

Occupations in this report were identified using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O*Net OnLine. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass.

Cal-PASS Plus LaunchBoard. California Community Colleges Chancellor's Office.
<https://www.calpassplus.org/LaunchBoard/Home.aspx>.

Emsi. <https://www.economicmodeling.com/>. 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).

Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017. Bureau of Labor Statistics. <https://www.bls.gov/emp/tables/educational-attainment.htm#>.

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Self-Sufficiency Standard Tool for California. The University of Washington.

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"Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6th Edition. <https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/Educational-Services-and-Support/Academic-Affairs/What-we-do/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.ashx>

"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. November 2015 Edition. <http://coecc.net/>

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.

Important Disclaimer: 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. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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Centers of Excellence for Labor Market Research, Economic and
Workforce Development Program



CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

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