

October 2020

# Labor Market Analysis

## Film Studies



California  
Community  
Colleges



Prepared by the Central Valley/Mother Lode Center of Excellence

# Table of Contents

- Summary ..... 3
  - Key findings ..... 3
- Introduction..... 4
- Occupational Demand ..... 5
- Wages ..... 6
- Job Postings ..... 7
  - Salaries ..... 7
  - Education..... 8
  - Baseline and Specialized Skills ..... 8
  - Software Skills ..... 9
  - Certifications ..... 9
- Education, Work Experience & Training ..... 9
- Supply ..... 10
  - Gap Analysis ..... 10
- Student Outcomes ..... 11
- Conclusion..... 11
- Recommendation ..... 11
- Appendix A: Methodology & Data Sources ..... 12

**COVID-19 Statement:** This report includes employment projection data by EMSI. EMSI’s projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

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

# Summary

Please note the COVID-19 statement on page 2 when considering this report's findings.

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for film studies. Five occupations related to film studies were identified by Modesto Junior College: 27-1014, Audio and Video Equipment Technicians; 27-2012, Producers and Directors; 27-4011, Multimedia Artists and Animators; 27-4014, Sound Engineering Technicians; and 27-4031, Camera Operators, Television, Video, and Motion Picture.

## Key findings:

- **Occupational demand** — Nearly 680 workers were employed in jobs related to film studies in 2019 in the North Central Valley/North Mother Lode (NVC/NML) subregion. The largest occupation is audio and video equipment technicians with 416 workers in 2019, a projected growth rate of 6% over the next five years, and 51 annual openings.
- **Wages** — Producers and directors earn the highest entry-level wages, \$34.43/hour in the subregion and \$26.75/hour in the region.
- **Employers** — Employers with the most job postings in the subregion are Kalo, TravelCenters of America, and Whisperkool.
- **Occupational titles** — The most common occupational title in job postings in the subregion is camera operators, television, video, and motion picture. The most common job title is technician-mechanic.
- **Skills and certifications** — The top baseline skill is teamwork/collaboration, the top specialized skill is Adobe Premiere, and the top software skill is Adobe Premiere. The most in-demand certification is Automotive Service Excellence (ASE) Certification.
- **Education** — A bachelor's degree is typically required for three of the five occupations. A postsecondary nondegree award is typically required for audio and video equipment technicians, and sound engineering technicians.
- **Supply** — Analysis of postsecondary completions in the region shows that on average five awards were conferred in the Central Valley/Mother Lode region each year.

Based on a comparison of occupational demand and supply, there is an undersupply of 83 trained workers in the subregion and 231 workers in the region. The Center of Excellence recommends that Modesto Junior College work with the regional director, the college's advisory board, and local industry in the development of programs to address the shortage of film studies workers in the region.

# Introduction

The Central Valley/Mother Lode Center of Excellence was asked by Modesto Junior College to provide labor market information for film studies. Review of the Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP) found the following programs are appropriate for this analysis:

- 101300 - Commercial Art

The geographical focus for this report is the North Central Valley/North Mother Lode (NVC/NML) subregion, but regional demand and supply data has been included for broader applicability and use. The average living wage for a single adult in the North Central Valley/Northern Mother Lode (NCV/NML) subregion is \$10.27/hour.<sup>1</sup> Analysis of the program and occupational data related to film studies resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 27-1014, Audio and Video Equipment Technicians
- 27-2012, Producers and Directors
- 27-4011, Multimedia Artists and Animators
- 27-4014, Sound Engineering Technicians
- 27-4031, Camera Operators, Television, Video, and Motion Picture

The occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O\*NET OnLine are shown below. O\*NET data was not available for Producers and Directors.

## **Audio and Video Equipment Technicians**

**Job Description:** Set up, or set up and operate audio and video equipment including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, presentations, and news conferences. May also set up and operate associated spotlights and other custom lighting systems.

**Knowledge:** Computers and Electronics, Communications and Media, English Language, Telecommunications, Fine Arts

**Skills:** Monitoring, Critical Thinking, Operation Monitoring, Reading Comprehension, Complex Problem Solving

## **Producers and Directors**

**Job Description:** 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.

**Knowledge:** Computers and Electronics, English Language, Design, Communications and Media, Customer and Personal Service

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

---

<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/>.

### **Sound Engineering Technicians**

**Job Description:** Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording studios, or movie and video productions.

**Knowledge:** Computers and Electronics, Engineering and Technology, Communications and Media, Customer and Personal Service, English Language

**Skills:** Active Listening, Speaking, Reading Comprehension, Complex Problem Solving, Critical Thinking

### **Camera Operators, Television, Video, and Motion Picture**

**Job Description:** Operate television, video, or motion picture camera to record images or scenes for various purposes, such as TV broadcasts, advertising, video production, or motion pictures.

**Knowledge:** English Language, Computers and Electronics, Communications and Media, Telecommunications

**Skills:** Active Listening, Coordination, Judgment and Decision Making, Reading Comprehension, Speaking

## Occupational Demand

The North Central Valley/North Mother Lode subregion employed 677 workers in film studies occupations in 2019 (Exhibit 1). The largest occupation is audio and video equipment technicians with 416 workers in 2019. This occupation is projected to grow by 6% over the next five years and has the greatest number of projected annual openings, 51.

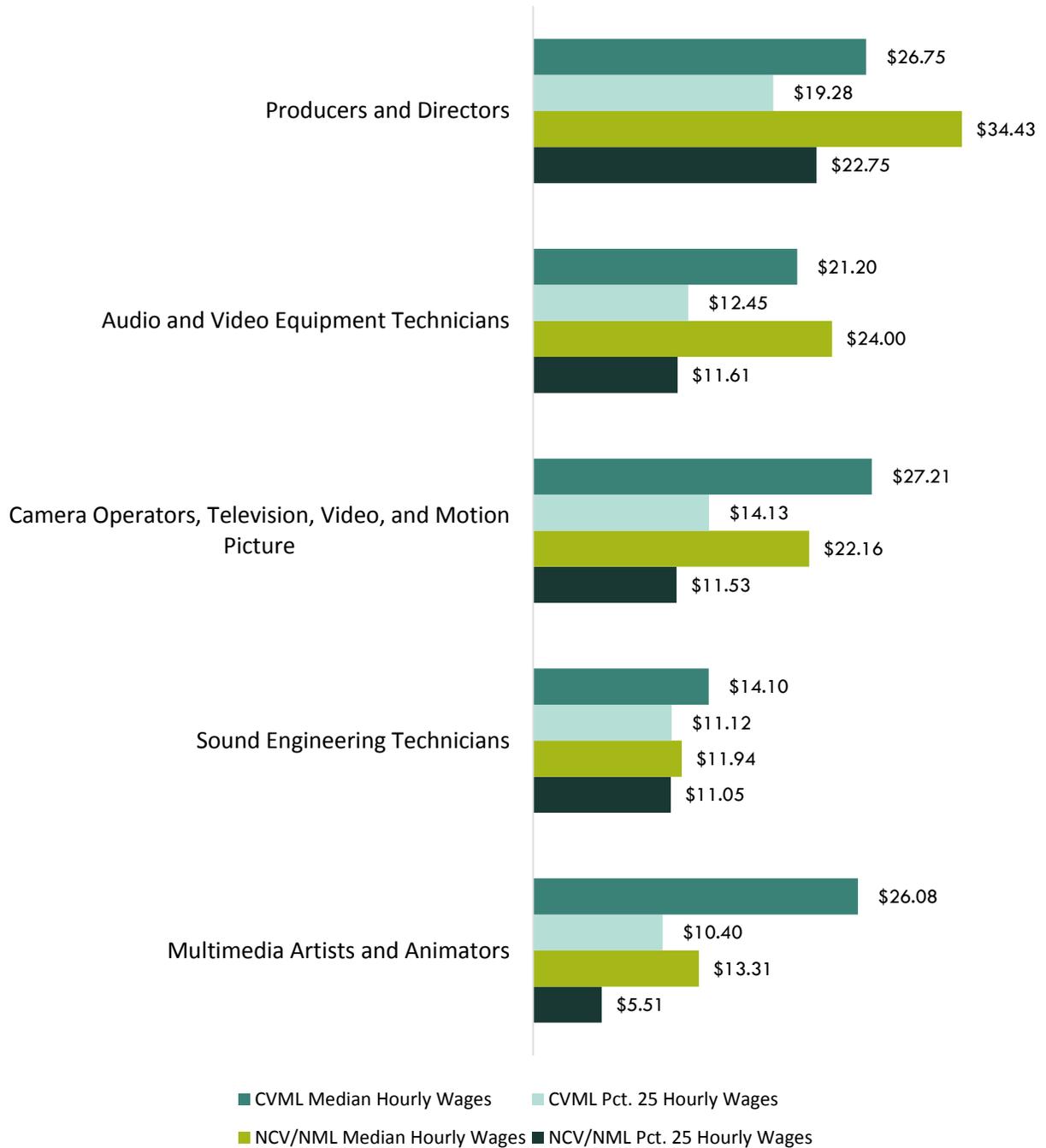
**Exhibit 1. Film studies employment and occupational projections in the NVC/NML subregion**

Occupation	2019 Jobs	2024 Jobs	5-Year Change	5-Year % Change	Annual Openings
Audio and Video Equipment Technicians	416	440	24	6%	51
Producers and Directors	129	146	17	13%	17
Multimedia Artists and Animators	77	76	(1)	(1%)	9
Sound Engineering Technicians	39	38	(1)	(3%)	4
Camera Operators, Television, Video, and Motion Picture	15	18	3	20%	2
<b>TOTAL</b>	<b>677</b>	<b>717</b>	<b>42</b>	<b>35%</b>	<b>83</b>

# Wages

Exhibit 2 compares the entry-level and experienced wages of the film studies occupations. Producers and directors earn the highest entry-level wages, \$34.43/hour in the subregion and \$26.75/hour in the region.

**Exhibit 2. Entry-level and experienced wage comparison in the NVC/NML subregion and region**



# Job Postings

There were 30 job postings for the five occupations in the NVC/NML subregion from February to July 2020.<sup>2</sup> The employers with the most job postings are listed in Exhibit 3.

**Exhibit 3. Top employers of film studies by number of job postings**

Employer	Job Postings	% Job Postings
Kalo	4	20%
TravelCenters of America	3	15%
Whisperkool	2	10%
Delta College	1	5%
Final Cut Media	1	5%
Hm Clause	1	5%
Leavitt Group	1	5%
Rolling Soundz	1	5%
San Joaquin Delta Community College District	1	5%
Scott Sherman	1	5%

Exhibit 4 shows how job postings for the targeted occupations in the NVC/NML subregion are distributed across six O\*NET OnLine occupations. The occupational title camera operators, television, video, and motion picture is listed in 10 job postings. Note how a higher proportion of job postings are for this occupational title. Common job titles in postings include technician-mechanic, five job postings; coast producer, four job postings; and freelance videographer, four job postings.

**Exhibit 4. Top occupational titles in job postings for film studies**

Occupational Title	Job Postings	% of Job Postings
Camera Operators, Television, Video, and Motion Picture	10	33%
Sound Engineering Technicians	9	30%
Producers	7	23%
Audio and Video Equipment Technicians	2	7%
Directors- Stage, Motion Pictures, Television, and Radio	1	3%
Talent Directors	1	3%

## Salaries

Exhibit 5 shows the “Market Salaries” for film studies occupations that are calculated by Burning Glass which uses a machine learning model built off of millions of job postings every year, and accounts for adjustments based on locations, industry, skills, experience, education requirements, among other variables.

<sup>2</sup> Other than occupational titles and job titles, the job postings categories in this section can be counted once or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted as two different skill types (specialized and software), and an employer can indicate more than one education level.

### Exhibit 5. Salaries for film studies

Market Salary Percentile	Salary Amount
10th Percentile	\$28,223
25th Percentile	\$33,966
50th Percentile	\$46,775
75th Percentile	\$49,237
90th Percentile	\$82,210

### Education

Of the 30 job postings, 16 listed an education level preferred for the positions being filled. Of those, 56% requested a bachelor's degree, 50% requested a high school diploma or vocational training, and 25% requested a master's degree (Exhibit 6). A job posting can indicate more than one education level; hence, the percentages shown in the chart below total more than 100%.

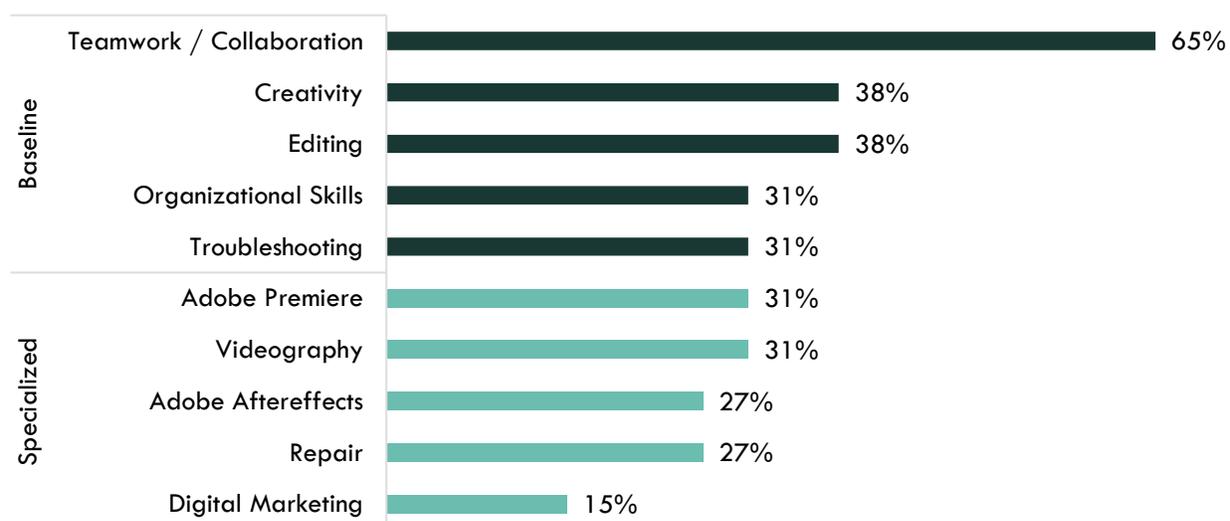
### Exhibit 6. Education levels requested in job postings for film studies

Education level	Job Postings	% of Job Postings
Bachelor's degree	9	56%
High school or vocational training	8	50%
Master's degree	4	25%
Associate degree	2	13%
Doctoral degree	2	13%

### Baseline and Specialized Skills

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are teamwork/collaboration, 65% of job postings, creativity, 38%, and editing, 38%. The top three specialized skills are Adobe Premiere, 31% of job postings, videography, 31%, and Adobe Aftereffects, 27%.

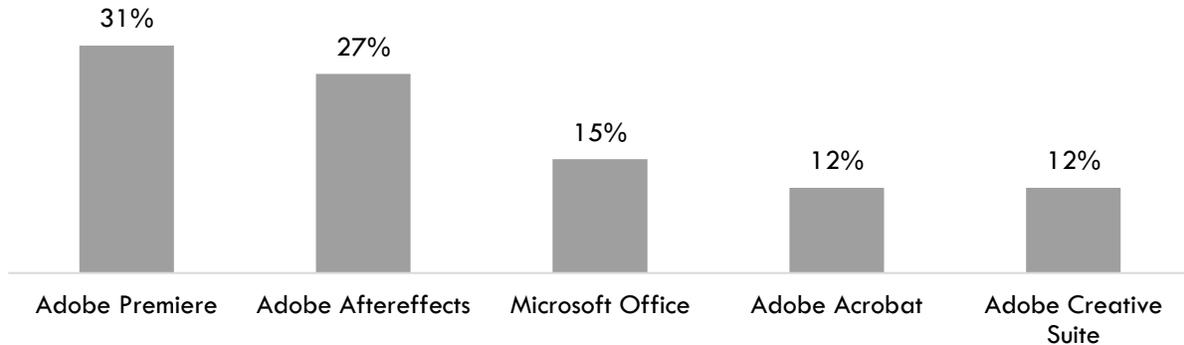
### Exhibit 7. In-demand film studies baseline and specialized skills



### Software Skills

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

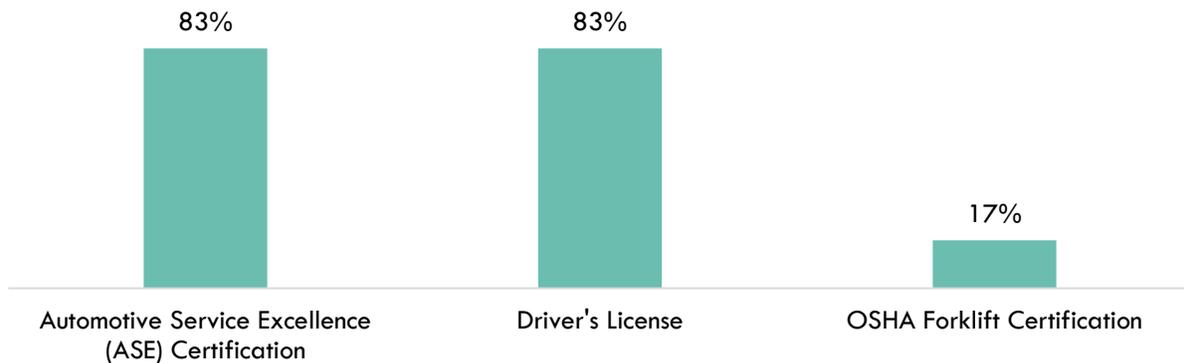
**Exhibit 8. In-demand film studies software skills**



### Certifications

Of the 30 job postings, six contained certification data. Of those, 83% indicated a need for an Automotive Service Excellence (ASE) Certification. The next top certifications are driver's license and OSHA Forklift Certification (Exhibit 9). (Due to the low number of job postings with certifications listed, the chart below may not be representative of the full sample.)

**Exhibit 9. Top film studies certifications requested in job postings**



## Education, Work Experience & Training

A bachelor's degree is typically required for three of the five occupations (Exhibit 10). A postsecondary nondegree award is typically required for audio and video equipment technicians, and sound engineering technicians.

**Exhibit 10. Education, work experience, training and Current Population Survey results for film studies occupations<sup>3</sup>**

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Multimedia Artists and Animators	Bachelor's degree	None	None	27.2%
Producers and Directors	Bachelor's degree	Less than 5 years	None	18.4%
Audio and Video Equipment Technicians	Postsecondary nondegree award	None	Short-term	42.4%
Sound Engineering Technicians	Postsecondary nondegree award	None	Short-term	42.4%
Camera Operators, Television, Video, and Motion Picture	Bachelor's degree	None	None	25.4%

## Supply

Analysis of program data from the California Community Colleges Chancellor's Office Data Mart included the TOP codes: 101300 - Commercial Art. Analysis of the last three years of TOP code data shows that, on average, five awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

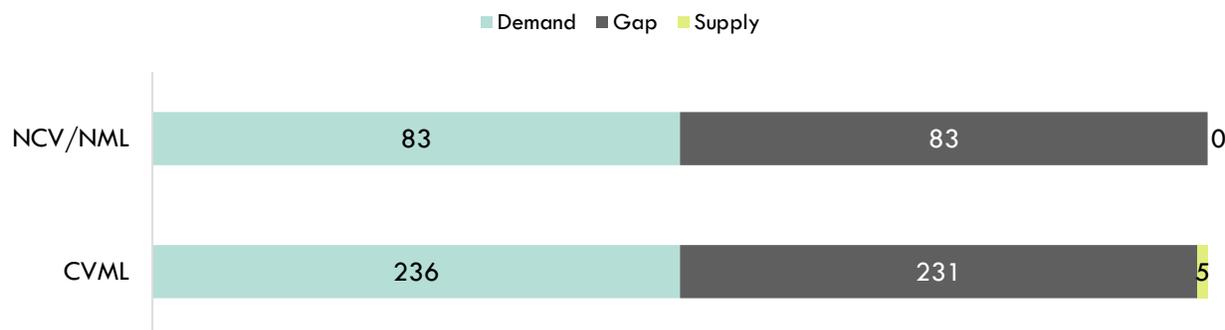
**Exhibit 11. Postsecondary supply for film studies occupations in the region**

TOP Code - Title	Colleges	Associate Degree	Certificate 30 < 60 semester units	Subtotal
101300 - Commercial Art	Porterville	4		4
	Sequoias		1	1
<b>TOTAL</b>		<b>4</b>	<b>1</b>	<b>5</b>

### Gap Analysis

There is an undersupply of 83 film studies workers in the NVC/NML subregion and 231 workers in the region (Exhibit 12).

**Exhibit 12. Film studies workforce annual demand and supply in the NVC/NML subregion and region**



<sup>3</sup> "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

# Student Outcomes

The California Community College Chancellor's Cal-PASS Plus LaunchBoard had suppressed all data for the TOP code related to film studies. All data for 101300-Commercial Art was suppressed. There was no current data for the TOP code 061220-Film Production.

## Conclusion

The entry-level wages of the five occupations exceed the NVC/NML subregion's average living wage. There were 30 job postings in the past six months for occupations related to film studies in the subregion.

Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is teamwork/collaboration, and the top specialized skill is Adobe Premiere.
- The top software skill is Adobe Premiere.
- The top certification is an Automotive Service Excellence (ASE) Certification.

There is an undersupply of trained workers, a shortage of 83 in the NVC/NML subregion and 231 in the region.

## Recommendation

Based on these findings, it is recommended that Modesto Junior College work with the Regional Director of Employer Engagement, the college's advisory board, and local industry in the development of programs to address the shortage of film studies in the region.

# Appendix A: Methodology & Data Sources

## Data Sources

Labor market and educational supply data compiled in this report derive from a variety of sources. Data were drawn from external sources, including the Economic Modeling Specialists, Inc., the California Community Colleges Chancellor’s Office Management Information Systems Data Mart and the National Center for Educational Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS). Below is the summary of the data sources found in this study.

Data Type	Source
Labor Market Information/Population Estimates and Projections/Educational Attainment	Economic Modeling Specialists, Intl. (EMSI). EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry: <a href="http://economicmodeling.com">economicmodeling.com</a> .
Typical Education Level and On-the-job Training	Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education and typical on-the-job training to each occupation for which BLS publishes projections data: <a href="https://www.bls.gov/emp/tables/educational-attainment.htm">https://www.bls.gov/emp/tables/educational-attainment.htm</a> .
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: <a href="http://labormarketinfo.edd.ca.gov">labormarketinfo.edd.ca.gov</a> .
Job Posting and Skills Data	Burning Glass: <a href="http://burning-glass.com/">burning-glass.com/</a> .
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: <a href="http://onetonline.org">onetonline.org</a> .

## Key Terms and Concepts

**Annual Job Openings:** Annual openings are calculated by dividing the number of years in the projection period by total job openings.

**Education Attainment Level:** The highest education attainment level of workers age 25 years or older.

**Employment Estimate:** The total number of workers currently employed.

**Employment Projections:** Projections of employment are calculated by a proprietary Economic Modeling Specialists, Intl. (EMSI) formula that includes historical employment and economic indicators along with national, state and local trends.

**Living Wage:** The cost of living in a specific community or region for one adult and no children. The cost increases with the addition of children.

**Occupation:** An occupation is a grouping of job titles that have a similar set of activities or tasks that employees perform.

**Percent Change:** Rate of growth or decline in the occupation for the projected period; this does not factor in replacement openings.

**Replacements:** Estimate of job openings resulting from workers retiring or otherwise permanently leaving an occupation. Workers entering an occupation often need training. These replacement needs, added to job openings due to growth, may be used to assess the minimum number of workers who will need to be trained for an occupation.

**Total Job Openings (New + Replacements):** Sum of projected growth (new jobs) and replacement needs. When an occupation is expected to lose jobs, or retain the current employment level, number of openings will equal replacements.

**Typical Education Requirement:** represents the typical education level most workers need to enter an occupation.

**Typical On-The-Job Training:** indicates the typical on-the-job training needed to attain competency in the skills needed in the occupation.