

LABOR MARKET ANALYSIS

FOR PROGRAM RECOMMENDATION



C·O·E

CENTERS OF EXCELLENCE
FOR LABOR MARKET RESEARCH

TECHNICAL THEATER IN THE GREATER SACRAMENTO REGION

North (Greater Sacramento)
Center of Excellence

JULY 2022

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SUMMARY

The North (Greater Sacramento) 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 - jobs that typically require education beyond a high school diploma but less than a Bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this analysis due to the lessened barriers for entry-level work, such as no formal education and on-the-job training requirements.

Based on the available labor market data, the North (Greater Sacramento) Center of Excellence found:

- Technical Theater jobs are projected to have 96 annual openings in the North (Greater Sacramento) subregion over the next five years.
- Entry-level hourly wages are above the Greater Sacramento living hourly wage (\$14.53) for Producers and Directors but below the living hourly wage for Set and Exhibit Designers.
- Four Greater Sacramento community colleges offer degrees and certificates in Technical Theater programs. Together, these programs conferred an average of 8 awards over the last three academic years (2018-19 through 2020-21), suggesting an undersupply of skilled Technical Theater workers in the area.
- However, a closer look at job postings data reveals a local Technical Theater labor market driven by production jobs in broadcasting and journalism. Many of these jobs can be trained for by Media and Communication programs found in local community colleges. And, there were very few job postings associated with the technical theater or technical stage production.

Recommendations include:

- The North (Greater Sacramento) Center of Excellence recommends not proceeding with new programs in Technical theater.
- The North (Greater Sacramento) Center of Excellence defers to the college and region for modifications of existing programs.

INTRODUCTION

The North (Greater Sacramento) Center of Excellence (COE) 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:
 - Set and Exhibit Designers (27-1027)
- Students who transfer and earn a four-year degree could pursue the following high-skill occupations:
 - Producers and Directors (27-2012)

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

- Technical Theater (1006.00)

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

- Technical Theatre/Theatre Design and Technology (50.0502)
- Directing and Theatrical Production (50.0507)

OCCUPATIONAL DEMAND

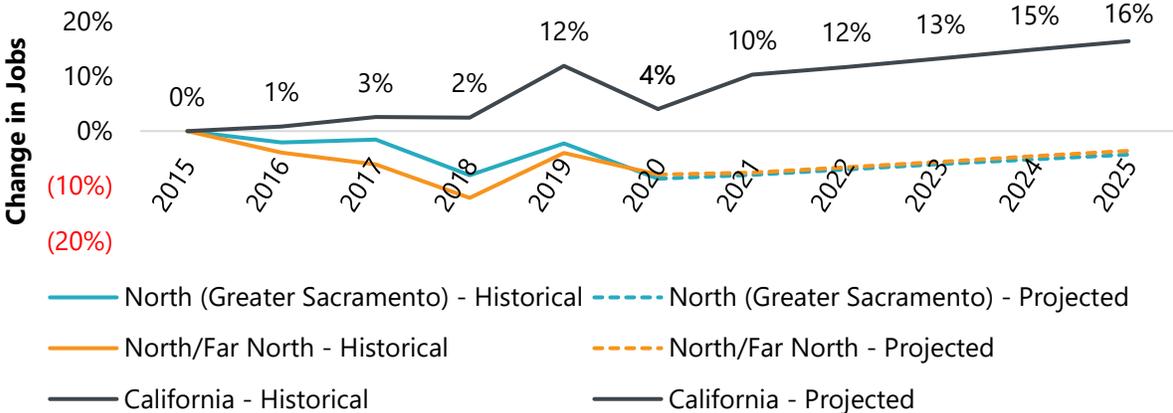
Exhibit 1 summarizes the five-year projected job growth for middle-skill and high-skill occupations in the North, North/Far North, and California.

Exhibit 1. Employment and projected demand, 2020-2025

Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	2020-2025 Annual Openings
Set and Exhibit Designers	210	209	(0)	(0%)	20
Producers and Directors	736	782	46	6%	76
North (Greater Sacramento)	946	991	45	5%	96
Set and Exhibit Designers	259	257	(2)	(1%)	24
Producers and Directors	870	925	55	6%	92
North/Far North	1,129	1,182	53	5%	117
Set and Exhibit Designers	6,634	7,007	373	6%	715
Producers and Directors	37,289	42,128	4,839	13%	4,392
California	43,924	49,135	5,211	12%	5,107

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.

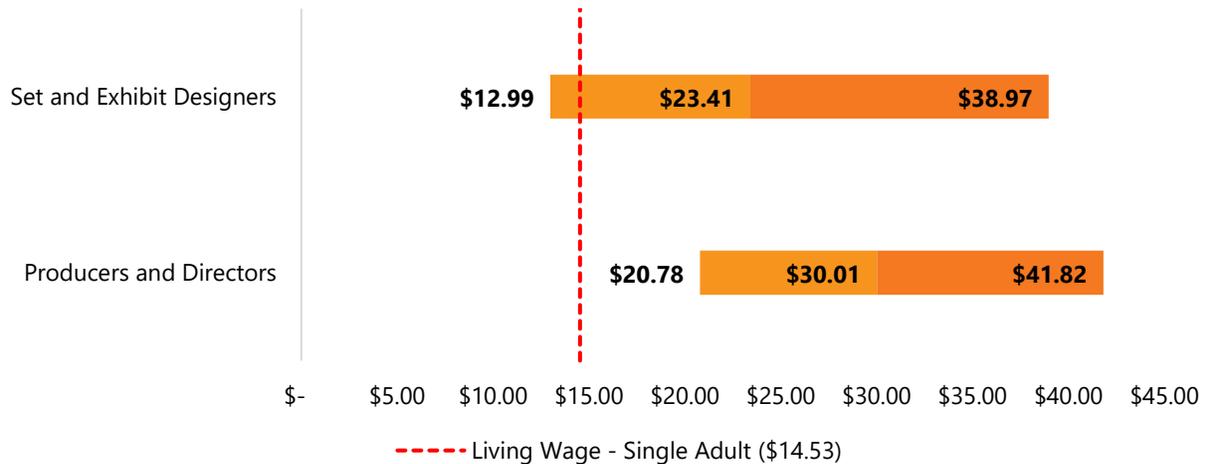
Exhibit 2. Changes in employment, 2015-2025



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 - \$14.53 per hour.¹

Exhibit 3. Comparison of wages by occupation, 2020



JOB POSTINGS

This section 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 North COE identified 222 online job postings for the selected occupations in the Greater Sacramento subregion. Job posting data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from July 1, 2021, to June 30, 2022.

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.

Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupations. There were no job postings for Set and Exhibit Designers.

Exhibit 4. Number of job postings by occupation

Occupation	Job Postings	Share of Job Postings
Producers and Directors	222	100%
Set and Exhibit Designers	0	0%
Total Job Postings	222	100%

Exhibit 5 shows the top 10 job titles with the most job postings and the share. All job postings included a job title, and all top 10 job titles were for producers in digital media, radio and television broadcasting, and journalism.

Exhibit 5. Top jobs titles

Job Title	Job Postings	Share of Job Postings
Producer	32	14%
Executive Producer	15	7%
News Producer	11	5%
Associate Producer	9	4%
Creative Producer	9	4%
Digital Producer	8	4%
Video Producer	8	4%
Executive Producer, Impacting Communities	7	3%
Senior Producer	6	3%
Senior News Producer	5	2%

Employers

Exhibit 6 shows the top 10 employers with the most job postings for the selected occupations. Nine percent (n = 20) of job postings did not include an employer.

Exhibit 6. Employers with the most job postings

Employer	Job Postings	Share of Job Postings
CBS Broadcasting	31	14%
KXTV/Abc10	14	6%
iHeart Media (frmly. iHeart Radio)	14	6%
Tribune Company	12	5%
Nexstar Broadcasting Group	10	5%
McClatchy Company	10	5%
Tegna	8	4%
KXTV	8	4%
Nexstar Broadcasting Group Incorporated	7	3%
Hearst Media Services	7	3%

Certifications, Skills, and Experience

Exhibit 7 shows the most relevant certifications requested by employers for the selected occupations. Eighty-eight percent (n = 195) of job postings did not include certification information. Since the certification data is based on a low number of job postings, it is not representative of the whole sample of job postings and, as a result, has been excluded.

Exhibit 7. Most in-demand certifications

Certification	Job Postings	Share of Job Postings
N/A	N/A	N/A

Exhibit 8 shows the top 10 skills across three categories for the studied occupations: specialized, human-centered, and technical skills. Skills for production jobs in digital media, journalism, and radio and TV broadcasting dominate the job postings.

Exhibit 8. Most in-demand specialized skills

Top 10 Specialized Skills	Top 10 Human-Centered Skills	Top 10 Technical Skills
Broadcast Industry Knowledge	Creativity	Microsoft Office
Journalism	Editing	Adobe Photoshop
Social Media	Writing	Facebook
Budgeting	Communication Skills	Adobe InDesign
Scheduling	Teamwork / Collaboration	Adobe Acrobat
Media Production	Meeting Deadlines	Adobe Creative Suite
Electronic News Production System (ENPS)	Research	Microsoft Excel
Video Editing	Detail-Oriented	Adobe Illustrator
Breaking News Coverage	Organizational Skills	Adobe Aftereffects
Music	Planning	Adobe Premiere

Exhibit 9 shows employers' minimum level of education for job postings for the selected occupations. Thirty-one percent (n = 69) of job postings did not include a preferred education level.

Exhibit 9. Employer-preferred minimum education levels

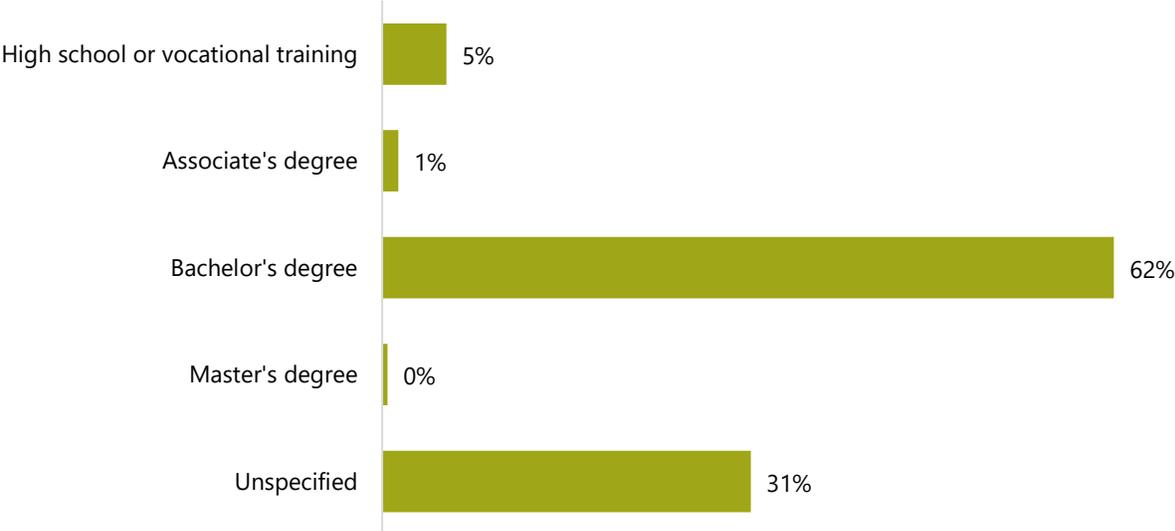
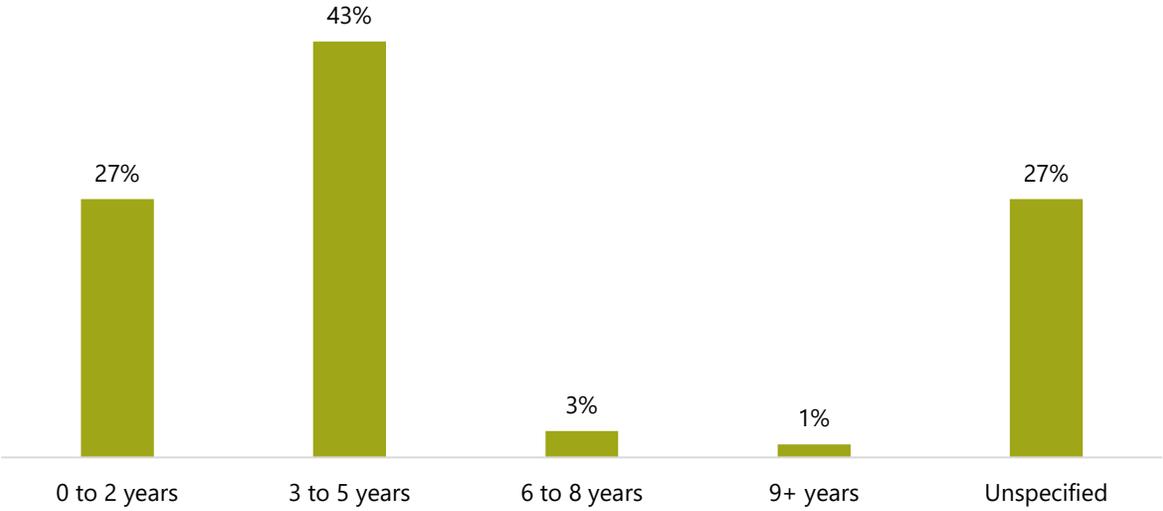


Exhibit 10 shows the experience levels required by employers for job postings for the selected occupations. Twenty-seven percent (n = 59) of job postings did not include a preferred experience level.

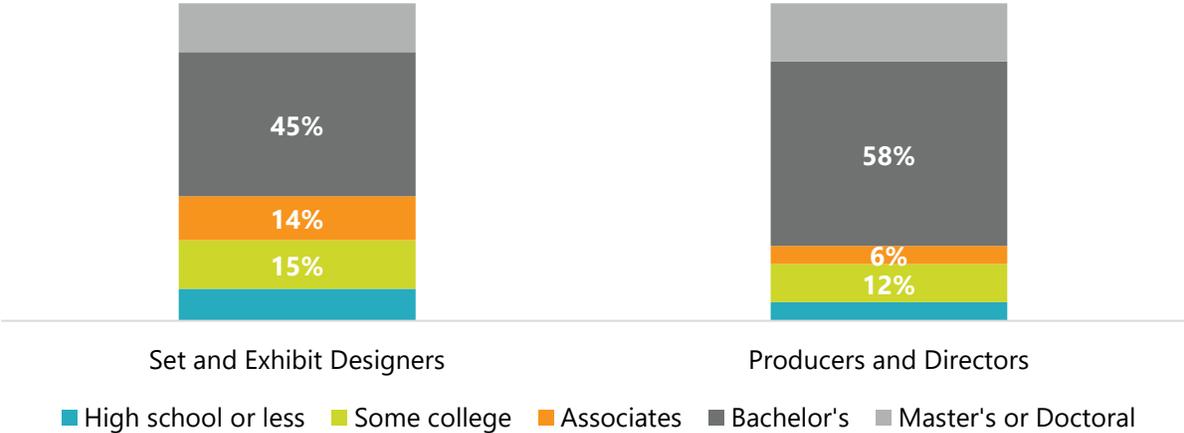
Exhibit 10. Employer-preferred experience levels



EDUCATION AND TRAINING

The U.S. Census Bureau and Bureau of Labor Statistics collected data on education achieved by workers employed in occupations. Exhibit 11 shows the national-level educational attainment of the current workforce in the selected occupations.

Exhibit 11. 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 12 shows the selected occupations' skill levels and entry-level job requirements.

Exhibit 12. Typical education, work experience, and on-the-job training requirements

Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Set and Exhibit Designers	Bachelor's degree	None	None
Producers and Directors	Bachelor's degree	Less than five years	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 13 shows the TOP and CIP codes for educational programs related to the selected occupations.

Exhibit 13. TOP and CIP codes for training programs related to the selected occupations

TOP Programs and Codes	Aligned CIP Programs and Codes
Technical Theater (1006.00)	Technical Theatre/Theatre Design and Technology (50.0502) Directing and Theatrical Production (50.0507)

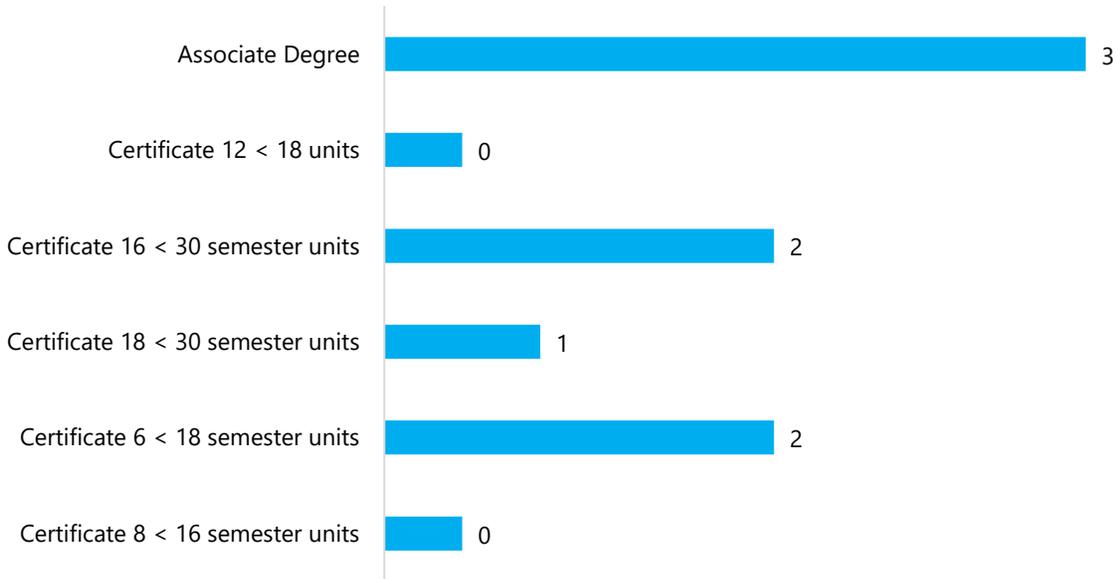
Community College Supply

Exhibits 14 and 15 compare the average number of certificates and degrees in selected community college programs over the last three academic years.

Exhibit 14. Annual average community college awards by program, 2018-19 through 2020-21

Program - TOP Code	College	Annual Awards 2018-19	Annual Awards 2019-20	Annual Awards 2020-21	3-Yr Annual Awards Average
Technical Theater (1006.00)	American River	4	5	3	4
	Folsom Lake	2	0	3	2
	Sacramento City	1	0	0	0
	Sierra	1	2	2	2
	Grand Total	8	7	8	8

Exhibit 15. Annual average community college awards by type, 2018-19 through 2020-21



Average Number of Awards Issued Per Year

FINDINGS

This report focuses on two occupations related to Technical Theater training: Set and Exhibit Designers and Producers and Directors.

Occupational Demand

- The North (Greater Sacramento) subregion held 946 Technical Theater jobs in 2020. These jobs are projected to increase by 5% over the next five years, adding 56 new jobs to the subregion by 2025.
- Over the next five years, Technical Theater jobs are projected to have 96 annual openings in the North (Greater Sacramento) subregion.
- Nearly 80% of the current Technical Theater jobs and projected job openings are concentrated among Producers and Directors. Producers and Directors held 736 of 946 Technical Theater jobs in 2020 and will have 76 annual job openings through 2025.

Wages

- Producers and Directors earn the highest entry-level hourly wage, \$20.78, out of the two Technical Theater occupations. The entry-level wage for Set and Exhibit Designers (\$12.99) is below the North subregion's living hourly wage of \$14.53.

Job Postings

- In the last 12 months, there were 222 online job postings for Technical Theater occupations. All jobs postings (222 of 222) were for Producers and Directors, and there were no relevant job postings for Set and Exhibit Designers.
- The most common job titles were for producers in digital media, radio and television broadcasting, and journalism. Only seven of the job titles were for positions related to theater production, including a Production Assistant/Stage Manager position at Rise Up! Youth Program for Performing Arts and a Scene Technician, Senior Stage Manager position at UC Davis' Mondavi Center.
- Employers with the most job postings in the subregion were from traditional media firms, such as CBS, ABC, iHeart Media, Tribune Media Company, and Nexstar Media Group.
- The top relevant specialized skills include Broadcast Industry Knowledge, Journalism, Social Media, Media Production, and Electronic News Production systems. These in-demand skills best align with broadcasting, journalism, and digital media careers.

Education and Training Requirements

- Between 18% and 29% of incumbent Technical Theater workers have educational attainment levels consistent with community college offerings (some college or associate degrees). Another 45% to 58% of workers in these occupations hold a bachelor's degree.
- A bachelor's degree is the typical entry-level education for Set and Exhibit Designers and Producers and Directors.
- According to job postings analysis, 62% of local employers searching for Technical Theater workers prefer job candidates to hold a bachelor's degree.

Postsecondary Supply

- Four North (Greater Sacramento) community colleges offer degrees and certificates in Technical Theater programs. Together, these programs conferred an average of 8 awards (certificates and associate degrees) over the last three academic years (2018-19 through 2020-21).
- No other postsecondary training providers offered training related to Technical Theater occupations in the Greater Sacramento area.

RECOMMENDATIONS

- Based on a comparison of occupational demand to postsecondary supply, there is an undersupply of skilled Technical Theater workers in the North (Greater Sacramento) subregion.
- However, a closer look at job postings data reveals a local Technical Theater labor market driven by production jobs in broadcasting and journalism. Many of these jobs can be trained for by Media and Communication programs found in local community colleges.
- Significantly few job postings were associated with technical theater or stage production. Over the last 12 months, there were no job postings for Set and Exhibit Designers in the Greater Sacramento area. Only five job postings directly relate to the jobs described in Greater Sacramento community college's program catalogs (Appendix B).
- The North (Greater Sacramento) Center of Excellence recommends not proceeding with new programs in Technical theater.
- The North (Greater Sacramento) Center of Excellence defers to the college and region for modifications of existing programs.

COE New Program Recommendation

**Move forward
with the new
program**

**Proceed with
caution**

**A new
program is
not
recommended**

APPENDIX A. METHODOLOGY AND SOURCES

This report identified Occupations 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 2021.4; QCEW Employees, Non-QCEW Employees, and Self-Employed.

<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](https://www.coecc.net/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/>

APPENDIX B. COMMUNITY COLLEGE TECHNICAL THEATER PROGRAMS

Appendix B summarizes the program titles, awards offered, and catalog descriptions of existing Technical Theater (TOP 1006.00) programs in Greater Sacramento's community colleges. The catalog description and career opportunities were sourced from each community college's program web page.

Appendix B. Technical Theater programs in North (Greater Sacramento) Community Colleges, Active as of July 11, 2022

College	Program Title and Award Offered	Catalog Description	Career Opportunities
	Theater Arts: Technical Production Associate Degree	The Technical Theatre degree provides a broad overview of theatre with an emphasis on exploring the technical elements of theatre. Coursework includes stagecraft, lighting, costuming, make-up, sound, and puppetry, together with opportunities for practical participation in productions.	The program is designed to prepare students for work as technicians and crew or to transfer to four-year colleges in preparation to be designers.
American River	Theater Arts: Technical Production Certificate	This certificate provides training in the skills needed to develop and maintain the technical aspects of productions in theatre, film, TV, and entertainment venues. Coursework includes scenery, lighting, props, stage management, sound, costuming, and puppetry.	A person with a Theatre Production certificate may become a stagehand, set builder, lighting and sound technician, make-up artist, properties artisan, or stage manager in theatre, film, or TV.
	Costuming Certificate	This certificate provides training in the skills needed to create theatrical costumes. Coursework includes costume construction,	A person with a costuming certificate may work creating and maintaining costumes for theatre, film, TV, advertising, and other entertainment

College	Program Title and Award Offered	Catalog Description	Career Opportunities
		history of costume, patterning, and make-up.	fields.
Folsom Lake	Theater Arts: Technical Certificate	The program in technical theatre prepares students for an entry-level career in technical theatre arts.	Career options include roadhouse stagehand, rigger, audio engineer, scene shop technician, scenic artist, property artisan, electrician, costume technician, or stage manager.
Sacramento City	Theater Arts: Technical Production Associate Degree	This program provides the student with an understanding of the process by which theatre is produced from a technical standpoint, including scenic design, lighting design, costuming, sound design, and make-up design and the application of these designs. It also provides an overview of the other processes that are involved in the production of theatre, such as acting, directing, and playwriting and of the historical and social context of the theatre.	Completion of this degree could lead to employment in the entertainment industry in both stage production and film production as lighting technician, stage technician, scenic artist, or stage manager.
Sierra	Stagecraft Certificate	Trains students to build scenery and properties in the technical theater. Provides experience in construction, painting, hanging lighting instruments, and working backstage. Prepares students to communicate and participate as members of a production team with an understanding of appropriate terminology and procedures. A skills certificate is designed to provide career technical skills; it is not equivalent to an associate degree.	N/A

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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