

April 2020

Labor Market Analysis

Commercial Music

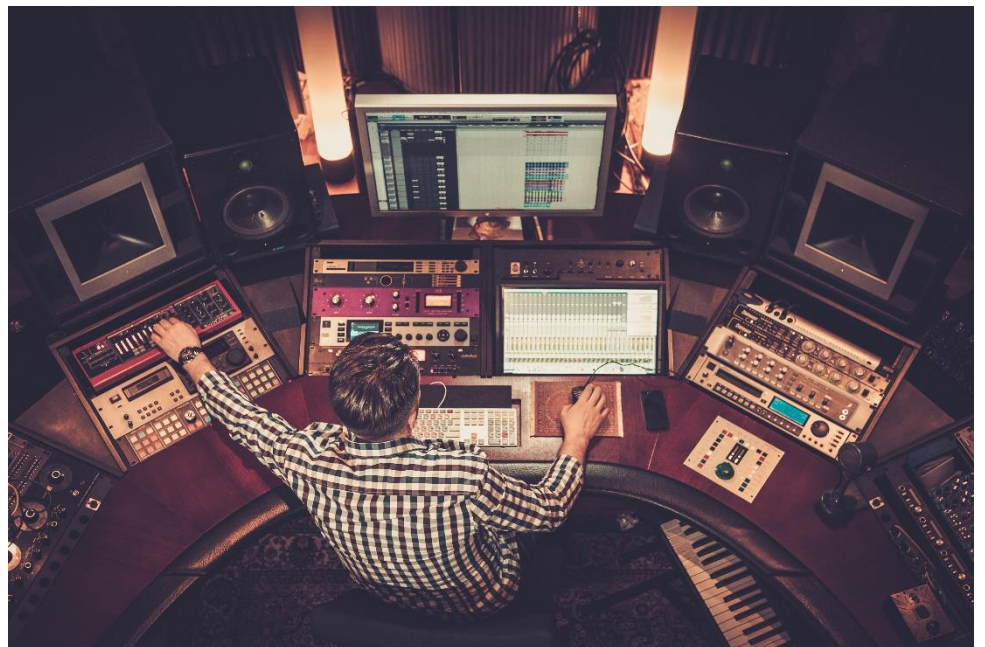


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Prepared by the Central Valley/Mother Lode Center of Excellence

Table of Contents

- Summary 3
 - Key findings 3
- Introduction..... 4
- Occupational Demand 5
- Wages 5
- Job Postings 6
 - Job Titles 6
 - Salaries 7
 - Education..... 7
 - Baseline and Specialized Skills 8
 - Software Skills 8
 - Skill Cluster Projections..... 9
 - Certifications 10
- Education, Work Experience & Training 10
- Supply 10
 - Gap Analysis 11
- Conclusion 12
- Recommendation 12
- Appendix A: Methodology & Data Sources 13

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Summary

This study conducted by the Central Valley/Mother Lode Center of Excellence examines labor market demand, wages, skills, and postsecondary supply for commercial music. Three occupations related to commercial music were identified for College of the Sequoias:

- 27-4011 Audio and Video Equipment Technicians
- 27-2041 Music Directors and Composers
- 27-4014 Sound Engineering Technicians

Key findings:

- **Occupational demand** — More than 830 workers were employed in jobs related to commercial music in 2018 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is audio and video equipment technicians with 559 workers in 2018, a projected growth rate of 8% over the next five years, and 72 annual openings.
- **Wages** — Sound engineering technicians have the highest entry-level earnings, \$17.08/hour in the subregion and \$11.12/hour in the region.
- **Employers** — Employers with the most job postings in the subregion are Travel Centers of America, Archdiocese of San Antonio, and Quinn Company.
- **Job titles** — The most common occupational title in job postings in the subregion is sound engineering technicians. The most common job title is mechanic.
- **Skills and certifications** — The top baseline skill is troubleshooting, the top specialized skill is repair, and the top software skill is computer-assisted auditing technology (CAAT) services. The most in-demand certification is a driver's license.
- **Education** — Two of the occupations typically require a postsecondary nondegree award along with short-term on-the-job training. Music directors and composers typically have a bachelor's degree.
- **Supply** — Analysis of postsecondary completions in the region shows that on average 10 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 96 trained workers in the subregion and 169 workers in the region. The Center of Excellence recommends that College of the Sequoias work with the Retail, Hospitality, Tourism and Entertainment Regional Director, the college's advisory board, and local industry in the expansion of programs to address the shortage of commercial music workers in the region.

Introduction

The Central Valley/Mother Lode Center of Excellence was asked by College of the Sequoias to provide labor market information for commercial music. Review of the Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP) found the following program is appropriate for this analysis:

- Commercial Music-100500

The geographical focus for this report is the South Central Valley/Southern Mother Lode (SCV/SML) 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 South Central Valley/Southern Mother Lode (SCV/SML) subregion is \$10.30/hour.¹ Analysis of the program and occupational data related to commercial music resulted in the identification of applicable occupations. The Standard Occupational Classification (SOC) System codes and titles used in this report are:

- 27-4011 Audio and Video Equipment Technicians
- 27-2041 Music Directors and Composers
- 27-4014 Sound Engineering Technicians

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 Music Directors and Composers.

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.

Sample Job Titles: Audio Technician, Audio Visual Specialist (AV Specialist), Audio Visual Technician (AV Technician), Master Control Operator (MCO), Media Specialist, Media Technician, Multimedia Educational Specialist, Operations Technician, Stagehand, Video Technician

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

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

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.

Sample Job Titles: Audio Engineer, Audio Operator, Broadcast Engineer, Broadcast Technician, Master Control Operator, Mixer, Recording Engineer, Sound Engineer, Sound Technician, Studio Engineer

Knowledge: Computers and Electronics, Communications and Media, Customer and Personal Service, Engineering and Technology, Fine Arts

Skills: Active Listening, Speaking, Critical Thinking, Reading Comprehension, Monitoring

¹ 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/>.

Occupational Demand

The South Central Valley/Southern Mother Lode subregion employed 834 workers in commercial music occupations in 2018 (Exhibit 1). The largest occupation is audio and video equipment technicians with 559 workers in 2018. This occupation is projected to grow by 8% over the next five years and has the greatest number of projected annual openings, 72.

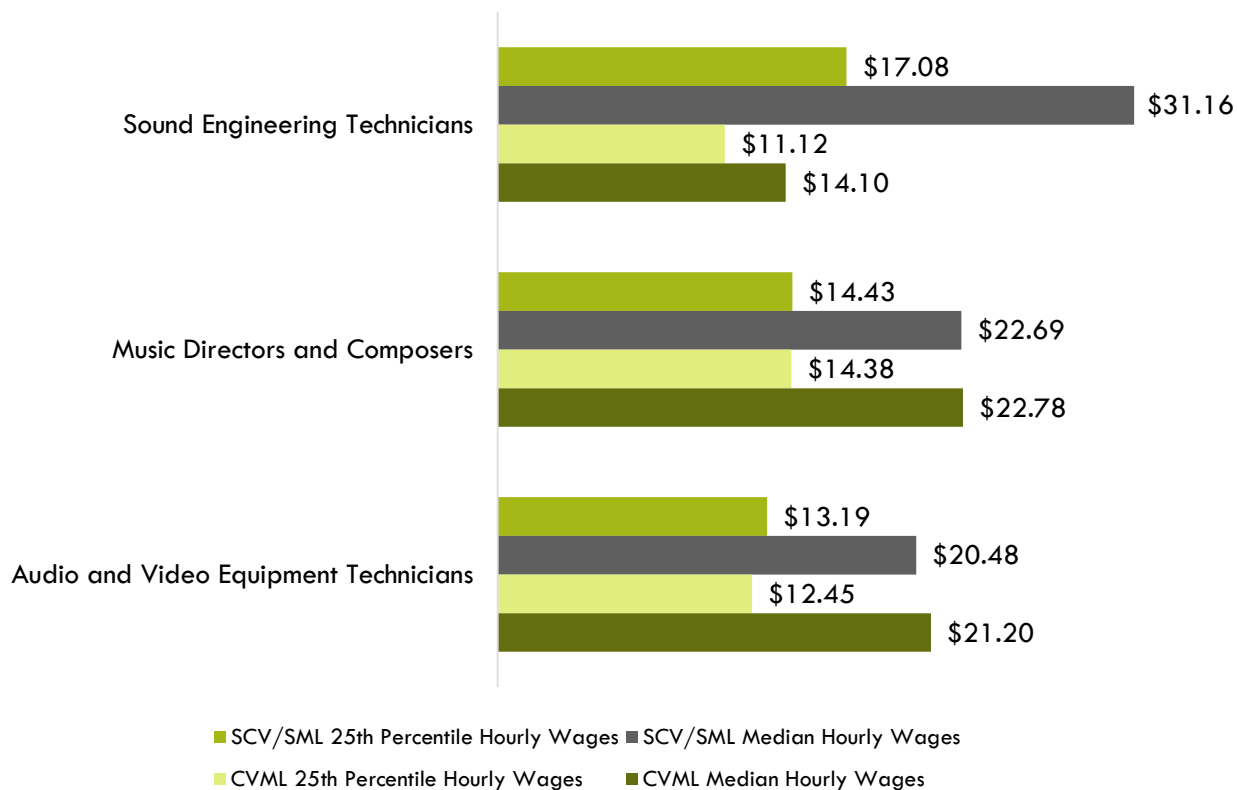
Exhibit 1. Commercial music employment and occupational projections in the SCV/SML subregion

Occupation	2018 Jobs	2023 Jobs	5-year Change	5-year % Change	Annual Openings
Audio and Video Equipment Technicians	559	605	46	8%	72
Music Directors and Composers	255	257	2	1%	31
Sound Engineering Technicians	20	19	(1)	(5%)	2
Total	834	881	47	6%	105

Wages

Exhibit 2 compares the entry-level and experienced wages of the commercial music occupations. Sound engineering technicians have the highest entry-level earnings, \$17.08/hour in the subregion and \$11.12/hour in the region.

Exhibit 2. Entry-level and experienced wage comparison in the SCV/SML subregion and region



Job Postings

There were 37 job postings for the three occupations in the SCV/SML subregion from October 2019 to March 2020. The employers with the most job postings are listed in Exhibit 3.

Exhibit 3. Top employers of commercial music by number of job postings

Employer	Job Postings
Travel Centers of America	8
Archdiocese of San Antonio	2
Quinn Company	2
Sinclair Broadcast Group	2
Valley Children's Healthcare	2
Visalia Unified School District	2
1 Prospect	1
Arcata Associates Incorporated	1
Asm Global	1
City of Visalia	1

Job posting analysis also included the top industries hiring positions related to commercial music (Exhibit 4).

Exhibit 4. Top industries for commercial music by number of job postings

Industry	Job Postings
Gasoline Stations	8
Religious Organizations	5
Colleges, Universities, and Professional Schools	2
Elementary and Secondary Schools	2
Radio and Television Broadcasting	2
Electric Power Generation, Transmission and Distribution	1
Employment Services	1
Wired Telecommunications Carriers	1
Gasoline Stations	8
Religious Organizations	5

Job Titles

Exhibit 5 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across three O*NET OnLine occupations. The occupational title sound engineering technicians is listed in the most job postings, 16, followed by audio and video equipment technicians, 14 job postings.

Exhibit 5. Top occupational titles in job postings for commercial music

Occupational Title	Job Postings
Sound Engineering Technicians	16
Audio and Video Equipment Technicians	14
Music Directors	7

Analysis of the 37 advertised job titles for the targeted occupations reveals the top title is mechanic, occurring in 12 job postings, followed by audio visual technician, 4 job postings (Exhibit 6).

Exhibit 6. Top job titles by number of job postings for commercial music

Job Title	Job Postings
Mechanic	12
Audio Visual Technician	4
Union Stagehand	3
Activities Director	2
Instructional Systems Specialist	2
Minister of Music	2
Video Technician	2
Audio Editing Technician	1
Broadcast Engineer	1
Choir/Handbell Choir Director	1

Salaries

Exhibit 7 shows the “Market Salaries” for commercial music 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.

Exhibit 7. Salaries for commercial music

Market Salary Percentile	Salary Amount
10th Percentile	25,989
25th Percentile	31,544
50th Percentile	55,788
75th Percentile	58,037
90th Percentile	67,856

Education

Of the 37 job postings, 37 listed an education level preferred for the positions being filled. Of those, 18 requested a high school diploma or vocational training, six requested an associate degree, and six requested a bachelor’s degree (Exhibit 8).

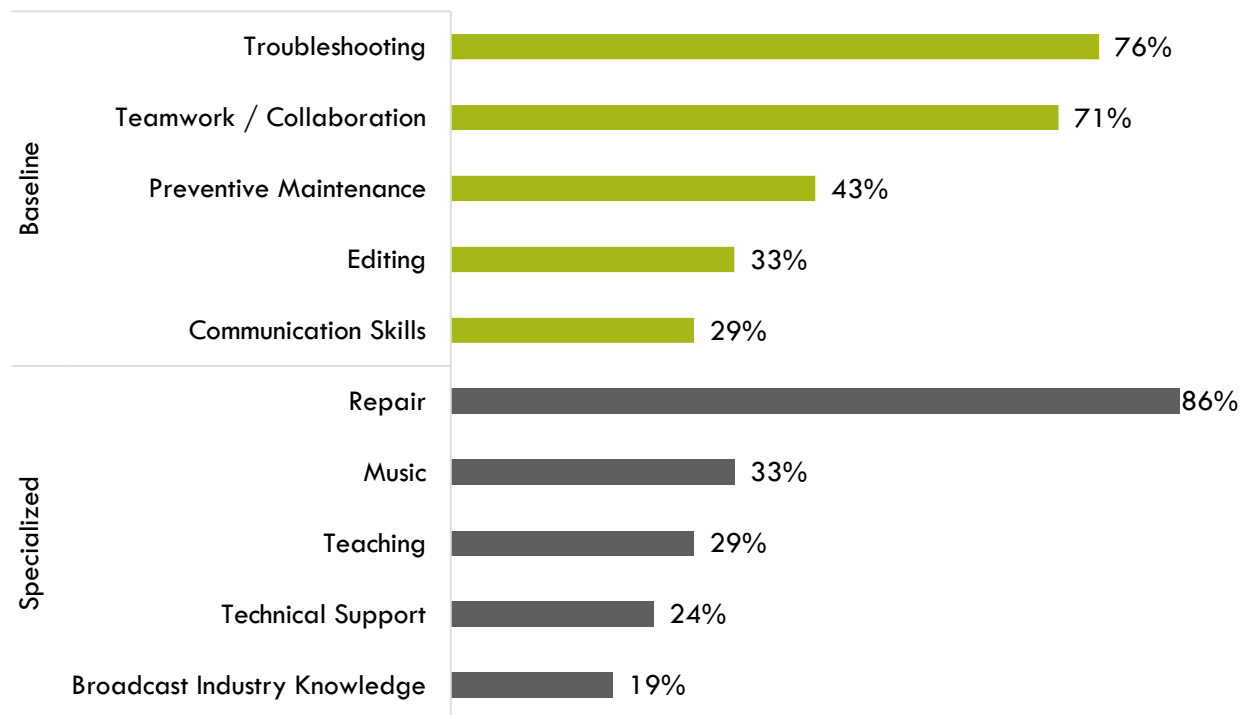
Exhibit 8. Education levels requested in job postings for commercial music

Education level	# of Job Postings
High school or vocational training	18
Associate degree	6
Bachelor's degree	6
Master's degree	3
Doctoral degree	2

Baseline and Specialized Skills

Exhibit 9 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are troubleshooting, 76% of job postings, teamwork/collaboration, 71%, and preventive maintenance, 43%. The top three specialized skills are repair, 86% of job postings, music, 33%, and teaching, 29%.

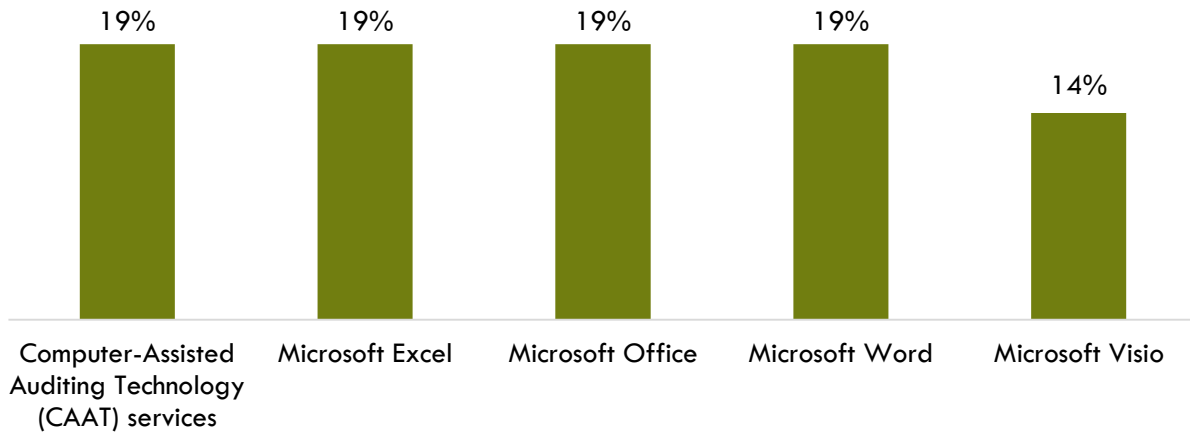
Exhibit 9. In-demand commercial music baseline and specialized skills



Software Skills

Analysis also included the software skills most in demand by employers. Computer-assisted auditing technology services and Microsoft Excel rank first and second (Exhibit 10).

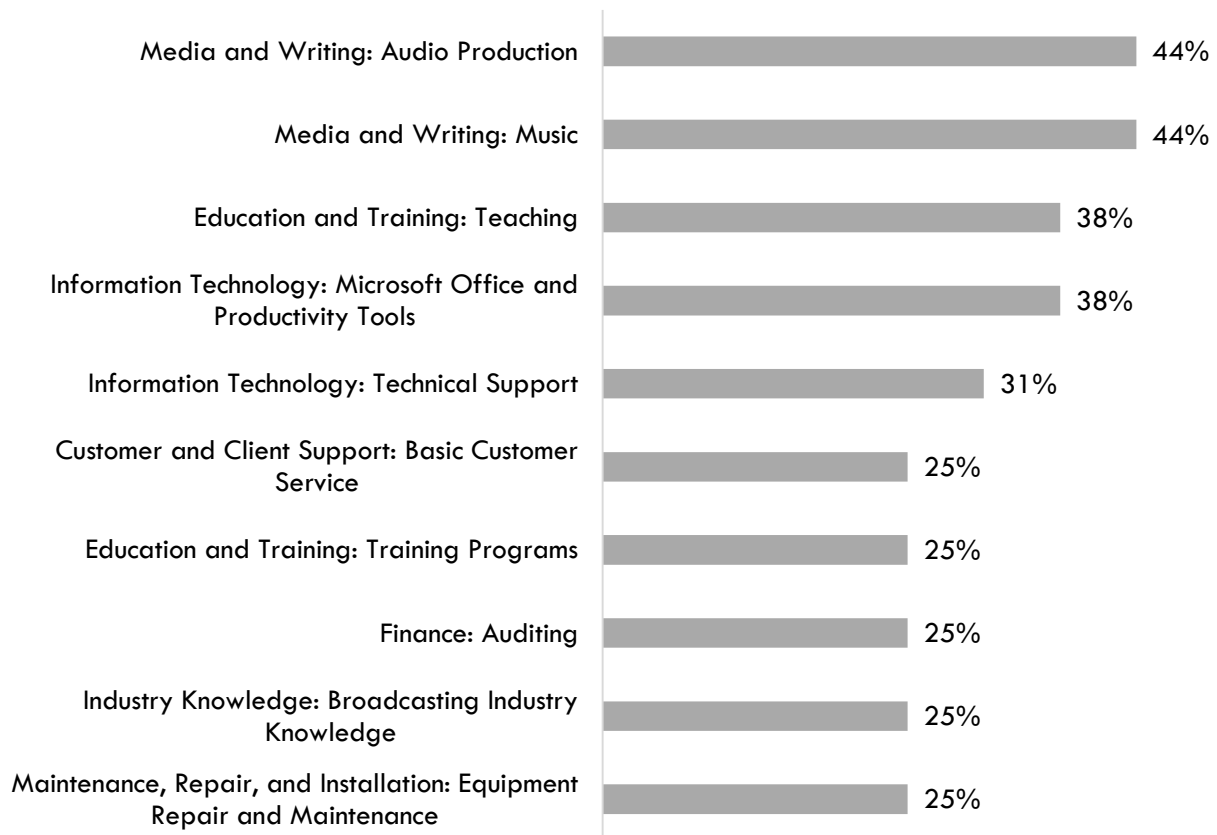
Exhibit 10. In-demand commercial music software skills



Skill Cluster Projections

Of the 37 job postings, 16 postings contained skill projections. An evaluation of the skill clusters that will have the greatest gains in level of importance shows that the top areas are Media and Writing: Audio Production, 44%; Media and Writing: Music, 44%; and Education and Training: Teaching, 38% (Exhibit 11).

Exhibit 11. Skill cluster projections for commercial music



Certifications

Of the 37 job postings, 18 contained certification data. Of those, 83% indicated a need for a driver's license. The next top certifications are Automotive Service Excellence Certification and security clearance (Exhibit 12).

Exhibit 12. Top commercial music certifications requested in job postings



Education, Work Experience & Training

Two of the occupations typically require a postsecondary nondegree award along with short-term on-the-job training (Exhibit 13). An occupation with a bachelor's degree as its typical entry-level education is considered middle-skill when one-third or more of current workers have completed some college up to an associate degree as their highest level of education. Music directors and composers typically have a bachelor's degree, but about 26% of workers have completed some college up to an associate degree.

Exhibit 13. Education, work experience, training and Current Population Survey results for commercial music occupations²

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training	CPS
Music Directors and Composers	Bachelor's degree	Less than 5 years	None	25.9%
Audio and Video Equipment Technicians	Postsecondary nondegree award	None	Short-term	42.4%
Sound Engineering Technicians	Postsecondary nondegree award	None	Short-term	42.4%

Supply

Analysis of program data from the California Community Colleges Chancellor's Office Data Mart included the TOP code: Commercial Music-100500. Analysis of the last three years of TOP code data shows that, on average, 10 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 14).

² "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

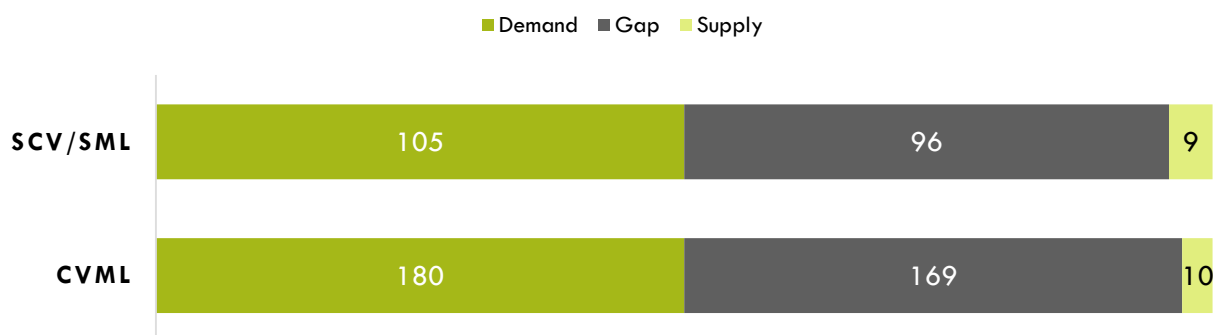
Exhibit 14. Postsecondary supply for commercial music occupations in the region

TOP or CIP Title-Code	College	Certificates	Degrees	Subtotal
Commercial Music-100500	Bakersfield	2		2
	Fresno City	1	3	4
	Modesto Junior	2		2
	Sequoias	2		2
Total		7	3	10

Gap Analysis

There is an undersupply of 96 commercial music workers in the SCV/SML subregion and 169 workers in the region (Exhibit 15).

Exhibit 15. Commercial music workforce annual demand and supply in the SCV/SML subregion and region



Student Outcomes

Exhibit 16 summarizes employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for the TOP codes related to commercial music. Across the region, 12 students transferred. Of the students who completed a program, 30% reported a median change in earnings, and 34% attained a living wage.

Exhibit 16. Regional metrics for the TOP code related to commercial music

Metric	Commercial Music 100500
Students Who Got a Degree or Certificate or Attained Apprenticeship Journey Status	*
Number of Students Who Transferred	12
Job Closely Related to Field of Study	*
Median Change in Earnings	30%
Attained a Living Wage	34%
* denotes data not available.	

Conclusion

The entry-level wages of the three occupations exceed the SCV/SML subregion's average living wage. There were 37 job postings in the past six months for occupations related to commercial music in the subregion. Analysis of skills and certification requirements in job postings indicates:

- The top baseline skill is troubleshooting, and the top specialized skill is repair.
- The top software skill is computer-assisted auditing technology (CAAT) services.
- The top certification is a driver's license.

There is an undersupply of trained workers, a shortage of 96 in the SCV/SML subregion and 169 in the region.

Recommendation

Based on these findings, it is recommended that College of the Sequoias work with the Retail, Hospitality, Tourism and Entertainment Regional Director, the college's advisory board, and local industry in the expansion of programs to address the shortage of commercial music 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: economicmodeling.com .
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: https://www.bls.gov/emp/tables/educational-attainment.htm .
Labor Force, Employment and Unemployment Estimates	California Employment Development Department, Labor Market Information Division: labormarketinfo.edd.ca.gov .
Job Posting and Skills Data	Burning Glass: burning-glass.com/ .
Additional Education Requirements/ Employer Preferences	The O*NET Job Zone database includes over 900 occupations as well as information on skills, abilities, knowledge, work activities and interests associated with specific occupations: onetonline.org .

Key Terms and Concepts

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

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

Employment Estimate: The total number of workers currently employed.

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

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

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

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

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

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

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

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