

November 2020

# Labor Market Analysis

## Commercial Music

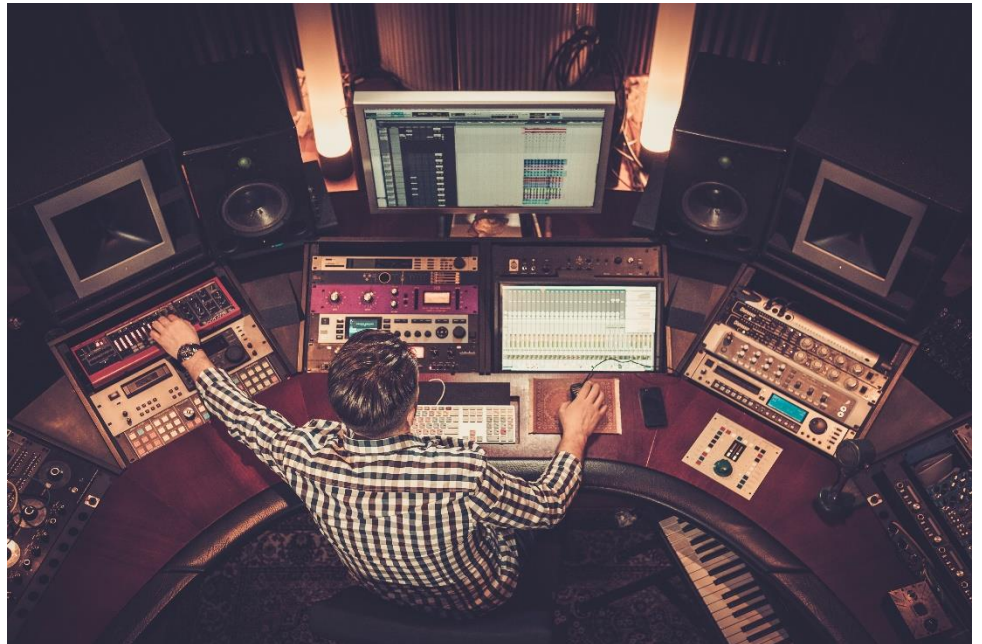


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Prepared by the Central Valley/Mother Lode Center of Excellence

# Table of Contents

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

**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.

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# 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 commercial music. Four occupations related to commercial music were identified for Clovis Community College:

- 27-4011, Audio and Video Technicians
- 27-4012, Broadcast Technicians
- 49-2097, Audiovisual Equipment Installers and Repairers
- 27-4014, Sound Engineering Technicians

## Key findings:

- **Occupational demand** — Nearly 799 workers were employed in jobs related to commercial music in 2019 in the South Central Valley/Southern Mother Lode (SCV/SML) subregion. The largest occupation is audio and video technicians with 423 workers in 2019, a projected growth rate of 8% over the next five years, and 54 annual openings.
- **Wages** — Audio and video technicians earn the highest entry-level wages, \$16.72/hour in the subregion and \$15.54/hour in the region.
- **Employers** — Employers with the most job postings in the subregion are TravelCenters of America, Av Hero Inc., and Cornerstone Building Brands.
- **Occupational titles** — The most common occupational title in job postings in the subregion is electronic home entertainment equipment installers and repairers. The most common job title is installer.
- **Skills and certifications** — The top baseline skill is troubleshooting, the top specialized skill is repair, and the top software skill is Microsoft Office. The most in-demand certification is a driver's license.
- **Education** — A postsecondary nondegree award is typically required for three of the four occupations. An associate degree is typically required for broadcast technicians.
- **Supply** — Analysis of postsecondary completions in the region shows that on average 15 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 88 trained workers in the subregion and 127 workers in the region. The Center of Excellence recommends that Clovis Community College work with the ICT/DM Regional Director, the college's advisory board, and local industry in the development 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 Clovis Community College to provide labor market information for commercial music. 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.<sup>1</sup> 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 Technicians
- 27-4012, Broadcast Technicians
- 49-2097, Audiovisual Equipment Installers and Repairers
- 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 audiovisual equipment installers and repairers.

## **Audio and Video 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

## **Broadcast Technicians**

**Job Description:** Set up, operate, and maintain the electronic equipment used to transmit radio and television programs. Control audio equipment to regulate volume level and quality of sound during radio and television broadcasts. Operate transmitter to broadcast radio or television programs.

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

**Skills:** Critical Thinking, Active Listening, Monitoring, Operation Monitoring, 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.

**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

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<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/>.

# Occupational Demand

The South Central Valley/Southern Mother Lode subregion employed 799 workers in commercial music occupations in 2019 (Exhibit 1). The largest occupation is audio and video technicians with 423 workers in 2019. This occupation is projected to grow by 8% over the next five years and has the greatest number of projected annual openings, 54.

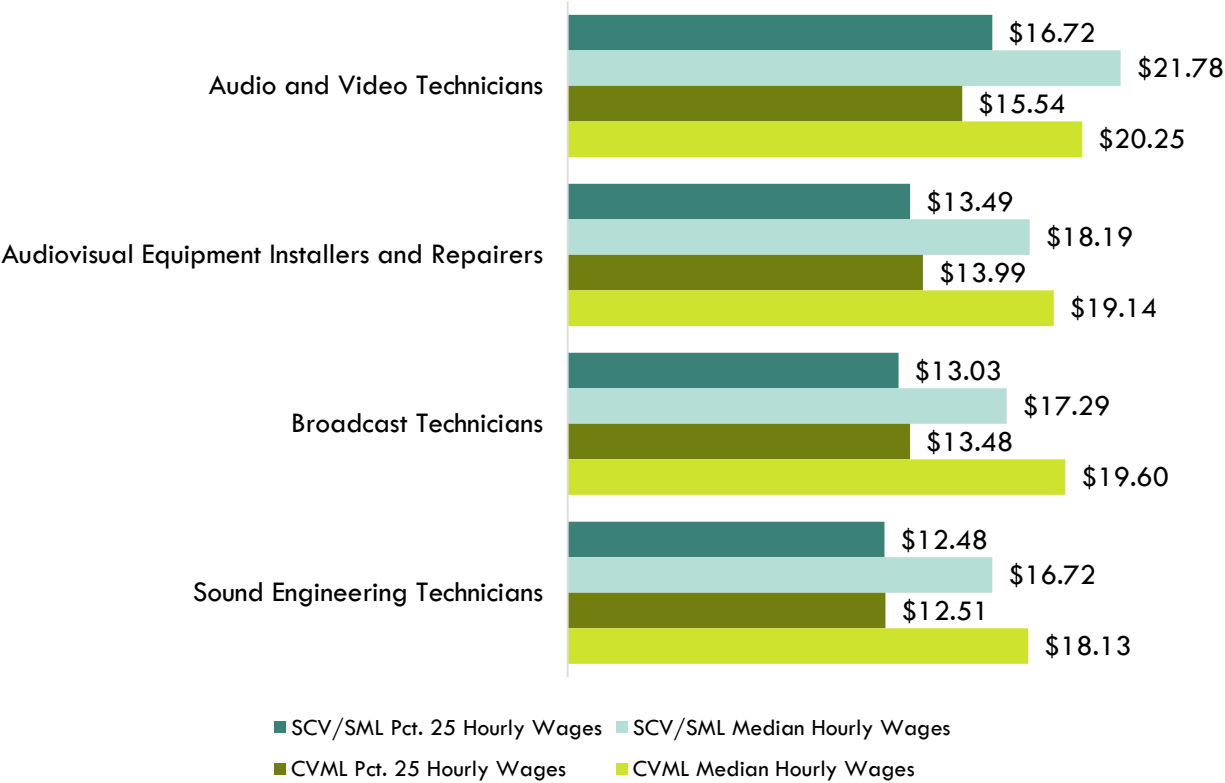
**Exhibit 1. Commercial music employment and occupational projections in the SCV/SML subregion**

Occupation	2019 Jobs	2024 Jobs	5-Year Change	5-Year % Change	Annual Openings
Audio and Video Technicians	423	457	34	8%	54
Broadcast Technicians	176	180	4	2%	20
Audiovisual Equipment Installers and Repairers	112	120	8	7%	16
Sound Engineering Technicians	89	90	1	1%	11
<b>TOTAL</b>	<b>799</b>	<b>847</b>	<b>48</b>	<b>6%</b>	<b>101</b>

# Wages

Exhibit 2 compares the entry-level and experienced wages of the commercial music occupations. Audio and video technicians earn the highest entry-level wages, \$16.72/hour in the subregion and \$15.54/hour in the region.

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



# Job Postings

There were 58 job postings for the four occupations in the SCV/SML subregion from April to September 2020.<sup>2</sup> 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	% Job Postings
TravelCenters of America	6	12%
Av Hero, Inc	4	8%
Cornerstone Building Brands	3	6%
Sinclair Broadcast Group	3	6%
Closets By Design Fresno	2	4%
Custom Fog Designs	2	4%
Fresno Shower Door	2	4%
Motivational Systems Incorporated	2	4%
Nexstar Broadcasting Group Incorporated	2	4%
Tesla	2	4%

Exhibit 4 shows how job postings for the targeted occupations in the SCV/SML subregion are distributed across four O\*NET OnLine occupations. The occupational title electronic home entertainment equipment installers and repairers is listed in 30 job postings. Note how a higher proportion of job postings are for this occupational title. Common job titles in postings include installer, 21 job postings; technician-mechanic, seven job postings; and master control operator, five job postings.

**Exhibit 4. Top occupational titles in job postings for commercial music**

Occupational Title	Job Postings	% of Job Postings
Electronic Home Entertainment Equipment Installers and Repairers	30	52%
Audio and Video Equipment Technicians	11	19%
Sound Engineering Technicians	10	17%
Broadcast Technicians	7	12%

## Salaries

Exhibit 5 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.

<sup>2</sup> Other than occupation titles and job titles, the categories below can be counted one or multiple times per job posting, and across several areas in a single posting. For example, a skill can be counted in two different skill types, and an employer can indicate more than one education level.

**Exhibit 5. Salaries for commercial music**

Market Salary Percentile	Salary Amount
10th Percentile	\$29,672
25th Percentile	\$32,789
50th Percentile	\$35,305
75th Percentile	\$41,566
90th Percentile	\$57,080

**Education**

Of the 58 job postings, 28 listed an education level preferred for the positions being filled. Of those, 86% requested high school or vocational training, 25% requested an associate degree, and 7% requested a bachelor’s degree (Exhibit 6). A job posting can indicate more than one education level. As a result, the percentages shown in the chart below total more than 100%.

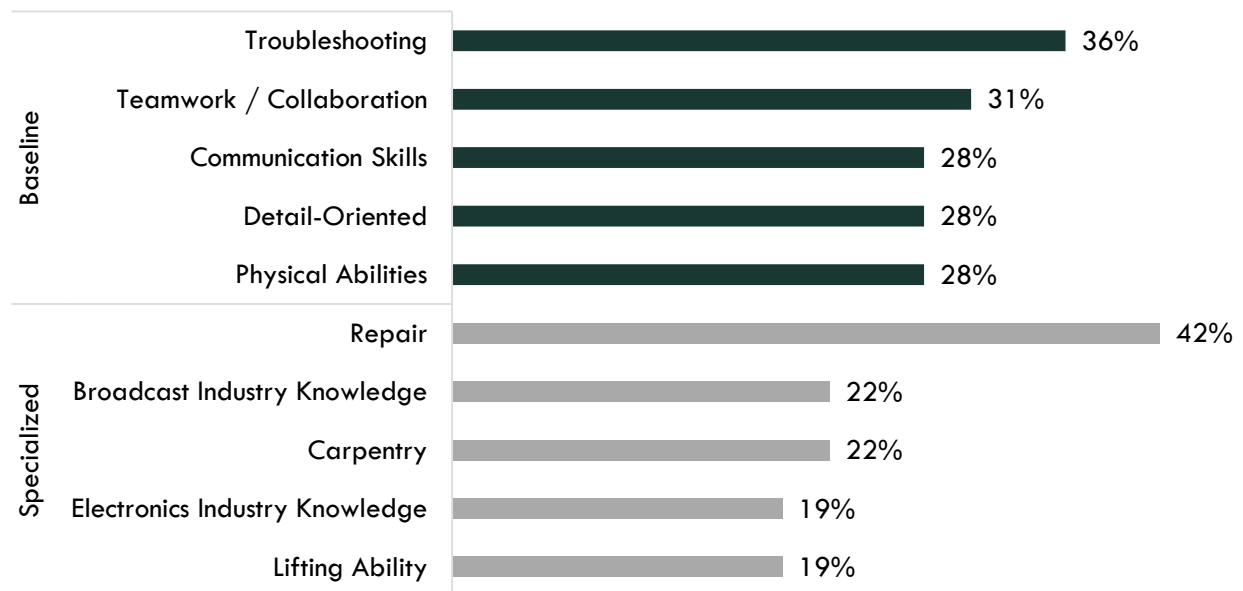
**Exhibit 6. Education levels requested in job postings for commercial music**

Education level	Job Postings	% of Job Postings
High school or vocational training	24	86%
Associate degree	7	25%
Bachelor's degree	2	7%

**Baseline and Specialized Skills**

Exhibit 7 depicts the top baseline and specialized skills for the targeted occupations. The three most important baseline skills are troubleshooting, 36% of job postings, teamwork/collaboration, 31%, and communication, 28%. The top three specialized skills are repair, 42% of job postings, broadcast industry knowledge, 22%, and carpentry, 22%.

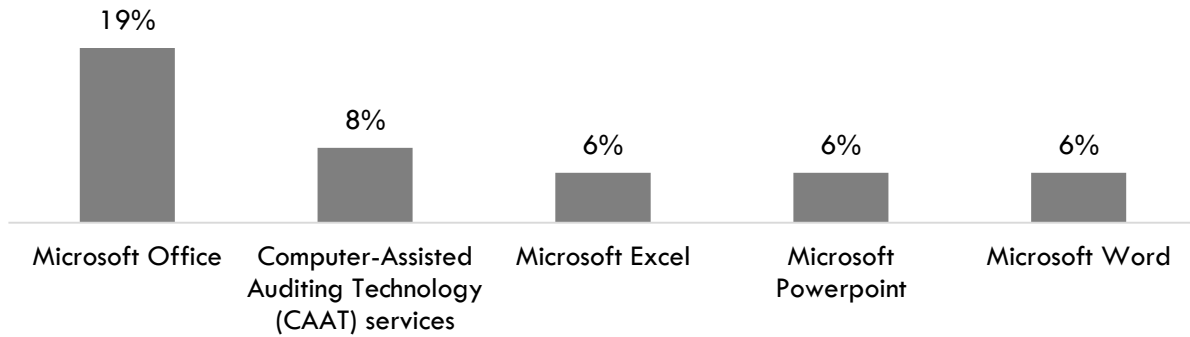
**Exhibit 7. In-demand commercial music baseline and specialized skills**



### Software Skills

Analysis also included the software skills most in demand by employers. Microsoft Office and computer-assisted auditing technology (CAAT) services were the top two software skills identified in job postings (Exhibit 8).

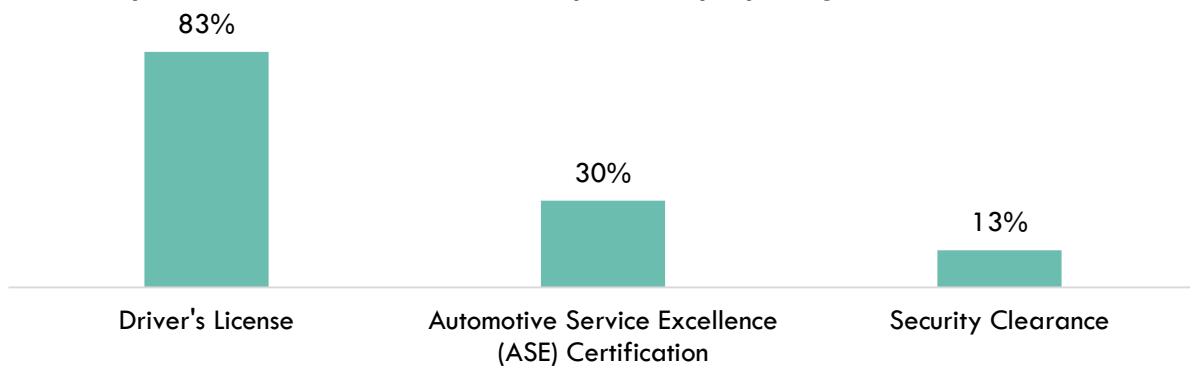
**Exhibit 8. In-demand commercial music software skills**



### Certifications

Of the 58 job postings, 23 contained certification data. Among those, 83% indicated a need for a driver's license. The next top certifications are Automotive Service Excellence Certification and security clearance (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 commercial music certifications requested in job postings**





# Education, Work Experience & Training

A postsecondary nondegree award is typically required for three of the four occupations (Exhibit 10). An associate degree is typically required for broadcast technicians.

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

Occupation	Typical Entry-level Education	Work Experience Required	Typical On-The-Job Training
Audio and Video Technicians	Postsecondary nondegree award	None	Short-term
Broadcast Technicians	Associate degree	None	Short-term
Sound Engineering Technicians	Postsecondary nondegree award	None	Short-term
Audiovisual Equipment Installers and Repairers	Postsecondary nondegree award	None	Short-term

## Supply

Analysis of program data from the California Community Colleges Chancellor's Office Data Mart included the TOP codes: 100500 - Commercial Music. Analysis of the last three years of TOP code data shows that, on average, 15 awards were conferred in the Central Valley/Mother Lode region each year (Exhibit 11).

**Exhibit 11. Postsecondary supply for commercial music occupations in the region**

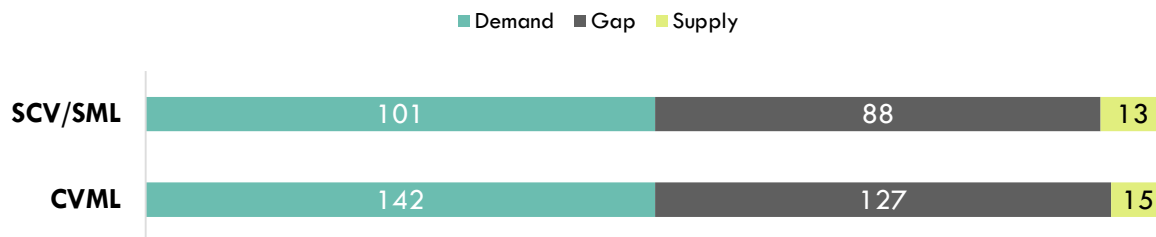
TOP Code - Title	Colleges	Associate Degree	Certificate 12<18 semester units	Certificate 30<60 semester units	Certificate 6<18 semester units	Subtotal
100500 - Commercial Music	Bakersfield			4		4
	Fresno City	2	3			6
	Modesto				2	2
	Sequoias				3	3
<b>TOTAL</b>		<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>15</b>

### Gap Analysis

There is an undersupply of 88 commercial music workers in the SCV/SML subregion and 127 workers in the region (Exhibit 12).

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

**Exhibit 12. Commercial music workforce annual demand and supply in the SCV/SML subregion and region**



## Student Outcomes

Exhibit 13 summarizes employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for the TOP code related to commercial music. There were 12 commercial music students who received a degree, certificate or attained apprenticeship journey status, and 18 transferred; 112% reported a median change in earnings but only 38% attained a living wage.

**Exhibit 13. 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	12
Number of Students Who Transferred	18
Job Closely Related to Field of Study	*
Median Change in Earnings	112%
Attained a Living Wage	38%
* denotes data not available.	

## Conclusion

The entry-level wages of the four occupations exceed the SCV/SML subregion’s average living wage. There were 58 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 Microsoft Office.
- The top certification is a driver's license.

There is an undersupply of trained workers, a shortage of 88 in the SCV/SML subregion and 127 in the region.

## Recommendation

Based on these findings, it is recommended that Clovis Community College work with the ICT/DM Regional Director, the college’s advisory board, and local industry in the development 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: <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.