

JANUARY 2019

LABOR MARKET ANALYSIS

Commercial Music



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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 occupations related to commercial music for Bakersfield College. Four occupations were identified:

- Music Directors and Composers (SOC 27-2041);
- Audio and Video Equipment Technicians (SOC 27-4011);
- Sound Engineering Technicians (SOC 27-4014); and
- Self-Enrichment Education Teachers (replaces Music Teachers) (SOC 25-3021).

KEY FINDINGS:

- **Occupational demand** — More than 816 workers were employed in jobs related to commercial music in 2017. The largest occupation is Self-Enrichment Education Teachers with 1,518 workers in 2017, a growth projection of 7% and 190 annual openings.
- **Wages** — The entry-level wages for all seven occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.29/hour and the average living wage for a single adult in the subregion, \$11.48/hour. The occupation earning the highest median wages is Sound Engineering Technician, \$28.83/hour in the region and \$28.61/hour in the subregion.
- **Employers** — Top employers in the region include Aramark, Bakersfield City School District and Atria Senior Living.
- **Job titles** — The most common occupational title in job postings is Self-Enrichment Education Teachers. The most common job title is top title is Music Teacher.
- **Skills and certifications** — The top baseline skill is communication skills, the top specialized skill is teaching, and the top software skill is Adobe Macintosh. The most in-demand certification is a driver's license.
- **Education** — Three of the occupations qualify as middle-skill jobs. The fourth occupation, music directors and composers, typically requires a bachelor's degree.
- **Supply** — Analysis of postsecondary completions in the region shows that on average seven certificates and seven degrees 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 77 workers in the subregion and 127 workers in the region. The Center of Excellence recommends that Bakersfield College work with the region's retail, hospitality, tourism and entertainment deputy sector navigator, the college's advisory board and local industry in the creation or expansion of a program to meet the workforce demand for commercial music workers.

INTRODUCTION

The Central Valley/Mother Lode Center of Excellence was asked by Bakersfield College to provide labor market information for commercial music. Review of the Taxonomy of Programs revealed that 100500-Commercial Music and 100600-Technical Theater were the appropriate programs for this analysis. 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.

Analysis of the program and occupational data related to commercial music resulted in the identification of four applicable occupations. The Standard Occupational Classification (SOC) System titles and codes are:

- Music Directors and Composers (SOC 27-2041);
- Audio and Video Equipment Technicians (SOC 27-4011);
- Sound Engineering Technicians (SOC 27-4014); and
- Self-Enrichment Education Teachers (replaces Music Teachers) (SOC 25-3021).

The SOC codes, occupational titles, job descriptions, sample job titles, and knowledge and skills from the Bureau of Labor Statistics and O*NET OnLine are shown in Exhibit 1. O*NET data was not available for Music Directors and Composers (SOC 27-2041).

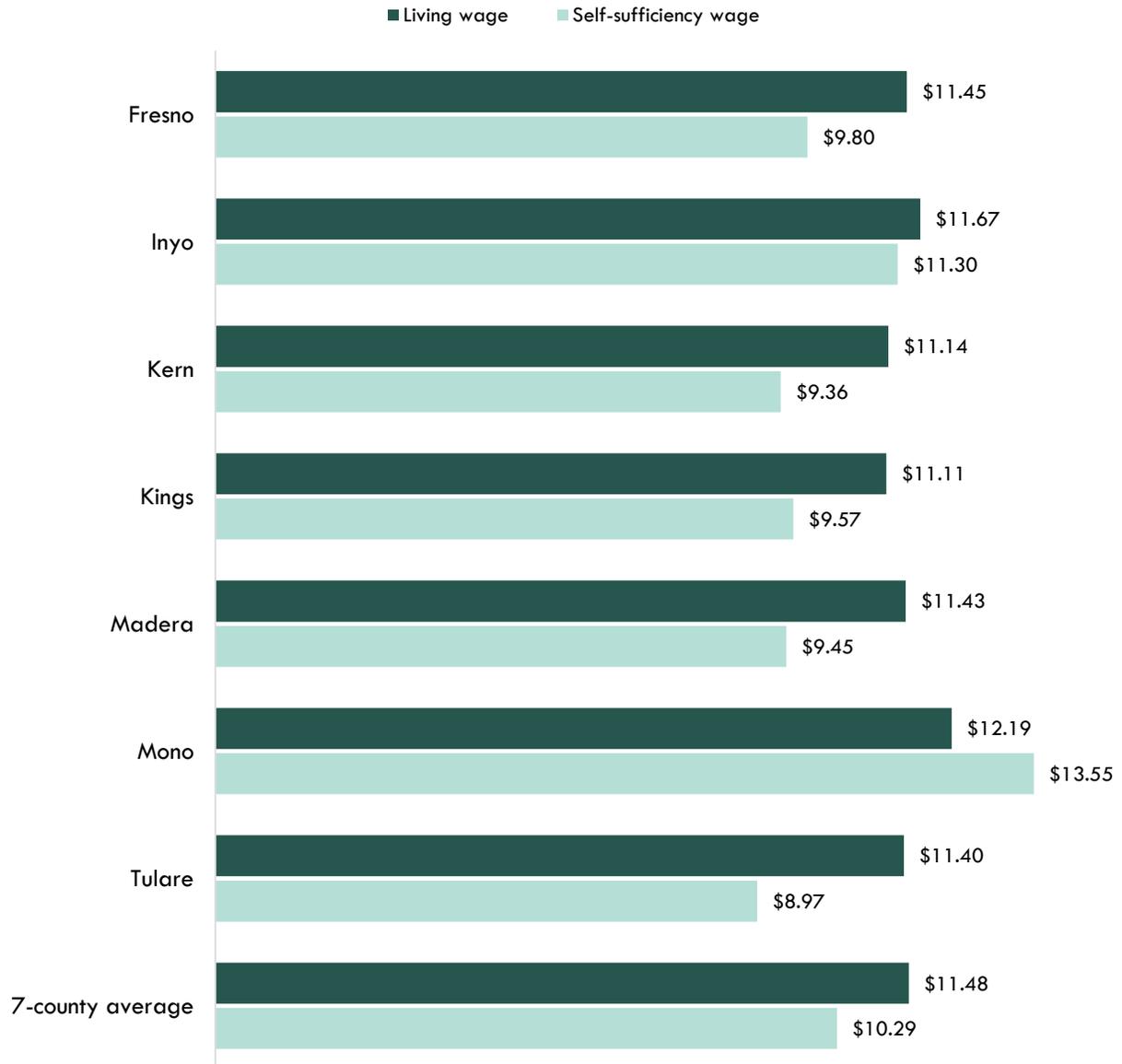
EXHIBIT 1. Commercial music SOC titles, job descriptions, sample job titles, and knowledge and skills

SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
Audio and Video Equipment Technicians (SOC 27-4011)	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.	Audio Technician, Audio Visual Specialist, Audio Visual Technician, Master Control Operator (MCO), Media Specialist, Media Technician, Multimedia Educational Specialist, Operations Technician, Stagehand, Video Technician	Knowledge Computers and Electronics Communications and Media Telecommunications English Language Fine Arts Skills Monitoring Critical Thinking Operation Monitoring Reading Comprehension Complex Problem Solving
Sound Engineering Technicians (SOC 27-4014)	Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording	Audio Engineer, Audio Operator, Broadcast Engineer, Broadcast Technician, Master Control Operator, Mixer, Recording Engineer, Sound	Knowledge Computers and Electronics Communications and Media Customer and Personal Service

SOC TITLE & CODE	DESCRIPTION	SAMPLE JOB TITLES	KNOWLEDGE & SKILLS
	studios, or movie and video productions.	Engineer, Sound Technician, Studio Engineer	Engineering and Technology Fine Arts Skills Reading Comprehension Active Listening Speaking Monitoring Critical Thinking
Self-Enrichment Education Teachers (replaces Music Teachers) (SOC 25-3021)	Teach or instruct courses other than those that normally lead to an occupational objective or degree. Courses may include self-improvement, nonvocational, and nonacademic subjects. Teaching may or may not take place in a traditional educational institution.	Ballet Teacher, Ceramics Instructor, Dance Instructor, Driving Instructor, Flute Teacher, Gymnastics Instructor, Martial Arts Instructor, Piano Teacher, Scuba Diving Instructor, Swimming Instructor	Knowledge Customer and Personal Service Education and Training English Language Communications and Media Skills Active Listening Instructing Social Perceptiveness Speaking Learning Strategies

The 2014 average self-sufficiency wage for a single adult in the South Central Valley/Southern Mother Lode (SCV/SML) subregion is \$10.29/hour, and the current average living wage for a single adult is \$11.48/hour. Self-sufficiency and living wage data by county and the overall seven-county average are shown in Exhibit 2. In the wages section of this report, Pct. 25 hourly denotes entry-level wages, and median represents experienced wages.

EXHIBIT 2. Self-sufficiency and living wages in the SCV/SML subregion



OCCUPATIONAL DEMAND

The subregion employed 816 workers in commercial music occupations in 2017 in the South Central Valley/Southern Mother Lode subregion (Exhibit 3). The largest occupation is Self-Enrichment Education Teachers with 1,518 workers in 2017. This occupation is projected to grow by 7% over the next five years and has the greatest number of projected annual openings, 190. The next largest occupation is Audio and Video Equipment Technicians with 418 jobs in 2017. This occupation is projected to undergo 6% growth over the next five years and will have 43 annual openings.

EXHIBIT 3. Commercial music employment and occupational projections in the SCV/SML subregion

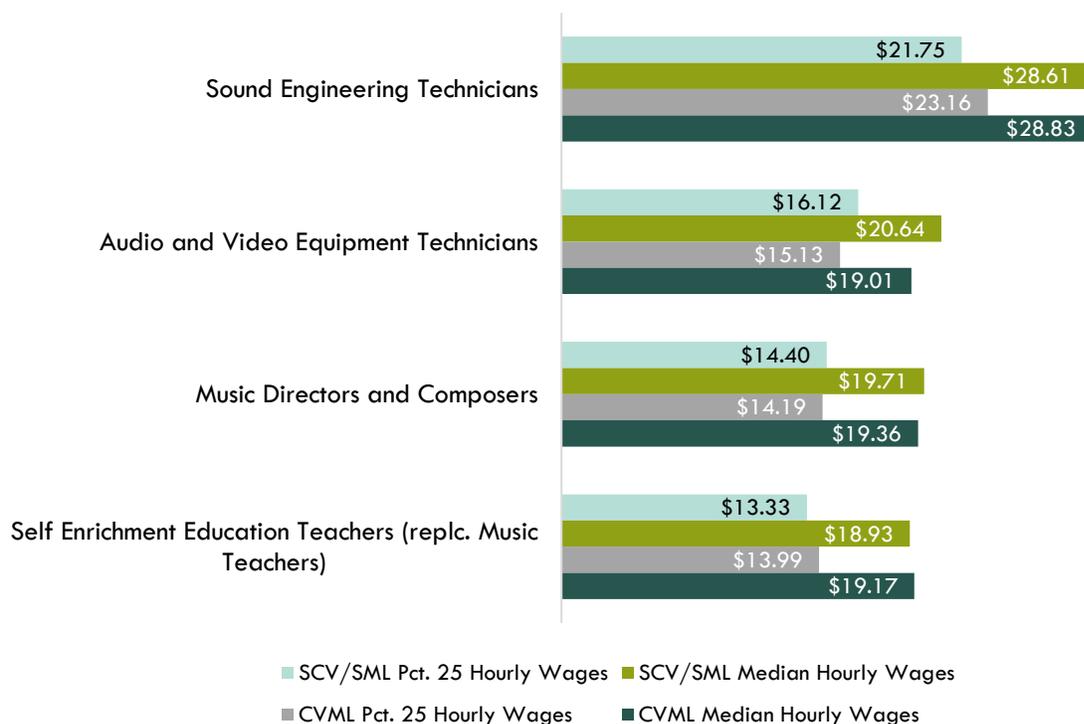
OCCUPATION	2017 JOBS	2022 JOBS	5-YEAR CHANGE	5-YEAR % CHANGE	ANNUAL OPENINGS
Self-Enrichment Education Teachers (replaces. Music Teachers)	1,518	1,621	103	7%	190
Audio and Video Equipment Technicians	418	442	24	6%	43
Music Directors and Composers	348	367	19	5%	38
Sound Engineering Technicians	49	51	2	4%	5
TOTAL	816	860	45	5%	86

WAGES

Exhibit 4 compares the entry-level and experienced wages of the four commercial music occupations. The entry-level wages for all seven occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.29/hour, and the average living wage for a single adult in the subregion, \$11.02/hour.

The occupation earning the highest median wages is Sound Engineering Technician, \$28.83/hour in the region and \$28.61/hour in the subregion. The second top earning occupation is Audio and Video Equipment Technicians, with a median wage of \$19.01/hour in the region and \$18.93/hour in the subregion.

EXHIBIT 4. Commercial music entry-level and experienced wage comparison in the subregion/region



JOB POSTINGS

There were 174 job postings for the four occupations in the South Central Valley/Southern Mother Lode subregion from February 2018 through January 2019. The top employers advertising these job postings are listed in Exhibit 5.

EXHIBIT 5. Top commercial music employers by number of job postings

EMPLOYER	JOB POSTINGS
Aramark	11
Bakersfield City School District	7
Atria Senior Living	4
Musika Lessons	4
The Music Teachers Network	4
Agape Corporation	3
Agape Incorporated	3
Central Unified School District	3
Farmersville Unified	3
Fresno	3

Exhibit 6 shows how job postings for the four targeted commercial music occupations in the subregion are distributed across several O*NET OnLine occupations. The majority of job postings, 130 in total, use the occupational title Self-Enrichment Education Teachers, followed by Audio and Video Equipment Technicians, 24 job postings.

EXHIBIT 6. Commercial music occupational titles in job postings

OCCUPATIONAL TITLE & CODE	JOB POSTINGS
Self-Enrichment Education Teachers (25-3021.00)	130
Audio and Video Equipment Technicians (27-4011.00)	24
Sound Engineering Technicians (27-4014.00)	17
Music Directors (27-2041.01)	3

JOB TITLES

Analysis of the 174 advertised job titles for the targeted occupations reveals the top title is Music Teacher, occurring in 48 job postings, followed by Art Teacher, 16 job postings (Exhibit 7).

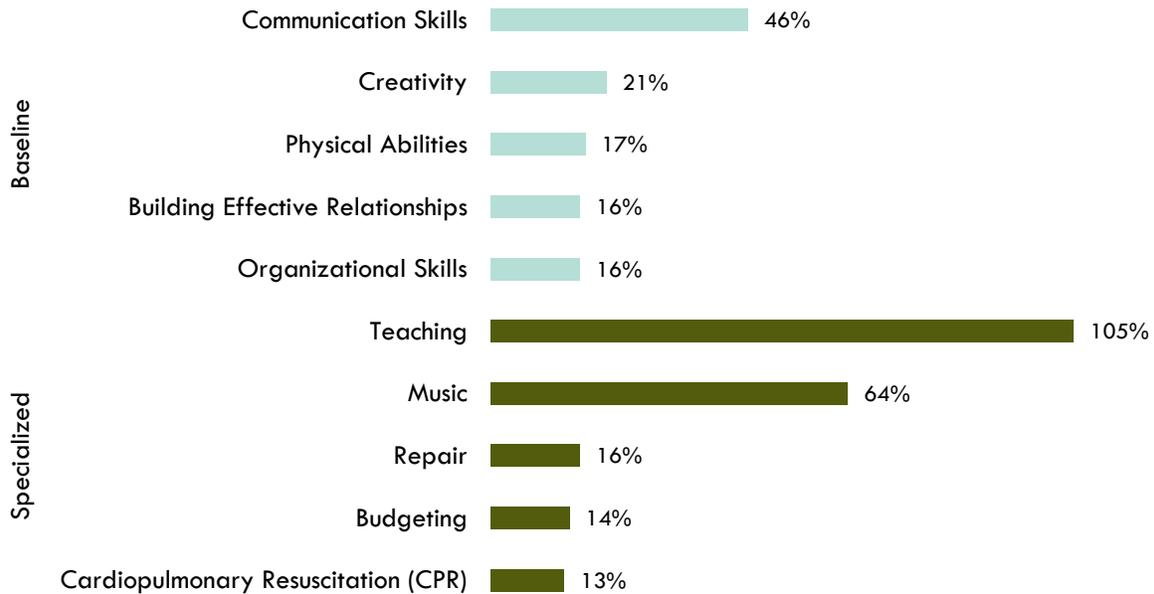
EXHIBIT 7. Top commercial music job titles by number of job postings

JOB TITLE	JOB POSTINGS
Music Teacher	48
Art Teacher	16
Theater Technician	7
Audio Visual Technician	6
Audiovisual Technician	5
Dance Instructor	5
Adjunct Instructor	4
Broadcast Engineer	3
Engage Life Program Instructor - Atria	3
Mechanic	3

SKILLS

Exhibit 8 depicts the top baseline and specialized skills for the four targeted occupations. Slightly more than 100 job postings contained skills data. Of these job postings, the three most important baseline skills are communication skills, 43% of job postings, creativity, 21%, and physical abilities, 17%. The top three specialized skills are teaching, 105% of job postings, music, 64%, and repair, 16%.

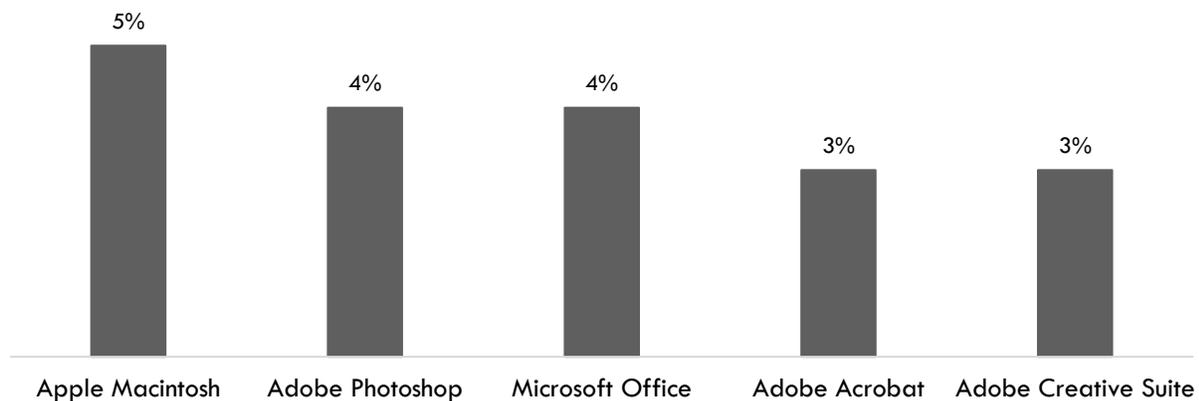
EXHIBIT 8. Commercial music in-demand baseline and specialized skills



SOFTWARE SKILLS

Analysis also included the software skills most in demand by employers. Adobe Macintosh and Adobe Photoshop rank first and second (Exhibit 9).

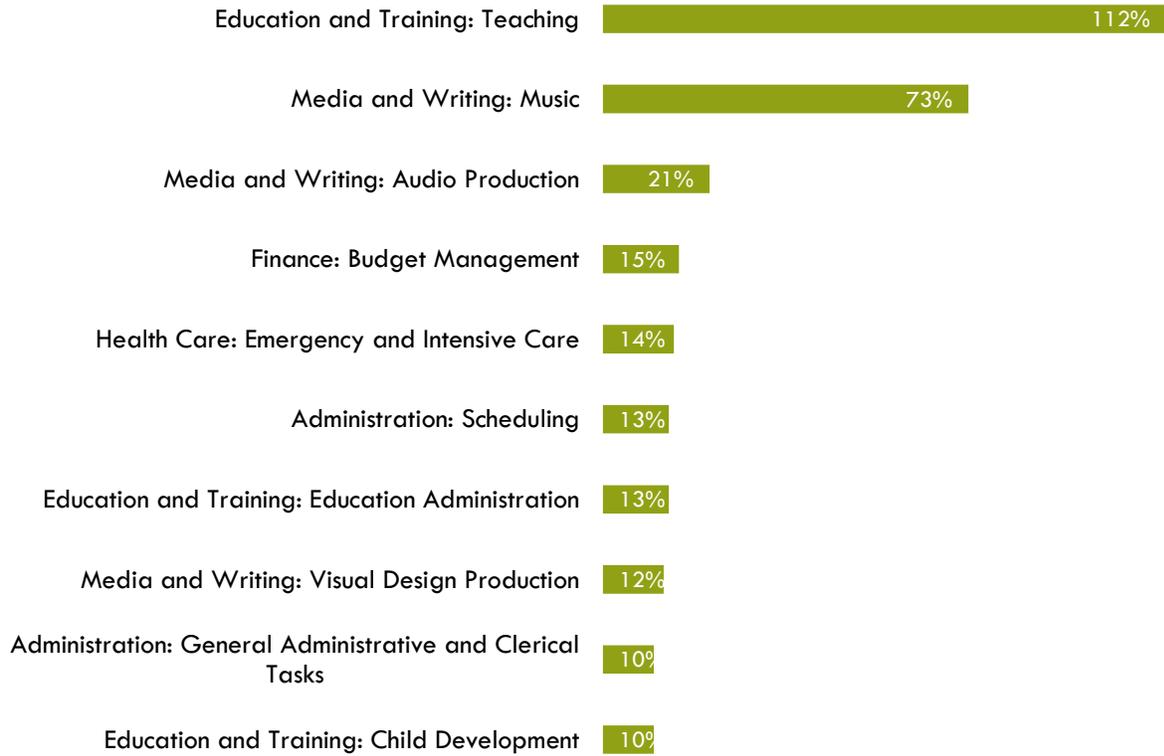
EXHIBIT 9. Commercial music in-demand software skills



SKILL CLUSTER PROJECTIONS

About 43% of the 174 job postings, a total of 50 job postings, contain skill projections. An evaluation of the top skill clusters that will have the greatest gains in level of importance shows that the top areas are education and training: teaching (112%); media and writing: music (73%); and media and writing: audio production (21%) (Exhibit 10). (Note: 57% of records have been excluded because they do not include a skill cluster. As a result, the chart below may not be representative of the full sample.)

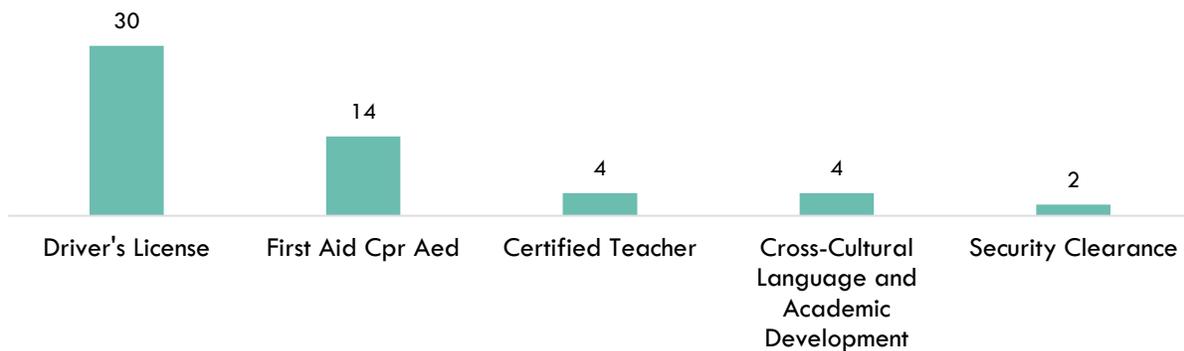
EXHIBIT 10. Skill cluster projections for commercial music occupations



CERTIFICATIONS

Of the postings with certification data, 30 indicated a need for a driver’s license (Exhibit 11). (Note: 75% of records have been excluded because they do not include a certification. As a result, the chart below may not be representative of the full sample.)

EXHIBIT 11. Commercial music certifications requested in job postings

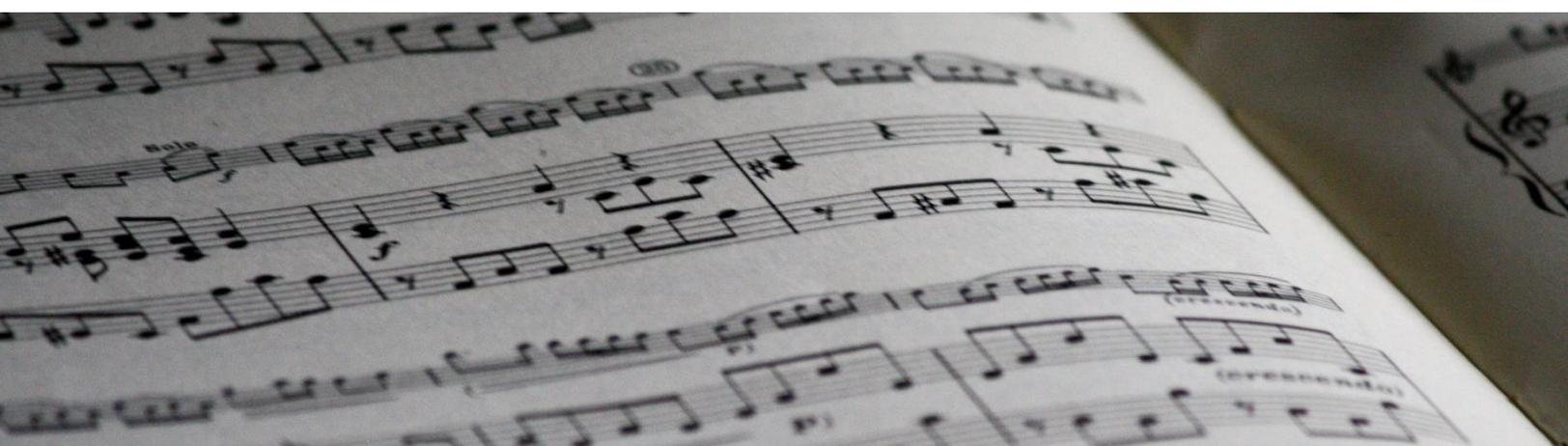


EDUCATION, WORK EXPERIENCE AND TRAINING

Three of the four occupations are relevant to community college education because they require more education than a high school diploma, but less than a bachelor's degree. Audio and Video Equipment Technicians, and Sound Engineering Technicians are typically required to possess a postsecondary nondegree award (Exhibit 12). Self-Enrichment Education Teachers typically have a high school diploma and some work experience. Music Directors and Composers requires a bachelor's degree.

EXHIBIT 12. Education, work experience, training and Current Population Survey results for commercial music occupations¹

OCCUPATION	TYPICAL ENTRY-LEVEL EDUCATION	WORK EXPERIENCE REQUIRED	TYPICAL ON-THE-JOB TRAINING
Music Directors and Composers	Bachelor's degree	Less than 5 years	None
Audio and Video Equipment Technicians	Postsecondary nondegree award	None	Short-term
Sound Engineering Technicians	Postsecondary nondegree award	None	Short-term
Self-Enrichment Education Teachers (replaces. Music Teachers)	High school diploma or equivalent	Less than 5 years	None



¹ "Labor Force Statistics from the Current Population Survey," Bureau of Labor Statistics, <https://www.bls.gov/cps/>.

SUPPLY

Analysis of California Community Colleges Chancellor’s Office Curriculum Inventory (COCI) program data shows there are four community colleges in the region offering programs contributing to workforce supply for the identified occupations in the TOP codes 100500-Comercial Music and 100600-Technical Theater.

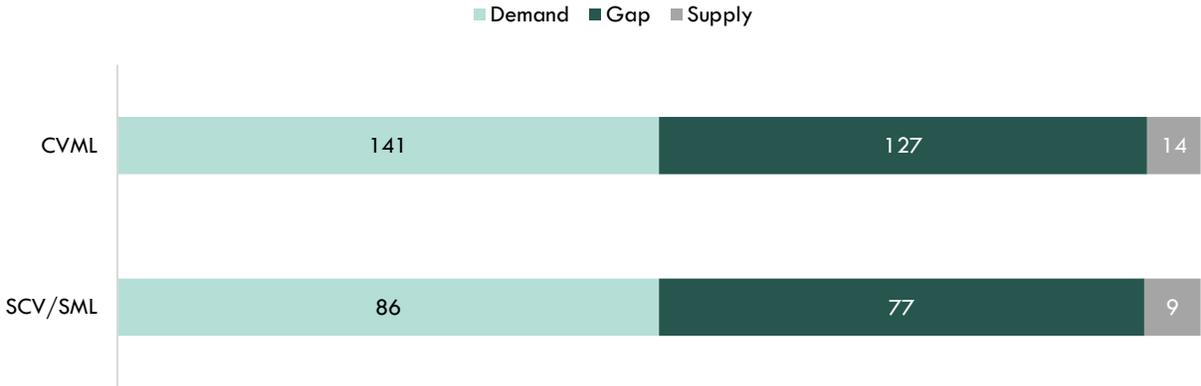
Analysis of the last three years of TOP code data, from 2014 through 2017, shows that, on average, seven certificates and seven degrees were conferred in the Central Valley/Mother Lode region each year (Exhibit 13).

EXHIBIT 13. Postsecondary supply for commercial music occupations in the subregion and region

TOP TITE-CODE	COLLEGE	CERTIFICATE	DEGREE	SUBTOTAL
Commercial Music-100500	Fresno City	3	4	7
	Modesto Junior	2		2
	Sequoias	0		0
Technical Theater-100600	Fresno City		1	1
	Modesto Junior	1		1
	San Joaquin	1	1	2
	Delta			
	Sequoias		1	1
TOTAL		7	7	14

An undersupply of commercial music workers appears to exist in the region and subregion. In the subregion, there is a shortage of 77 trained workers. In the region, the shortage is 127 trained workers (Exhibit 14).

EXHIBIT 14. Commercial music workforce annual demand and supply in the subregion and region



STUDENT OUTCOMES

Exhibit 15 summarizes employment and wage outcomes from the California Community College Chancellor’s Cal-PASS Plus LaunchBoard for the two commercial-music-related TOP codes.

Across the region, 67% of students who completed a commercial music program were employed in the second fiscal quarter after exit.

EXHIBIT 15: Regional metrics for the TOP codes related to commercial music

METRIC	COMMERCIAL MUSIC- 100500	TECHNICAL THEATER- 100600
Students Who Got a Degree or Certificate	*	*
Number of Students Who Transferred	*	17
Employed in the Second Fiscal Quarter after Exit	67% (n=18)	*
Attained a Living Wage	*	*
Median Change in Earnings	*	*
Job Closely Related to Field of Study	*	*
* denotes data not available.		

CONCLUSION

The entry-level wages for all four occupations exceed the average self-sufficiency wage for a single adult in the subregion, \$10.29/hour, and the average living wage for a single adult in the subregion, \$11.02/hour. There were 174 job postings in the past 12 months for occupations related to commercial music in the South Central Valley/Southern Mother Lode subregion. Analysis of skills and certificate requirements in job postings indicates:

- The top baseline skill is communication skills, and the top specialized skill is teaching.
- The top software skill is Adobe Macintosh.
- The top certification is a driver’s license.

There are four community colleges in the region offering programs contributing to workforce supply for occupations related to commercial music. However, there is an undersupply of trained workers, a shortage of 77 in the subregion and 127 in the region.

RECOMMENDATION

Based on these findings, it is recommended that Bakersfield College work with the region’s retail hospitality, tourism and entertainment deputy sector navigator, the college’s advisory board and local industry in the creation or expansion of a program to meet the workforce demand for commercial music workers.

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 .
Living Wage	A living wage calculator that estimates the cost of living in a specific community or region: livingwage.mit.edu .
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: www.bls.gov/emp/ep_education_tech.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, http://www.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: www.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.

Wages Family Compositions: The living wage calculator estimates the living wage needed to support families. For single adult families, the adult is assumed to be employed full time. For two adult families where both adults are in the labor force, both adults are assumed to be employed full time. For two adult families where one adult is not in the labor force, one of the adults is assumed to be employed full time while the other non-wage-earning adult provides full-time child care for the family's children. Full-time work is assumed to be year-round, 40 hours per week for 52 weeks, per adult. Families with one child are assumed to have a 'young child' (4 years old). Families with two children are assumed to have a 'young child' and a 'child' (9 years old). Families with three children are assumed to have a 'young child,' a 'child,' and a 'teenager' (15 years old).