

Recording Arts Technician

Inland Empire/Desert Region (Riverside-San Bernardino-Ontario Metropolitan Statistical Area)

Summary

- Employment for the recording arts occupational group is expected to **increase by 11% between 2017 and 2022** in the Inland Empire/Desert Region. Over the five-year timeframe, **468 total job openings** will be available.
- The entry-level wage for all occupations in the recording arts occupational group is **above the MIT Living Wage estimate of \$12.30 per hour** for a single adult living in the Inland Empire/Desert Region.
- There appears to be a slight opportunity for program growth based on the average annual number of program completions for the selected community college programs (**45 average annual community college credentials, 29 other educational institution credentials, 74 credentials total**), and the annual openings for recording arts occupations in the region (**94 annual job openings**).

Introduction

This report details two occupations relevant to the commercial music program. This program prepares students for commercial music occupations through the instruction of business skills and services necessary for the performance of music in public venues under contract. The occupations included in the recording arts occupational group are:

- Audio and Video Equipment Technicians
- Sound Engineering Technicians

Job Opportunities

In 2017, there were more than 800 recording arts jobs in the Inland Empire/Desert Region. This occupational group is projecting to increase employment 11% by 2022. Employers in the region are projected to hire 468 more workers over the next five years to fill new jobs and backfill jobs that workers are permanently vacating (includes retirements). Appendix A, Table 1 shows the projected job growth, wages, education, training, and work experience required for each of the occupations in this group.

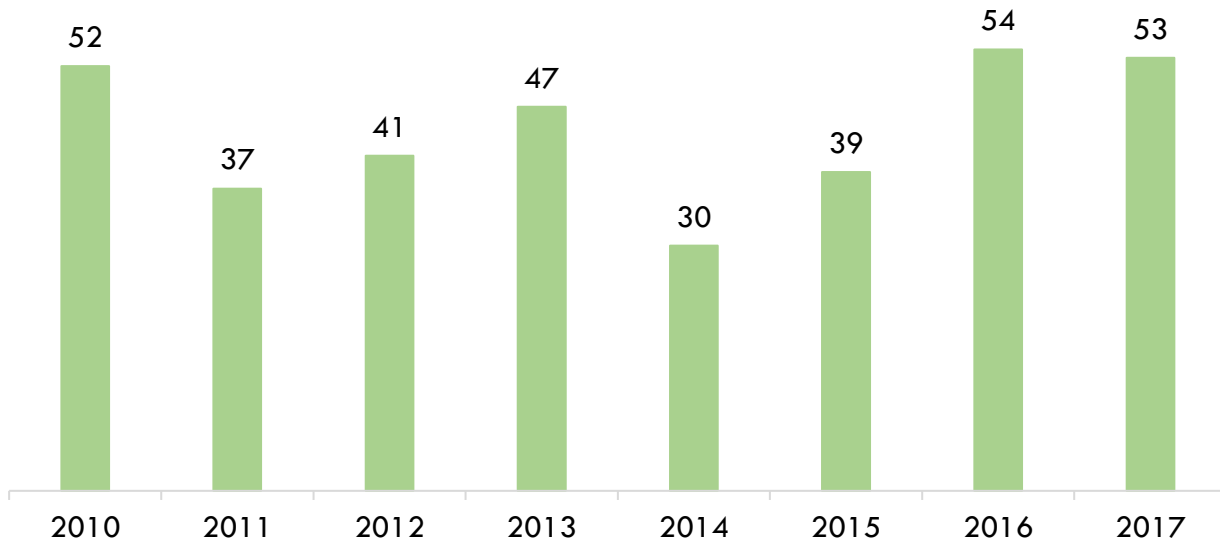
Exhibit 1: Five-year projections for the recording arts occupational group in the Inland Empire/Desert Region

Region	2017 Jobs	5-Yr Change	5-Yr % Growth (New Jobs)	5-Yr Openings (New + Replacement Jobs)	Annual Openings (New + Replacement Jobs)	% of workers age 55+
Inland Empire/Desert	807	86	11%	468	94	16%

Source: EMSI 2018.2

Over the last 12 months (July 2017 to June 2018), there were 50 advertisements (ads) for jobs in the recording arts occupational group in the Inland Empire/Desert Region. From 2010 to 2017, there was an annual average of 44 job ads per year (Exhibit 2).

Exhibit 2: Number of online job postings for the recording arts occupational group in the Inland Empire/Desert Region, 2010 to 2017



Source: Burning Glass – Labor Insights

The average time to fill for recording arts occupations in the Inland Empire/Desert Region is two days greater than the national average. This indicates that when compared to employers throughout the country, it only marginally more difficult for local employers to find qualified candidates to fill their open positions. Exhibit 3 shows the number of job ads posted during the last 12 months along with the regional and national average time to fill.

Exhibit 3: Job ads by each of the recording arts occupations in the Inland Empire/Desert Region and time to fill, July 2017 – June 2018

Occupation	Job Ads	Regional Average Time to Fill (Days)	National Average Time to Fill (Days)
Audio and Video Equipment Technicians	45	38	36
Sound Engineering Technicians	5	45	43
TOTAL	50	-	-

Source: Burning Glass – Labor Insights

Earnings

The entry-level wage for each of the occupations in the recording arts occupational group is above the MIT Living Wage estimate of \$12.30 per hour for a single adult living in the Inland Empire/Desert Region. Median wages for these occupations are sufficient for an adult living in a household with one other working adult and one child (\$14.50 per hour, per adult or \$30,160 annually for each adult). Exhibit 4 displays wage information for this occupational group in the Inland Empire/Desert Region.

Exhibit 4: Earnings for the recording arts occupational group in the Inland Empire/Desert Region

Occupation	Entry to Experienced Hourly Earnings Range*	Median Wage*	Average Annual Earnings
Sound Engineering Technicians	\$20.30 to \$30.83	\$26.95	\$59,100
Audio and Video Equipment Technicians	\$13.13 to \$19.74	\$15.33	\$36,300

Source: EMSI 2018.2

*Entry is 25th percentile, the median is 50th percentile, experienced is 75th percentile wage.

Employers, Skills, and Education

Exhibit 5 displays the top employers posting job ads for each occupation during the last 12 months.

Exhibit 5: The top employers posting job ads for the recording arts occupational group in the Inland Empire/Desert Region, July 2017 – June 2018

Occupation	Top Employers
Audio and Video Equipment Technicians (n=39)	<ul style="list-style-type: none"> PSAV Presentation Services San Manuel Band of Mission Indians
Sound Engineering Technicians (n=3)	<ul style="list-style-type: none"> National Merchants Association

Source: Burning Glass – Labor Insights

Exhibit 6 lists a sample of in-demand specialized and soft skills that employers are seeking when looking for workers to fill recording arts positions.

Exhibit 6: Sample of in-demand skills from employer job ads for recording arts occupations in the Inland Empire/Desert Region, July 2017 – June 2018

Occupation	Specialized skills	Soft skills	Software and Programming skills
Audio and Video Equipment Technicians (n=43)	<ul style="list-style-type: none"> Repair Technical Support Equipment Operation 	<ul style="list-style-type: none"> Troubleshooting Communication Skills Building Effective Relationships 	<ul style="list-style-type: none"> Microsoft Office
Sound Engineering Technicians (n=3)	<ul style="list-style-type: none"> Production Management Editing Equipment Operation 	<ul style="list-style-type: none"> Communication Skills Creativity Building Effective Relationships 	<ul style="list-style-type: none"> Pro Tools Microsoft Office

Source: Burning Glass – Labor Insights

Exhibit 7 displays the entry-level education level education typically required to enter each occupation according to the Bureau of Labor Statistics, educational attainment for incumbent workers with “some college, no degree” and an “associate degree” according to the U.S. Census, and the minimum advertised education requirement requested by employers in online job ads.

Exhibit 7: Educational attainment and online job ads with minimum advertised education requirements for the recording arts occupational group in the Inland Empire/Desert Region, July 2017 – June 2018

Occupation	Typical Entry-Level Education Requirement	Educational Attainment*	Minimum Advertised Education Requirement from Job Ads			
			Number of Job Postings (n=)	High school diploma or vocational training	Associate degree	Bachelor's degree or higher
Audio and Video Equipment Technicians	Postsecondary nondegree award	46%	39	90%	2%	8%
Sound Engineering Technicians	Postsecondary nondegree award	46%	3	33%	-	67%

Source: EMSI 2018.2, Burning Glass – Labor Insights

*Percentage of incumbent workers with a Community College Credential or Some Postsecondary Coursework

Student Completions

Exhibit 8 shows the annual average regional community college credentials (associate degrees and certificates) conferred during the three academic years between 2014 and 2017, with the relevant TOP code as well as the program title used at each college, sourced from the Chancellor’s Office Curriculum Inventory (COCI). Credentials granted from other educational institutions from 2013 to 2016 are displayed in Exhibit 9, along with the relevant CIP code. Please note, a credential is not equivalent to a single person in search of a job opening since a student may earn more than one credential, such as an associate degree in addition to a certificate. Community College student outcome information is from the CTE LaunchBoard based on the selected TOP code and region.

Exhibit 8: Annual average community college student completions for commercial music programs in the Inland Empire/Desert Region

1005.00 Commercial Music	Community College Headcount (2016-17)	Community College Annual Average Credentials (2014-17)
Chaffey – Commercial Music	99	
Associate Degree		1
Crafton Hills	27	
Mt. San Jacinto – Audio Technology, Advanced Audio Technology	264	17
Associate Degree		23
Certificate 30 to < 60 semester units		
Norco College – Commercial Music: Performance, Music Industry Studies: Performance	178	
Associate Degree		2
Certificate 30 to < 60 semester units		2
Total Community College Headcount (2016-17)	568	
Total Annual Average Community College Credentials (2014-17)		45

Source: LaunchBoard, IPEDS, COCI

1005.00 Commercial Music program Strong Workforce outcomes in the Inland Empire/Desert Region in the academic year 2015-16 [unless noted otherwise]:

- Number of course enrollments: 866 (CA Median: 1,110) [2016-17]
- Number of students who transferred to a 4-year institution: 20 (CA: 53)
- Employed in the second fiscal quarter after exit: 65% (CA: 62%)
- Median earnings in the second fiscal quarter after exit: \$5,160 (CA: \$4,796)
- Employed in the fourth fiscal quarter after exit: 68% (CA: 61%)
- In a job closely related to the field of study: N/A (CA: 48%) [2014-15]
- Median annual earnings: \$15,616 (CA: \$15,298)
- Median change in earnings: 89% (CA: 72%)
- The proportion of students who attained a living wage: 24% (CA: 24%)



Exhibit 9: Annual average other educational institutions student completions for recording arts technology/technician programs in the Inland Empire/Desert Region

10.0203 Recording Arts Technology/Technician (CIP)	Other Educational Institutions Annual Average Certificates or Other Credit Credentials (2013-16)
Argosy University-The Art Institute of California-Inland Empire	
Associate Degree	29
Total annual average other credentials (2013-16)	29

Source: IPEDS

Sources

- O*Net Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists International (EMSI)
- CTE LaunchBoard
- MIT Living Wage Calculator
- Chancellor’s Office Curriculum Inventory (COCI, version 2.0)
- The Integrated Postsecondary Education Data System (IPEDS)

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Appendix A: Occupation definitions, sample job titles, five-year projections, and earnings for recording arts occupations

Occupation Definitions (SOC code), Education and Training Requirement, Community College Education Attainment

Audio and Video Equipment Technicians (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.

Sample job titles: Audio Technician, Audio Visual Specialist, Audio Visual Technician, Audio/Visual Manager, Broadcast Engineer, Master Control Operator (MCO), Operations Technician, Production Assistant, Stagehand, Videographer

Entry-Level Educational Requirement: Postsecondary nondegree credential

Training Requirement: Less than one-month on-the-job training

Percentage of incumbent workers with a Community College Credential or Some Postsecondary Coursework: 46%

Sound Engineering Technicians (27-4014)

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

Entry-Level Educational Requirement: Postsecondary nondegree credential

Training Requirement: Less than one month on-the-job training

Percentage of incumbent workers with a Community College Credential or Some Postsecondary Coursework: 46%



Table 1. 2017 to 2022 job growth, wages, education, training, and work experience required for the recording arts occupational group, Inland Empire/Desert Region

Occupation (SOC)	2017 Jobs	5-Yr Change	5-Yr % Growth	Annual Openings (New + Replacement Jobs)	Entry-Experienced Hourly Wage*	Median Hourly Wage*	Average Annual Earnings	Typical Entry-Level Education & On-The-Job Training Required	Work Experience Required
Audio and Video Equipment Technicians (27-4011)	689	81	12%	81	\$13.13 to \$19.74	\$15.33	\$36,300	Postsecondary nondegree award & 1 month	None
Sound Engineering Technicians (27-4014)	117	6	5%	12	\$20.30 to \$30.83	\$26.95	\$59,100	Postsecondary nondegree award & 1 month	None
Total	807	87	11%	93	-	-	-	-	-

Source: EMSI 2018.2

*Entry Hourly is 25th percentile wage, the median is 50th percentile wage, experienced is 75th percentile wage.