

Program Endorsement Brief: 0614.00/Digital Media

Audio Engineering

Orange County Center of Excellence, May 2022

Summary Analysis

Program Endorsement:	Endorsed: All Criteria Met <input type="checkbox"/>	Endorsed: Some Criteria Met <input checked="" type="checkbox"/>	Not Endorsed <input type="checkbox"/>
Program Endorsement Criteria			
Supply Gap:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Living Wage: (Entry-Level, 25 th)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Emerging Occupation(s)			
Yes <input type="checkbox"/>		No <input checked="" type="checkbox"/>	

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data related to two middle-skill occupations: *audio and video technicians* (27-4011), and *sound engineering technicians* (27-4014). Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.¹ This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupations.

Based on the available data there appears to be a supply gap for these audio engineering occupations in the region. Furthermore, the occupations in this report typically require a postsecondary nondegree award and 38% of workers in the field have completed some college or an associate degree as their highest level of education. However, while the majority (67%) of annual job openings in Los Angeles County have entry-level wages that exceed the living wage, all annual job openings in Orange County have entry-level wages that are lower than the living wage. **Therefore, due to some of the criteria being met, the COE endorses this proposed program.** Detailed reasons include:

Demand:

- **Supply Gap Criteria** – Over the next five years, there is projected to be **1,392 jobs available annually** in the region due to new job growth and replacements, **which is more than the 1,026 awards conferred annually** by educational institutions in the region.

¹ The COE classifies middle-skill jobs as the following:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

- **Living Wage Criteria** –Within Orange County, **all annual job openings** for these audio engineering occupations have **entry-level wages below the county's living wage (\$20.63/hour).**²
 - However, **median wages for these occupations exceed the living wage estimate**, suggesting that workers can attain the living wage with some work experience.
- **Educational Criteria** –Within the LA/OC region, **all annual job openings** for occupations related to audio engineering **typically require a postsecondary nondegree award.**
 - Furthermore, the national-level educational attainment data indicates **38% of workers in the field have completed some college or an associate degree** as their highest level of education.

Supply:

- There are **18 community colleges** in the LA/OC region that issue awards related to audio engineering, conferring an average of **365 awards annually** between 2017 and 2020.
- Between 2016 and 2019, there was an average of **661 awards conferred annually** in related training programs by non-community college institutions, all of which were generated by **6 individual four-year colleges throughout** the region.

Occupational Demand

Exhibit 1 shows the five-year occupational demand projections for these audio engineering occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase/decrease by 15% through 2025. There will be nearly 1,400 job openings per year through 2025 due to job growth and replacements.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	Annual Openings
Los Angeles	9,237	10,706	1,469	16%	1,288
Orange	918	962	44	5%	103
Total	10,155	11,668	1,512	15%	1,392

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these audio engineering occupations in Orange County as they relate to the county's living wage. Los

² Living wage data was pulled from California Family Needs Calculator on 5/10/2022. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/family-needs-calculator/>.

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Angeles County wages are included below in order to provide a complete analysis of the LA/OC region. Detailed wage information, by county, is included in Appendix A.

Orange County: All annual openings for these audio engineering occupations have entry-level wages below the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages are in a range between \$15.54 and \$18.87. Experienced workers can expect to earn wages between \$40.98 and \$48.98, which are higher than the living wage estimate. Orange County's average wages are below the average statewide wage of \$36.07 for these occupations.

Los Angeles County: The majority (67%) of annual openings for these audio engineering occupations have entry-level wages above the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$16.95 and \$20.53. Experienced workers can expect to earn wages between \$44.75 and \$51.69, which are higher than the living wage estimate. Los Angeles County's average wages are above the average statewide wage of \$36.07 for these occupations.

Job Postings

There were 1,552 online job postings related to these audio engineering occupations listed in the past 12 months. The highest number of job postings were for audio visual (AV) technicians, audio engineers, TV mounting technicians/home theater installers, audio visual event technicians, and senior technicians-Walt Theater. The top skills were repair, scheduling, customer service, audio/visual knowledge, and broadcast industry knowledge. The top three employers, by number of job postings, in the region were Encore Global/Encore, Disney, and ITOD LLC.

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a postsecondary nondegree award as the typical entry-level education for *audio and video technicians* and *sound engineering technicians*. In the LA/OC region, all annual job openings for these occupations typically require a postsecondary nondegree award. Furthermore, the national-level educational attainment data indicates 38% of workers in the field have completed some college or an associate degree as their highest level of education. Of the 47% of audio engineering job postings listing a minimum education requirement in Los Angeles/Orange County, 60.5% (441) requested high school or vocational training, 28.9% (211) requested a bachelor's degree or higher, and 10.6% (77) requested an associate degree.

Educational Supply

Community College Supply—Exhibit 2 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Digital Media (0614.00) and Commercial Music (1005.00). The colleges with the most completions in the region are: LA City and Citrus. Over the past 12 months, there were eight other related program recommendation requests from regional community colleges.

Exhibit 2: Regional community college awards (certificates and degrees), 2017-2020

TOP Code	Program	College	2017-2018 Awards	2018-2019 Awards	2019-2020 Awards	3-Year Award Average
0614.00	Digital Media	Glendale	-	-	1	0
		LA Mission	-	1	4	2
		LA Trade	7	19	11	12
		Long Beach	1	-	-	0
		Rio Hondo	-	-	2	1
		LA Subtotal	8	20	18	15
		Coastline	-	3	-	1
		Golden West	9	10	10	10
		Irvine	15	9	1	8
		Santa Ana	-	-	1	0
		OC Subtotal	24	22	12	19
Supply Subtotal/Average			32	42	30	35
1005.00	Commercial Music	Cerritos	9	3	5	6
		Citrus	58	58	51	56
		Glendale	3	-	-	1
		LA City	183	313	129	208
		LA Harbor	2	6	4	4
		LA Valley	21	7	10	13
		Long Beach	4	-	-	1
		LA Subtotal	280	387	199	289
		Cypress	15	9	17	14
		Fullerton	6	5	10	7
		Irvine	-	1	1	1
		Orange Coast	3	7	8	6
		Saddleback	11	7	9	9
		Santa Ana	5	7	4	5
		OC Subtotal	40	36	49	42
Supply Subtotal/Average			320	423	248	330
Supply Total/Average			352	465	278	365

Non-Community College Supply—For a comprehensive regional supply analysis, it is also important to consider the supply from other institutions in the region that provide training programs for audio engineering. Exhibit 3 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Recording Arts Technology/Technician (10.0203) and Music Technology (50.0913). Due to

different data collection periods, the most recent three-year period of available data is from 2016 to 2019. Between 2016 and 2019, four-year colleges in the region conferred an average of 661 awards annually in related training programs.

Exhibit 3: Regional non-community college awards, 2016-2019

CIP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
10.0203	Recording Arts Technology/ Technician	Los Angeles Film School	161	139	54	118
		Loyola Marymount University	18	10	12	13
		Musicians Institute	159	113	115	129
		SAE Institute of Technology-Los Angeles	121	74	-	65
Supply Subtotal/Average			459	336	181	325
50.0913	Music Technology	California Institute of the Arts	8	6	-	5
		Los Angeles College of Music	14	14	8	12
		Los Angeles Film School	211	329	416	319
Supply Subtotal/Average			233	349	424	335
Supply Total/Average			692	685	605	661

Appendix A: Occupational demand and wage data by county

Exhibit 4. Orange County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)
Audio and Video Technicians (27-4011)	674	701	27	4%	74	\$18.87	\$28.26	\$40.98
Sound Engineering Technicians (27-4014)	245	262	17	7%	30	\$15.54	\$27.88	\$48.98
Total	918	962	44	5%	103			

Exhibit 5. Los Angeles County

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Audio and Video Technicians (27-4011)	5,986	7,033	1,047	17%	859	\$20.53	\$30.88	\$44.75
Sound Engineering Technicians (27-4014)	3,251	3,672	422	13%	429	\$16.95	\$29.84	\$51.69
Total	9,237	10,706	1,469	16%	1,288			

Exhibit 6. Los Angeles and Orange Counties

Occupation (SOC)	2020 Jobs	2025 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Audio and Video Technicians (27-4011)	6,660	7,734	1,074	16%	933
Sound Engineering Technicians (27-4014)	3,495	3,934	438	13%	459
Total	10,155	11,668	1,512	15%	1,392

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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