



**Labor Market Analysis: 1006.00 – Technical Theater  
Entertainment Technology Academy; Audio Certificate; Lighting  
Certificate; Rigging & Staging Certificate; Video Projection  
Certificate – Certificates requiring 8 to fewer than 16 semester units**  
Los Angeles Center of Excellence, March 2025

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

**SUMMARY**

This report analyzes whether local labor market demand is being met by community college programs aligned with the identified middle-skill occupations<sup>1</sup> or whether a shortage of workers exists. Labor market demand is measured by annual job openings while education supply is measured by the number of awards (degrees and certificates) conferred on average each year.

Based on the available data, there appears to be a supply gap for the five identified middle-skill occupations in the region. While the majority of annual openings have entry-level wages that are lower than the self-sufficiency standard wage in both Los Angeles and Orange counties, the majority of annual openings for the occupations in this report typically require a postsecondary non-degree award.

**Recommendation: Due to two of three program endorsement criteria being met, the Los Angeles Center of Excellence for Labor Market Research (LA COE) endorses this proposed program.**

<sup>1</sup> Middle-skill occupations typically require some postsecondary education, but less than a bachelor’s degree. 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.

## Key Findings

### Supply Gap

- 1,821 annual job openings are projected in the region through 2028. This number is greater than the three-year average of 98 awards conferred by educational institutions in the region.

### Living Wage

- 78% of annual job openings for these middle-skill entertainment technology occupations have entry-level wages **below** Los Angeles County's self-sufficiency standard hourly wage (\$24.03/hour).<sup>2</sup>

### Educational Attainment

- 63% of the annual job openings typically require a postsecondary non-degree award for middle-skill occupations related to entertainment technology in the LA/OC region.
- 38%-88% of workers in the field have completed an associate degree or less education, according to national educational attainment data.

### Community college supply

- 14 community colleges issued awards related to technical theater in the greater LA/OC region.
- 69 awards (degrees and certificates) were conferred on average each year between 2021 and 2023.

### Other postsecondary supply

- 5 educational institutions in the LA/OC region have conferred bachelor's awards in programs related to entertainment technology over the past three years.
- 29 awards were conferred on average each year by other postsecondary institutions throughout the greater LA/OC region between 2020 and 2022.

## TARGET OCCUPATIONS

LA COE prepared this report to provide regional labor market and postsecondary supply data related to five middle-skill occupations. Although one occupation in this report typically requires a bachelor's degree, it is considered middle-skill because approximately one-third of workers in the field have completed some college/associate degree or less education as their highest level of education. [For full occupation descriptions, please see Appendix.](#)

- **Set and Exhibit Designers (27-1027)**<sup>3</sup>
- **Audio and Video Technicians (27-4011)**<sup>4</sup>
- **Sound Engineering Technicians (27-4014)**<sup>5</sup>
- **Lighting Technicians (27-4015)**<sup>6</sup>
- **Riggers (49-9096)**<sup>7</sup>

<sup>2</sup> Center for Women's Welfare, University of Washington. (2024). *The self-sufficiency standard for California 2024*. <http://selfsufficiencystandard.org/California>.

<sup>3</sup> [Set and Exhibit Designers \(bls.gov\)](#)

<sup>4</sup> [Broadcast, Sound, and Video Technicians \(bls.gov\)](#)

<sup>5</sup> [Ibid.](#)

<sup>6</sup> [Ibid.](#)

<sup>7</sup> [Riggers \(bls.gov\)](#)



## OCCUPATIONAL DEMAND

Exhibit 1 shows the five-year occupational demand projections for these middle-skill entertainment technology occupations. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to decrease by 2% through 2028. However, there will be more than 1,800 job openings per year through 2028 due to retirements and workers leaving the field. The majority of jobs in 2023 for these middle-skill entertainment technology occupations (86%) were located in Los Angeles County.

**Exhibit 1: Current employment and occupational demand, Los Angeles and Orange counties<sup>8</sup>**

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
Los Angeles	17,219	16,875	(345)	(2%)	1,565
Orange	2,756	2,722	(34)	(1%)	256
<b>Total</b>	<b>19,975</b>	<b>19,597</b>	<b>(378)</b>	<b>(2%)</b>	<b>1,821</b>

### Detailed Occupation Data

Exhibit 2 displays the current employment and projected occupational demand for each of the target occupations in Los Angeles County. Positive scores for automation resilience<sup>9</sup> reflect a lower-than-average threat of the occupation(s) being replaced by automation, while negative scores reflect a greater-than-average risk of automation. The average percentage of workers aged 55+ across all occupations in the Los Angeles/Orange County region is 26%; occupations with a larger share of workers aged 55 and older typically have greater replacement needs to offset the amount of impending retirements.

**Exhibit 2: Detailed employment and occupational demand, Los Angeles County<sup>10</sup>**

Occupation	2023 Jobs	2028 Jobs	5-Yr % Change	Annual Openings	Automation Resilience	% Aged 55 and older
Set and Exhibit Designers	2,753	2,686	(2%)	214	11.0	29%
Audio and Video Technicians	5,583	5,567	(0%)	511	2.2	23%
Sound Engineering Technicians	5,168	5,028	(3%)	494	(1.4)	25%
Lighting Technicians	2,585	2,495	(3%)	233	3.9	24%
Riggers	1,131	1,099	(3%)	112	(20.6)	26%
<b>Total</b>	<b>17,219</b>	<b>16,875</b>	<b>(2%)</b>	<b>1,565</b>	<b>-</b>	<b>-</b>

<sup>8</sup> Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

<sup>9</sup> Automation risk is calculated based on the percentage of time spent on high-risk compared to low-risk work, the number of high-risk jobs in compatible occupations, and the overall industry automation risk.

<sup>10</sup> Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

## WAGES

The labor market endorsement in this report considers the entry-level hourly wages for these middle-skill entertainment technology occupations in Los Angeles County as they relate to the county's self-sufficiency standard wage. Orange County wages are included below in order to provide a complete analysis of the greater Los Angeles/Orange County region.

### Los Angeles County

The majority, 78%, of annual openings for these middle-skill entertainment technology occupations have entry-level wages below the self-sufficiency standard wage for one adult (\$24.03 in Los Angeles County). Typical entry-level hourly wages are in a range between \$21.38 and \$40.07. (Exhibit 3).

Two occupations have entry-level wages above the self-sufficiency standard wage:

- *Riggers*, \$40.07
- *Lighting technicians*, \$24.42

Experienced workers can expect to earn wages between \$47.22 and \$63.27, which are higher than the self-sufficiency standard.

#### Exhibit 3: Earnings for occupations in Los Angeles County

Occupation	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)	Median Annual Earnings*
Set and Exhibit Designers	\$23.45	\$39.87	\$54.08	\$82,900
Audio and Video Technicians	\$21.38	\$29.19	\$47.22	\$60,700
Sound Engineering Technicians	\$22.35	\$30.41	\$56.06	\$63,200
Lighting Technicians	\$24.42	\$37.71	\$50.76	\$78,400
Riggers	\$40.07	\$49.82	\$63.27	\$103,600

\*Rounded to the nearest \$100

### Orange County

The majority, 88%, of annual openings for these middle-skill entertainment technology occupations have entry-level wages below the self-sufficiency standard wage for one adult (\$27.13 in Orange County). Typical entry-level hourly wages are in a range between \$19.67 and \$39.37 (Exhibit 4).

One occupation has entry-level wages above the self-sufficiency standard wage:

- *Riggers*, \$39.37

Experienced workers can expect to earn wages between \$42.98 and \$62.17, which are higher than the self-sufficiency standard.

#### Exhibit 4: Earnings for occupations in Orange County

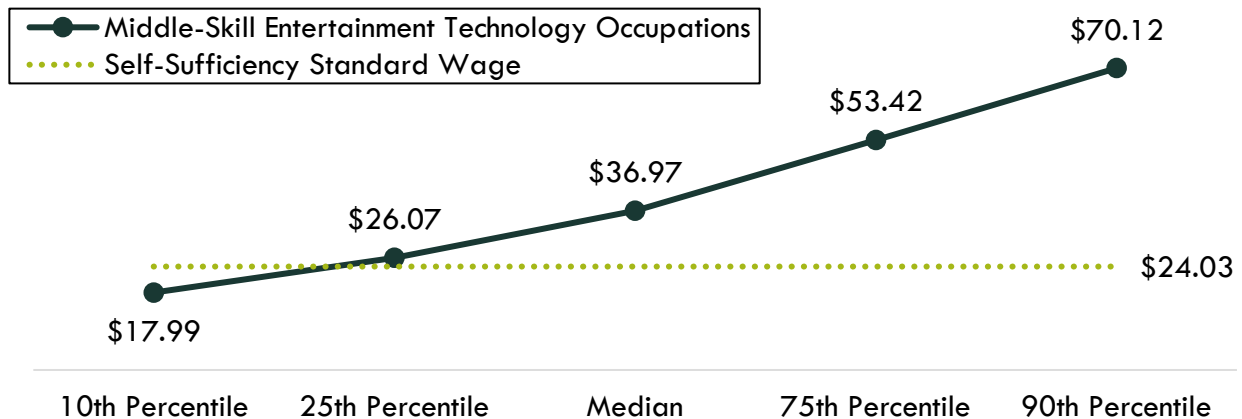
Occupation	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)	Median Annual Earnings*
Set and Exhibit Designers	\$21.44	\$34.69	\$48.23	\$72,100

Occupation	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)	Median Annual Earnings*
Audio and Video Technicians	\$19.67	\$26.81	\$42.98	\$55,800
Sound Engineering Technicians	\$19.97	\$27.37	\$50.08	\$56,900
Lighting Technicians	\$21.55	\$33.15	\$44.24	\$69,000
Riggers	\$39.37	\$48.96	\$62.17	\$101,800

\*Rounded to the nearest \$100

Across the greater Los Angeles and Orange County region, the average entry-level hourly earnings for the occupations in this report are \$26.07; this is above the living wage for one single adult in Los Angeles County (\$24.03). Exhibit 5 shows the average hourly wage for the occupations in this report, for entry-level to experienced workers.

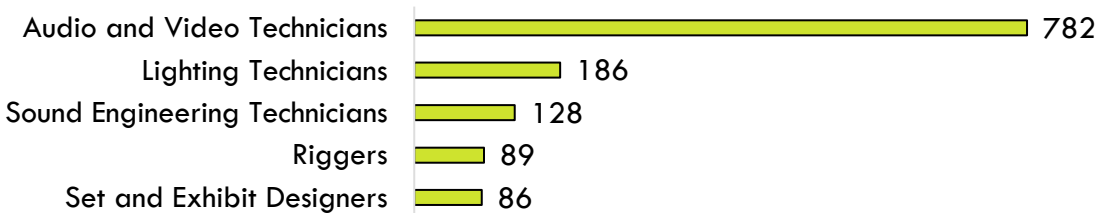
**Exhibit 5: Average hourly earnings for middle-skill entertainment technology occupations, Los Angeles and Orange counties**



## JOB POSTINGS

There were 1,271 online job postings related to middle-skill entertainment technology occupations listed in the past 12 months in Los Angeles and Orange counties. Exhibit 6 displays the number of job postings by occupation. The majority of job postings (62%) were for *audio and video technicians*, followed by *lighting technicians* (15%) and *sound engineering technicians* (10%).

**Exhibit 6: Job postings by occupation (last 12 months), Los Angeles and Orange counties**



Job postings were analyzed for the most common job titles, skills, and employers associated with the target occupations in this report (Exhibit 7).

**Exhibit 7: Most commonly requested job titles, skills and employers in job postings, Los Angeles and Orange counties**

Top Job Titles	Top Skills	Top Employers
<ul style="list-style-type: none"> <li>• Audiovisual technicians</li> <li>• Lighting technicians</li> <li>• Audiovisual specialists</li> <li>• Riggers</li> <li>• Audio/video technicians</li> <li>• Retail product specialists</li> <li>• Audio visual managers</li> <li>• Audiovisual/IT technicians</li> <li>• Event technicians</li> </ul>	<ul style="list-style-type: none"> <li>• Project management</li> <li>• Crestron (A/V systems)</li> <li>• Technical issues</li> <li>• Audio-visual technology</li> <li>• Electrical wiring</li> <li>• Control systems</li> <li>• Audiovisual equipment</li> <li>• Low voltage</li> <li>• Stage lighting</li> </ul>	<ul style="list-style-type: none"> <li>• Walmart</li> <li>• Encore Global</li> <li>• Five Star Audio Visual</li> <li>• Skechers</li> <li>• Aerotek*</li> <li>• Eidim Group</li> <li>• Insight Global*</li> <li>• NBC</li> <li>• Live Nation</li> </ul>

\*Staffing company

In the greater Los Angeles/Orange County region, 42% of the middle-skill entertainment technology job postings listed a minimum educational requirement. Exhibit 8 details the number and percentage of job postings by educational level.

**Exhibit 8: Education levels requested in job postings for middle-skill entertainment technology occupations, Los Angeles and Orange counties**

Education Level	Job Postings	% of Job Postings
Bachelor's degree	197	37%
Associate degree	45	8%
High school diploma or vocational training	295	55%

**EDUCATIONAL ATTAINMENT**

In the greater Los Angeles/Orange County region, the majority of annual job openings (63%) typically require a postsecondary non-degree award (Exhibit 9). Furthermore, the national-level data indicates between 38% and 88% of workers in the field have completed an associate degree or less education as their highest level of educational attainment. The Bureau of Labor Statistics (BLS) lists the following typical entry-level education levels for the occupations in this report:

**Exhibit 9: Entry-level education preferred by employers nationally, Bureau of Labor Statistics**

Occupation	Education Level
Set and Exhibit Designers	Bachelor's degree
Audio and Video Technicians	Postsecondary non-degree award
Sound Engineering Technicians	Postsecondary non-degree award
Lighting Technicians	High school diploma or equivalent
Riggers	High school diploma or equivalent

**EDUCATIONAL SUPPLY**

**Community College Supply**

Exhibit 10 shows the annual and three-year average number of awards conferred by community colleges in the related TOP code: Technical Theater (1006.00). The colleges with the most completions in the region are East LA, Fullerton, and Santa Monica.

**Exhibit 10: Regional community college awards (certificates and degrees), 2021-2023**

TOP Code	Program	College	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Average
1006.00	Technical Theater	Citrus	7	5	2	5
		East LA	6	32	13	17
		Glendale	-	2	-	1
		LA City	2	4	7	4
		LA Pierce	7	3	-	3
		LA Valley	1	1	2	1
		Mt San Antonio	-	-	2	1
		Pasadena	2	1	-	1
		Santa Monica	6	16	8	10
		<b>LA Subtotal</b>	<b>31</b>	<b>64</b>	<b>34</b>	<b>43</b>
		Cypress	7	6	2	5
		Fullerton	33	-	4	12
		Irvine	4	3	1	3
		Saddleback	4	3	2	3
		Santa Ana	6	2	-	3
		<b>OC Subtotal</b>	<b>54</b>	<b>14</b>	<b>9</b>	<b>26</b>
		<b>Supply Total/Average</b>			<b>85</b>	<b>78</b>

## Other Postsecondary Supply

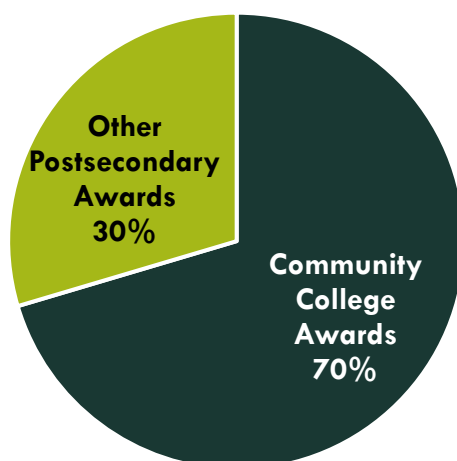
For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that provide training programs for entertainment technology. Exhibit 11 shows the number of awards conferred by these institutions in relevant programs. Due to different data collection periods, the most recent data is from 2020 to 2022. Between 2020 and 2022, other postsecondary college institutions in the region conferred an average of 29 bachelor's awards.

**Exhibit 11: Other regional postsecondary awards, 2020-2022**

CIP Code	Program	Postsecondary Institution	2019-20 Awards	2020-21 Awards	2021-22 Awards	3-Year Average
50.0502	Technical Theatre/ Theatre Design and Technology	CA Institute of the Arts	18	17	15	17
		Chapman Univ.	-	1	-	0
		Pepperdine Univ.	6	3	1	3
		USC	4	10	8	7
		Vanguard Univ. of Southern CA	1	1	1	1
<b>Supply Total/Average</b>			<b>29</b>	<b>32</b>	<b>25</b>	<b>29</b>

Exhibit 12 shows the proportion of community college awards conferred in the greater Los Angeles/Orange County region compared to the number of other postsecondary awards for the programs in this report. The majority of awards conferred in these programs are awarded by community colleges in the greater Los Angeles/Orange County region.

**Exhibit 12: Percentage of community college awards compared to other postsecondary institution awards in the Los Angeles/Orange County region**



## APPENDIX: OCCUPATION DESCRIPTIONS

LA COE prepared this report to provide regional labor market supply and demand data related to these target occupations:

- **Set and Exhibit Designers (27-1027)** Design special exhibits and sets for film, video, television, and theater productions. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.<sup>11</sup>
- **Audio and Video Technicians (27-4011)** Set up, maintain, and dismantle audio and video equipment, such as microphones, sound speakers, connecting wires and cables, sound and mixing boards, video cameras, video monitors and servers, and related electronic equipment for live or recorded events, such as concerts, meetings, conventions, presentations, podcasts, news conferences, and sporting events.<sup>12</sup>
- **Sound Engineering Technicians (27-4014)** Assemble and operate equipment to record, synchronize, mix, edit, or reproduce sound, including music, voices, or sound effects, for theater, video, film, television, podcasts, sporting events, and other productions.<sup>13</sup>
- **Lighting Technicians (27-4015)** Set up, maintain, and dismantle light fixtures, lighting control devices, and the associated lighting electrical and rigging equipment used for photography, television, film, video, and live productions. May focus or operate light fixtures, or attach color filters or other lighting accessories.<sup>14</sup>
- **Riggers (49-9096)** Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.<sup>15</sup>

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<sup>11</sup> [Set and Exhibit Designers \(bls.gov\)](#)

<sup>12</sup> [Broadcast, Sound, and Video Technicians \(bls.gov\)](#)

<sup>13</sup> [Ibid.](#)

<sup>14</sup> [Ibid.](#)

<sup>15</sup> [Riggers \(bls.gov\)](#)

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**DATA SOURCES**

- O\*NET Online
- Lightcast (formerly Emsi)
- Bureau of Labor Statistics (BLS)
- California Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- Self-Sufficiency Standard at the Center for Women's Welfare, University of Washington
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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