



Labor Market Analysis: 0952.10-Carpentry & 1009.00-Applied Design Set Construction and Construction Coordination for the Entertainment Industry; Set Painters & Sign Writers

Los Angeles Center of Excellence, January 2026

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"/>	

SUMMARY

This report analyzes whether local labor market demand is being met by community college programs aligned with the identified middle-skill occupations¹ 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 Los Angeles County, more than one-third of workers in the field have completed an associate degree or less educational attainment.

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.

Key Findings

Supply Gap

- 4,254 annual job openings are projected in the region through 2029. This number is greater than the three-year average of 334 awards conferred by educational institutions in the region.

¹ 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.

- However, the occupations in this report are employed in various industries and not solely the entertainment industry. Therefore, **the number of annual job openings is likely overstated for entertainment industry occupations.**
- Over the past 12 months, there were **2,280 online job postings related to these set construction and painting occupations.** The highest number of job postings were for carpenters, painter helpers, painters, home theater specialists, and finish carpenters.

Living Wage

- 81% of annual job openings for these target occupations have entry-level wages **below** Los Angeles County’s self-sufficiency standard hourly wage (\$24.03/hour).²

Educational Attainment

- 93% of the annual job openings typically require a high school diploma or equivalent for these middle-skill occupations related to set construction and painting in the LA/OC region.
- 25%-39% of workers in the field have completed some college or an associate degree, according to national educational attainment data.
 - 38%-96% have completed an associate degree or less educational attainment.

Community college supply

- 19 community colleges issued awards related to set construction and painting in the greater LA/OC region.
- 137 awards (degrees and certificates) were conferred on average each year between 2022 and 2024.

Other postsecondary supply

- 13 educational institutions in the LA/OC region have conferred awards in programs related to set construction and painting over the past three years.
- 197 awards were conferred on average each year by other postsecondary institutions throughout the greater LA/OC region between 2021 and 2023.

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 educational attainment. [For full occupation descriptions, please see Appendix.](#)

- **Set and Exhibit Designers (27-1027)**³
- **Lighting Technicians (27-4015)**⁴
- **Carpenters (49-2031)**⁵

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

³ [Set and Exhibit Designers \(bls.gov\)](#)

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

⁵ [Carpenters \(bls.gov\)](#)

- *Riggers (49-9096)*⁶
- *Painting, Coating, and Decorating Workers (51-9123)*⁷

OCCUPATIONAL DEMAND

Exhibit 1 shows the five-year occupational demand projections for these set construction and painting occupations. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to decrease by 1% through 2029. However, there will be more than 4,200 job openings per year through 2029 due to retirements and workers leaving the field. It is important to note that the target occupations in this report are employed in various industries, and not solely the entertainment industry. Therefore, the data in Exhibit 1 is likely overstated for these set construction and painting occupations within the entertainment industry. The majority of jobs in 2024 for these set construction and painting occupations (71%) were located in Los Angeles County.

Exhibit 1: Current employment and occupational demand, Los Angeles and Orange counties⁸

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	37,708	37,145	(563)	(1%)	2,974
Orange	15,687	15,752	65	0%	1,280
Total	53,395	52,897	(498)	(1%)	4,254

Detailed Occupation Data

Exhibit 2 displays the current employment and projected occupational demand for each of the target occupations in Los Angeles County. 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. On average, 81% of workers across all occupations in California are employed full-time. Occupations with a lower-than-average percentage of full-time workers may have less employment security but may see increased activity in the gig economy.

⁶ [Riggers \(bls.gov\)](#)

⁷ [Painting and Coating Workers \(bls.gov\)](#)

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

Exhibit 2: Detailed employment and occupational demand, Los Angeles County⁹

Occupation	2024 Jobs	2029 Jobs	5-Yr % Change	Annual Openings	% Aged 55 and older	% Full Time Workers
Set and Exhibit Designers	2,825	2,749	(3%)	209	32%	Data unavail.
Lighting Technicians	2,349	2,267	(3%)	202	26%	Data unavail.
Carpenters	30,650	30,274	(1%)	2,375	28%	92%
Riggers	1,534	1,517	(1%)	156	28%	Data unavail.
Painting, Coating, and Decorating Workers	351	339	(3%)	32	24%	83%
Total	37,708	37,145	(1%)	2,974	-	-

WAGES

The labor market endorsement in this report considers the entry-level hourly wages for these set construction and painting 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, 81%, of annual openings for these target 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 \$17.88 and \$39.71. (Exhibit 3).

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

- *Riggers*, \$39.71
- *Set and exhibit designers*, \$28.36
- *Lighting technicians*, \$25.09

Experienced workers can expect to earn wages between \$26.75 and \$60.32, which are higher than the self-sufficiency standard.

⁹ Ibid.

Exhibit 3: Earnings for occupations in Los Angeles County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Set and Exhibit Designers	\$28.36	\$44.23	\$60.32	\$92,000
Lighting Technicians	\$25.09	\$40.10	\$50.94	\$83,400
Carpenters	\$21.01	\$29.89	\$42.13	\$62,200
Riggers	\$39.71	\$45.63	\$49.90	\$94,900
Painting, Coating, and Decorating Workers	\$17.88	\$21.89	\$26.75	\$45,500

*Rounded to the nearest \$100

Orange County

The majority, 94%, of annual openings for the target occupations have entry-level wages above the self-sufficiency standard wage for one adult (\$27.13 in Orange County). Typical entry-level hourly wages are in a range between \$17.74 and \$38.85 (Exhibit 4).

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

- *Riggers*, \$38.85
- *Carpenters*, \$25.88

Experienced *painting, coating, and decorating workers* can expect to earn \$26.40, which is lower than the self-sufficiency standard. However, experienced *set and exhibit designers, lighting technicians, carpenters, and riggers* can expect to earn wages between \$53.21 and \$45.22, which are higher than the self-sufficiency standard.

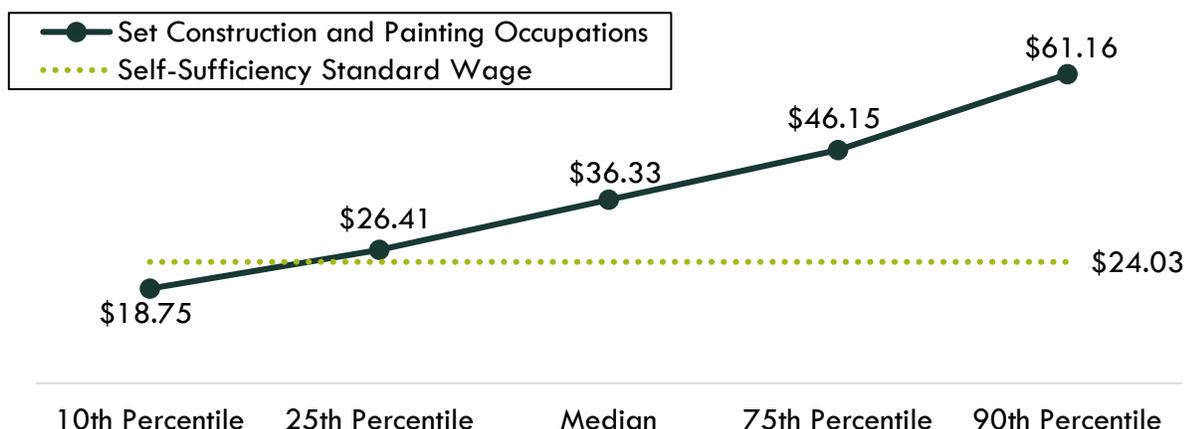
Exhibit 4: Earnings for occupations in Orange County

Occupation	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)	Median Annual Earnings*
Set and Exhibit Designers	\$20.96	\$36.59	\$53.21	\$76,100
Lighting Technicians	\$22.32	\$35.56	\$45.22	\$74,000
Carpenters	\$25.88	\$35.58	\$49.10	\$74,000
Riggers	\$38.85	\$44.63	\$48.82	\$92,800
Painting, Coating, and Decorating Workers	\$17.74	\$21.72	\$26.40	\$45,200

*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 \$26.41; 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 target occupations, Los Angeles and Orange counties



JOB POSTINGS

There were 2,280 online job postings related to set construction and painting 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 (32%) were for *carpenters*, followed by *set and exhibit designers* (22%) and *painting, coating, and decorating workers* (20%).

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"> • Carpenters • Painter helpers • Painters • Finish carpenters • Industrial painters 	<ul style="list-style-type: none"> • Carpentry • Painting • Construction • Hand/power tool operation • Project management 	<ul style="list-style-type: none"> • Aerotek • Best Buy • Caliber Collision • Disney • NBC

In the greater Los Angeles/Orange County region, 25% of the target 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 target occupations, Los Angeles and Orange counties

Education Level	Job Postings	% of Job Postings
Bachelor's degree	228	40%
Associate degree	44	8%
High school diploma or vocational training	295	52%

EDUCATIONAL ATTAINMENT

In the greater Los Angeles/Orange County region, the majority of annual job openings (93%) typically require a high school diploma or equivalent (Exhibit 9). The national-level data indicates between 25% and 39% of workers in the field have completed some college or an associate degree as their highest level of educational attainment, while 38%-96% have completed an associate degree or less education. 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
Lighting Technicians	High school diploma or equivalent
Carpenters	High school diploma or equivalent
Riggers	High school diploma or equivalent
Painting, Coating, and Decorating Workers	No formal educational credential

EDUCATIONAL SUPPLY

Community College Supply

Exhibit 10 shows the annual and three-year average number of awards conferred by community colleges in programs that have historically trained for the occupations of interest. The colleges with the most completions in the region are LA Trade-Tech, East LA, and Santa Monica. In the past three years, there have been no regional completions under the Applied Design (1009.00) TOP code.

Exhibit 10: Regional community college awards (certificates and degrees), 2022-2024

TOP Code	Program	College	2021-22 Awards	2022-23 Awards	2023-24 Awards	3-Year Average
0952.10	Carpentry	LA Southwest	23	9	-	11
		LA Trade-Tech	42	43	39	41
		Rio Hondo	-	-	20	7
		LA Subtotal	65	52	59	59
		Santiago Canyon	1	4	7	4
		OC Subtotal	1	4	7	4
Supply Subtotal/Average			66	56	66	63
1006.00	Technical Theater	Citrus	5	2	2	3
		East LA	32	13	38	28
		Glendale	2	-	1	1
		LA City	4	7	7	6
		LA Pierce	3	-	4	2
		LA Valley	1	2	-	1
		Mt San Antonio	-	2	1	1
		Pasadena	1	-	-	0
		Santa Monica	16	8	11	12
		LA Subtotal	64	34	64	54
		Cypress	6	2	6	5
		Fullerton	-	4	26	10
		Golden West	-	-	1	0
		Irvine	3	1	4	3
		Saddleback	3	2	1	2
		Santa Ana	2	-	-	1
		OC Subtotal	14	9	38	20
Supply Subtotal/Average			78	43	102	74
Supply Total/Average			144	99	168	137

Exhibit 11 displays the community college awards broken down by award type. In this case, the majority of awards issued by community colleges are certificates (70%).

Exhibit 11: Community college awards by award type, 2022-2024

Award Type	# of Awards	% of Awards
A.A./A.S. degrees	21	15%
Certificates	95	70%
Noncredit awards	21	15%
Total	137	100%

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 set construction and painting occupations. Exhibit 12 shows the number of awards conferred by these institutions in relevant programs. Due to different data collection periods, the most recent data is from 2021 to 2023. Between 2021 and 2023, other postsecondary college institutions in the region conferred an average of 197 bachelor’s and sub-baccalaureate awards. Sub-baccalaureate awards include associate degrees, postsecondary awards, and other academic awards that typically take fewer than four years to complete.

Exhibit 12: Other regional postsecondary awards, 2021-2023

CIP Code	Program	Postsecondary Institution	2020-21 Awards	2021-22 Awards	2022-23 Awards	3-Year Average
50.0401	Design and Visual Communications, General	Azusa Pacific Univ.	-	12	10	7
		Biola University	9	9	8	9
		CA College of ASU	7	1	-	3
		Fashion Institute of Design & Merch.	69	57	40	55
		Gnomon	42	31	-	24
		LA Pacific College	1	1	1	1
		Otis College of Art and Design	30	39	42	37
		UCLA	-	1	-	0
		USC	22	29	47	33
50.0502	Technical Theatre/Theatre Design and Technology	CA Institute of the Arts	17	15	13	15
		Chapman University	1	-	-	0
		Pepperdine University	3	1	3	2
		USC	10	8	9	9
		Vanguard University of Southern California	1	1	1	1
Supply Total/Average			212	205	174	197

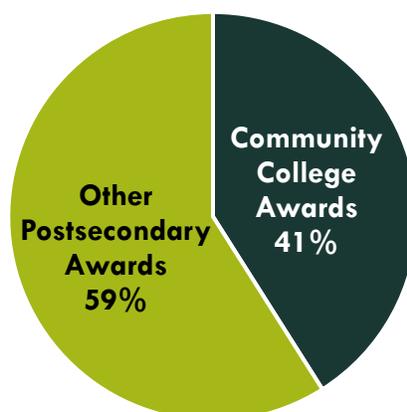
Exhibit 13 shows the breakdown of other postsecondary awards by award type. The majority of awards issued by other postsecondary schools are bachelor’s degrees (59%).

Exhibit 13: Other postsecondary awards by award type, 2021-2023

Award Type	# of Awards	% of Awards
Bachelor’s degrees	116	59%
Sub-baccalaureate awards	81	41%
Total	197	100%

Exhibit 14 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 other institutions in the greater Los Angeles/Orange County region.

Exhibit 14: 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.¹⁰
- **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.¹¹

¹⁰ [Set and Exhibit Designers \(bls.gov\)](https://www.bls.gov)

¹¹ [Broadcast, Sound, and Video Technicians \(bls.gov\)](https://www.bls.gov)

- **Carpenters (49-2031)** Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall, and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.¹²
- **Riggers (49-9096)** Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.¹³
- **Painting, Coating, and Decorating Workers (51-9123)** Paint, coat, or decorate articles, such as furniture, glass, plateware, pottery, jewelry, toys, books, or leather.¹⁴

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DATA SOURCES



POWERED BY



- 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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¹² [Carpenters \(bls.gov\)](https://www.bls.gov)

¹³ [Riggers \(bls.gov\)](https://www.bls.gov)

¹⁴ [Painting and Coating Workers \(bls.gov\)](https://www.bls.gov)