CENTER OF EXCELLENCE FOR LABOR MARKET RESEARCH
LOS ANGELES

Labor Market Analysis: 0953.00–Drafting Technology 15.1301–Drafting and Design Technology/Technician, General *Industrial Design Engineering Level II & III*

Certificate requiring 16 to <30 semester units

Los Angeles Center of Excellence, November 2026

Program Endorsement:	Endorsed: All Criteria Met ☒	Endorsed: Some Criteria Met ☐	Not Endorsed ☐
Program Endorsement Criteria			
Supply Gap:	Yes ☑	No ☐	
Living Wage: (Entry-Level, 25th)	Yes ☑	No ☐	
Education:	Yes ☑	No ☐	
Emerging Occupation(s)			
Yes ☐		No ☑	

SUMMARY

This report analyzes whether local labor market demand is being met by community college programs aligned with the identified middle-skill occupations[1] 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. Furthermore, entry-level wages exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, and all five occupations in this report typically require an associate degree.

<u>Recommendation:</u> Due to all 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

- 707 annual job openings are projected in the region through 2029. This number is greater than the three-year average of 404 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.

Living Wage

- All five occupations have entry-level wages **above** Los Angeles County's self-sufficiency standard hourly wage ($24.03/hour).[2]

Educational Attainment

- An associate degree is the typical entry-level education for the target drafting occupations, according to the Bureau of Labor Statistics (BLS).
- 50%-58% of workers in the field have completed some college or an associate degree, according to national educational attainment data.

Community college supply

- 21 community colleges issued awards related to drafting technology in the greater LA/OC region.
- 404 awards (degrees and certificates) were conferred on average each year between 2023 and 2025.

Other postsecondary supply

- There are no educational institutions in the LA/OC region have conferred sub-baccalaureate awards in programs related to drafting technology over the past three years.

TARGET OCCUPATIONS

LA COE prepared this report to provide regional labor market and postsecondary supply data related to five middle-skill occupations. For full occupation descriptions, please see Appendix.

- ***Architectural and Civil Drafters*** **(17-3011)** [3]
- ***Electrical and Electronics Drafters*** **(17-3012)** [4]
- ***Mechanical Drafters*** **(17-3013)** [5]
- ***Drafters, All Other*** **(17-3019)** [6]
- ***Industrial Engineering Technologists and Technicians*** **(17-3026)** [7]

OCCUPATIONAL DEMAND

Exhibit 1 shows the five-year occupational demand projections for these middle-skill drafting occupations. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to decrease by 3% through 2029. However, there will be more than 700 job openings per year through 2029 due to retirements and workers leaving the field. The majority of jobs in 2024 for these middle-skill drafting occupations (62%) were located in Los Angeles County.

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[2] Center for Women's Welfare, University of Washington. (2024). *The self-sufficiency standard for California 2024*. http://selfsufficiencystandard.org/California.
[3] Drafters (bls.gov)
[4] Ibid.
[5] Ibid.
[6] Ibid.
[7] Industrial Engineering Technologists and Technicians (bls.gov)

Exhibit 1: Current employment and occupational demand, Los Angeles and Orange counties[8]

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	5,242	5,011	(232)	(4%)	432
Orange	3,164	3,140	(24)	(1%)	275
Total	**8,406**	**8,150**	**(256)**	**(3%)**	**707**

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.

Exhibit 2: Detailed employment and occupational demand, Los Angeles County[9]

Occupation	2024 Jobs	2029 Jobs	5-Yr % Change	Annual Openings	% Aged 55 and older
Architectural and Civil Drafters	2,533	2,465	(3%)	209	25%
Electrical and Electronics Drafters	584	538	(8%)	48	31%
Mechanical Drafters	804	748	(7%)	66	33%
Drafters, All Other	546	486	(11%)	44	31%
Industrial Engineering Technologists and Technicians	775	774	(0%)	65	33%
Total	**5,242**	**5,011**	**(4%)**	**432**	**-**

WAGES

The labor market endorsement in this report considers the entry-level hourly wages for these middle-skill drafting 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

All five occupations have entry-level wages above the self-sufficiency standard wage for one adult ($24.03 in Los Angeles County). Typical entry-level hourly wages are in a range between

[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.
[9] Ibid.

$26.62 and $29.64. (Exhibit 3). Experienced workers can expect to earn wages between $38.26 and $47.30.

Exhibit 3: Earnings for occupations in Los Angeles County

Occupation	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)	Median Annual Earnings*
Architectural and Civil Drafters	$29.64	$35.29	$43.10	$73,400
Electrical and Electronics Drafters	$26.62	$33.76	$43.06	$70,200
Mechanical Drafters	$28.06	$36.49	$47.30	$75,900
Drafters, All Other	$27.16	$31.88	$38.26	$66,300
Industrial Engineering Technologists and Technicians	$27.56	$35.90	$47.25	$74,700

*Rounded to the nearest $100

Orange County

All five 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 $28.19 and $30.57 (Exhibit 4). Experienced workers can expect to earn wages between $39.76 and $49.05.

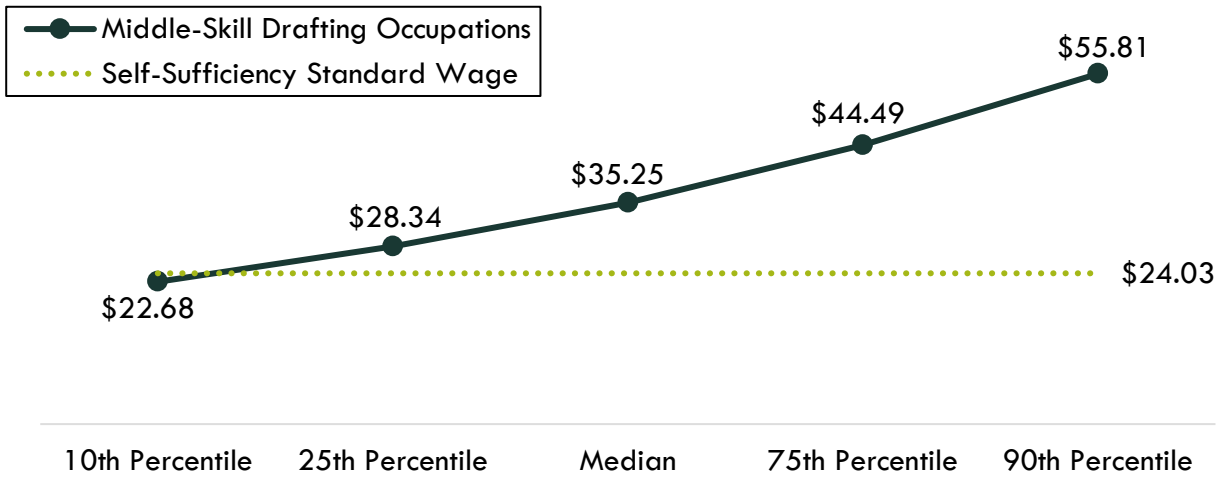
Exhibit 4: Earnings for occupations in Orange County

Occupation	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75th Percentile)	Median Annual Earnings*
Architectural and Civil Drafters	$30.57	$36.31	$44.30	$75,500
Electrical and Electronics Drafters	$28.19	$35.40	$44.85	$73,600
Mechanical Drafters	$29.53	$37.98	$49.05	$79,000
Drafters, All Other	$28.64	$33.25	$39.76	$69,200
Industrial Engineering Technologists and Technicians	$29.36	$38.10	$49.99	$79,200

*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 $28.34; 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.

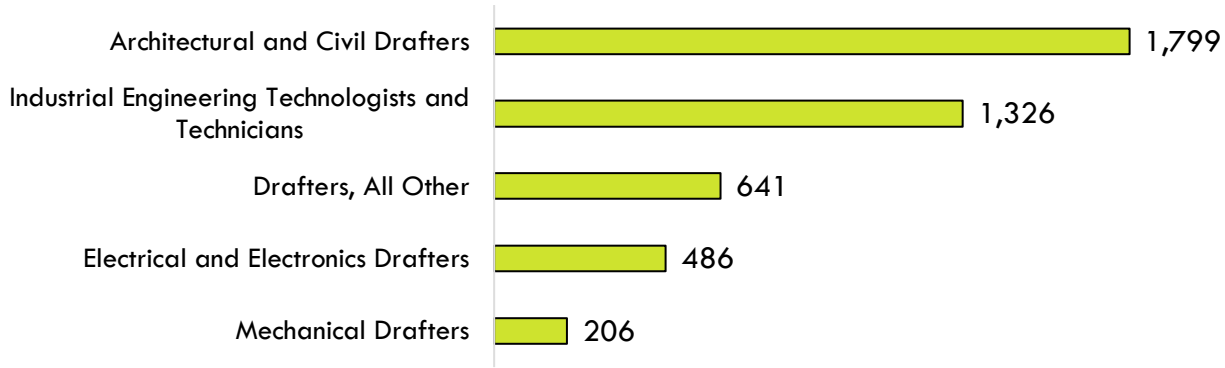
Exhibit 5: Average hourly earnings for target occupations, Los Angeles and Orange counties



JOB POSTINGS

There were 4,458 online job postings related to middle-skill drafting 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 (40%) were for *architectural and civil drafters*, followed by *industrial engineering technologists and technicians* (30%) and *drafters, all other* (14%).

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
• Manufacturing technicians • Production technicians • Designers • Drafters • Architectural designers • Electrical designers • CAD drafters • Civil designers	• AutoCAD • Autodesk Revit • Project management • Computer-aided design • Construction • 3D modeling • Building information modeling	• Actalent* • Aerotek* • Gensler • GPAC* • KPF Consulting Engineers* • Grifols • Stantec • Anduril Industries

*Staffing company

In the greater Los Angeles/Orange County region, 62% 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	1,228	44%
Associate degree	534	20%
High school diploma or vocational training	1,008	36%

EDUCATIONAL ATTAINMENT

The Bureau of Labor Statistics (BLS) lists an associate degree as the typical entry-level education for the target occupations (Exhibit 9). Furthermore, the national-level data indicates between 50% and 58% of workers in the field have completed some college or an associate degree 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
Architectural and Civil Drafters	Associate degree
Electrical and Electronics Drafters	Associate degree
Mechanical Drafters	Associate degree
Drafters, All Other	Associate degree
Industrial Engineering Technologists and Technicians	Associate degree

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 Santa Ana, Mt. San Antonio, and Fullerton. Currently, there are no other postsecondary institutions in the greater LA/OC region that have conferred sub-baccalaureate awards for drafting technology programs in the past three years.

Exhibit 10: Regional community college awards (certificates and degrees), 2023-2025

TOP Code	Program	College	2022-23 Awards	2023-24 Awards	2024-25 Awards	3-Year Average
0953.00	Drafting Technology	Cerritos	30	43	20	31
		Citrus	5	12	25	14
		East LA	13	15	38	22
		El Camino	8	8	9	8
		LA Mission	2	2	6	3
		LA Pierce	5	10	2	6
		LA Valley	1	2	3	2
		Long Beach	-	1	-	0
		Mt San Antonio	25	7	46	26
		Pasadena	9	9	17	12
		Rio Hondo	11	6	8	8
		LA Subtotal	**109**	**115**	**174**	**133**
		Fullerton	8	9	10	9
		Golden West	4	18	22	15
		Irvine	7	1	7	5
		Saddleback	3	2	5	3
		Santa Ana	46	73	44	54
		OC Subtotal	**68**	**103**	**88**	**86**
Supply Subtotal/Average			**177**	**218**	**262**	**219**
0953.10	Architectural Drafting	Citrus	-	4	3	2
		Long Beach	2	2	-	1
		Pasadena	2	5	9	5
		Rio Hondo	28	42	29	33
		LA Subtotal	**32**	**53**	**41**	**42**
		Fullerton	17	14	28	20
		OC Subtotal	**17**	**14**	**28**	**20**
Supply Subtotal/Average			**49**	**67**	**69**	**62**

TOP Code	Program	College	2022-23 Awards	2023-24 Awards	2024-25 Awards	3-Year Average
0953.20	Civil Drafting	Rio Hondo	1	1	-	1
		LA Subtotal	**1**	**1**	**-**	**1**
		Irvine	3	2	1	2
		Santa Ana	11	12	10	11
		OC Subtotal	**14**	**14**	**11**	**13**
Supply Subtotal/Average			**15**	**15**	**11**	**14**
0953.40	Mechanical Drafting	Glendale	-	5	8	4
		LA Valley	1	2	7	3
		Long Beach	4	3	8	5
		Pasadena	1	1	5	2
		Rio Hondo	3	2	6	4
		LA Subtotal	**9**	**13**	**34**	**19**
		Irvine	2	-	3	2
		Santa Ana	13	11	9	11
		OC Subtotal	**15**	**11**	**12**	**13**
Supply Subtotal/Average			**24**	**24**	**46**	**31**
0956.00	Manufacturing and Industrial Technology	Cerritos	1	5	1	2
		El Camino	1	-	3	1
		LA Trade-Tech	3	5	20	9
		LA Valley	2	5	8	5
		Mt San Antonio	26	28	27	27
		West LA	-	2	3	2
		LA Subtotal	**33**	**45**	**62**	**47**
		Cypress	-	4	3	2
		Fullerton	9	12	46	22
		Irvine	-	-	3	1
		Saddleback	4	3	4	4
		Santiago Canyon	6	2	-	3
		OC Subtotal	**19**	**21**	**56**	**32**
Supply Subtotal/Average			**52**	**66**	**118**	**79**
Supply Total/Average			**317**	**390**	**506**	**404**

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 (69%).

Exhibit 11: Community college awards by award type, 2023-2025

Award Type	# of Awards	% of Awards
A.A./A.S. degrees	117	29%
Certificates	278	69%
Noncredit awards	9	2%
Total	**404**	**100%**

APPENDIX: OCCUPATION DESCRIPTIONS

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

- ***Architectural and Civil Drafters* (17-3011)** Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings. [10]
- ***Electrical and Electronics Drafters* (17-3012)** Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment. [11]
- ***Mechanical Drafters* (17-3013)** Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information. [12]
- ***Drafters, All Other* (17-3019)** All drafters not listed separately. [13]
- ***Industrial Engineering Technologists and Technicians* (17-3026)** Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency. [14]

[10] Drafters (bls.gov)
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Industrial Engineering Technologists and Technicians (bls.gov)

Contact information:
Luke Meyer, Director

Los Angeles Center of Excellence

Lmeyer7@mtsac.edu

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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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