



# Labor Market Analysis: 0952.00 – Construction Crafts Technology

## Construction Technology – Associate of Science (A.S.) degree

Los Angeles Center of Excellence, July 2025

<b>Program Endorsement:</b>	<b>Endorsed: All Criteria Met</b> <input checked="" type="checkbox"/>	<b>Endorsed: Some Criteria Met</b> <input 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 checked="" type="checkbox"/>		No <input 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 three identified middle-skill occupations in the region. Furthermore, the majority of annual openings have entry-level wages that exceed the self-sufficiency standard wage in both Los Angeles and Orange counties, and approximately one-third of current workers in the field have completed an associate degree or some college as their highest level of educational attainment.

**Recommendation:** 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

- 4,256 annual job openings are projected in the region through 2028. This number is greater than the three-year average of 1,492 awards conferred by educational institutions in the region.

<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.

### **Living Wage**

- 59% of annual job openings for these middle-skill construction technology occupations have entry-level wages **above** Los Angeles County’s self-sufficiency standard hourly wage (\$24.03/hour).<sup>2</sup>

### **Educational Attainment**

- 54% of the annual job openings typically require a bachelor’s degree for middle-skill occupations related to construction technology in the LA/OC region.
- 29%-38% of workers in the field have completed some college or an associate degree, according to national educational attainment data.

### **Community college supply**

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

### **Other postsecondary supply**

- 9 educational institutions in the LA/OC region have conferred awards in programs related to construction technology over the past three years.
- 769 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 three middle-skill occupations. Although two of the occupations in this report typically require a bachelor’s degree, they are considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree. [For full occupation descriptions, please see Appendix.](#)

- **Construction Managers (11-9021)**<sup>3</sup>
- **Cost Estimators (13-1051)**<sup>4</sup>
- **First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)**<sup>5</sup>

## **OCCUPATIONAL DEMAND**

Exhibit 1 shows the five-year occupational demand projections for these middle-skill construction technology occupations. In the greater Los Angeles/Orange County region, the number of jobs related to these occupations is projected to increase by 2% through 2028. There will be more than 4,200 job openings per year through 2028 due to job growth and replacements. The

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<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> [Construction Managers \(bls.gov\)](https://www.bls.gov/occupations/construction-managers)

<sup>4</sup> [Cost Estimators \(bls.gov\)](https://www.bls.gov/occupations/cost-estimators)

<sup>5</sup> [First-Line Supervisors of Construction Trades and Extraction Workers \(bls.gov\)](https://www.bls.gov/occupations/first-line-supervisors-of-construction-trades-and-extraction-workers)

majority of jobs in 2023 for these middle-skill construction technology occupations (67%) were located in Los Angeles County.

**Exhibit 1: Current employment and occupational demand, Los Angeles and Orange counties<sup>6</sup>**

Geography	2023 Jobs	2028 Jobs	2023-2028 Change	2023-2028 % Change	Annual Openings
Los Angeles	35,040	35,618	578	2%	2,866
Orange	16,999	17,258	259	2%	1,391
<b>Total</b>	<b>52,039</b>	<b>52,876</b>	<b>837</b>	<b>2%</b>	<b>4,256</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>7</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. On average, 81% of workers across all occupations in California are employed full-time.

**Exhibit 2: Detailed employment and occupational demand, Los Angeles County<sup>8</sup>**

Occupation	2023 Jobs	2028 Jobs	5-Yr % Change	Annual Openings	Automation Resilience	% Aged 55 and older	% Full Time Workers
Construction Managers	14,899	15,424	4%	1,179	11.4	35%	92%
Cost Estimators	4,939	4,938	(0%)	418	3.5	43%	100%
First-Line Supervisors of Construction Trades and Extraction Workers	15,202	15,256	0%	1,269	(6.2)	33%	98%
<b>Total</b>	<b>35,040</b>	<b>35,618</b>	<b>2%</b>	<b>2,866</b>	<b>-</b>	<b>-</b>	<b>-</b>

<sup>6</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>7</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>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.

## WAGES

The labor market endorsement in this report considers the entry-level hourly wages for these middle-skill construction 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, 59%, of annual openings for these middle-skill construction technology 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 \$21.57 and \$31.20. (Exhibit 3).

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

- *First-line supervisors of construction trades and extraction workers*, \$31.20
- *Cost estimators*, \$30.13

Experienced workers can expect to earn wages between \$51.21 and \$65.69, 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*
Construction Managers	\$21.57	\$42.19	\$65.69	\$87,800
Cost Estimators	\$30.13	\$37.90	\$51.21	\$78,800
First-Line Supervisors of Construction Trades and Extraction Workers	\$31.20	\$42.93	\$57.12	\$89,300

\*Rounded to the nearest \$100

### Orange County

All three 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 \$32.47 and \$36.49 (Exhibit 4). Experienced workers can expect to earn wages between \$54.78 and \$76.87.

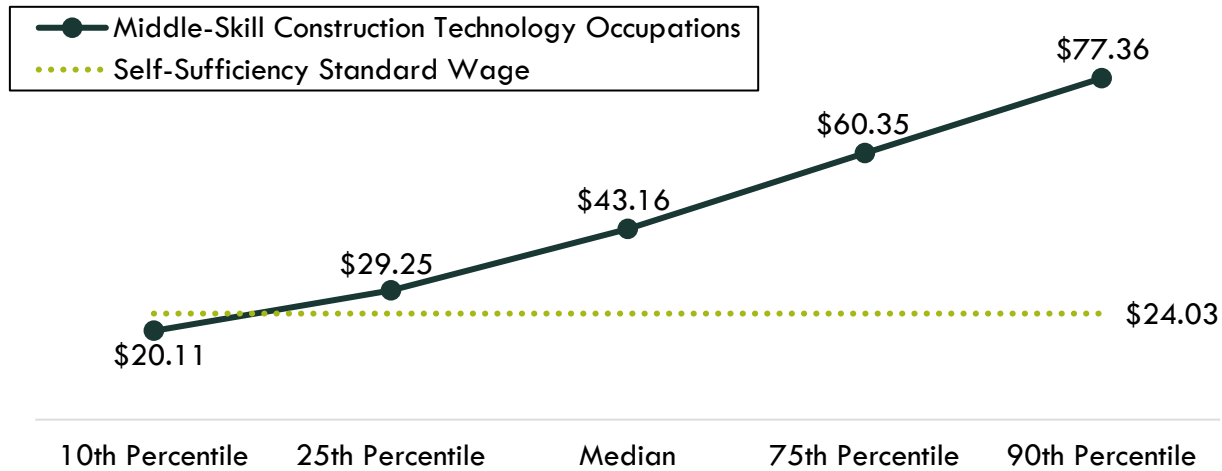
#### Exhibit 4: Earnings for occupations in Orange County

Occupation	Entry-Level Hourly Earnings (25 <sup>th</sup> Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 <sup>th</sup> Percentile)	Median Annual Earnings*
Construction Managers	\$36.49	\$54.67	\$76.87	\$113,700
Cost Estimators	\$32.47	\$40.67	\$54.78	\$84,600
First-Line Supervisors of Construction Trades and Extraction Workers	\$36.13	\$47.73	\$62.33	\$99,300

\*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 \$29.25; 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.

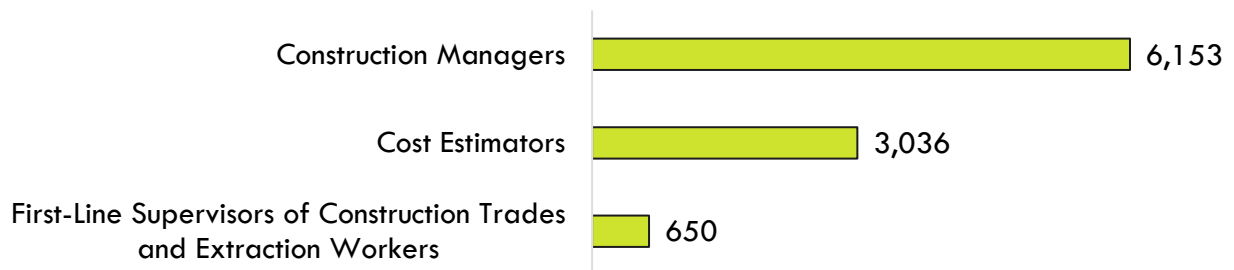
**Exhibit 5: Average hourly earnings for target occupations, Los Angeles and Orange counties**



## JOB POSTINGS

There were 9,839 online job postings related to construction technology 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 (63%) were for *construction managers*, followed by *cost estimators* (31%) and *first-line supervisors of construction trades and extraction workers* (7%).

**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>• Construction project managers</li> <li>• Construction managers</li> <li>• Estimators</li> <li>• Construction superintendents</li> <li>• Superintendents</li> <li>• Construction estimators</li> <li>• Drywall estimators</li> </ul>	<ul style="list-style-type: none"> <li>• Construction</li> <li>• Project management</li> <li>• Construction management</li> <li>• Subcontracting</li> <li>• Change orders</li> <li>• Project schedules</li> <li>• Construction submittals</li> <li>• Procurement</li> <li>• Building codes</li> </ul>	<ul style="list-style-type: none"> <li>• GPAC*</li> <li>• CyberCoders*</li> <li>• Swinerton Builders</li> <li>• Turner &amp; Townsend</li> <li>• HILL International</li> <li>• AppleOne*</li> <li>• CBRE</li> <li>• Vanir Construction Management</li> </ul>

\*Staffing companies

In the greater Los Angeles/Orange County region, 50% of the construction 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 target occupations, Los Angeles and Orange counties**

Education Level	Job Postings	% of Job Postings
Bachelor's degree	3,520	71%
Associate degree	242	5%
High school diploma or vocational training	1,162	24%

**EDUCATIONAL ATTAINMENT**

In the greater Los Angeles/Orange County region, the majority of annual job openings (54%) typically require a bachelor's degree (Exhibit 9). However, the national-level data indicates between 29% and 38% 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
Construction Managers	Bachelor's degree
Cost Estimators	Bachelor's degree
First-Line Supervisors of Construction Trades and Extraction Workers	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 programs that have historically trained for the occupations of interest. The colleges with the most completions in the region are LA Trade-Tech, Santiago Canyon, and LA Southwest.

**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
0952.00	Construction Crafts Technology	El Camino	7	7	9	8
		LA Mission	-	11	-	4
		LA Southwest	23	75	97	65
		LA Trade-Tech	-	55	30	28
		Long Beach	40	30	34	35
		Pasadena	-	1	-	0
		<b>LA Subtotal</b>	<b>70</b>	<b>179</b>	<b>170</b>	<b>140</b>
		Fullerton	4	16	24	15
		Orange Coast	22	41	67	43
		Santa Ana	31	14	47	31
		<b>OC Subtotal</b>	<b>57</b>	<b>71</b>	<b>138</b>	<b>89</b>
<b>Supply Subtotal/Average</b>			<b>127</b>	<b>250</b>	<b>308</b>	<b>228</b>
0952.10	Carpentry	LA Southwest	23	9	-	11
		LA Trade-Tech	42	43	39	41
		Rio Hondo	-	-	20	7
		<b>LA Subtotal</b>	<b>65</b>	<b>52</b>	<b>59</b>	<b>59</b>
		Santiago Canyon	1	4	7	4
		<b>OC Subtotal</b>	<b>1</b>	<b>4</b>	<b>7</b>	<b>4</b>
<b>Supply Subtotal/Average</b>			<b>66</b>	<b>56</b>	<b>66</b>	<b>63</b>
0952.20	Electrical	LA Trade-Tech	147	150	196	164
		<b>LA Subtotal</b>	<b>147</b>	<b>150</b>	<b>196</b>	<b>164</b>
		Coastline	1	-	-	0
		Irvine	12	31	17	20
		Orange Coast	3	-	5	3
		Santiago Canyon	-	137	68	68
		<b>OC Subtotal</b>	<b>16</b>	<b>168</b>	<b>90</b>	<b>91</b>
<b>Supply Subtotal/Average</b>			<b>163</b>	<b>318</b>	<b>286</b>	<b>256</b>

TOP Code	Program	College	2021-22 Awards	2022-23 Awards	2023-24 Awards	3-Year Average
0952.60	Masonry, Tile, Cement, Lath and Plaster	Orange Coast	3	3	7	4
		<b>OC Subtotal</b>	<b>3</b>	<b>3</b>	<b>7</b>	<b>4</b>
<b>Supply Subtotal/Average</b>			<b>3</b>	<b>3</b>	<b>7</b>	<b>4</b>
0957.00	Civil and Construction Management Technology	Citrus	5	9	2	5
		LA Valley	5	11	9	8
		Mt San Antonio	10	17	28	18
		Pasadena	-	-	2	1
		<b>LA Subtotal</b>	<b>20</b>	<b>37</b>	<b>41</b>	<b>33</b>
		Fullerton	14	17	27	19
		Santa Ana	2	1	4	2
<b>OC Subtotal</b>			<b>16</b>	<b>18</b>	<b>31</b>	<b>22</b>
<b>Supply Subtotal/Average</b>			<b>36</b>	<b>55</b>	<b>72</b>	<b>54</b>
0957.20	Construction Inspection	Pasadena	14	18	9	14
		<b>LA Subtotal</b>	<b>14</b>	<b>18</b>	<b>9</b>	<b>14</b>
		Coastline	14	31	16	20
		Fullerton	10	7	17	11
		Saddleback	1	7	4	4
		Santiago Canyon	11	15	17	14
		<b>OC Subtotal</b>	<b>36</b>	<b>60</b>	<b>54</b>	<b>50</b>
<b>Supply Subtotal/Average</b>			<b>50</b>	<b>78</b>	<b>63</b>	<b>64</b>
2102.10	Public Works	Citrus	13	32	30	25
		LA Trade-Tech	6	7	8	7
		<b>LA Subtotal</b>	<b>19</b>	<b>39</b>	<b>38</b>	<b>32</b>
		Santiago Canyon	21	19	25	22
		<b>OC Subtotal</b>	<b>21</b>	<b>19</b>	<b>25</b>	<b>22</b>
<b>Supply Subtotal/Average</b>			<b>40</b>	<b>58</b>	<b>63</b>	<b>54</b>
<b>Supply Total/Average</b>			<b>485</b>	<b>818</b>	<b>865</b>	<b>723</b>

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 (61%).

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

Award Type	# of Awards	% of Awards
A.A./A.S. degrees	157	22%
Certificates	439	61%
Noncredit awards	127	18%
<b>Total</b>	<b>723</b>	<b>100%</b>

## Other Postsecondary Supply

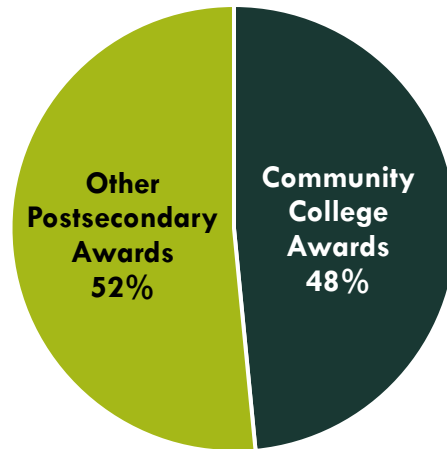
For a comprehensive regional supply analysis, it is important to consider the supply from other institutions in the region that provide training programs for construction technology. Exhibit 12 shows the number of awards conferred by these institutions in relevant programs. Due to different data collection 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 769 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
46.0302	Electrician	Baldwin Park Adult & Community Ed.	74	75	46	65
		Capstone College	23	29	61	38
		InterCoast Colleges-Santa Ana	12	9	9	10
		InterCoast Colleges-West Covina	54	84	84	74
		Southern CA Institute of Tech.	281	268	256	268
		UEI College-Huntington Park	-	120	180	100
		UEI College-West Covina	144	220	274	213
52.2001	Construction Management, General	Learnet Academy	1	3	-	1
<b>Supply Total/Average</b>			<b>589</b>	<b>808</b>	<b>910</b>	<b>769</b>

Exhibit 13 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 13: 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:

- **Construction Managers (11-9021)** Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.<sup>9</sup>
- **Cost Estimators (13-1051)** Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.<sup>10</sup>
- **First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)** Directly supervise and coordinate activities of construction or extraction workers.<sup>11</sup>

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<sup>9</sup> [Construction Managers \(bls.gov\)](https://www.bls.gov)

<sup>10</sup> [Cost Estimators \(bls.gov\)](https://www.bls.gov)

<sup>11</sup> [First-Line Supervisors of Construction Trades and Extraction Workers \(bls.gov\)](https://www.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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