



Labor Market Analysis for Program Modification:
0957.00/Civil and Construction Management Technology
CIP: 46.0412/Building/Construction Site Management/Manager
(Construction Management Associate in Science Degree)
Orange County Center of Excellence, May 2026

Table with 3 columns: Criterion, Met status, Partially Met status, Not Met status. Rows include Supply Gap, Self-Sufficiency Standard Living Wage, and Education.

Summary

The Orange County Center of Excellence for Labor Market Research (OC COE) prepared this report to determine whether there is a supply gap in the Los Angeles and Orange counties regional labor market related to one middle-skill occupation:

- First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)

Based on the available data, there appears to be a supply gap for first-line supervisors of construction trades and extraction workers, and entry-level wages are above the Self-Sufficiency Standard living wage. Typical education requirements for this middle-skill occupation align with a community college education. Therefore, due to all regional labor market criteria being met, the COE endorses this proposed program.

1 The living wage endorsement criteria in this report uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard, which the COE refers to as a living wage; Orange County's living wage of \$27.13, was last updated in March 2024.

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for the middle-skill occupation included in this report.

### Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)	LA: 1,159	LA: 188		High school diploma or equivalent	30%
	OC: 643	OC: 110	OC: \$36.17		
	TTL: 1,801	TTL: 299			
<b>Total</b>	<b>1,801</b>	<b>299</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

#### Demand

- In Los Angeles and Orange counties, the number of jobs related to *first-line supervisors of construction trades and extraction workers* is projected to increase 0.4% through 2028, equating to 1,801 annual job openings.
- Hourly entry-level wages for *first-line supervisors of construction trades and extraction workers* are \$36.17 in Orange County, which is above the Self-Sufficiency Standard living wage.
- There were 633 online job postings for *first-line supervisors of construction trades and extraction workers* over the past 12 months. The highest number of postings were for construction foremen, electrical foremen, and working foremen.
- The typical entry-level education for *first-line supervisors of construction trades and extraction workers* is a high school diploma or equivalent.
- Approximately 30% of workers in the field have completed some college or an associate degree as their highest level of educational attainment.

#### Supply

- Between 2021 to 2024, an average of 283 awards were conferred by 12 community colleges for this middle-skill occupation in Los Angeles and Orange counties.
- From 2020 to 2023, non-community college institutions conferred an average of 16 awards for this middle-skill occupation.
- In the 2022-23 academic year, Orange County community college students that exited civil and construction management technology programs had a median annual wage of \$45,908 (\$22.07 per hour) post-exit. Due to insufficient data, the percentage of students who attained the regional living wage is not available.
- Due to insufficient data, the percentage of 2021-22 Orange County civil and construction management technology students that exited their programs and reported working a job closely related to their field of study is not available.

# Demand

## Occupational Projections

Exhibit 2 shows the annual percentage change in jobs for these construction occupations from 2019 through 2029. Between 2019 and 2020, employment levels across Los Angeles and Orange counties declined sharply due to the broader economic impacts of the COVID-19 pandemic, with Orange County seeing a particularly steep drop of 7%. From 2021 to 2024, Orange County saw a fluctuation in employment: levels grew significantly in 2021 and 2022, then declined by 1% in 2024. After a year of stagnation at 0% in 2025, job levels are projected to grow by 1% through 2028, matching or slightly exceeding the average for all occupations. By 2029, employment levels in the region are expected to stabilize at 0% growth.

Exhibit 2: Annual Percentage Change in Jobs for First-Line Supervisors of Construction Trades and Extraction Workers, 2019-2029

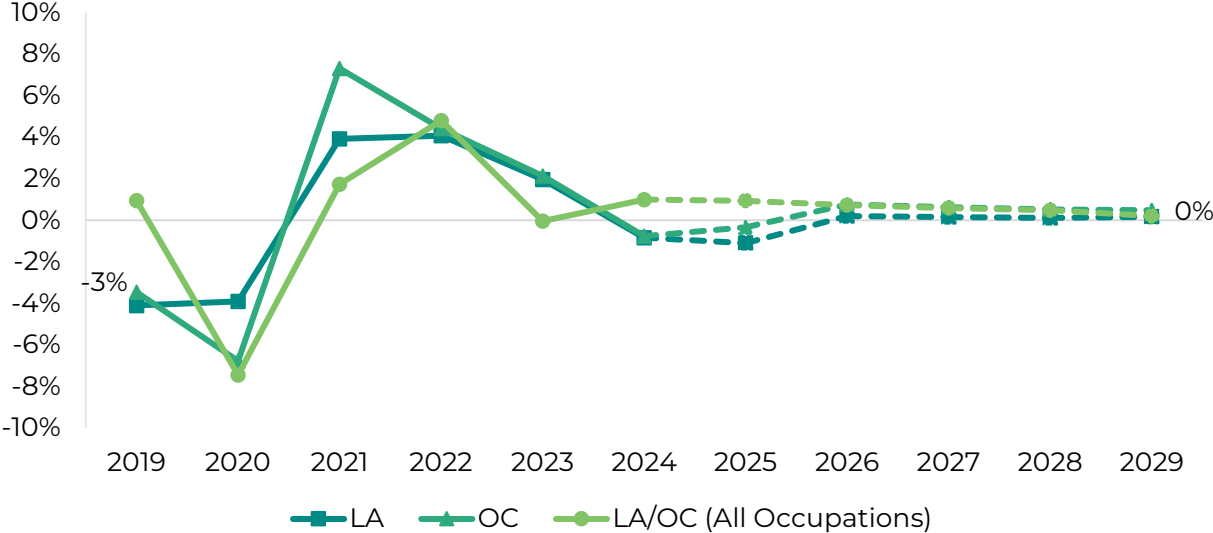


Exhibit 3 shows the five-year occupational demand projections for *first-line supervisors of construction trades and extraction workers*. In Los Angeles and Orange counties, the number of jobs related to this occupation is projected to increase by 0.4% through 2029, with 1,801 jobs available annually.

Exhibit 3: Middle-Skill Occupational Demand in Los Angeles and Orange Counties<sup>2</sup>

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	15,173	15,101	(72)	-(0.5%)	1,159
Orange	8,051	8,217	166	2.1%	643
<b>Total</b>	<b>23,223</b>	<b>23,318</b>	<b>94</b>	<b>0.4%</b>	<b>1,801</b>

<sup>2</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.

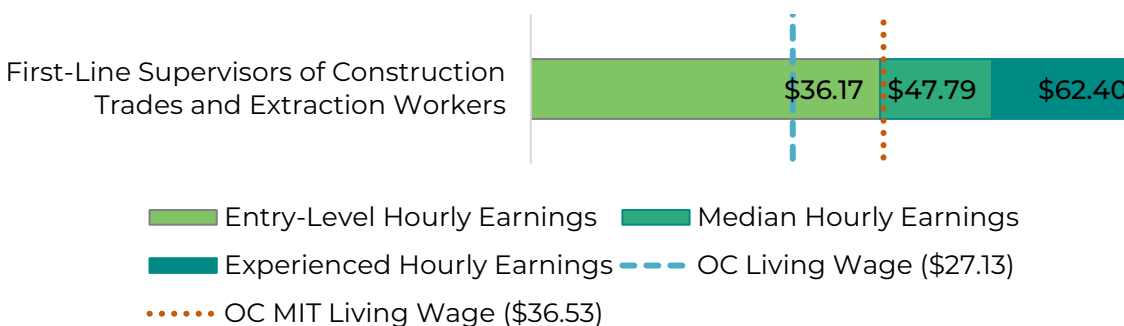
## Wages

The labor market endorsement in this report considers the entry-level hourly wages for *first-line supervisors of construction trades and extraction workers* in Orange County as they relate to the county's living wage. Los Angeles County wages are included below to provide a complete analysis of the LA/OC region.

In addition to the Self Sufficiency Standard living wage, data for the MIT Living Wage (updated on February 15, 2026) is provided as a reference. Currently, the MIT Living Wage in Orange County is \$36.53. Both figures account for geographic-specific costs of necessities such as housing, food, health care, and transportation to assess the cost of living, and are notated in the exhibits below.

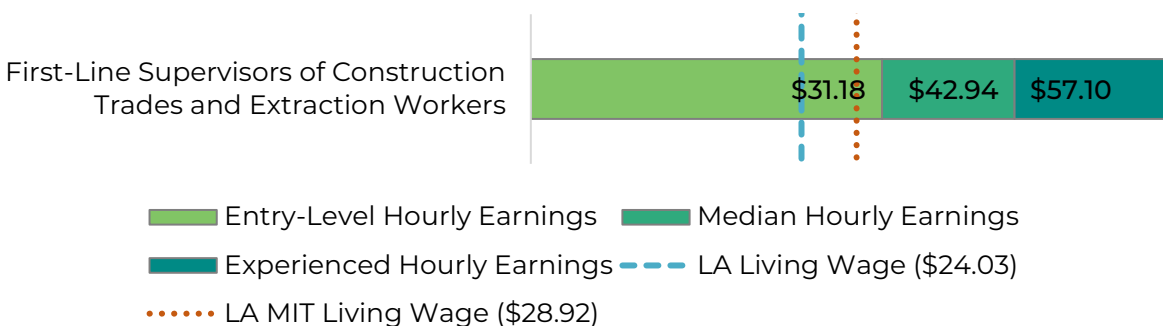
In Orange County, the typical entry-level wages for *first-line supervisors of construction trades and extraction workers* are \$36.17, which is above the Self-Sufficiency living wage of \$27.13 for a single adult. Exhibit 4 shows the wage range for this occupation in Orange County and how it compares to the regional living wage.

Exhibit 4: Wages by Occupation in Orange County



In Los Angeles County, the typical entry-level wage for *first-line supervisors of construction trades and extraction workers* is \$31.18, which is above the Self-Sufficiency living wage of \$24.03 for a single adult. Exhibit 5 shows the wage range for this occupation in Los Angeles County and how it compares to the regional living wage.

Exhibit 5: Wages by Occupation in Los Angeles County



## Resilient Jobs and U.S. News & World Report Best Jobs

Exhibit 6 shows if this occupation, *first-line supervisors of construction trades and extraction workers*, is considered an Orange County Great Recession-Resilient, COVID-19 Pandemic Recession-Resilient Job, or a 2025 U.S. News & World Report (USN&WR) Best Job<sup>3</sup>. This occupation only met the criteria to be designated a COVID-19 Pandemic Recession-Resilient Job.

Exhibit 6: Resilient Jobs and USN&WR Best Jobs Designations

Occupation	Great Recession-Resilient Job	COVID-19 Pandemic Recession-Resilient Job	2025 USN&WR Best Job
First-Line Supervisors of Construction Trades and Extraction Workers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Job Postings

**Important Job Postings Data Note:** There are limitations when analyzing job postings. A single job posting may not represent a single job opening for a variety of reasons.

There were 633 online job postings related to *first-line supervisors of construction trades and extraction workers* listed in the past 12 months. Exhibit 7 shows the number of job postings by occupation.

Exhibit 7: Number of Job Postings by Occupation (n=633)

Occupation	Job Postings	Percentage of Job Postings
First-Line Supervisors of Construction Trades and Extraction Workers	633	100%
<b>Total Postings</b>	<b>633</b>	<b>100%</b>

The top job titles for *first-line supervisors of construction trades and extraction workers* in the region, by number of job postings, are shown in Exhibit 8.

Exhibit 8: Top Job Titles by Number of Job Postings for the Middle-Skill Occupation (n=633)

Job Titles	Job Postings	Percentage
Construction Foremen	86	14%
Electrical Foremen	75	12%
Working Foremen	29	5%
Foremen	23	4%
Plumbing Supervisors	22	3%
Roofing Foremen	15	2%
Underground Foremen	15	2%
Low Voltage Technicians	15	2%
Plumbing Foremen	13	2%
Plumbing Contractors	12	2%

<sup>3</sup> "100 Best Jobs," U.S. News & World Report, accessed January 28, 2025, <https://money.usnews.com/careers/best-jobs/rankings/the-100-best-jobs>.

The top employers for *first-line supervisors of construction trades and extraction workers* in the region, by number of job postings, are shown in Exhibit 9.

**Exhibit 9: Top Employers by Number of Job Postings for the Middle-Skill Occupation (n=633)**

Employer	Job Postings	Percentage of Job Postings
Vci Construction	22	3%
GPAC	12	2%
Aerotek	11	2%
Vectorusa	8	1%
Cemex	8	1%
Service Champions	7	1%
Kohler	6	1%
Barden Electric	6	1%
Plug It In Systems	6	1%
Orange	6	1%

The top specialized, soft, and computer skills for *first-line supervisors of construction trades and extraction workers* listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 10.

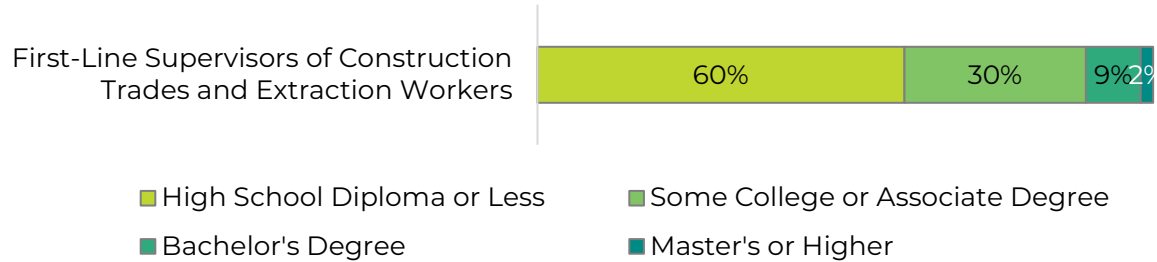
**Exhibit 10: Top Skills by Number of Job Postings for the Middle-Skill Occupation (n=633)**

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Construction (261)	Communication (313)	Microsoft Excel (47)
Project Management (212)	Leadership (235)	Microsoft Outlook (42)
Blueprinting (129)	Management (199)	Microsoft Office (26)
Subcontracting (119)	Operations (149)	Procore (26)
Safety Standards (113)	Coordinating (140)	Microsoft Word (25)
Plumbing (111)	Problem Solving (137)	Construction Management Software (15)
Lifting Ability (102)	Troubleshooting (Problem Solving) (125)	Microsoft PowerPoint (12)
Occupational Safety and Health Administration (OSHA) (89)	Quality Control (117)	Productivity Software (11)
Occupational Safety And Health (81)	Detail Oriented (89)	Project Management Software (10)
Good Driving Record (74)	Scheduling (85)	Primavera (Software) (9)

## Educational Attainment

The Bureau of Labor Statistics (BLS) lists high school diploma or equivalent for *first-line supervisors of construction trades and extraction workers*. The national-level educational attainment data indicates that 30% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 11 shows the educational attainment for this occupation.

Exhibit 11: National-level Educational Attainment for Occupation



## Requested Minimum Education Requirement

In Los Angeles and Orange Counties, 25% (157) of job postings for *first-line supervisors of construction trades and extraction workers* included a stated minimum education requirement:

- 80% (125) requested a high school diploma or associate degree
- 19% (30) requested a bachelor's degree

## Educational Supply

The following supply tables display the total supply for *first-line supervisors of construction trades and extraction workers* that align with these TOP and CIP codes and program needs.

### Community College Supply

Exhibit 12 shows the three-year average number of awards conferred by community colleges in the related TOP codes:

- Construction Crafts Technology (0952.00)
- Civil and Construction Management Technology (0957.00)

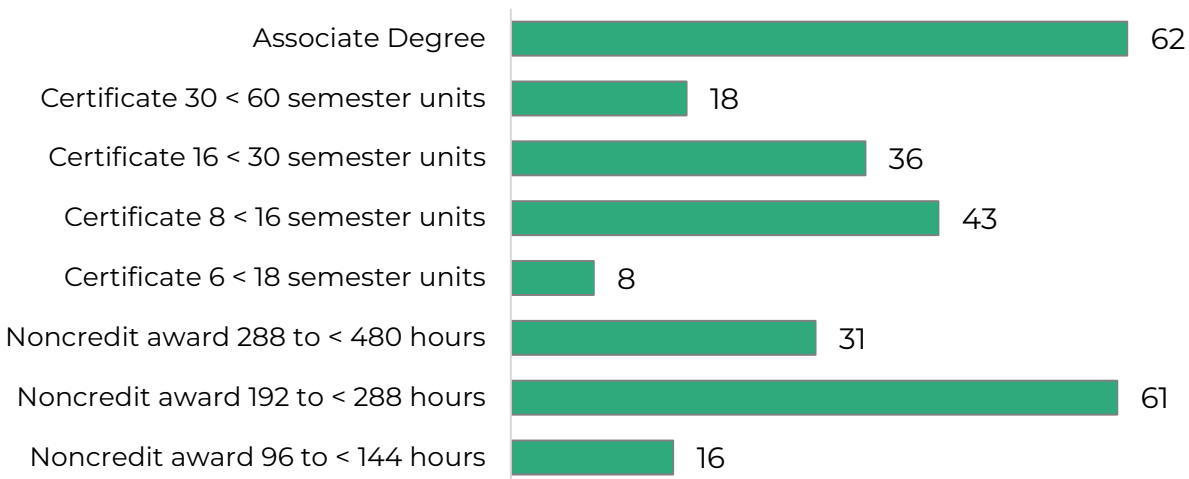
The colleges with the most completions in the region are LA Southwest (65), followed by Orange Coast (43), then Long Beach (35). Over the past 12 months, there were five related program recommendation requests from regional community colleges.

Exhibit 12: Regional Community College Awards (Certificates and Degrees), 2021-2024

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
0952.00	Construction Crafts Technology	El Camino	7	7	9	8
		LA Mission	0	11	0	4
		LA Southwest	23	75	97	65
		LA Trade	0	55	30	28
		Long Beach	40	30	34	35
		Pasadena	0	1	0	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>
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	0	0	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>
<b>Supply Total/Average</b>			<b>163</b>	<b>305</b>	<b>380</b>	<b>283</b>

Exhibit 13 shows the annual average community college awards by type from 2021-22 to 2023-24. The plurality of the awards are for associate degree, closely followed by noncredit award 192 to less than 288 hours and then certificate 8 less than 16 semester units.

Exhibit 13: Annual Average Community College Awards by Type, 2021-2024



### Community College Student Outcomes

Exhibit 14 shows the Strong Workforce Program (SWP) metrics for civil and construction management technology programs in the North Orange County Community College District (NOCCCD), the Orange County Region, and California. Of the 167 Orange County civil and construction management technology students in the 2023-24 academic year, 31% (52) attended an NOCCCD college.

Orange County students that exited civil and construction management technology programs in the 2022-23 academic year had lower median annual earnings (\$45,908 or \$22.07 per hour) compared to all civil and construction management technology students in California (\$66,080 or \$31.77 per hour). Most civil and construction management technology students (62%) across the state attained the living wage. Due to insufficient data, these outcomes metrics are not available at more granular levels.

Exhibit 14: Civil and Construction Management Technology (0957.00) Strong Workforce Program Metrics, 2021-24<sup>4</sup>

SWP Metric	NOCCCD	OC Region	California
SWP Students	52	167	2,998
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	65%	55%	39%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	Insufficient Data	68%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	27	32	212
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2022-23)	0	Insufficient Data	70
SWP Students with a Job Closely Related to Their Field of Study (2021-22)	Insufficient Data	Insufficient Data	92%
Median Annual Earnings for SWP Exiting Students (2022-23)	Insufficient Data	\$45,908	\$66,080

<sup>4</sup> All SWP metrics are for 2023-24 unless otherwise noted.

SWP Metric	NOCCCD	OC Region	California
Median Change in Earnings for SWP Exiting Students (2022-23)	Insufficient Data	30%	31%
SWP Exiting Students Who Attained the Living Wage (2022-23)	Insufficient Data	Insufficient Data	62%

### Non-Community College Supply

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering construction management programs. Exhibit 15 displays the annual and three-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) code: Construction Management, General (52.2001).

The available data covers 2020 to 2023. During this period, non-community college institutions in the region conferred an average of 16 awards annually in the related program.

Exhibit 15: Regional Non-Community College Awards, 2020-2023

CIP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
11.1006	Computer Support Specialist	Learnet Academy Inc	1	3	0	1
		University of Southern California	11	33	0	15
<b>Supply Total/Average</b>			<b>12</b>	<b>36</b>	<b>0</b>	<b>16</b>

# Regional Demographics

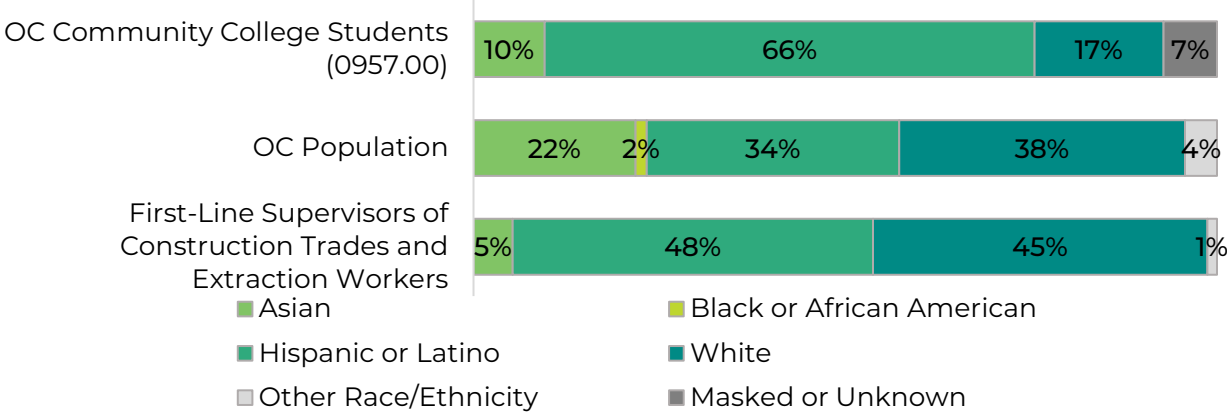
The following section presents occupational, community college program, and population demographic data for Orange County. This comparison can help identify possible equity gaps between the local workforce and the student pipeline who are preparing for this occupation. These insights can inform program development, outreach, and support strategies to better align community college programs with current labor market needs.

## Ethnicity

Exhibit 16 compares the ethnicity of Orange County community college students enrolled in civil and construction management technology programs, the overall Orange County population, and occupation-specific data for *first-line supervisors of construction trades and extraction workers*.

While white and Hispanic or Latino individuals together represent the majority across all three categories, their distribution differs notably. White individuals represent nearly half of *first-line supervisors of construction trades and extraction workers* (45%) but represent a smaller share of the county population (38%) and an even smaller share of community college civil and construction management technology students (17%). Conversely, Hispanic or Latino individuals are the largest group among civil and construction management technology community college students (66%) and represent a significant share of the county population (34%), while accounting for 48% of the construction management workforce.

Exhibit 16: Program and County Demographics by Ethnicity

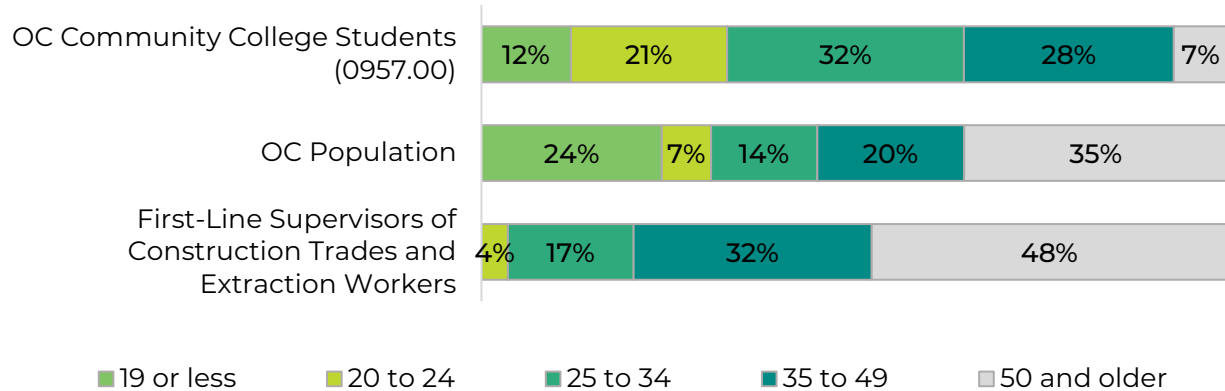


## Age

Exhibit 17 compares the age of Orange County community college students enrolled in civil and construction management technology programs, the overall Orange County population, and occupation-specific data for *first-line supervisors of construction trades and extraction workers*.

Community college students enrolled in civil and construction management technology programs skew younger, with 65% under 35 compared to just 21% in the workforce. In contrast, 80% of workers are aged 35 or older, suggesting that these roles may require additional experience or advanced training prior to entry.

Exhibit 17: Program and County Demographics by Age

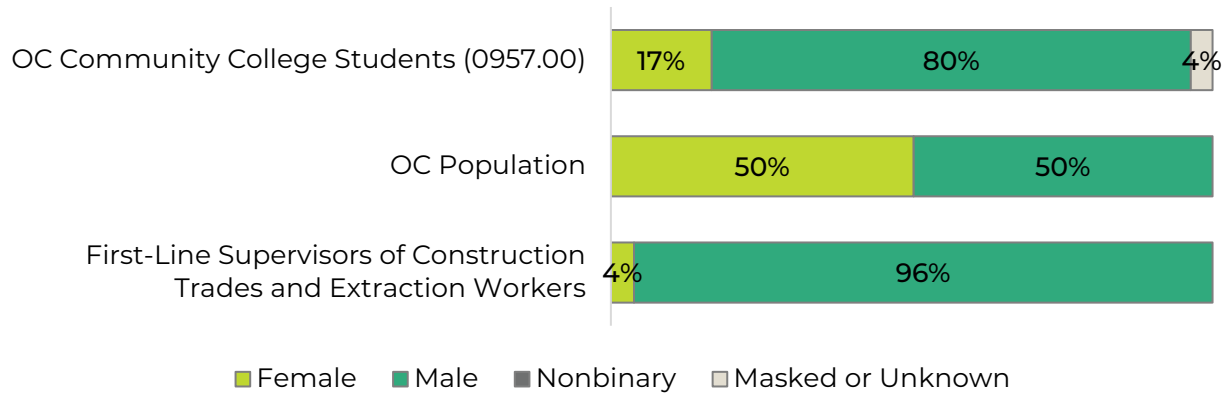


## Sex

Exhibit 18 compares the sex of Orange County community college students enrolled in civil and construction management technology programs, the overall Orange County population, and occupation-specific data for *first-line supervisors of construction trades and extraction workers*.

Though the population is split evenly between women and men, only 4% of *first-line supervisors of construction trades and extraction workers*, and 17% of community college students, are women.

Exhibit 18: Program and County Demographics by Sex



## Appendix A: Methodology

OC COE prepared this report by analyzing occupational and educational program data. Occupational data comes from Lightcast, a labor market analytics firm which compiles information from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS), and other agencies. Analysis of emerging occupations is predicated on online job postings data combined with Occupational Information Network (O\*NET) profile descriptions. Program supply data was sourced from the California Community Colleges Chancellor's Office Data Mart (MIS Data Mart) ([datamart.cccco.edu](http://datamart.cccco.edu)) and the Integrated Postsecondary Education Data System ([nces.ed.gov/ipeds/use-the-data](http://nces.ed.gov/ipeds/use-the-data)), also known as IPEDS, which was integrated into the COE's Supply Table. (IPEDS).

Using a TOP-SOC crosswalk, the OC COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- All occupations that have 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.

The OC COE determined labor market supply for each occupation (SOC code) by analyzing the number of 3-year average program completers or awards in related TOP and CIP codes. TOP code data comes from MIS Data Mart and CIP code data comes from the IPEDS. The TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education throughout the United States and Canada. The California Community Colleges are the only system that use TOP codes.

The analysis reflects labor market demand for occupations closely related to the proposed program as expressed by the requesting college in consultation with the OC COE. assess current and projected employment based on data trends for detailed occupations, as well as annual average awards granted by regional postsecondary educational institutions. Real-time labor market information (online job postings) assesses employer preferences but cannot be used to measure the quantity of open positions, number of jobs, or annual openings.

All findings are based on the most current available data and a combination of primary and secondary sources. While care was taken to ensure accuracy, the OC COE, its host district, and the California Community Colleges Chancellor's Office are not responsible for individual decisions made based on this report.

## Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	Traditional and real-time labor market information are captured using data from <a href="#">Lightcast</a> (v.2026.1), a labor market analytics firm.
Living Wage	<p>Per the CCCC's this report's endorsement criteria uses the <a href="#">University of Washington's Center for Women's Welfare Self-Sufficiency Standard</a> last updated in March 2024, which is \$27.13 per hour (\$57,294 annually) in Orange County.</p> <p>The <a href="#">MIT Living Wage</a>, updated on February 15, 2026, is a nationally recognized living wage metric and is provided for reference. The current MIT Living Wage in Orange County is \$36.53.</p>
Typical Education and Training Requirements, and Educational Attainment	The <a href="#">Bureau of Labor Statistics (BLS)</a> uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data.
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	The <a href="#">O*NET</a> database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations.
Educational Supply	<p>The <a href="#">CCCCO Data Mart</a> provides information about students, courses, student services, outcomes and faculty and staff.</p> <p>The <a href="#">National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS)</a> collects data on the number of postsecondary awards earned (completions).</p>
Student Metrics and Demographics	The <a href="#">Data Vista</a> (v.2.0), a statewide data system supported by the California Community Colleges Chancellor's Office provides data on progress, success, employment, and earnings outcomes for California community college students.
Population and Occupation Demographics	<p>The <a href="#">Census Bureau's American Community Survey (ACS)</a> is the premier source for detailed population and housing information.</p> <p>Data is sourced from <a href="#">IPUMS USA</a>, a database providing access to ACS and other Census Bureau data products.</p>

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May 2026



FOR LABOR MARKET RESEARCH

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