

<input checked="" type="checkbox"/> Endorsed: All Criteria Met			
Program LMI Endorsement Criteria			
	Met <input checked="" type="checkbox"/>	Partially Met <input type="checkbox"/>	Not Met <input type="checkbox"/>
Supply Gap:	There are projected to be 1,801 annual job openings throughout Los Angeles and Orange counties for <i>first-line supervisors of construction trades and extraction workers</i> , which is more than the 292 awards conferred by educational institutions .		
Self-Sufficiency Standard Living Wage ¹ :	The typical entry-level wage for <i>first-line supervisors of construction trades and extraction workers</i> is \$28.07 , which is above the OC living wage of \$27.13 .		
Education:	Typical education requirement for <i>first-line supervisors of construction trades and extraction workers</i> is a high-school diploma or equivalent, and 30% of workers in the field have completed some college or an associate degree as their highest level of 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 occupation:

- Middle-Skill
 - *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.**

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

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: 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: 153		High school diploma or equivalent	30%
	OC: 643	OC: 139	OC: \$36.17		
	<i>TTL: 1,801</i>	<i>TTL: 292</i>			
Total	1,801	292	N/A	N/A	N/A

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 292 awards were conferred by 12 community colleges for the middle-skill occupation in Los Angeles and Orange counties.
 - Community colleges conferred an average of 54 awards applicable towards the above middle-skill occupation.
- From 2020 to 2023, non-community college institutions conferred an average of 0 awards for the middle-skill occupation.
 - Non-community colleges conferred an average of 16 awards applicable towards the above middle-skill occupation.
- In the 2022-23 academic year, Orange County community college students that exited construction technology programs had a median annual wage of \$45,588 (\$21.92 per hour) post-exit, and 38% attained the regional living wage.
- In 2021-22, 72% of Orange County construction technology students that exited their programs reported working a job closely related to their field of study.

Above Middle-Skill Occupations

Although the endorsement summary is based on occupations attainable at the community college level, including related above middle-skill occupations can help illustrate potential career pathways and emerging labor market trends. Since the related program may serve as

a stepping-stone toward further education and training, the following above middle-skill occupation, which requires a bachelor's degree or higher, is included in this report:

- Above Middle-Skill – denoted with a caret (^) throughout this report.
 - *Construction Managers (11-9021)*[^]

Exhibit 2 lists the occupational demand, supply, typical entry-level education, and educational attainment for the above middle-skill occupation included in this report.

Exhibit 2: Labor Market Summary for Above Middle-Skill Occupation

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Construction Managers (11-9021) [^]	LA: 1,157	LA: 49	OC: \$37.86	Bachelor's degree	31%
	OC: 494	OC: 22			
	TTL: 1,651	TTL: 70			
Total	1,651	70	N/A	N/A	N/A

Demand

Occupational Projections

Exhibit 3 shows the annual percentage change in jobs for these construction technology 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. From 2020 to 2023, Orange County experienced varying degrees of growth, followed by a year of decline (-1%) from 2023 to 2024. After a year of stagnation, job levels are projected to grow at a higher rate than all occupations through 2029.

Exhibit 3: Annual Percentage Change in Jobs for Construction Technology Occupations, 2019-2029

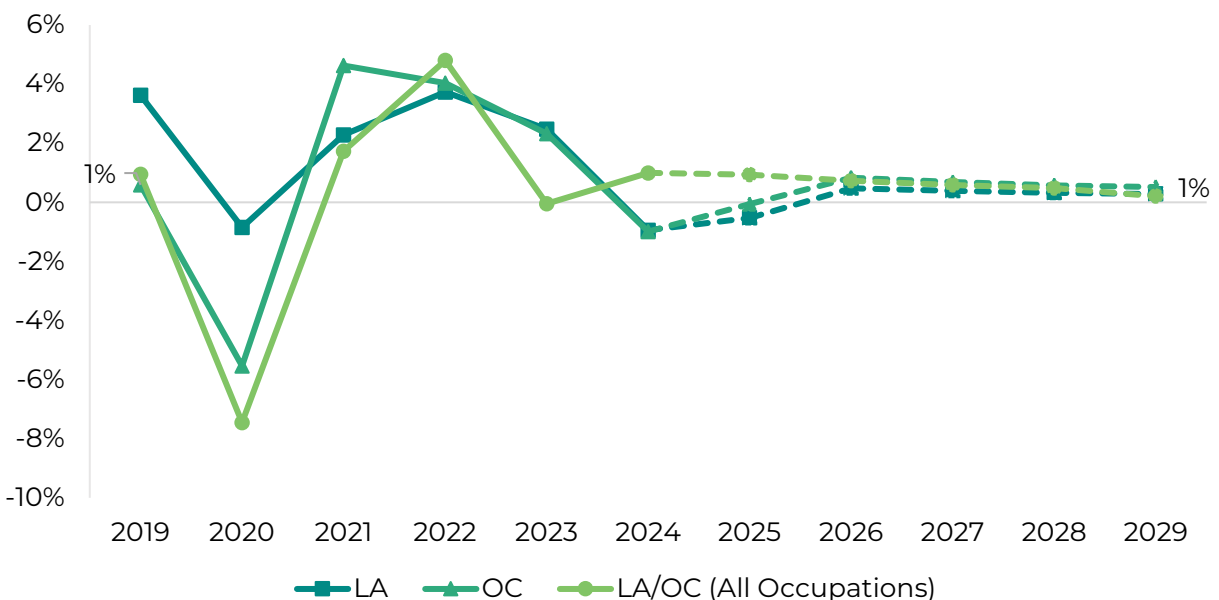


Exhibit 4 shows the five-year occupational demand projections for *first-line supervisors of construction trades and extraction workers*. In Los Angeles and Orange counties, the number of jobs related to this occupation is projected to increase by 0.4% through 2029. There is projected to be 1,801 jobs available annually.

Exhibit 4: Middle-Skill Occupational Demand in Los Angeles and Orange Counties²

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
Total	23,223	23,318	94	0.4%	1,801

Exhibit 5 shows the five-year occupational demand projections for *construction managers*[^]. In Los Angeles and Orange counties, the number of jobs related to this occupation is projected to increase by 2.6% through 2029. There are projected to be 1,651 jobs available annually.

Exhibit 5: Above-Middle Skill Occupational Demand in Los Angeles and Orange Counties

Geography	2024 Jobs	2029 Jobs	2024-2029 Change	2024-2029 % Change	Annual Openings
Los Angeles	14,621	14,972	351	2.4%	1,157
Orange	6,120	6,319	199	3.2%	494
Total	20,741	21,291	549	2.6%	1,651

Wages

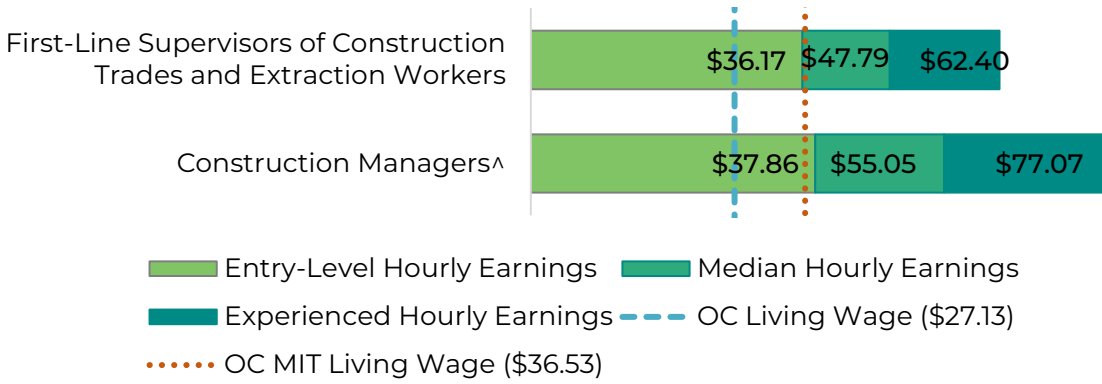
The labor market endorsement in this report considers the entry-level hourly wages for these construction technology occupations in Orange County as they relate to the county’s living wage. Los Angeles County wages are included below to provide a complete analysis of the LA/OC region.

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 6 shows the wage range for each of the construction technology occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

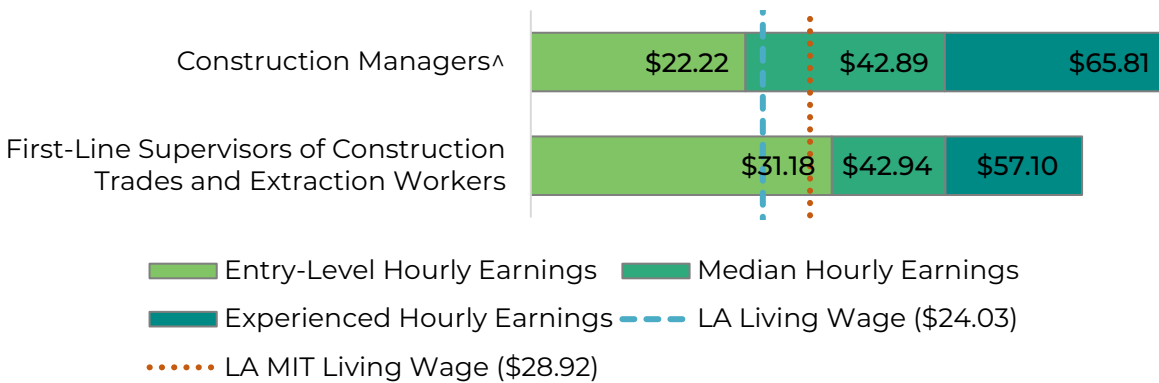
² Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Exhibit 6: 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 7 shows the wage range for each of these construction technology occupations in Los Angeles County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 7: Wages by Occupation in Los Angeles County



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

Exhibit 8 shows if each occupation 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 Job³. *Construction managers[^]*, met the criteria to be considered a Great Recession-Resilient Job and a USN&WR Best Job. While *first-line supervisors of construction trades and extraction workers* did not receive either of these two designations, it did meet the criteria to be considered a COVID-19 Pandemic Recession-Resilient Job.

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

Exhibit 8: Resilient Jobs and USN&WR Best Jobs Designations

Occupation	Great Recession-Resilient Job	COVID-19 Pandemic Recession-Resilient Job	2025 USN&WR Best Job
Construction Managers [^]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 7,760 online job postings related to these construction technology occupations listed in the past 12 months. Exhibit 9 shows the number of job postings by occupation. The vast majority (92%) of job postings were for *construction managers*[^] and only 8% were for *first-line supervisors of construction trades and extraction workers*.

Exhibit 9: Number of Job Postings by Occupation (n=7,760)

Occupation	Job Postings	Percentage of Job Postings
Construction Managers [^]	7,127	92%
First-Line Supervisors of Construction Trades and Extraction Workers	633	8%
Total	7,760	100%

Job Postings for Middle-Skill Occupation

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 10.

Exhibit 10: Top Job Titles by Number of Job Postings for 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%

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 11.

Exhibit 11: Top Employers by Number of Job Postings for 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 12.

Exhibit 12: Top Skills by Number of Job Postings for 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)

Job Postings for Above Middle-Skill Occupation

The top job titles for *construction managers*¹ in the region, by number of job postings, are shown in Exhibit 13.

Exhibit 13: Top Job Titles by Number of Job Postings for Above Middle-Skill Occupation (n=7,127)

Job Titles	Job Postings	Percentage
Construction Project Managers	674	9%
Superintendents	552	8%
Construction Managers	543	8%

Job Titles	Job Postings	Percentage
Construction Superintendents	350	5%
Project Managers/Construction Managers	151	2%
Design Managers	119	2%
Commercial Construction Superintendents	114	2%
Commercial Construction Project Managers	97	1%
Construction Project Coordinators	80	1%
Site Supervisors	75	1%

The top employers for *construction managers*[^] in the region, by number of job postings, are shown in Exhibit 14.

Exhibit 14: Top Employers by Number of Job Postings for Above Middle-Skill Occupation(n=7,127)

Employer	Job Postings	Percentage of Job Postings
GPAC	218	3%
CyberCoders	147	2%
PageGroup	106	1%
Woodcraft Rangers	88	1%
Jobot	74	1%
Jacobs Solutions	70	1%
Turner & Townsend	58	1%
Bliss Car Wash	58	1%
K2 Staffing	46	1%
Amazon	45	1%

The top specialized, soft, and computer skills for *construction managers*[^] listed by those most frequently mentioned in job postings (denoted in parentheses) are shown in Exhibit 15.

Exhibit 15: Top Skills by Number of Job Postings for Above Middle-Skill Occupation(n=7,127)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Construction (4,965)	Communication (4,425)	Microsoft Office (1,326)
Project Management (4,540)	Leadership (3,509)	Procore (1,054)
Subcontracting (3,097)	Management (3,388)	Microsoft Excel (994)
Construction Management (2,885)	Coordinating (3,179)	Construction Management Software (615)
Project Schedules (1,533)	Operations (2,744)	Microsoft Outlook (612)
Change Orders (1,530)	Scheduling (2,316)	Project Management Software (599)
Project Documentation (1,168)	Planning (1,904)	Microsoft Project (527)
Submittals (Construction) (1,134)	Quality Control (1,851)	Microsoft PowerPoint (383)
Procore (1,054)	Budgeting (1,633)	Primavera (Software) (378)

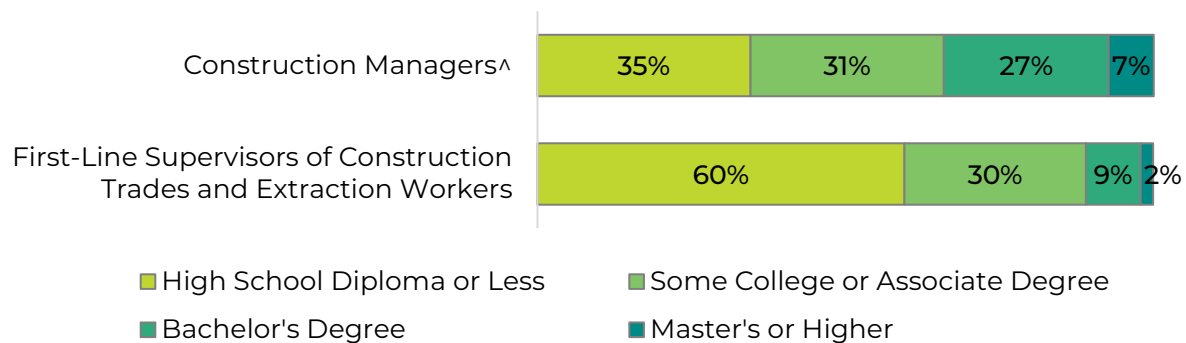
Top Specialized Skills	Top Soft Skills	Top Computer Skills
Procurement (1,040)	Problem Solving (1,615)	Microsoft Word (324)

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a high school diploma or equivalent as the typical entry-level education for *first-line supervisors of construction trades and extraction workers* and a bachelor's degree for *construction managers*[^].

The national-level educational attainment data indicates between 30% and 31% of workers in the field have completed some college or an associate degree as their highest level of education. Exhibit 16 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 16: National-level Educational Attainment for Occupations



Requested Minimum Education Requirement

Of the cumulative job postings for these construction technology occupations in Los Angeles and Orange counties that listed a minimum education requirement:

- 25% (157) of Middle-Skill Job Postings
 - 80% (125) requested a high school diploma or associate degree
 - 19% (30) requested a bachelor's degree
- 56% (3,990) of Above Middle-Skill Job Postings
 - 29% (1,155) requested a high school diploma or associate degree
 - 70% (2,806) requested a bachelor's degree

Educational Supply

The following supply tables display the total supply for the two construction technology occupations that align with these TOP and CIP codes and program needs.

Community College Supply

Exhibit 17 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)
- Construction Inspection (0957.20)

The colleges with the most combined completions in the region are LA Southwest (65), Fullerton (45), and Orange Coast (43). Over the past 12 months, there have been three related program recommendation requests from regional community colleges.

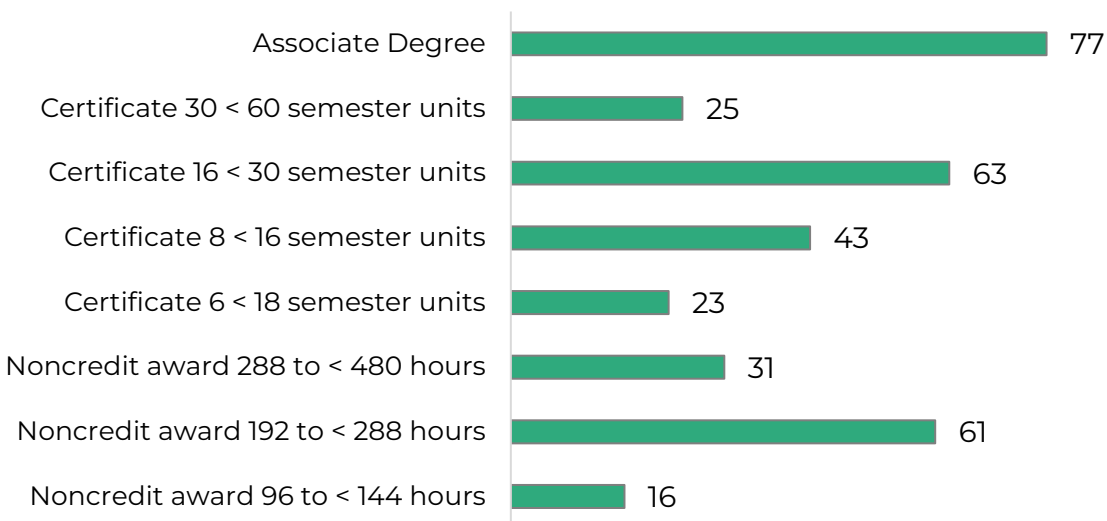
Exhibit 17: Regional Community College Awards (Certificates and Degrees), 2021-2024

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 Trade	0	55	30	28
		Long Beach	40	30	34	35
		Pasadena	0	1	0	0
		LA Southwest	23	75	97	65
		LA Subtotal	70	179	170	140
		Fullerton	4	16	24	15
		Orange Coast	22	41	67	43
		Santa Ana	31	14	47	31
		OC Subtotal	57	71	138	89
Supply Subtotal/Average			127	250	308	228
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
		LA Subtotal	20	37	41	33
		Fullerton	14	17	27	19
		Santa Ana	2	1	4	2
		OC Subtotal	16	18	31	22
Supply Subtotal/Average			36	55	72	54
0957.20	Construction Inspection	Pasadena	14	18	9	14
		LA Subtotal	14	18	9	14

TOP Code	Program	College	2021-2022 Awards	2022-2023 Awards	2023-2024 Awards	3-Year Award Average
		Coastline	14	31	16	20
		Fullerton	10	7	17	11
		Saddleback	1	7	4	4
		Santiago Canyon	11	15	17	14
		OC Subtotal	36	60	54	50
Supply Subtotal/Average			50	78	63	64
Supply Total/Average			213	383	443	346

Exhibit 18 shows the annual average community college awards by type from 2021-22 to 2023-24. The plurality of the awards are for associate degree, followed by certificate 16 to 30 semester units then noncredit award 192 to to 288 hours.

Exhibit 18: Annual Average Community College Awards by Type, 2021-2024



Community College Student Outcomes

Exhibit 19 shows the Strong Workforce Program (SWP) metrics for construction crafts technology programs in North Orange County Community College District (NOCCCD), the Orange County Region, and California. Of the 641 Orange County construction crafts technology students in the 2023-24 academic year, 39% (248) attended an NOCCCD college.

NOCCCD students that exited construction crafts technology programs in the 2022-23 academic year had higher median annual earnings (\$51,004 or \$24.52 per hour) compared to all construction crafts technology students in Orange County (\$45,588 or \$21.92 per hour). An equal percentage of NOCCCD construction crafts technology students attained the living wage when compared to all construction crafts technology students in Orange County (38%).

Exhibit 19: Construction Crafts Technology (0952.00) Strong Workforce Program Metrics, 2021-24⁴

SWP Metric	NOCCCD	OC Region	California
SWP Students	248	641	4,793
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	55%	43%	35%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	83%	69%
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	18	93	509
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2022-23)	Insufficient Data	12	62
SWP Students with a Job Closely Related to Their Field of Study (2021-22)	Insufficient Data	72%	71%
Median Annual Earnings for SWP Exiting Students (2022-23)	\$51,004	\$45,588	\$50,764
Median Change in Earnings for SWP Exiting Students (2022-23)	30%	37%	31%
SWP Exiting Students Who Attained the Living Wage (2022-23)	38%	38%	50%

Non-Community College Supply

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering construction technology programs. Exhibit 20 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 20: Regional Non-Community College Awards, 2020-2023

CIP Code	Program	College	2020-2021 Awards	2021-2022 Awards	2022-2023 Awards	3-Year Award Average
52.2001	Construction Management, General	Learnet Academy Inc	1	3	0	1
		University of Southern California	11	33	0	15
Supply Total/Average			12	36	0	16

⁴ All SWP metrics are for 2023-24 unless otherwise noted.

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 these occupations. These insights can inform program development, outreach, and support strategies to better align community college programs with current labor market needs.

Ethnicity

Exhibit 21 compares the ethnicity of Orange County community college students enrolled in construction technology programs, the overall Orange County population, and occupation-specific data for the two construction technology occupations included in this report.

While White and Hispanic or Latino individuals together represent the majority across all three categories, their distribution differs notably. White individuals dominate the construction technology workforce (58%) but represent a much smaller share of OC community college construction technology students (19%) and the county population (38%). Conversely, Hispanic or Latino individuals are the largest group among OC community college construction technology students (63%) and represent a comparable share of the county population (34%), yet account for only 29% of the construction technology workforce.

Exhibit 21: Program and County Demographics by Ethnicity

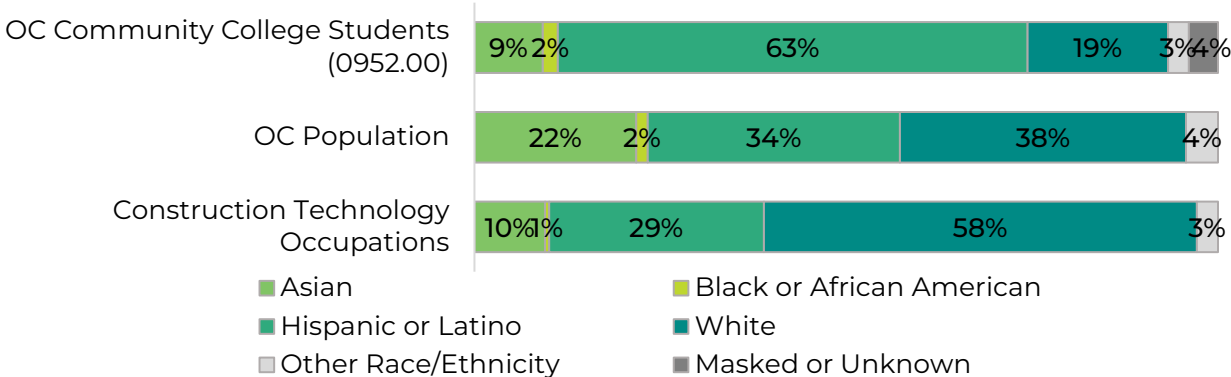
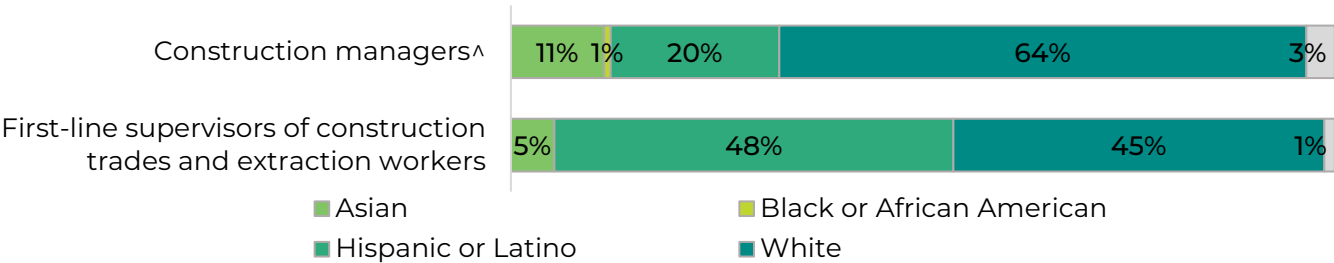


Exhibit 22 shows the disaggregated ethnicity data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

Hispanic or Latino workers make up 48% of the workforce in the lower-paying (\$36.17 per hour), lower-educational requirement occupation, *first-line supervisors of construction trades and extraction workers*, but only 20% of the higher-paying (\$37.86 per hour), higher-educational requirement occupation, *construction managers*[^]. All other ethnic groups have higher representation in the above middle-skill occupation, *construction managers*[^], relative to the middle-skill occupation, *first-line supervisors of construction trades and extraction workers*.

Exhibit 22: Disaggregated Ethnic Distribution by Occupation



Age

Exhibit 23 compares the age of Orange County community college students enrolled in construction technology programs, the overall Orange County population, and occupation-specific data for the two construction technology occupations included in this report.

Community college students enrolled in construction technology programs skew younger, with 49% under age 25 compared to just 21% in the construction technology workforce. In contrast, 52% of workers are aged 50 or older, suggesting that these roles may require additional experience or advanced training prior to entry.

Exhibit 23: Program and County Demographics by Age

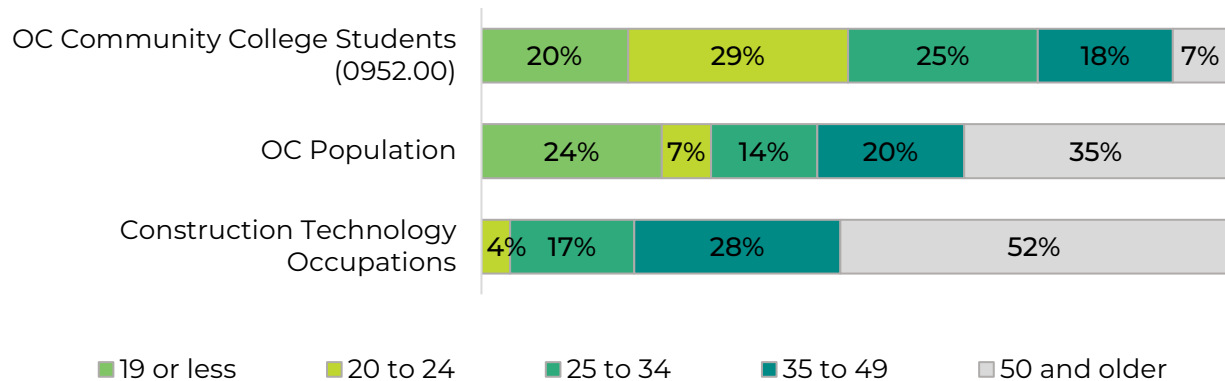
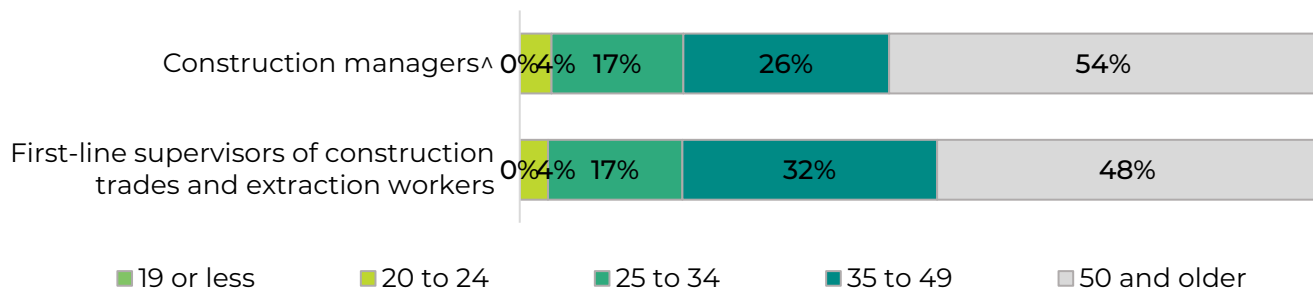


Exhibit 24 shows the disaggregated age data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

The age distribution across both occupations reinforces that construction technology roles skew heavily toward experienced workers, with those aged 50 and older representing the largest share of both construction managers[^] (54%) and first-line supervisors of construction trades and extraction workers (48%). Meanwhile, nearly half of OC community college construction technology students (49%) are under age 25 — suggesting the program is well-positioned to serve as an entry point into the field, but that students should expect a longer career trajectory before reaching supervisory or management roles that are currently held by older, more experienced workers. As a significant portion of the existing workforce approaches retirement age, this generational gap also points to a growing replacement demand that community college programs will be increasingly important in helping to fill.

Exhibit 24: Disaggregated Age Distribution by Occupation



Sex

Exhibit 25 compares the sex of Orange County community college students enrolled in construction technology programs, the overall Orange County population, and occupation-specific data for these construction technology occupations.

Though the population is split evenly between women and men, only 9% of construction technology workers in the field, and 15% of community college students, are women.

Exhibit 25: Program and County Demographics by Sex

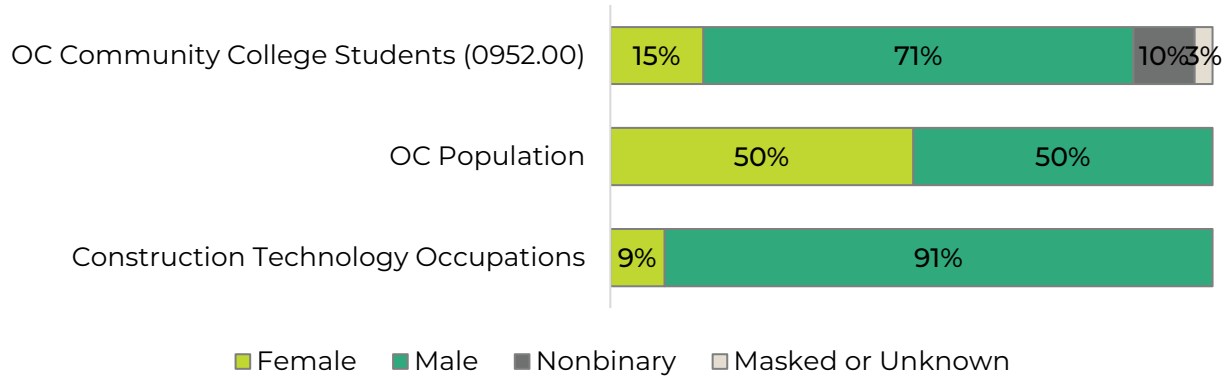
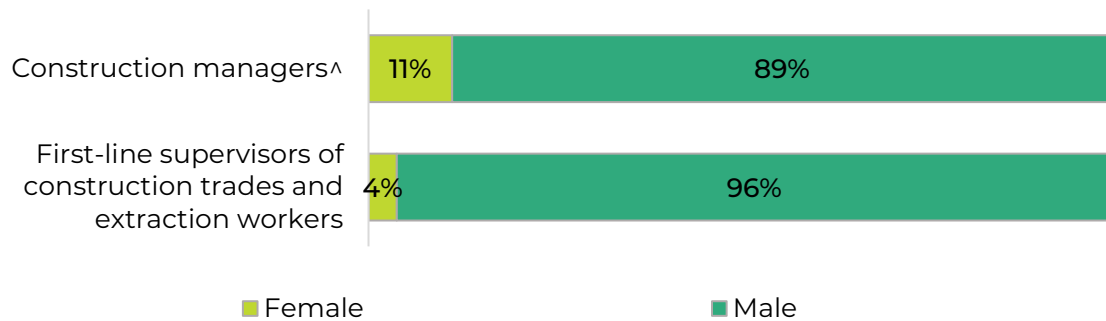


Exhibit 26 shows the disaggregated sex data for each occupation, revealing potential disparities in entry into well-paying occupations or career advancement.

Women are overwhelmingly underrepresented across both occupations, indicating potential barriers to access, advancement, or equitable hiring within the construction technology field.

Exhibit 26: Disaggregated Sex Distribution by Occupation



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) and the Integrated Postsecondary Education Data System (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 Lightcast (v.2026.1), a labor market analytics firm.
Living Wage	<p>Per the CCCC's this report's endorsement criteria uses the University of Washington's Center for Women's Welfare Self-Sufficiency Standard last updated in March 2024, which is \$27.13 per hour (\$57,294 annually) in Orange County.</p> <p>The MIT Living Wage, 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 Bureau of Labor Statistics (BLS) 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 O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations.
Educational Supply	<p>The CCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff.</p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions).</p>
Student Metrics and Demographics	The Data Vista (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 Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information.</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products.</p>

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May 2026



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