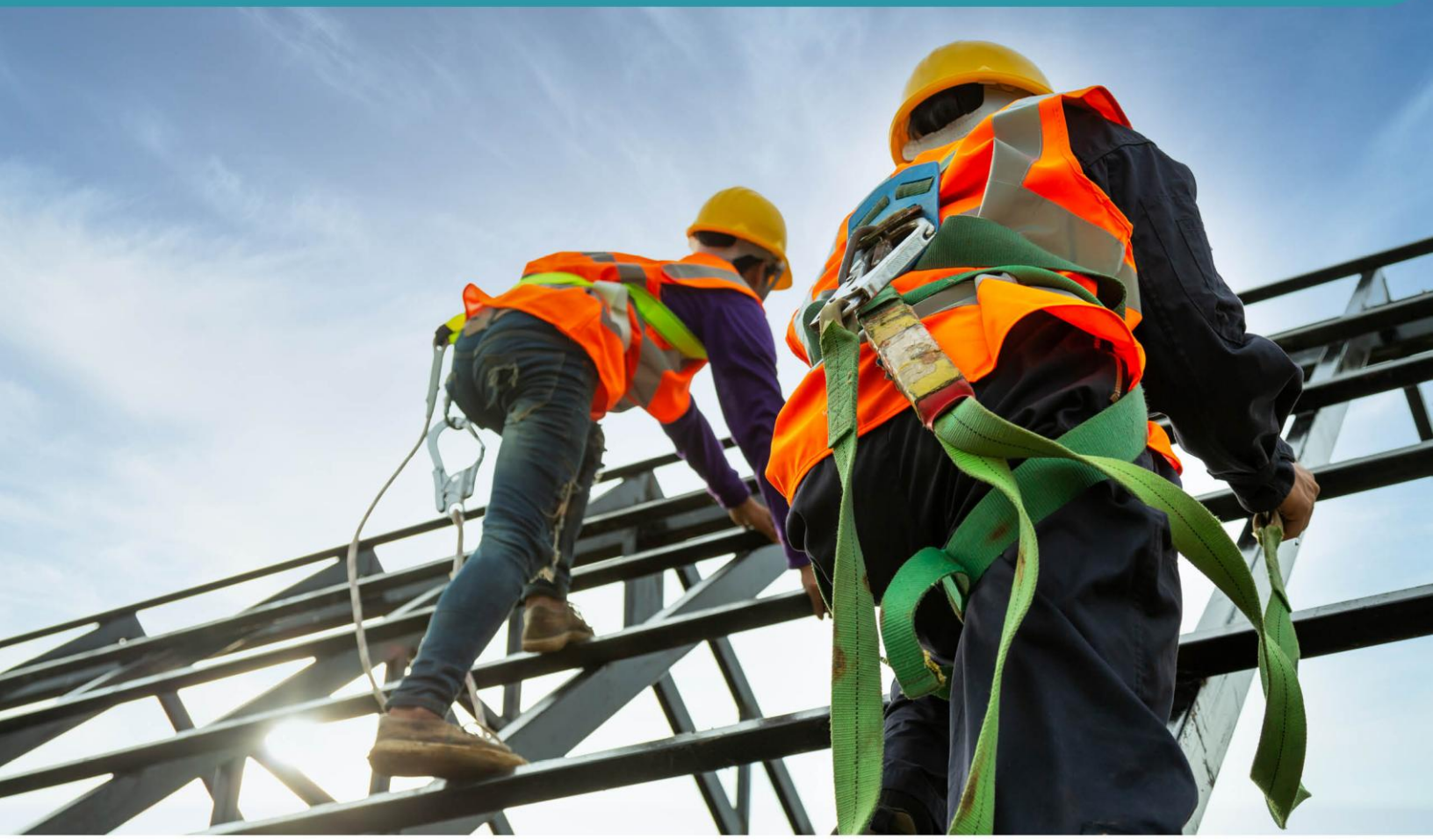
SKILLS THAT SUPPORT THE CCCCO

ENERGY, CONSTRUCTION & UTILITIES SECTOR

December 2025

INLAND EMPIRE/DESERT REGION



FOR LABOR MARKET RESEARCH
INLAND EMPIRE/DESERT

POWERED BY
California Community Colleges

ACKNOWLEDGEMENTS

The following team members of the Inland Empire/Desert Center of Excellence for Labor Market Information (COE) authored this report:

Shannon Moran, COE Director
Chris Cruzcosa, Senior Research Analyst
Paul Vaccher, Research Analyst

Acknowledgements 2

Executive Summary 4

Key Findings 4

Introduction 7

Methodology 9

Section 1: How does the middle-skill Energy, Construction, and Utilities workforce support the regional economy? 11

1.1 Regional Employment *11*

1.2: Energy, Construction, and Utilities Sector Overview *12*

Section 2: What skills are essential for middle-skill Energy, Construction, and Utilities workers? 14

2.1: Construction Trades Workers *14*
Specialized Skills 15
Foundational Skills 17
Qualifications and Programs 19

2.2: Other Installation, Maintenance, and Repair Occupations *19*
Specialized Skills 21
Foundational Skills 23
Qualifications and Programs 25

2.3: Electrical and Electronic Equipment Mechanics, Installers, and Repairers *25*
Specialized Skills 27
Foundational Skills 29
Qualifications and Programs 31

2.4: Plant and System Operators *31*
Specialized Skills 33
Foundational Skills 35
Qualifications and Programs 37

2.5: Drafters, Engineering Technicians, and Mapping Technicians *37*
Specialized Skills 38
Foundational Skills 40
Qualifications and Programs 42

2.6: Other Construction and Related Workers *43*
Specialized Skills 44
Foundational Skills 46
Qualifications and Programs 48

Section 3: How can skills information be used to guide career education program development in the Inland Empire/Desert Region? 49

APPENDICES 52

Appendix A: Research Definitions and Methodologies *52*

EXECUTIVE SUMMARY

The California Community College Chancellor's Office (CCCCO) Energy, Construction, and Utilities Priority Sector in the Inland Empire/Desert Region accounts for 161,503 jobs in 2024 and is projected to grow by 6% by 2029. Middle-skill energy, construction, and utilities occupations, those requiring more than a high school diploma but less than a four-year degree, represent 51% of all energy, construction, and utilities-sector jobs and generate nearly 8,200 annual openings, positioning community colleges and K12 partners as essential engines of workforce preparation.

This report examines the skills that define middle-skill energy, construction, and utilities occupations, relying on employer job postings for six major occupational groups that together accounted for 80,672 regional jobs in 2024. Using a comparison of two date periods, 2018–2023 and 2023–2025, the analysis identifies which skills are increasing, shrinking, or persistently demanded across the sector.

Key Findings

Employer demand is shifting toward both foundational and technical competencies.

Across occupational groups, foundational skills remain the most prevalent competencies requested by employers, with communications and troubleshooting/problem solving consistently appearing as the top skills statewide and regionally (e.g., Exhibits 2.1.6, 2.2.6, 2.3.6, 2.4.6, 2.5.6, 2.6.6).

However, the analysis (Section 3) also shows that nearly half of all growing skills (~49%) are technical or specialized or cross-sector, reflecting rising expectations for applied expertise and technological fluency.

These include:

- Building Codes
- Power Tool Operation
- Construction Management
- Project Management
- Safety Standards
- SolidWorks (CAD)

These skills have grown significantly across multiple minor occupational groups (e.g., Exhibits 2.1.4, 2.3.4, 2.4.5, 2.5.4, 2.6.4) and point to an evolving care environment where applied knowledge and experience with ECU operations play a larger role in daily work.

Basic organizational and customer service skills are declining across the sector.

The shrinking-skills analysis shows a consistent decline in customer service and basic organizational competencies, including:

- Customer Service
- Management
- Scheduling

Approximately 42% of shrinking skills fall within the foundational category, but they overwhelmingly represent tasks that employers increasingly assume will be supported by digital systems or automated workflows (Exhibits 2.1.7, 2.2.7, 2.3.7, 2.4.7, 2.5.7, 2.6.7).

Even within specialized technical categories, the declining skills tend to be baseline ECU abilities, such as bill of materials, change orders, or roofing, which may be explained by either employers treating as them as assumed prerequisites rather than differentiating qualifications or no longer requiring specialized experience to accomplish their related work goals.

Certifications and licensure continue to anchor employer expectations.

Qualifications data across all six occupational groups reinforce the emphasis of stackable, industry-recognized certifications, including:

- Valid Driver's License, requested in 30–55% of postings across groups
- CDL Class License (B/C)
- 10-Hour OSHA General Industry Card
- Forklift Certification
- Professional Engineer (PE) License

These credentials appear more consistently than many skills and often serve as the clearest signal of job readiness (e.g., Exhibits 2.1.9, 2.2.9, 2.3.9, 2.4.9, 2.5.9, 2.6.9).

These patterns reveal a structural shift in middle-skill ECU work.

Across the sector, employer postings increasingly emphasize competencies requiring interpersonal communication, [being] detail oriented, coordination, building codes, and construction management, while de-emphasizing skills tied to customer service and basic organization skills. This reflects a broader transition in energy, construction, and utility workplaces in which digital systems, automated workflows, and AI-enabled tools reduce the need for some administrative tasks (Section 3).

As a result, middle-skill ECU workers are expected to engage more directly in the relational, troubleshooting, and technical dimensions of this field, areas that technology supports but does not replace.

Implications for Education & Training in the Inland Empire/Desert Region

The regional shift in skill demand points to several opportunities for K12 and community college programs to strengthen workforce alignment:

1. **Align curriculum with rising foundational and technical skills.**

    Programs should integrate interpersonal communication, [being] detail oriented, coordination, building codes, and construction management, skills showing the strongest growth across minor occupational groups (Section 3).

2. **Embed credentials within program structures.**

    Given the consistency of employer demand for valid driver’s licenses, CDLs, OSHA, PE, forklift and other certifications, colleges should map coursework, field experiences, and externships directly to these credentials. K12 pathways can strengthen 9–14 alignment by offering pre-certification exposure or dual enrollment opportunities in vehicle training and related areas.

3. **Strengthening K12 pathway - Community College ECU Pathway Alignment**

    K12 energy, construction, and utilities pathways can use the qualification and program crosswalks to better align coursework with community college expectations. High schools

Residential and Commercial Construction, Engineering and Heavy Construction, Environmental Resources, and Energy and Power Technology pathways can embed early exposure to foundational competencies, such as interpersonal communication, [being] detail oriented, coordination, building codes, and construction management, and prepare students for pre-certification or dual-enrollment opportunities that connect directly to stackable ECU credentials.

Conclusion

The CCCCO Energy, Construction, and Utilities Priority Sector is a cornerstone of the Inland Empire/Desert Region workforce, and employer demand within this sector is shifting toward both problem-solving foundational skills and higher-level technical competencies. At the same time, routine organizational tasks are declining as digital systems take on a larger role in ECU operations.

This report is one part of a ten-sector series that provides a skills-based roadmap for strengthening workforce preparation across K12, community colleges, and regional partners. Together with forthcoming analyses on artificial intelligence, job creation strategies, and climate-related shifts in the regional economy, this work will guide the development of programs that equip learners for the demands of today's energy, construction, and utility systems, and the transformations ahead.

INTRODUCTION

The purpose of this report is to strengthen community college program development and review by aligning regional education pathways with the evolving skill needs of the Inland Empire/Desert economy. Using the California Community Colleges Chancellor's Office (CCCCO) priority sector framework as its foundation, this analysis focuses on the skills that define and sustain the region's middle-skill energy, construction, and utilities workforce, providing research for K12 schools and community colleges to examine how well programs prepare students for occupations within this priority sector.[1]

This report examines the specialized and foundational skills appearing in employer job postings for middle-skill energy, construction, and utilities occupations. Middle-skill occupations are those that typically require more than a high school diploma, but less than a four-year degree, and are largely associated with community college CTE programs, placing community colleges at the center of preparing the workforce that supports regional construction, utilities, and energy provision.

This report is the second in a ten-part series that leverages the CCCCO priority sector association to the region's middle-skill occupations. The first four sector reports will be released ahead of a companion analysis examining how artificial intelligence, job creation strategies, and emerging climate and clean-tech initiatives, outlined in the Thrive Inland SoCal California Jobs First Regional Plan, are reshaping skill demand in cybersecurity, manufacturing, climate innovation, and technology occupations.[2] That research will sit alongside the sector series to help colleges understand both current and future drivers of workforce change. Following the release of this broader analysis, the COE will complete the remaining sector reports (sectors five through ten), providing a full view of skill needs across the regional economy.

The ten-part skills analysis reports will be released in the following order:

1. Health
2. Energy, Construction, and Utilities,
3. Advanced Manufacturing
4. Information and Communication Technologies/Digital Media (ICT/DM)
5. Business and Entrepreneurship
6. Advanced Transportation and Logistics
7. Retail, Hospitality, and Tourism
8. Public Safety
9. Education and Human Development
10. Agriculture, Water, and Environmental Technologies

[1] https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Workforce-and-Economic-Development/Strong-Workforce-Program/SWP-Archive/Events/K12-SWP-Industry-Sector-Crosswalk

[2] Thrive Inland SoCal California Jobs First (CJF) Regional Plan Part II. 2024. Retrieved from: https://www.labor.ca.gov/wp-content/uploads/sites/338/2024/11/Inland-SoCal-RPP2-DRAFT.pdf

The report seeks to answer three major questions:

- SECTION 1: How does the middle-skill energy, construction, and utilities workforce support the regional economy?
- SECTION 2: What skills are essential for middle-skill energy, construction, and utilities workers?
- SECTION 3: How can skills information be used to guide career education program development in the Inland Empire/Desert region?

METHODOLOGY

This report analyzes the skills that are essential to the middle-skill workforce in occupations that are associated with the California Community College Chancellor's Office (CCCCO) Energy, Construction, and Utilities Sector. The Chancellor's Office grouped career and technical education programs into twelve priority sectors, further referred to as CCCCO priority sectors[3]. The grouping of community college programs by CCCCO priority sector facilitates the analysis of programs and occupations that have similar knowledge bases and skillsets. The Center of Excellence, in collaboration with the CCCCO, developed a crosswalk that identifies vocational occupations associated with each program code. This crosswalk serves as the foundation for program and workforce assessments by the CCCCO priority sector. Please note that the CCCCO priority sector should not be confused with the industry employment sectors identified by the North American Industry Classification System (NAICS). Additionally, only ten CCCCO reports will be developed as the Life Sciences/Biotech and Global Trade priority sectors are typically rolled up into the larger sectors, Health and Business and Entrepreneurship, respectively.

Skills considered essential to the CCCCO energy, construction, and utilities priority sector occupations were identified through an analysis of employer job advertisements. Job advertisement information, such as skills and qualifications, was obtained from Lightcast's Job Posting Analytics, which aggregates job advertisements posted over 220,000 current and historical sources.[4] To provide a more nuanced perspective and to ensure the utility of this report, skills and qualifications information is analyzed at the minor occupation group level.

The Standard Occupational Classification (SOC) system aggregates occupation information by four levels: major group, minor group, broad occupation, and detailed occupation.[5] This report relies on the minor occupational groupings of detailed occupations for the skills analysis as it provides greater detail than the broader major occupational groups and ensures the feasibility and readability of this study, which would be lacking in a detailed occupation skills analysis.

The following is an example of the SOC coding structure for Architectural and Civil Drafters (17-3011).

- Major Occupational Group: Architecture and Engineering Occupations (17-0000)
    - Minor Occupational Group: Drafters, Engineering Technicians, and Mapping Technicians (17-3000)
        - Broad Occupation: Drafters (17-3010)
            - Detailed Occupation: Architectural and Civil Drafters (17-3011)

Minor occupational groups enable this report to focus on occupations connected by similar work activities and area of focus in the priority sector, in order to determine what skills are either currently most in-demand, the demand is growing rapidly, or the demand is shrinking rapidly. This data will allow program designers, owners, and administrators to have a window into what skills employers need in their workforce for each group of occupations and how to plan for growing future needs.

This analysis focuses on minor occupational groups comprising three or more detailed occupations related to the CCCCO energy, construction, and utilities sector. This ensures that the occupations are grouped by similar work activities and have sufficient job advertisements to analyze. As a result of this

[3] DataVista Sector Explanation. 2024. Retrieved from: https://datavista.cccco.edu/resources/7

[4] Lightcast. Job Posting Analytics (JPA) Methodology. 2025. Retrieved from: https://kb.lightcast.io/en/articles/6957446-job-posting-analytics-jpa-methodology

[5] Bureau of Labor Statistics. Standard Occupational Classification and Coding Structure. 2018. Retrieved from: https://www.bls.gov/soc/2018/soc_2018_class_and_coding_structure.pdf

requirement, there are six occupations related to the CCCCO energy, construction, and utilities sector that are not included in this skills analysis. A list of these occupations can be found in the Appendix.

The skills analysis compares skills posted over a two-year period (October 2023 – September 2025) to a historical five-year period (October 2018 – September 2023) to identify skills that are growing and shrinking in terms of their prevalence in job ads. This report intentionally uses a two-year period for the current analysis to ensure a sufficient volume of recent job advertisements and avoid the instability that can come with relying on a single year of data. The five-year historical period provides a stable benchmark of longer-term industry skill patterns and reduces the influence of short-term fluctuations. This analysis also illuminates the skills with the highest share of job ads in the most recent period to address employer demand for skills that are persistently in-demand across time.

A goal for this research was to include skills in this report that are most significant for the CCCCO energy, construction, and utilities sector workforce, based on how frequently they appear in employer job postings. To ensure the analysis focuses on skills that employers consistently value, only skills appearing frequently in job ads within each minor occupational group during the most recent period (October 2023–September 2025) were included.

The Lightcast taxonomy organizes skills into a tiered structure that groups related competencies according to the type of work or task they support. Within this framework, skills are categorized as common, specialized, or software skills. To determine which skills should be included in our analysis, we examined how frequently individual skills appear in job postings. We calculated the median share of job ads in which common skills appear across all occupations, providing a baseline measure of typical skill prevalence. Our analysis found that common skills typically appeared in roughly five percent of job postings across occupations. We used this median value as the threshold for determining which skills were included in our research.

The five percent threshold is sufficient to capture in-demand skills while eliminating skills included in job ads that are not essential for employment in the minor occupational group. Additionally, in-demand skills found in employer job ads posted throughout California are also included in this analysis to provide context for the regional skills data, highlighting nuances of the regional employment environment.

Foundational skills, or common skills, “are prevalent across many different occupations and industries, including both personal attributes and learned skills.”[6] Since these skills are found across industries, they are considered foundational for the workplace. Specialized skills, also known as technical skills, are those that equip an individual to perform specific tasks effectively.[7] Our analysis of specialized skills will denote whether these skills were specific to a minor occupation group, or were identified across multiple minor groups, appearing to be industry specific skills.

[6] Lightcast. Skills Glossary. 2023. Retrieved from: https://kb.lightcast.io/en/articles/7934140-skills

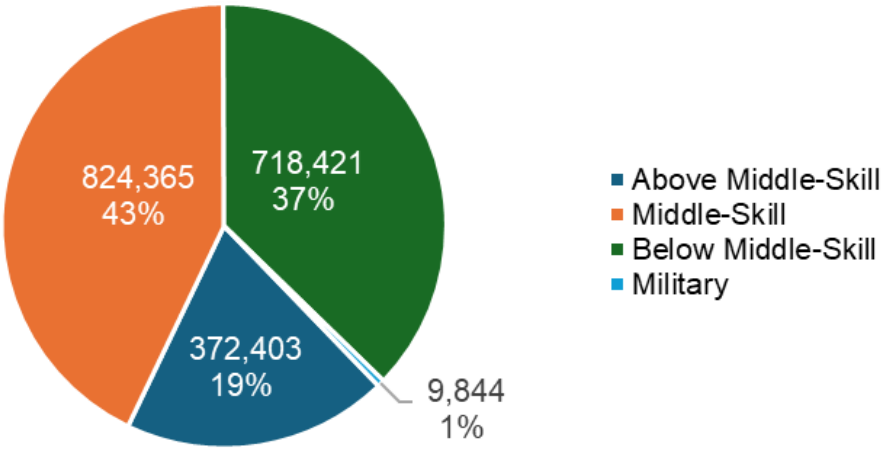
[7] Ibid.

SECTION 1: HOW DOES THE MIDDLE-SKILL ENERGY, CONSTRUCTION, AND UTILITIES WORKFORCE SUPPORT THE REGIONAL ECONOMY?

1.1 Regional Employment

In 2024, there were nearly 1.93 million jobs in the Inland Empire/Desert Region. Exhibit 1.1.1 displays the distribution regional jobs in 2024 by skill level. Approximately 824,400 or 43% of regional jobs are middle skill. The number of regional jobs is projected to grow by over 139,000 through 2029, representing 7% job growth. While there are over 257,500 annual job openings expected between 2024 and 2029 across all jobs, these employment opportunities are not evenly distributed by skill level. Approximately 41% of annual job openings in the Inland Empire/Desert Region are expected for middle-skill workers, at over 107,500 annual job openings.

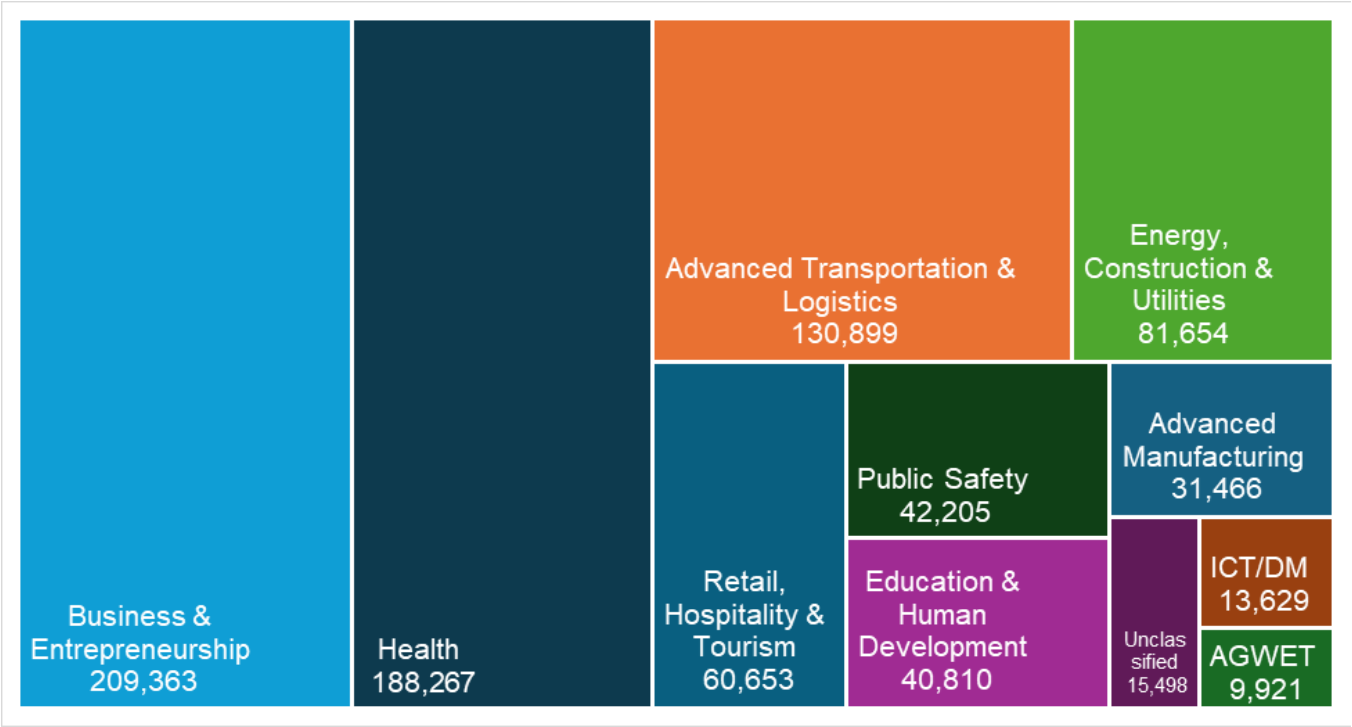
Exhibit 1.1.1: Distribution of Employment by Skill Level, Inland Empire/Desert Region, 2024



Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Exhibit 1.1.2 displays the distribution of middle-skill employment by CCCCO priority sector in the Inland Empire/Desert Region in 2024. The CCCCO energy, construction, and utilities priority sector contained the fourth most middle-skill jobs in 2024, with 81,654 jobs. Approximately one in ten middle-skill jobs in the region are with the CCCCO energy, construction, and utilities sector. Additionally, this CCCCO priority sector is projected to provide nearly eight percent of all middle-skill annual job openings in the region between 2024 and 2029.

Exhibit 1.1.2: Distribution of Middle-Skill Employment by CCCCO Priority Sector, Inland Empire/Desert Region, 2024



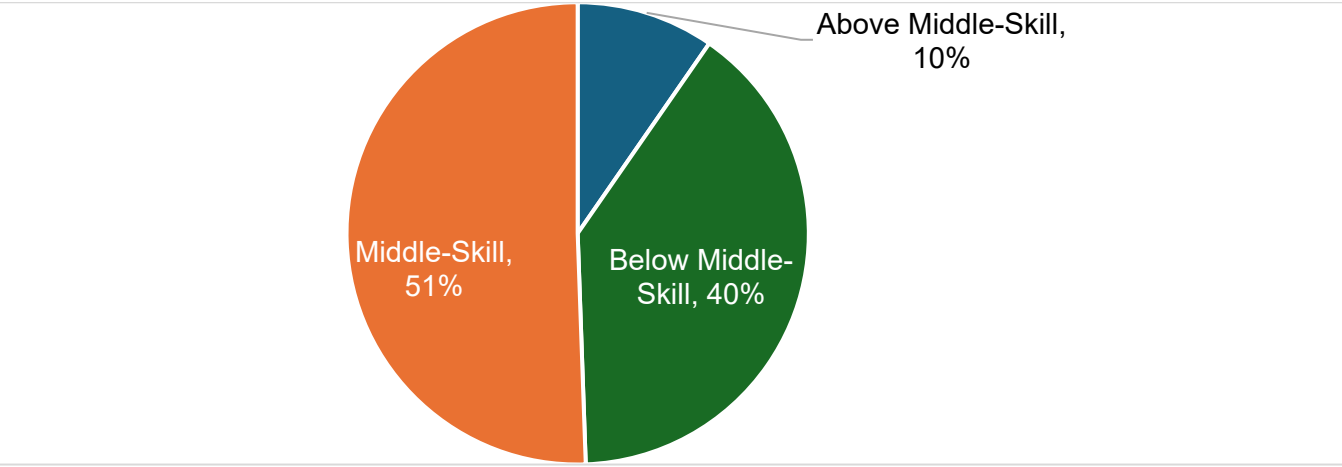
Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

1.2: Energy, Construction, and Utilities Sector Overview

The CCCCO energy, construction, and utilities priority sector contains 24 related TOP codes used by community college career and technical education programs. Across all levels of educational attainment, experience, and training, there are 111 occupations related to the CCCCO energy, construction, and utilities priority sector, making it the largest sector in terms of detailed occupation counts. The CCCCO energy, construction, and utilities priority sector is a significant source of regional employment and projected to be a driver of regional employment growth in the future. Approximately 8.4% of regional jobs across all education levels are related to the CCCCO energy, construction, and utilities priority sector, at 161,503 jobs in 2024. The share of regional employment, 8.4%, is greater than California as a whole and the United States, at 6.8% and 7.5% respectively. This may indicate that the energy, construction, and utilities sector is more important for the regional economy than for the state or national economy. Regional energy, construction, and utilities employment is projected to grow by 5.5% through 2029, significantly outpacing energy, construction, and utilities employment projections in California and nationally, at 3.4% and 4.8%, respectively.

Exhibit 1.2.1 displays the share of CCCCO energy, construction, and utilities sector jobs by skill level in the Inland Empire/Desert Region in 2024. Of the 111 occupations associated with this sector, 51 are below middle-skill, accounting for 40% of regional energy, construction, and utilities sector jobs in the Inland Empire/Desert Region in 2024, indicating many jobs in this sector do not require a postsecondary education. Middle-skill workers comprise 51% of the CCCCO energy, construction, and utilities sector's jobs, with 81,654 jobs across 49 middle-skill occupations in 2024. Only 11 above middle-skill occupations are located in the energy, construction, and utilities priority sector, comprising 10% of sector jobs in 2024.

Exhibit 1.2.1: Distribution of Energy, Construction, and Utilities Employment by Skill Level, Inland Empire/Desert Region, 2024



Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Exhibit 1.2.2 displays minor occupational group employment for middle-skill occupations in the CCCCO energy, construction, and utilities priority sector. This report provides an in-depth skills analysis for six minor occupational groups related to the CCCCO energy, construction, and utilities priority sector, accounting for nearly 80,700 jobs in 2024. See Appendix for a list of the six middle-skill CCCCO energy, construction, and utilities sector occupations not included in the skills analysis. Middle-skill energy, construction, and utilities occupations are projected to grow by 6% through 2029, primarily driven by job growth in the construction trades workers and other installation, maintenance, and repair occupations minor groups, which are projected to add over 91% of regional jobs through 2029. Furthermore, approximately of the nearly 8,100 middle-skill energy, construction, and utilities annual job openings are associated with the construction trades workers and other installation, maintenance, and repair occupations minor groups.

Exhibit 1.2.2: Middle-skill Energy, Construction, and Utilities Employment by Minor Group, Inland Empire/Desert Region, 2024-2029

SOC Minor Group Title	2024 Jobs	2029 Jobs	2024 - 2029 % Change	Average Annual Openings	Occupation Count
Construction Trades Workers	41,282	43,293	5%	3,878	13
Other Installation, Maintenance, and Repair Occupations	28,411	30,655	8%	3,059	9
Electrical and Electronic Equipment Mechanics, Installers, and Repairers	3,247	3,301	2%	327	5
Plant and System Operators	3,148	3,248	3%	325	8
Drafters, Engineering Technicians, and Mapping Technicians	2,396	2,518	5%	250	5
Other Construction and Related Workers	2,188	2,319	6%	248	3
Middle-skill Total	**80,672**	**85,335**	**6%**	**8,087**	**43**

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

The following section will analyze the specialized skills, foundational skills, qualifications, and programs for the above minor occupational groups.

SECTION 2: WHAT SKILLS ARE ESSENTIAL FOR MIDDLE-SKILL ENERGY, CONSTRUCTION, AND UTILITIES WORKERS?

2.1: CONSTRUCTION TRADES WORKERS

Exhibit 2.1.1 displays current and projected employment data for the construction trades workers occupational group from 2024 to 2029. The construction trades workers middle-skill occupational group contains 13 occupations that had nearly 41,300 jobs in 2024. This occupational group is projected to grow by 5%, adding over 2,000 jobs to the region through 2029. This occupational group offers strong median wages and has numerous employment opportunities, with nearly 3,900 annual job openings projected over the next five years.

Exhibit 2.1.1: Current and Projected Employment for the Construction Trades Workers Occupational Group, Inland Empire/Desert Region, 2024-2029

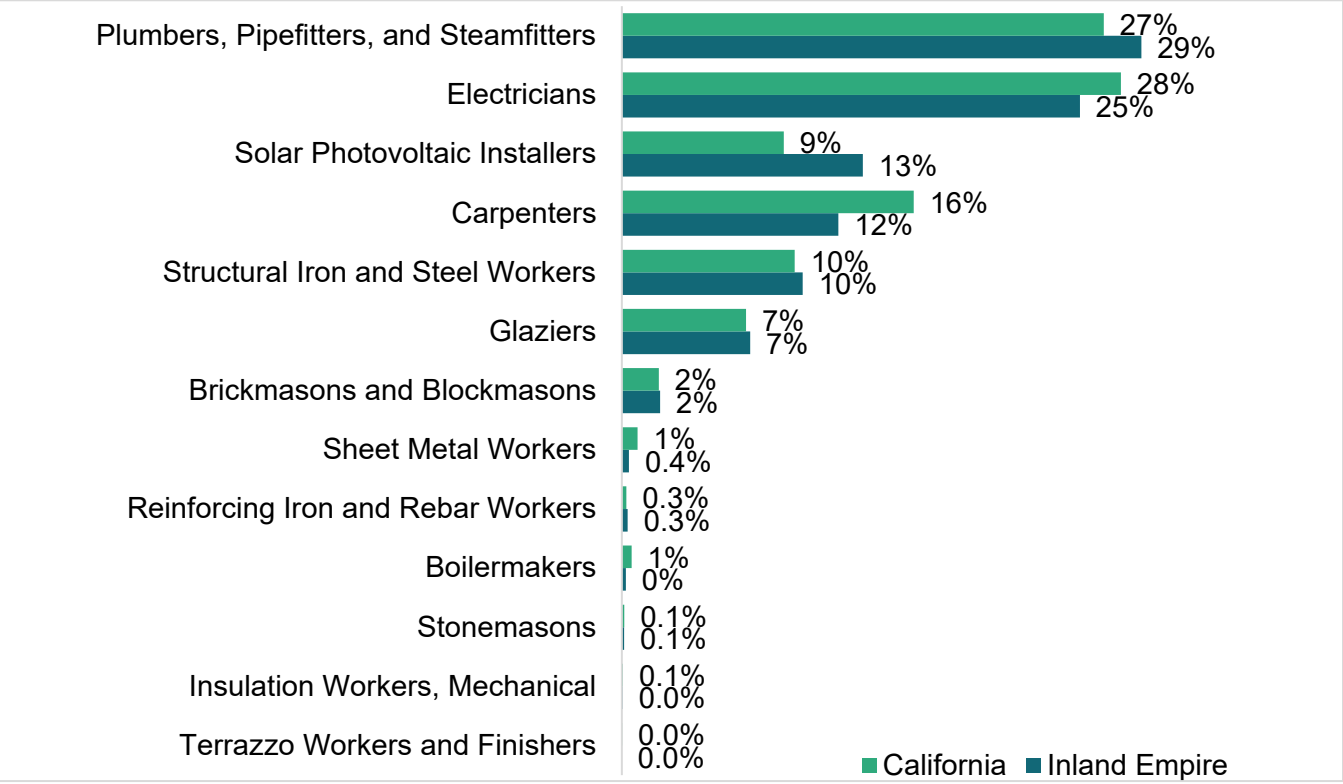
Occupation Title	2024 Jobs	2029 Jobs	2024-2029 % Change	Average Annual Openings	Median Hourly Earnings
Carpenters	20,507	20,936	2%	1,709	$29.56
Electricians	9,099	9,924	9%	991	$33.83
Plumbers, Pipefitters, and Steamfitters	5,644	6,051	7%	573	$28.66
Structural Iron and Steel Workers	1,391	1,450	4%	128	$24.02
Solar Photovoltaic Installers	1,095	1,264	16%	143	$28.16
Glaziers	956	1,002	5%	100	$29.15
Sheet Metal Workers	908	981	8%	99	$33.81
Brickmasons and Blockmasons	738	719	-3%	55	$33.69
Reinforcing Iron and Rebar Workers	594	608	2%	47	$25.19
Stonemasons	189	181	-4%	14	$29.24
Insulation Workers, Mechanical	72	86	19%	9	$28.11
Terrazzo Workers and Finishers	49	47	-3%	4	$25.50
Boilermakers	40	46	14%	5	$46.44
Total	**41,282**	**43,293**	**5%**	**3,878**	

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Over the last 24 months, October 2023 to September 2025, referred to as the “most recent period” going forward, 4,046 job ads were posted for the construction trades workers occupational group in the Inland Empire, as compared to 36,970 job ads posted for the same occupations across California. In the previous period, October 2018 to September 2023, there were 13,656 job ads posted for this occupational group in the Inland Empire and 121,255 job ads posted in California.

Exhibit 2.1.2 displays the share of construction trades workers job advertisements by occupation in the Inland Empire/Desert Region and California. Over 50% of the regional and statewide job ads were posted for plumbers, pipefitters, and steamfitters and electricians. The scale of these occupational job advertisements may influence the skills most frequently requested by employers for this occupational group. When comparing the Inland Empire/Desert Region to California, the Inland Empire had a greater share of job ads for solar photovoltaic installers than California, and California had a greater share of job ads for electricians.

Exhibit 2.1.2: Share of Advertisements by Occupation for Construction Trades Workers, Inland Empire/Desert Region and California, October 2023 – September 2025

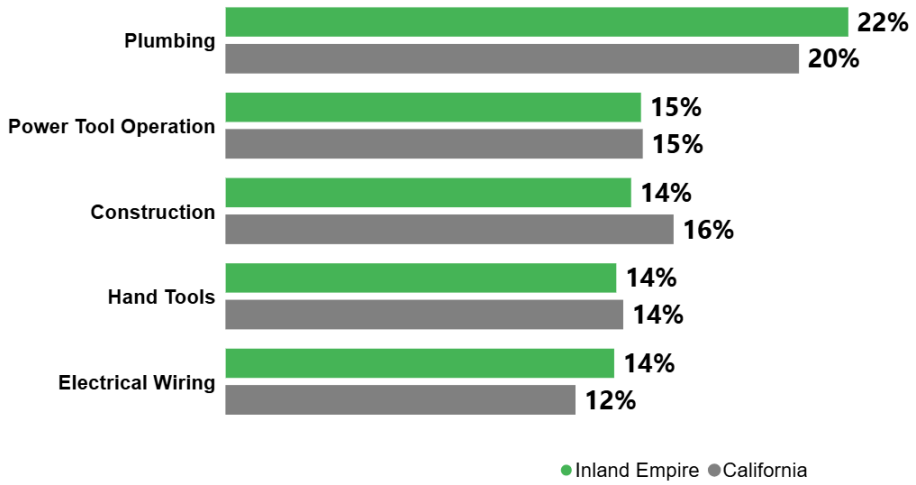


Source: Lightcast 2025.4 – Job Posting Analytics

Specialized Skills

Exhibit 2.1.3 displays the top specialized skills included in employer job advertisements for construction trades workers in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the specialized skills employers find critical to employment.

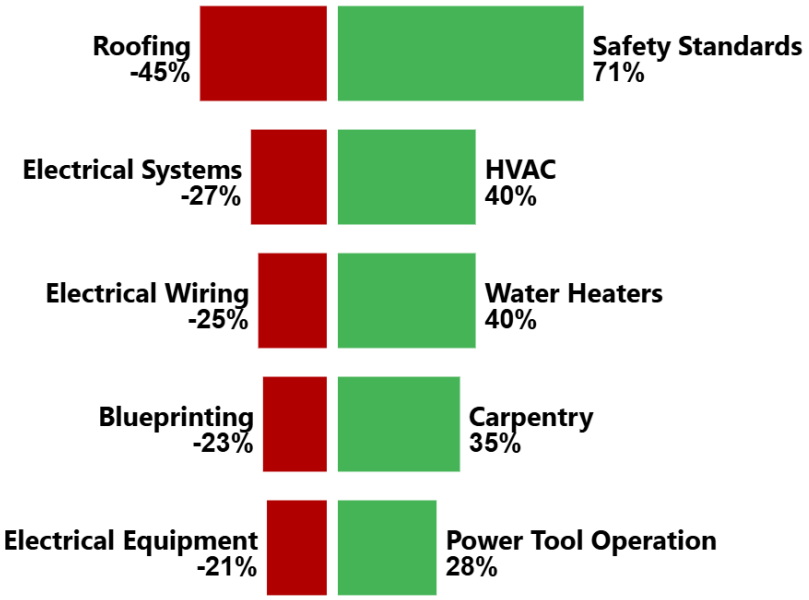
Exhibit 2.1.3: Top Specialized Skills from Employer Job Ads for Construction Trades Workers, Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.1.4 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the construction trades workers occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with safety standards skills has increased by 70% in prevalence since the previous period (2018-2023). Employers' desire for candidates with roofing skills has decreased by 45% between the two periods in the Inland Empire.

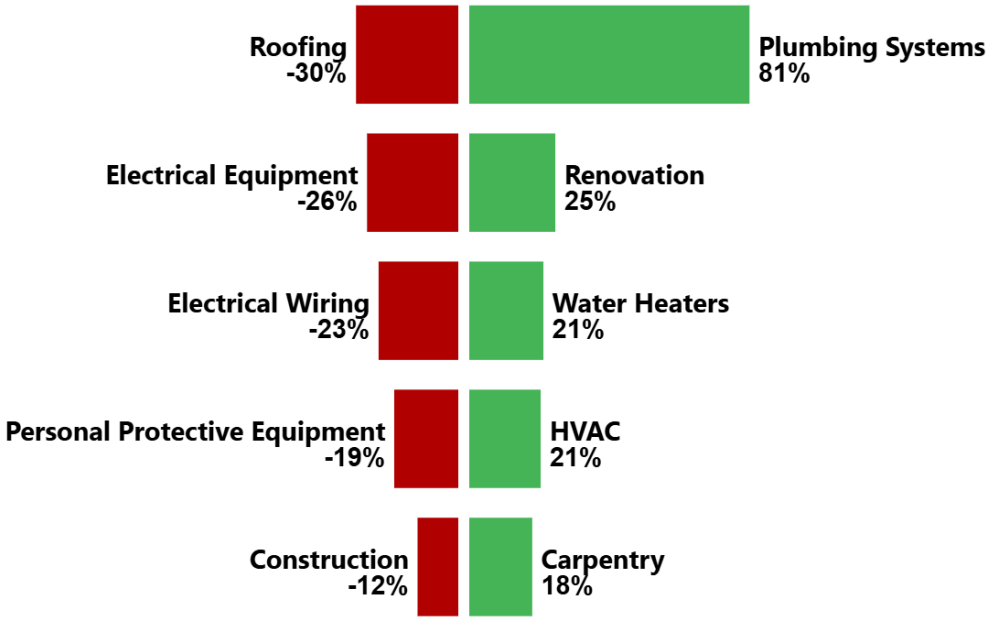
Exhibit 2.1.4: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Construction Trades Workers in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.1.5 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the construction trades workers occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with plumbing systems has increased by over 80% in prevalence since the previous period (2018-2023). Employers' desire for candidates with roofing skills has decreased by 3% between the two periods in California.

Exhibit 2.1.5: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Construction Trades Workers in California

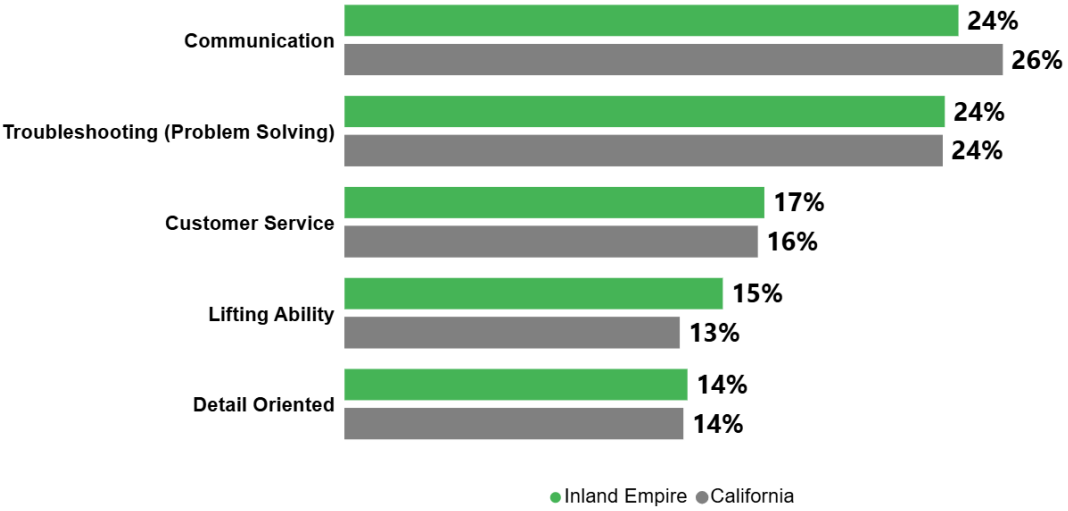


Source: Lightcast 2025.4 – Job Posting Analytics

Foundational Skills

Exhibit 2.1.6 displays the top foundational skills included in employer job advertisements for construction trades workers in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the foundational skills employers find critical to employment. Communication was the top foundational skill for this occupational group across both regions.

Exhibit 2.1.6: Top Foundational Skills from Employer Job Ads for Construction Trades Workers, Inland Empire/Desert Region and California, October 2023 – September 2025

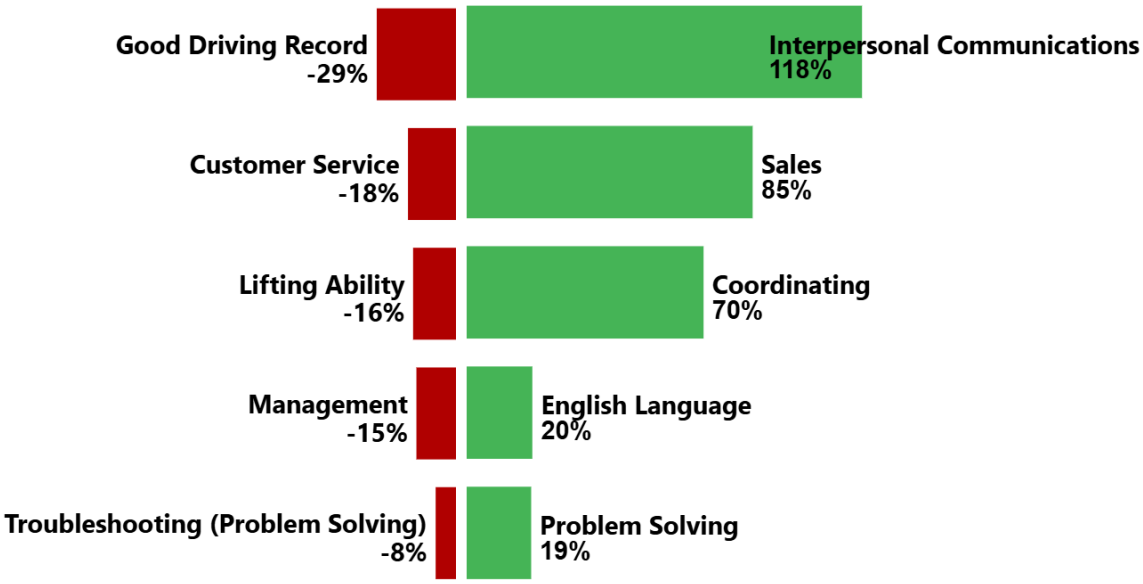


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.1.7 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the construction trades workers occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with interpersonal communication skills has increased by 118% since the previous period

(2018-2023). Employers' desire for candidates with a good driving record has decreased by 29% between the two periods in the Inland Empire.

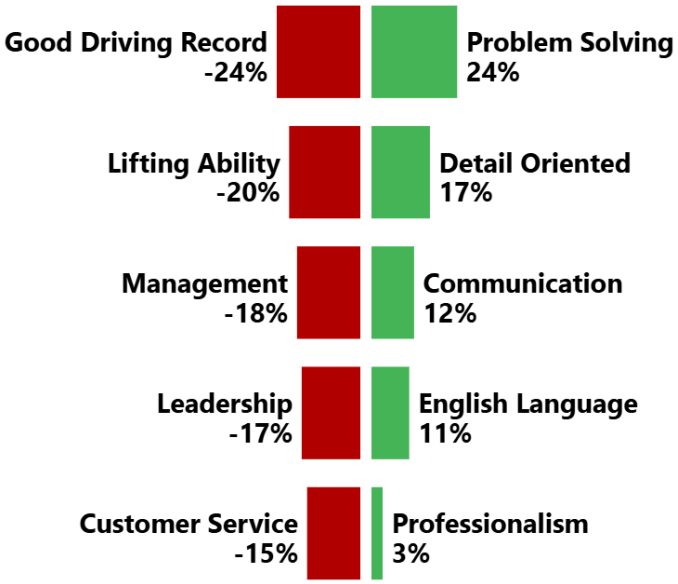
Exhibit 2.1.7: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Foundational Skills for Construction Trades Workers in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.1.8 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the construction trades workers occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with problem-solving skills has grown by 24% since the previous period (2018-2023). Employers' desire for candidates with a good driving record has decreased by 24% between the two periods in California.

Exhibit 2.1.8: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Construction Trades Workers in California



Source: Lightcast 2025.4 – Job Posting Analytics

Qualifications and Programs

Exhibit 2.1.9 displays the qualifications most frequently included in employer job advertisements for the construction trades worker occupational group. A valid driver's license was the most frequently requested qualification in employer job advertisements, appearing in approximately 37% of regional job ads.

Exhibit 2.1.9: Top Qualifications Skills from Employer Job Ads for Construction Trades Workers, Inland Empire/Desert Region and California, October 2023 – September 2025

Inland Empire/Desert Region		California	
Qualification	Share	Qualification	Share
Valid Driver's License	37%	Valid Driver's License	35%
CDL Class C License	7%	CDL Class C License	6%
30-Hour OSHA General Industry Card	3%	Certified Welding Inspector	5%
Residential Building Inspector	3%	30-Hour OSHA General Industry Card	3%
Professional Engineer (PE) License	2%	ACI Concrete Field Testing Technician	2%

Source: Lightcast 2025.4 – Job Posting Analytics

The following community college programs prepare students for employment in the construction trades workers occupational group.

- Electronics and Electric Technology (0934.00)
- Environmental Control Technology (HVAC) (0946.00)
- Energy Systems Technology (0946.10)
- Construction Crafts Technology (0952.00)
- Carpentry (0952.10)
- Electrical (0952.20)
- Plumbing, Pipefitting and Steamfitting (0952.30)
- Glazing (0952.40)
- Masonry, Tile, Cement, Lath and Plaster (0952.60)
- Roofing (0952.90)
- Manufacturing and Industrial Technology (0956.00)
- Sheet Metal and Structural Metal (0956.40)

2.2: Other Installation, Maintenance, and Repair Occupations

Exhibit 2.2.1 displays current and projected employment data for the other installation, maintenance, and repair occupations occupational group from 2024 to 2029. The other installation, maintenance, and repair occupations middle-skill occupational group contains nine occupations that had over 28,400 jobs in 2024. This occupational group is projected to grow by 8%, adding over 2,200 jobs to the region through 2029. Most occupations in this group offer high median wages and are projected to have nearly 3,100 annual job openings over the next five years.

Exhibit 2.2.1: Current and Projected Employment the Other Installation, Maintenance, and Repair Occupations Occupational Group, Inland Empire/Desert Region, 2024-2029

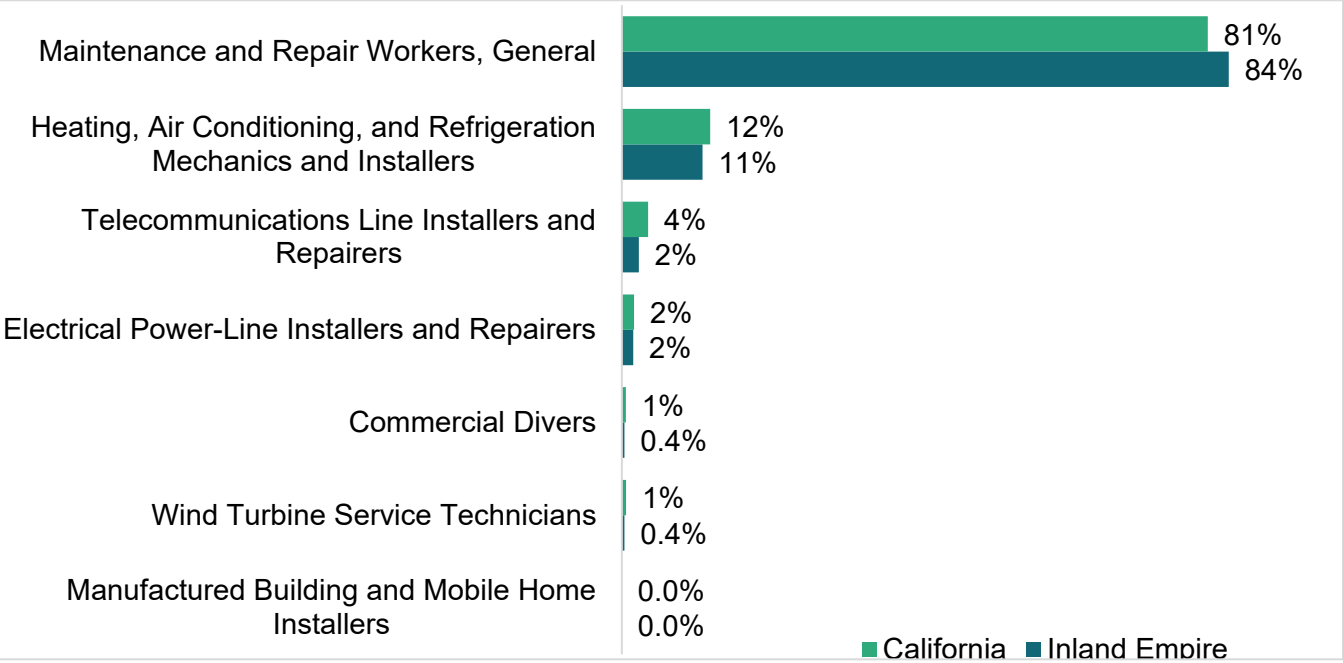
Occupation Title	2024 Jobs	2029 Jobs	2024-2029 % Change	Average Annual Openings	Median Hourly Earnings
Maintenance and Repair Workers, General	15,458	16,842	9%	1,731	$26.37
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	6,209	6,718	8%	638	$29.87
Installation, Maintenance, and Repair Workers, All Other	3,587	3,722	4%	378	$23.13
Electrical Power-Line Installers and Repairers	1,906	2,054	8%	180	$52.91
Telecommunications Line Installers and Repairers	1,098	1,124	2%	106	$40.00
Wind Turbine Service Technicians	97	141	46%	20	$31.09
Commercial Divers	28	30	6%	3	$27.59
Manufactured Building and Mobile Home Installers	25	23	-8%	2	$21.13
Refractory Materials Repairers, Except Brickmasons	3	3	-2%	0	$26.77
Total	**28,411**	**30,655**	**8%**	**3,059**	

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Over the last 24 months, October 2023 to September 2025, referred to as the “most recent period” going forward, 9,930 job ads were posted for the other installation, maintenance, and repair occupations occupational group in the Inland Empire, as compared to 88,502 job ads posted for the same occupations across California. In the previous period, October 2018 to September 2023, there were 27,723 job ads posted for this occupational group in the Inland Empire and 261,395 job ads posted in California.

Exhibit 2.2.2 displays the share of other installation, maintenance, and repair occupations job advertisements by occupation in the Inland Empire/Desert Region and California. Over 80% of the regional and statewide job ads were posted for maintenance and repair workers, general. The scale of these occupational job advertisements may influence the skills most frequently requested by employers for this occupational group.

Exhibit 2.2.2: Share of Advertisements by Occupation for Other Installation, Maintenance, and Repair Occupations, Inland Empire/Desert Region and California, October 2023 – September 2025

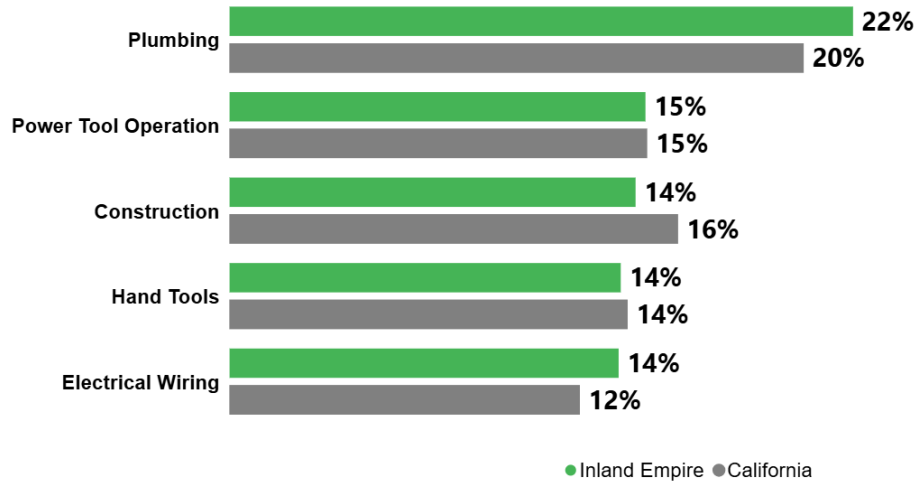


Source: Lightcast 2025.4 – Job Posting Analytics

Specialized Skills

Exhibit 2.2.3 displays the top specialized skills included in employer job advertisements for other installation, maintenance, and repair occupations in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the specialized skills employers find critical to employment.

Exhibit 2.2.3: Top Specialized Skills from Employer Job Ads for Other Installation, Maintenance, and Repair Occupations, Inland Empire/Desert Region and California, October 2023 – September 2025

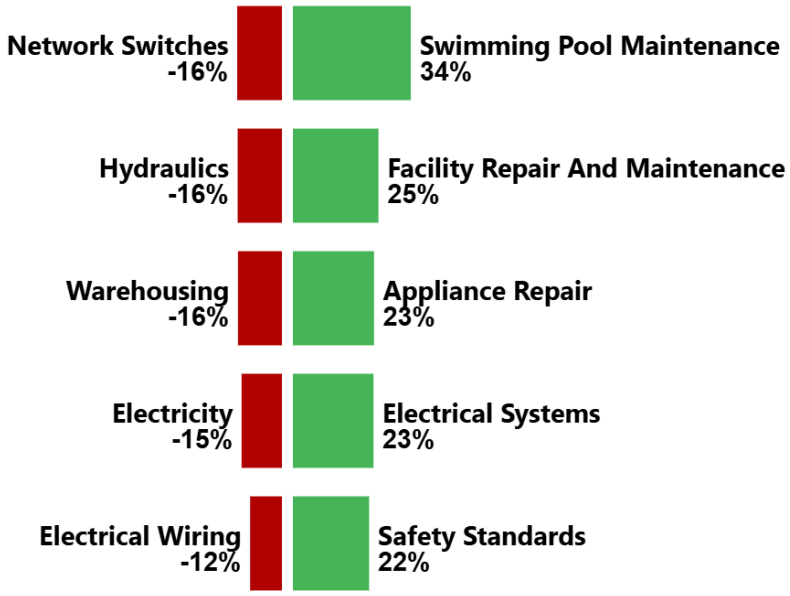


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.2.4 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the other installation, maintenance, and repair occupations occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with swimming pool maintenance skills has increased by 34%

since the previous period (2018-2023). Employers' desire for candidates with network switches, hydraulics, and warehousing skills has decreased by 16% between the two periods in the Inland Empire.

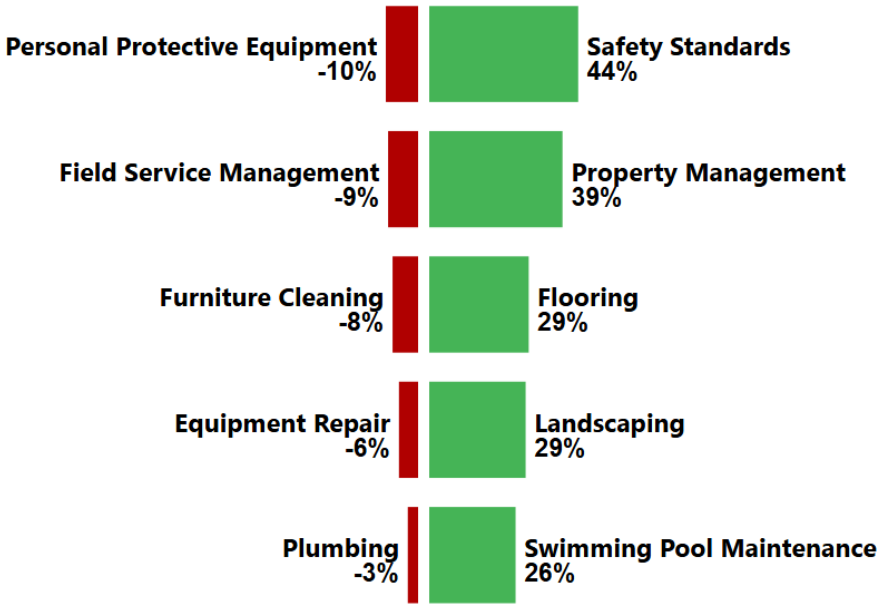
Exhibit 2.2.4: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Other Installation, Maintenance, and Repair Occupations in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.2.5 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the other installation, maintenance, and repair occupations occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with plumbing systems has increased by over 80% since the previous period (2018-2023). Employers' desire for candidates with roofing skills has decreased by 30% between the two periods in California.

Exhibit 2.2.5: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Other Installation, Maintenance, and Repair Occupations in California

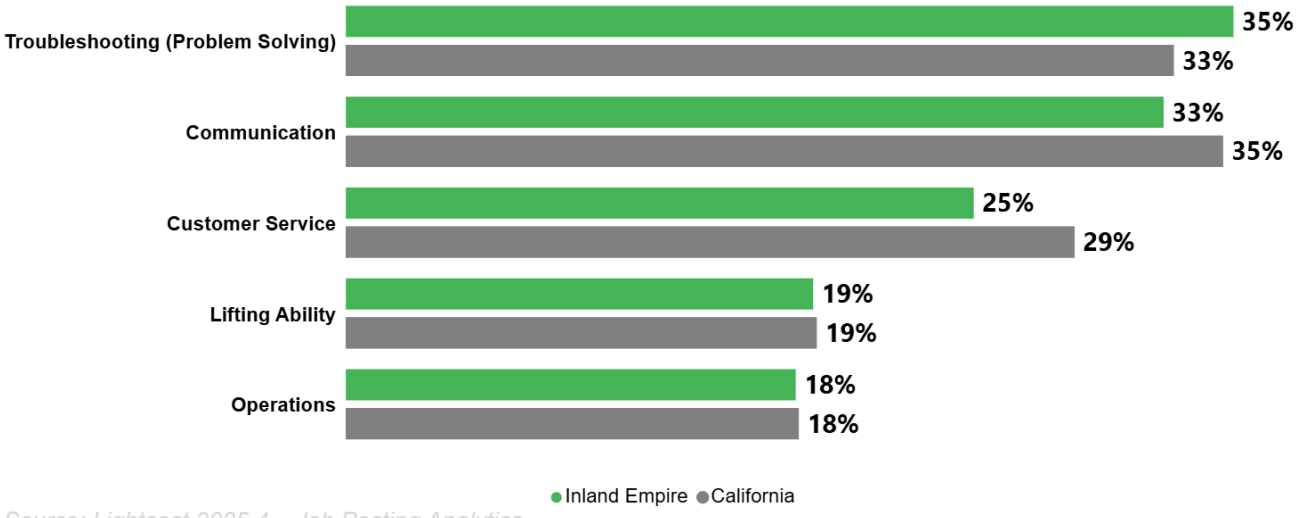


Source: Lightcast 2025.4 – Job Posting Analytics

Foundational Skills

Exhibit 2.2.6 displays the top foundational skills included in employer job advertisements for other installation, maintenance, and repair occupations in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the foundational skills employers find critical to employment. Troubleshooting (problem-solving) was the top foundational skill for this occupational group in the Inland Empire/Desert Region, followed by communication.

Exhibit 2.2.6: Top Foundational Skills from Employer Job Ads for Other Installation, Maintenance, and Repair Occupations, Inland Empire/Desert Region and California, October 2023 – September 2025

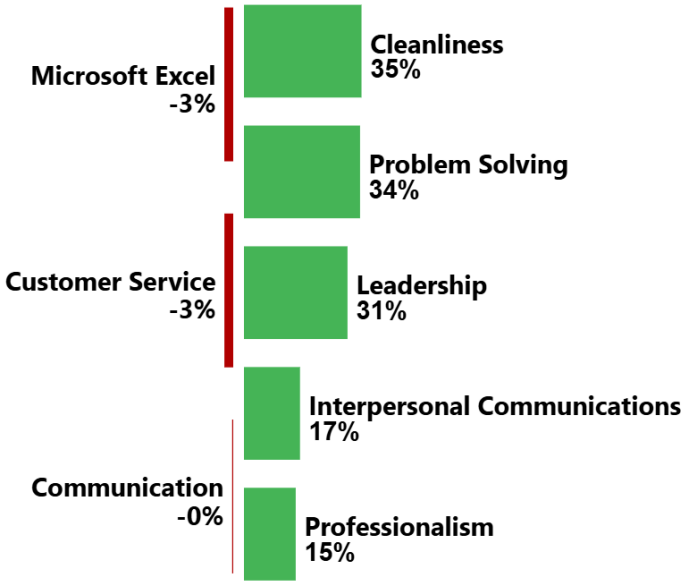


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.2.7 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the other installation, maintenance, and repair occupations occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with cleanliness, problem-solving, and leadership skills has

increased by more than 30% since the previous period (2018-2023). Employers' desire for candidates with customer service and Microsoft Excel skills has decreased by 3% between the two periods in the Inland Empire.

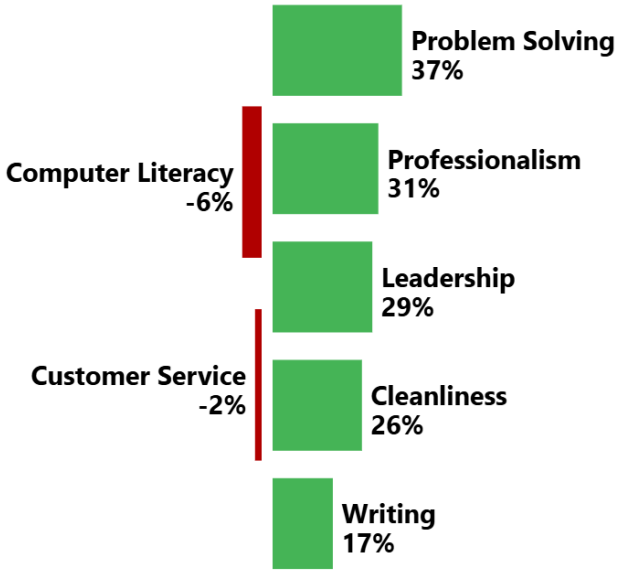
Exhibit 2.2.7: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Other Installation, Maintenance, and Repair Occupations in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.2.8 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the other installation, maintenance, and repair occupations occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with problem-solving and professionalism skills has grown by over 30% since the previous period (2018-2023). Employers' desire for candidates with computer literacy skills has decreased by 6% between the two periods in California.

Exhibit 2.2.8: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Other Installation, Maintenance, and Repair Occupations in California



Source: Lightcast 2025.4 – Job Posting Analytics

Qualifications and Programs

Exhibit 2.2.9 displays the qualifications most frequently included in employer job advertisements for other installation, maintenance, and repair occupations. A valid driver's license was the most frequently requested qualification in employer job advertisements, appearing in over one-third of job ads. While the overall share of other certifications remains low, the EPA 608 certification was included in more than 250 regional job advertisements in the recent period, demonstrating demand for this certification.

Exhibit 2.2.9: Top Qualifications Skills from Employer Job Ads for Other Installation, Maintenance, and Repair Occupations, Inland Empire/Desert Region and California, October 2023 – September 2025

Inland Empire/Desert Region		California	
Qualification	Share	Qualification	Share
Valid Driver's License	35%	Valid Driver's License	37%
EPA 608 Technician Certification	3%	EPA 608 Technician Certification	4%
HVAC Certification	2%	HVAC Certification	2%
EPA Universal Certification	1%	EPA Universal Certification	2%
Forklift Certification	1%	Certified Apartment Service Technician	1%

Source: Lightcast 2025.4 – Job Posting Analytics

The following community college programs prepare students for employment in the other installation, maintenance, and repair occupations occupational group.

- Electronics and Electric Technology (0934.00)
- Telecommunications Technology (0934.30)
- Electrical Systems and Power Transmission (0934.40)
- Industrial Systems Technology and Maintenance (0945.00)
- Environmental Control Technology (HVAC) (0946.00)
- Energy Systems Technology (0946.10)
- Electrical (0952.20)
- Civil and Construction Management Technology (0957.00)
- Diving and Underwater Safety (0959.10)

2.3: Electrical and Electronic Equipment Mechanics, Installers, and Repairers

Exhibit 2.3.1 displays current and projected employment data for the electrical and electronic equipment mechanics, installers, and repairers occupational group from 2024 to 2029. The electrical and electronic equipment mechanics, installers, and repairers middle-skill occupational group contains five occupations that had over 3,200 jobs in 2024. This occupational group is projected to grow by 2%, adding more than 50 jobs to the region through 2029. However, this occupational group is projected to have over 300 annual job openings over the next five years.

Exhibit 2.3.1: Current and Projected Employment for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group, Inland Empire/Desert Region, 2024-2029

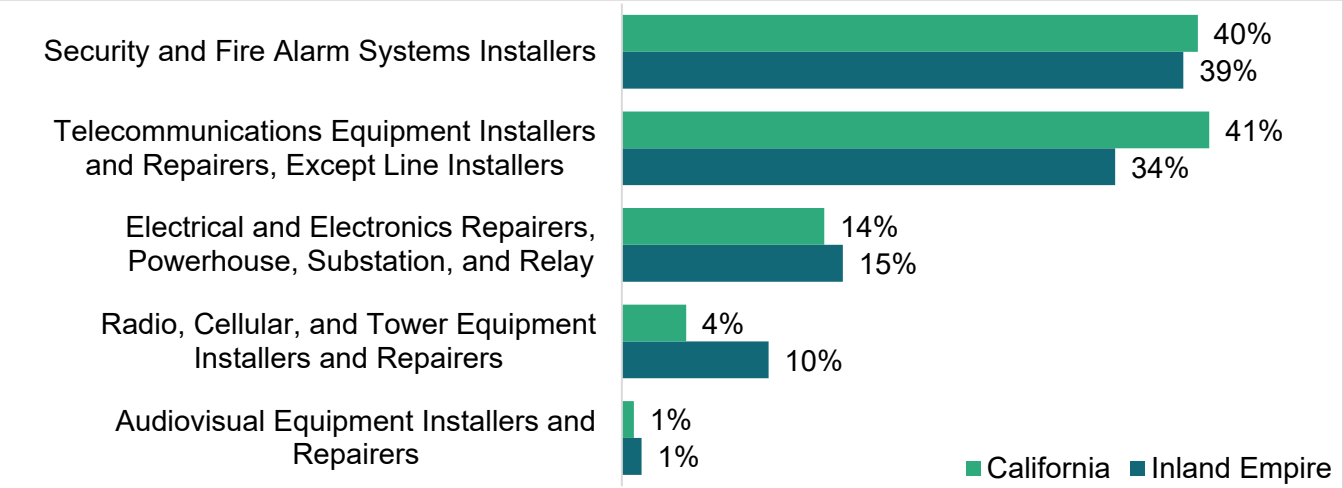
Occupation Title	2024 Jobs	2029 Jobs	2024-2029 % Change	Average Annual Openings	Median Hourly Earnings
Telecommunications Equipment Installers and Repairers, Except Line Installers	1,594	1,570	-2%	150	$34.13
Security and Fire Alarm Systems Installers	794	856	8%	93	$29.85
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	314	312	-1%	27	$60.51
Audiovisual Equipment Installers and Repairers	304	309	2%	31	$27.03
Radio, Cellular, and Tower Equipment Installers and Repairers	241	254	5%	26	$23.19
Total	**3,247**	**3,301**	**2%**	**327**	

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Over the last 24 months, October 2023 to September 2025, referred to as the "most recent period" going forward, 953 job ads were posted for the electrical and electronic equipment mechanics, installers, and repairers occupational group in the Inland Empire, as compared to 10,366 job ads posted for the same occupations across California. In the previous period, October 2018 to September 2023, there were 4,374 job ads posted for this occupational group in the Inland Empire and 43,694 job ads posted in California.

Exhibit 2.3.2 displays the share of electrical and electronic equipment mechanics, installers, and repairers' job advertisements by occupation in the Inland Empire/Desert Region and California. Approximately 73% of job advertisements posted for the electrical and electronic equipment mechanics, installers, and repairers occupational group were posted for security and fire alarm installers and telecommunications equipment installers and repairers, except line installers. The scale of these occupational job advertisements may influence the skills most frequently requested by employers for this occupational group.

Exhibit 2.3.2: Share of Advertisements by Occupation for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025

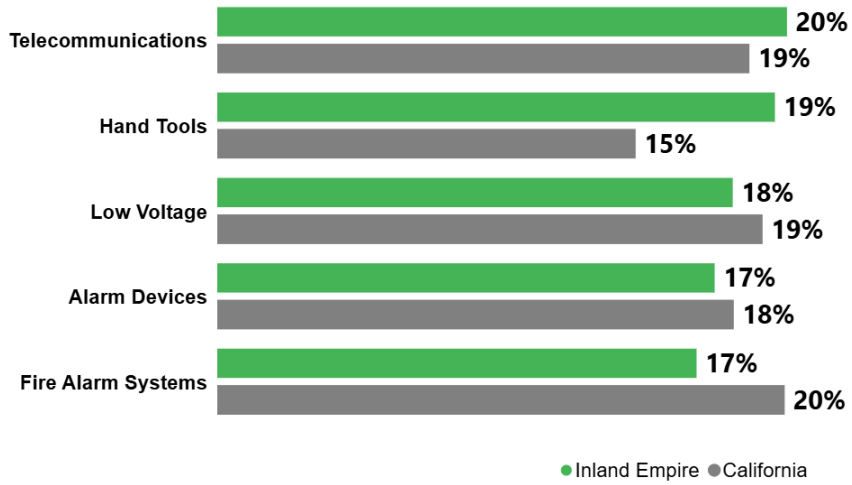


Source: Lightcast 2025.4 – Job Posting Analytics

Specialized Skills

Exhibit 2.3.3 displays the top specialized skills included in employer job advertisements for the electrical and electronic equipment mechanics, installers, and repairers occupational group in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the specialized skills employers find critical to employment.

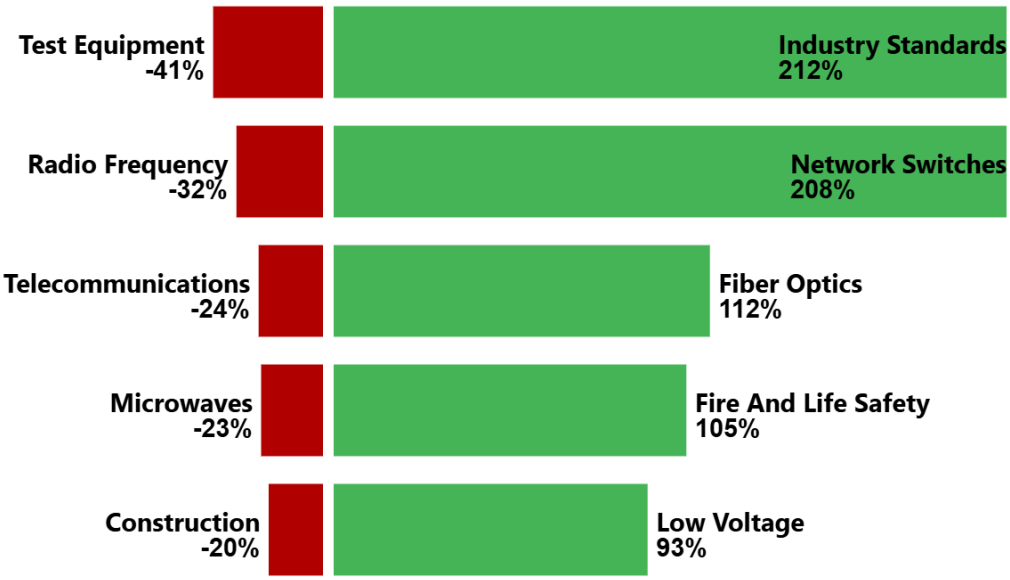
Exhibit 2.3.3: Top Specialized Skills from Employer Job Ads for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.3.4 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the electrical and electronic equipment mechanics, installers, and repairers occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with industry standards and network switches skills has increased in prevalence by over 200% since the previous period (2018-2023). Employers' desire for candidates with test equipment skills has decreased by 41% between the two periods in the Inland Empire.

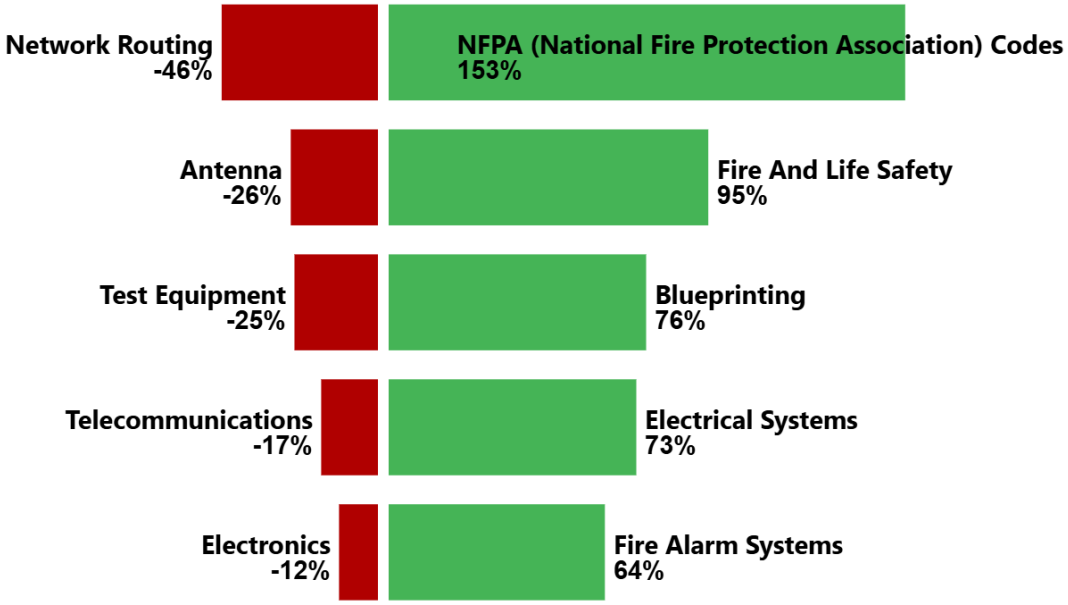
Exhibit 2.3.4: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.3.5 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the electrical and electronic equipment mechanics, installers, and repairers occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with National Fire Protection Association (NFPA) Codes skills has increased by over 150% since the previous period (2018-2023). Employers' desire for candidates with network routing skills has decreased by 46% between the two periods in California.

Exhibit 2.3.5: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group in California

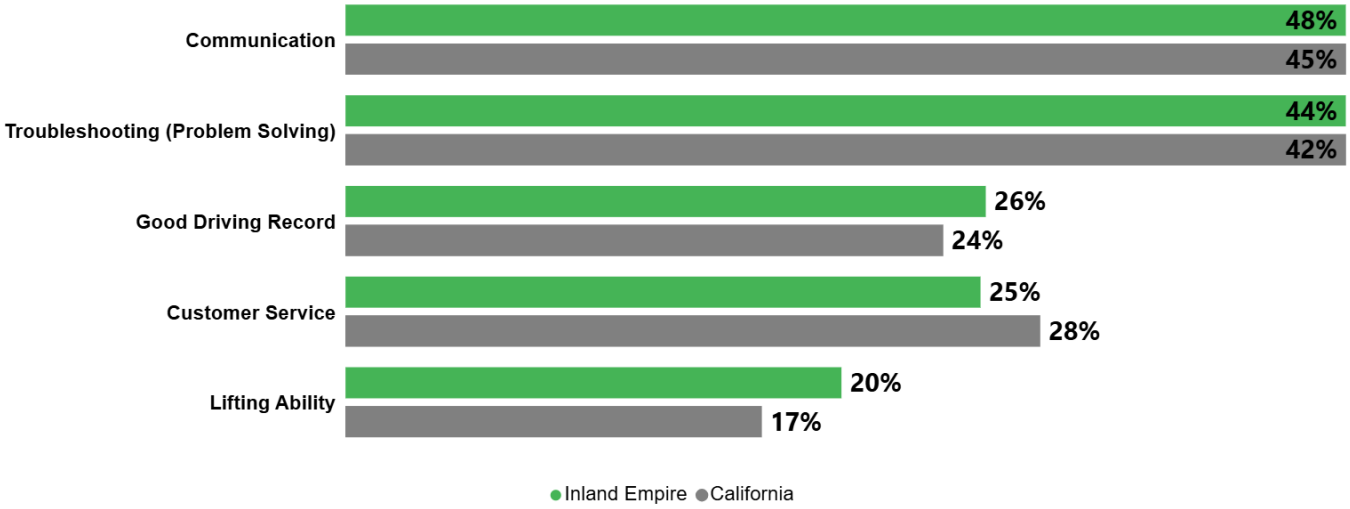


Source: Lightcast 2025.4 – Job Posting Analytics

Foundational Skills

Exhibit 2.3.6 displays the top foundational skills included in employer job advertisements for the electrical and electronic equipment mechanics, installers, and repairers occupational group in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the foundational skills employers find critical to employment. Communication and troubleshooting (problem-solving) skills were the top foundational skills for this occupational group across both regions.

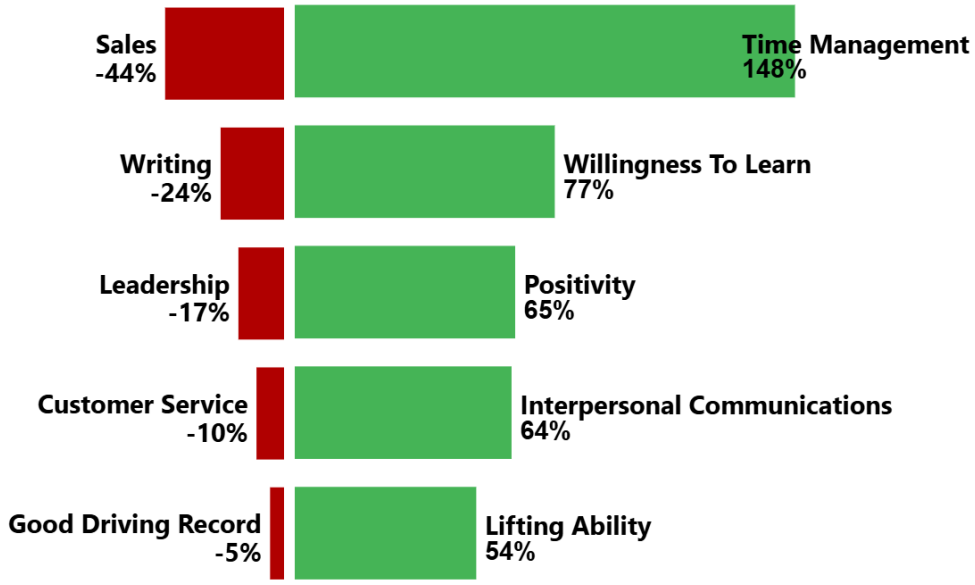
Exhibit 2.3.6: Top Foundational Skills from Employer Job Ads for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.3.7 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the electrical and electronic equipment mechanics, installers, and repairers occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with time management skills has increased by nearly 150% since the previous period (2018-2023). Employers' desire for candidates with sales skills has decreased by 44% between the two periods in the Inland Empire.

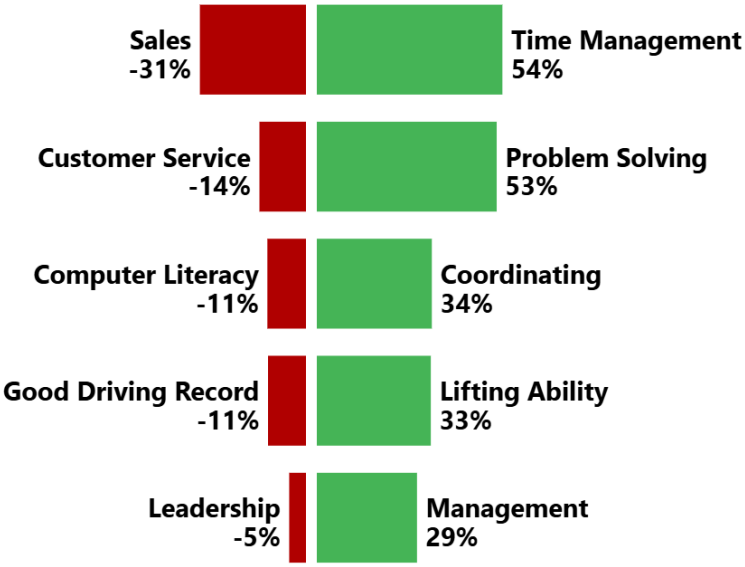
Exhibit 2.3.7: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.3.8 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the electrical and electronic equipment mechanics, installers, and repairers occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with time management and problem-solving skills has grown by over 50% since the previous period (2018-2023). Employers' desire for candidates with sales skills has decreased by 31% between the two periods in California.

Exhibit 2.3.8: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group in California



Source: Lightcast 2025.4 – Job Posting Analytics

Qualifications and Programs

Exhibit 2.3.9 displays the qualifications most frequently included in employer job advertisements the for electrical and electronic equipment mechanics, installers, and repairers occupational group. A valid driver's license was the most frequently requested qualification in employer job advertisements, appearing in approximately 55% of regional job ads.

Exhibit 2.3.9: Top Qualifications Skills from Employer Job Ads for the Electrical and Electronic Equipment Mechanics, Installers, and Repairers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025

Inland Empire/Desert Region		California	
Qualification	Share	Qualification	Share
Valid Driver's License	55%	Valid Driver's License	48%
NICET Certification (National Institute for Certification in Engineering Technologies)	6%	NICET Certification (National Institute for Certification in Engineering Technologies)	6%
10-Hour OSHA General Industry Card	5%	CDL Class C License	2%
CDL Class C License	5%	10-Hour OSHA General Industry Card	2%
Cardiopulmonary Resuscitation (CPR) Certification	4%	Security Clearance	2%

Source: Lightcast 2025.4 – Job Posting Analytics

The following community college programs prepare students for employment in the electrical and electronic equipment mechanics, installers, and repairers occupational group.

- Electronics and Electric Technology (0934.00)
- Telecommunications Technology (0934.30)
- Electrical Systems and Power Transmission (0934.40)
- Electrical (0952.20)

2.4: Plant and System Operators

Exhibit 2.4.1 displays current and projected employment data for the plant and system operators occupational group from 2024 to 2029. The plant and system operators middle-skill occupational group contains eight occupations that had more than 3,100 jobs in 2024. This occupational group is projected to grow by 3%, adding over 100 jobs to the region through 2029. This occupational group offers high median wages and is projected to have over 300 annual job openings over the next five years.

Exhibit 2.4.1: Current and Projected Employment for the Plant and System Operators Occupational Group, Inland Empire/Desert Region, 2024-2029

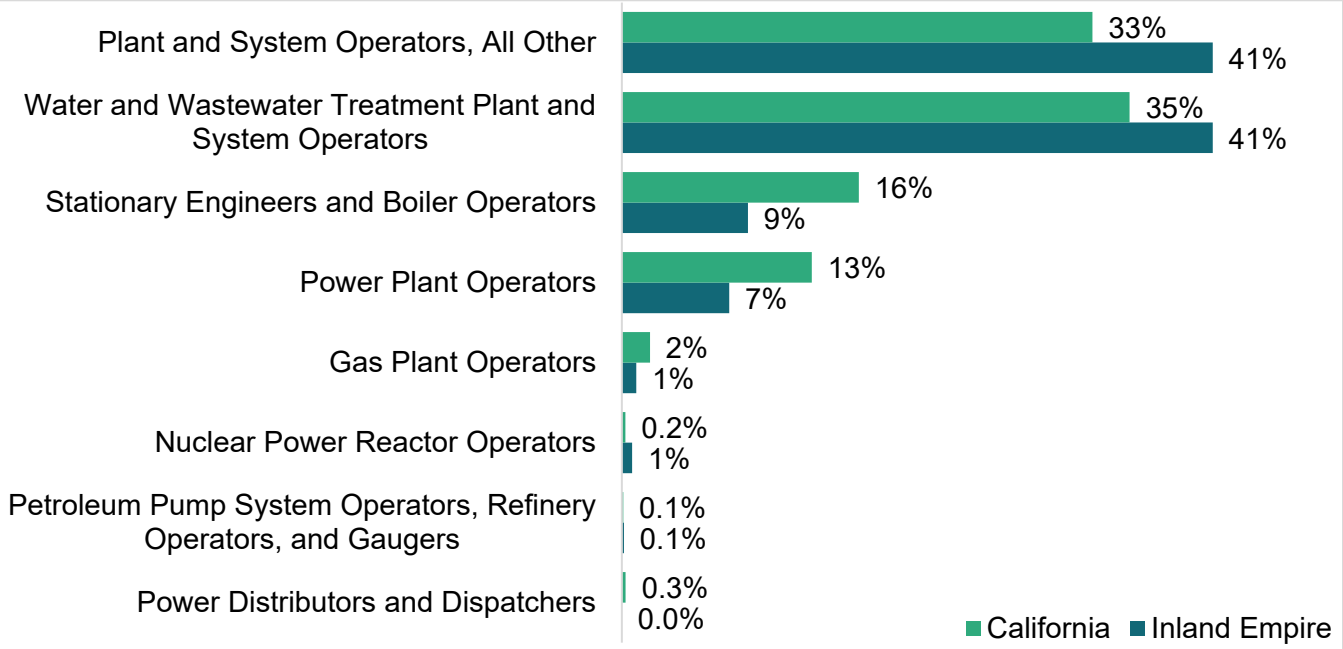
Occupation Title	2024 Jobs	2029 Jobs	2024-2029 % Change	Average Annual Openings	Median Hourly Earnings
Water and Wastewater Treatment Plant and System Operators	1,632	1,720	5%	171	$39.61
Stationary Engineers and Boiler Operators	545	563	3%	60	$29.26
Power Plant Operators	312	285	-9%	28	$44.77
Plant and System Operators, All Other	297	304	2%	29	$37.55
Petroleum Pump System Operators, Refinery Operators, and Gaugers	149	159	7%	16	$29.26
Power Distributors and Dispatchers	131	135	3%	13	$57.00
Gas Plant Operators	72	73	2%	7	$60.25
Nuclear Power Reactor Operators	8	9	6%	1	$52.31
Total	**3,148**	**3,248**	**3%**	**325**	

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Over the last 24 months, October 2023 to September 2025, referred to as the “most recent period” going forward, 698 job ads were posted for the plant and system operators occupational group in the Inland Empire, as compared to 7,226 job ads posted for the same occupations across California. In the previous period, October 2018 to September 2023, there were 1,627 job ads posted for this occupational group in the Inland Empire and 18,995 job ads posted in California.

Exhibit 2.4.2 displays the share of plant and system operators job advertisements by occupation in the Inland Empire/Desert Region and California. Approximately 82% of the regional job ads were posted for plant and system operators (all other) and water and wastewater treatment plant and system operators. The scale of these occupational job advertisements may influence the skills most frequently requested by employers for this occupational group.

Exhibit 2.4.2: Share of Advertisements by Occupation for Plant and System Operators, Inland Empire/Desert Region and California, October 2023 – September 2025

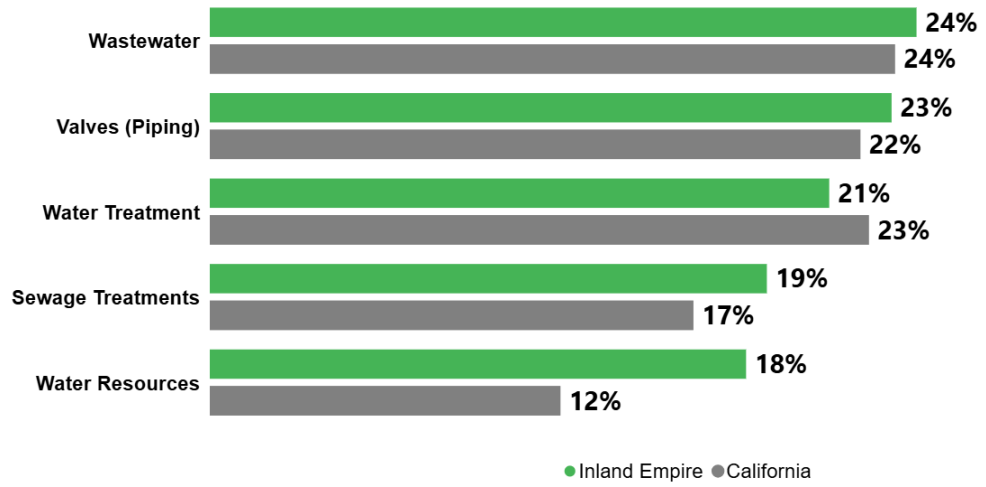


Source: Lightcast 2025.4 – Job Posting Analytics

Specialized Skills

Exhibit 2.4.3 displays the top specialized skills included in employer job advertisements for the plant and system operators occupational group in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the specialized skills employers find critical to employment.

Exhibit 2.4.3: Top Specialized Skills from Employer Job Ads Plant and System Operators, Inland Empire/Desert Region and California, October 2023 – September 2025

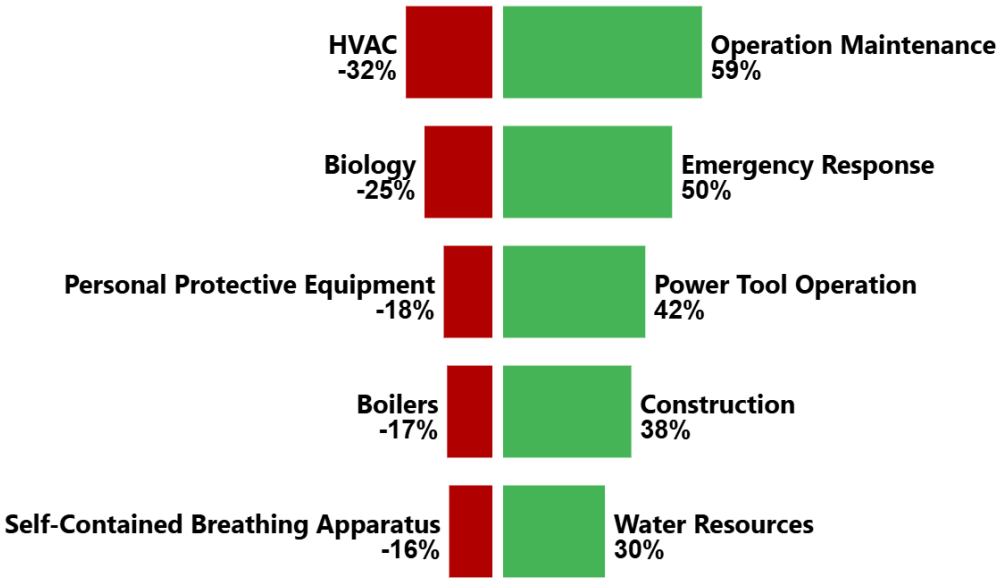


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.4.4 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the plant and system operators occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with operation maintenance skills has increased in prevalence by 59% since the previous

period (2018-2023). Employers' desire for candidates with HVAC skills has decreased by 32% between the two periods in the Inland Empire.

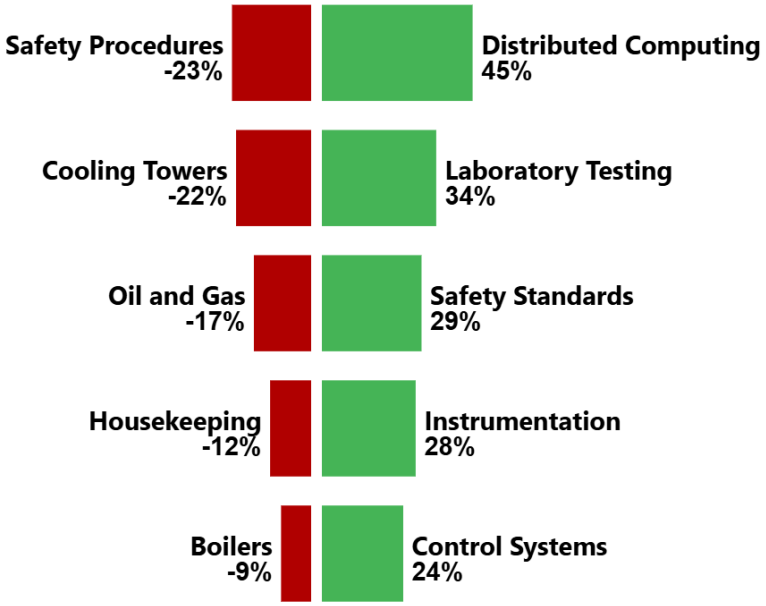
Exhibit 2.4.4: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Plant and System Operators in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.4.5 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the plant and system operators occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with distributed computing skills has increased by 45% since the previous period (2018-2023). Employers' desire for candidates with safety procedures and cooling towers skills has decreased by more than 20% between the two periods in California.

Exhibit 2.4.5: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Plant and System Operators in California

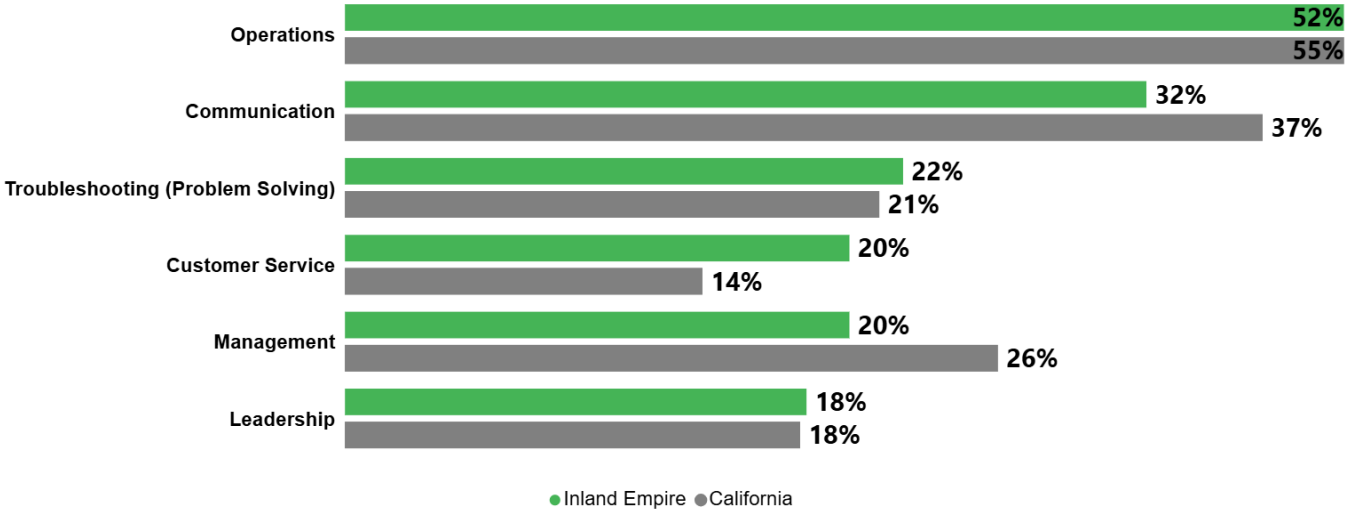


Source: Lightcast 2025.4 – Job Posting Analytics

Foundational Skills

Exhibit 2.4.6 displays the top foundational skills included in employer job advertisements for plant and system operators in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the foundational skills employers find critical to employment. Communication was the top foundational skill for this occupational group across both regions.

Exhibit 2.4.6: Top Foundational Skills from Employer Job Ads for Plant and System Operators, Inland Empire/Desert Region and California, October 2023 – September 2025

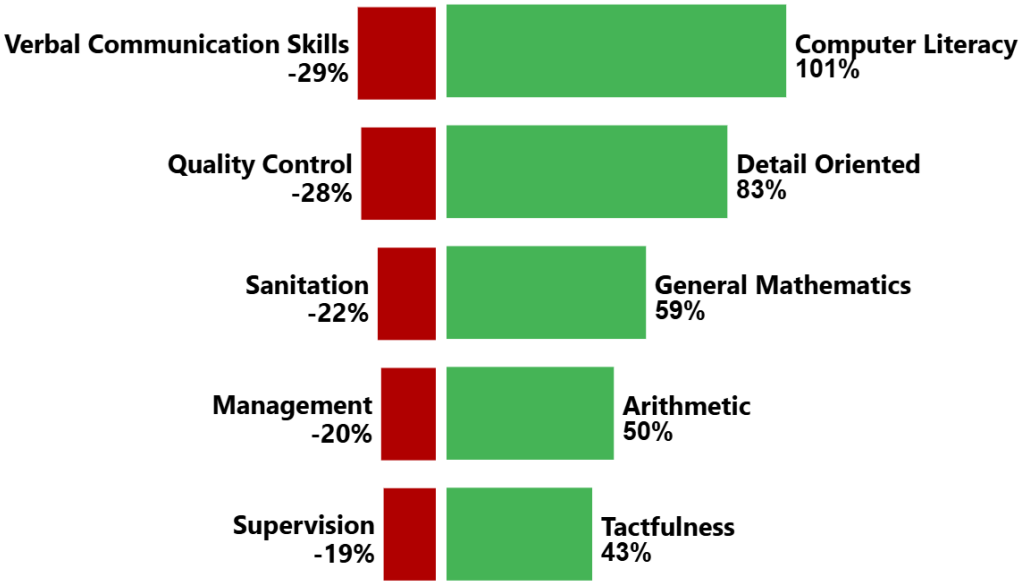


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.4.7 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the plant and system operators occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with computer literacy skills has more than doubled in prevalence since the previous period

(2018-2023). Employers' desire for candidates with verbal communication skills and quality control skills has decreased by more than 25% between the two periods in the Inland Empire.

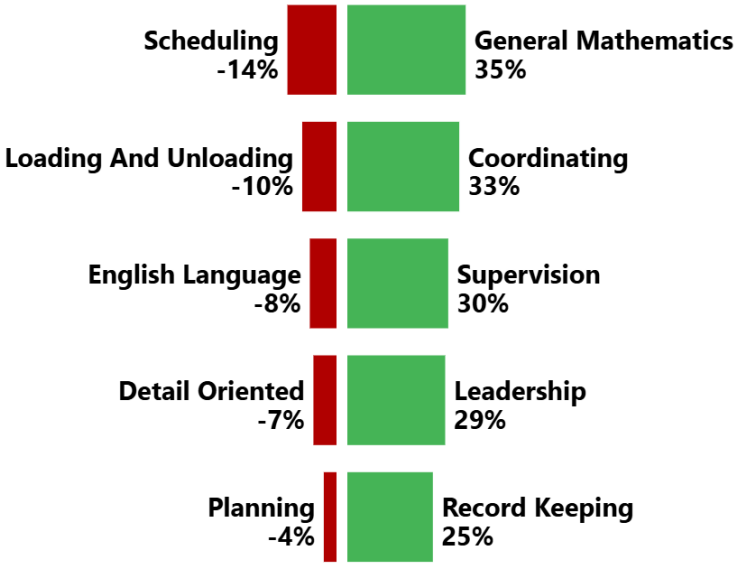
Exhibit 2.4.7: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Plant and System Operators in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.4.8 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the plant and system operators occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with general mathematics skills has increased in prevalence by 35% since the previous period (2018-2023). Employers' desire for candidates with quality control skills has decreased by 9% between the two periods in California.

Exhibit 2.4.8: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Plant and System Operators in California



Source: Lightcast 2025.4 – Job Posting Analytics

Qualifications and Programs

Exhibit 2.4.9 displays the qualifications most frequently included in employer job advertisements for plant and system operators. A valid driver's license was the most frequently requested qualification in employer job advertisements, appearing in 36% of job ads.

Exhibit 2.4.9: Top Qualifications Skills from Employer Job Ads Plant and System Operators, Inland Empire/Desert Region and California, October 2023 – September 2025

Inland Empire/Desert Region		California	
Qualification	Share	Qualification	Share
Valid Driver's License	36%	Valid Driver's License	36%
CDL Class C License	7%	CDL Class C License	8%
CDL Class B License	5%	Wastewater Operator Certification	4%
Tanker Endorsement	5%	Operator Certification	3%
Forklift Certification	3%	CDL Class A License	2%

Source: Lightcast 2025.4 – Job Posting Analytics

The following community college programs prepare students for employment in the plant and system operators occupational group.

- Electronics and Electric Technology (0934.00)
- Energy Systems Technology (0946.10)
- Petroleum Technology (0954.30)
- Water and Wastewater Technology (0958.00)

2.5: Drafters, Engineering Technicians, and Mapping Technicians

Exhibit 2.5.1 displays current and projected employment data for the drafters, engineering technicians, and mapping technicians occupational group from 2024 to 2029. The drafters, engineering technicians, and mapping technicians middle-skill occupational group contains five occupations that had nearly 2,400 jobs in 2024. This occupational group is projected to grow by 5%, adding over 100 jobs to the region through 2029. Most occupations in this group offer high median wages and are collectively projected to have nearly 250 annual job openings over the next five years.

Exhibit 2.5.1: Current and Projected Employment for the Drafters, Engineering Technicians, and Mapping Technicians Occupational Group, Inland Empire/Desert Region, 2024-2029

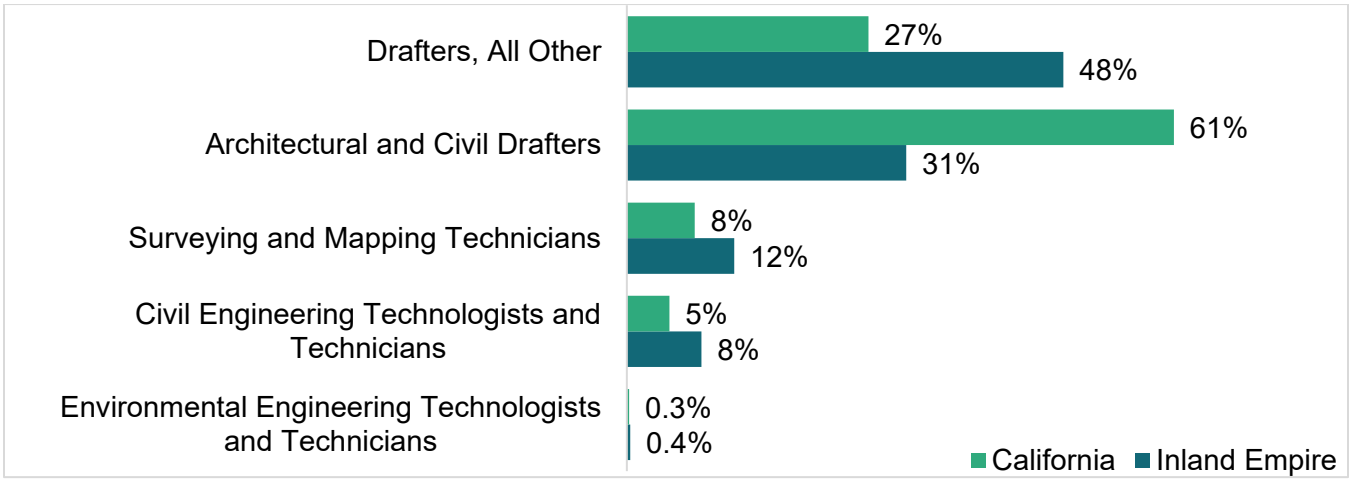
Occupation Title	2024 Jobs	2029 Jobs	2024-2029 % Change	Average Annual Openings	Median Hourly Earnings
Architectural and Civil Drafters	848	888	5%	78	$31.03
Civil Engineering Technologists and Technicians	797	845	6%	79	$38.04
Surveying and Mapping Technicians	460	495	8%	66	$29.65
Drafters, All Other	206	199	-3%	18	$29.98
Environmental Engineering Technologists and Technicians	84	90	6%	8	$33.48
Total	**2,396**	**2,518**	**5%**	**250**	

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Over the last 24 months, October 2023 to September 2025, referred to as the "most recent period" going forward, 797 job ads were posted for the drafters, engineering technicians, and mapping technicians occupational group in the Inland Empire, as compared to 11,171 job ads posted for the same occupations across California. In the previous period, October 2018 to September 2023, there were 2,514 job ads posted for this occupational group in the Inland Empire and 38,181 job ads posted in California.

Exhibit 2.5.2 displays the share of drafters, engineering technicians, and mapping technicians job advertisements by occupation in the Inland Empire/Desert Region and California. Nearly 80% of job advertisements for the drafters, engineering technicians, and mapping technicians occupational group were posted for drafters, all other and architectural and civil drafters, compared to 88% for California job advertisements for this occupational group. The scale of these occupational job advertisements may influence the skills most frequently requested by employers for this occupational group.

Exhibit 2.5.2: Share of Advertisements by Occupation for Drafters, Engineering Technicians, and Mapping Technicians Inland Empire/Desert Region and California, October 2023 – September 2025

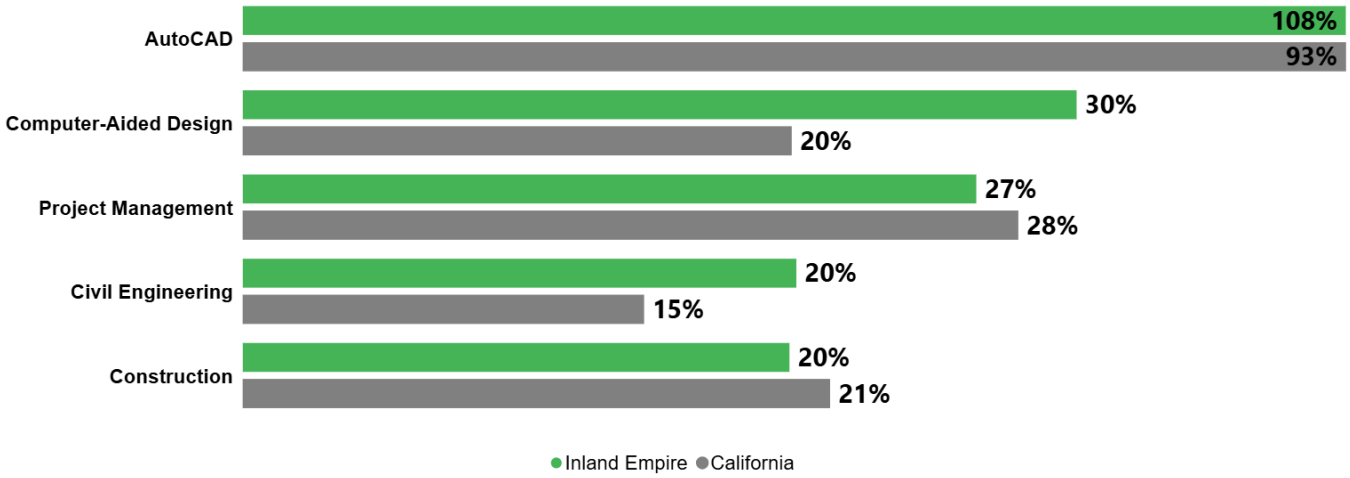


Source: Lightcast 2025.4 – Job Posting Analytics

Specialized Skills

Exhibit 2.5.3 displays the top specialized skills included in employer job advertisements for drafters, engineering technicians, and mapping technicians in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the specialized skills employers find critical to employment.

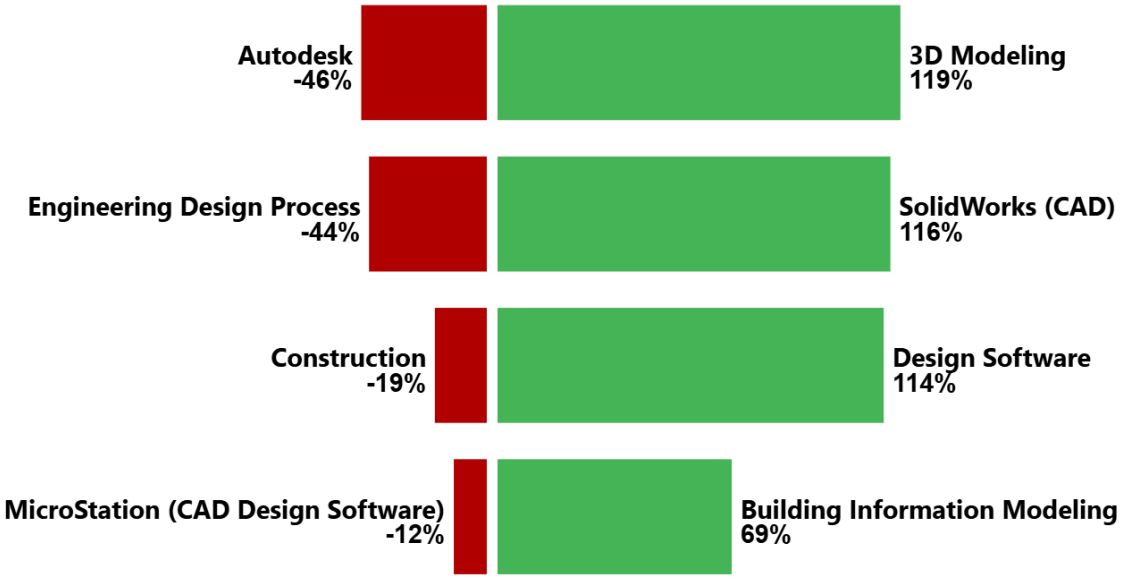
Exhibit 2.5.3: Top Specialized Skills from Employer Job Ads for Drafters, Engineering Technicians, and Mapping Technicians Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.5.4 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the drafters, engineering technicians, and mapping technicians occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with 3D modeling, SolidWorks (CAD), and design software skills has more than doubled compared to the previous period (2018-2023). Employers' desire for candidates with Autodesk and engineering design process skills has decreased by more than 40% between the two periods in the Inland Empire.

Exhibit 2.5.4: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Drafters, Engineering Technicians, and Mapping Technicians in the Inland Empire/Desert Region

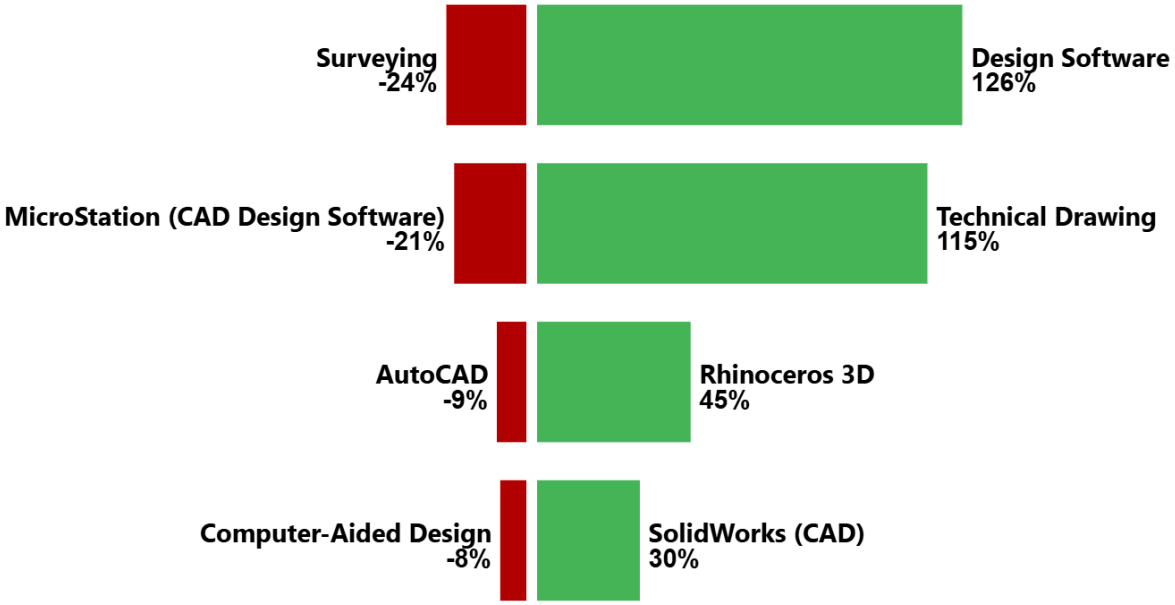


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.5.5 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the drafters, engineering technicians, and mapping technicians occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-

2025) for candidates with design software and technical drawing skills has increased by over 110% since the previous period (2018-2023). Employers' desire for candidates with surveying and MicroStation (CAD design software) skills has decreased by over 20% between the two periods in California.

Exhibit 2.5.5: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Drafters, Engineering Technicians, and Mapping Technicians in California

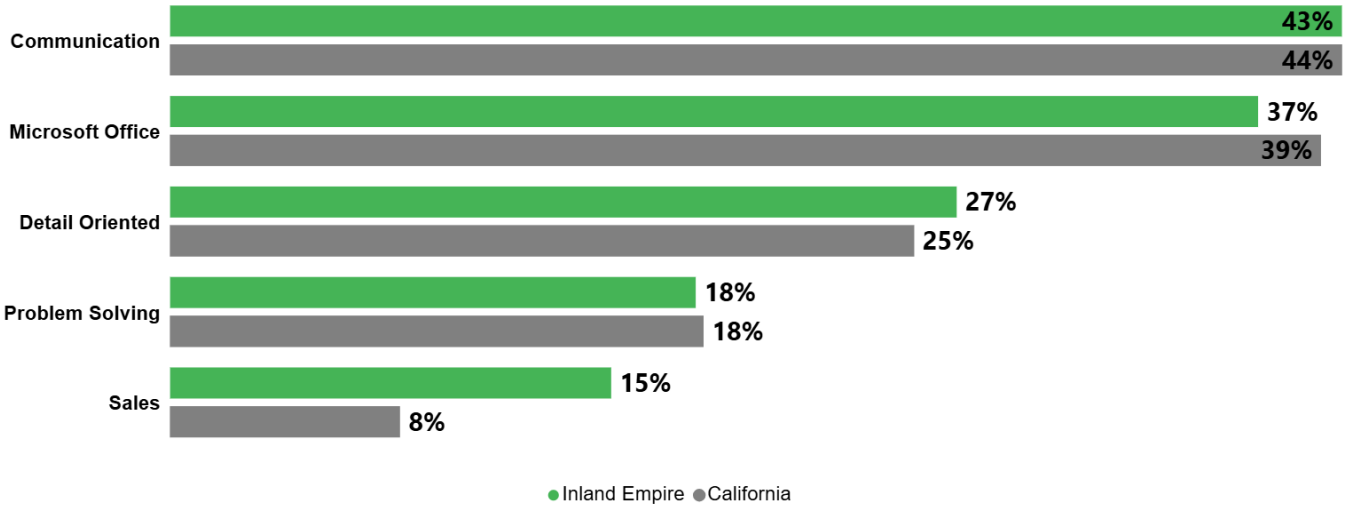


Source: Lightcast 2025.4 – Job Posting Analytics

Foundational Skills

Exhibit 2.5.6 displays the top foundational skills included in employer job advertisements for drafters, engineering technicians, and mapping technicians in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the foundational skills employers find critical to employment. Communication was the top foundational skill for this occupational group across both regions.

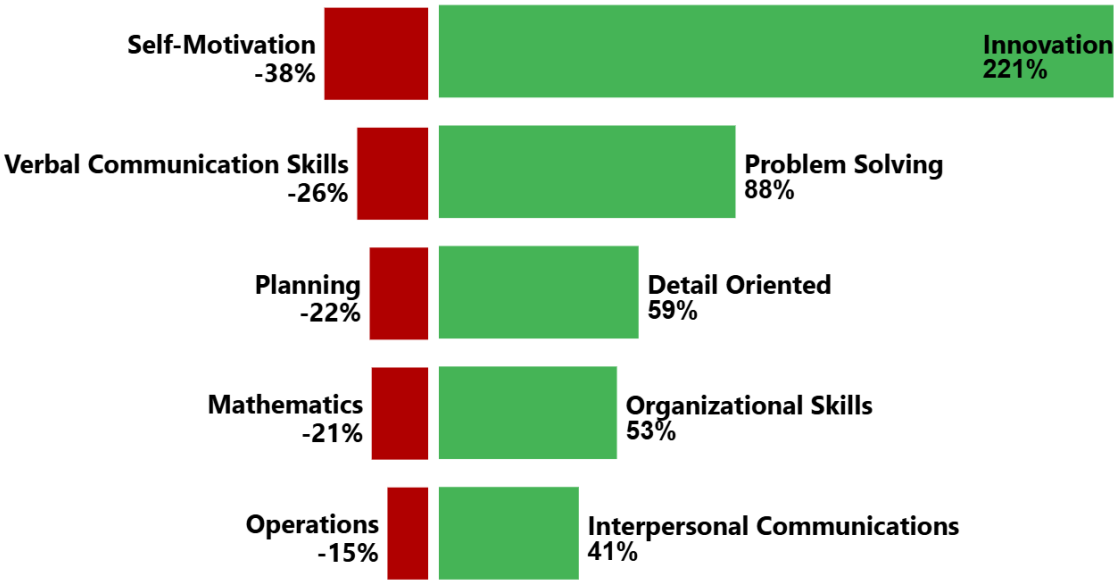
Exhibit 2.5.6: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Drafters, Engineering Technicians, and Mapping Technicians Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.5.7 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the drafters, engineering technicians, and mapping technicians occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with innovation skills has increased by 221% since the previous period (2018-2023). Employers' desire for candidates with self-motivation skills has decreased by 38% between the two periods in the Inland Empire.

Exhibit 2.5.7: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Drafters, Engineering Technicians, and Mapping Technicians in the Inland Empire/Desert Region

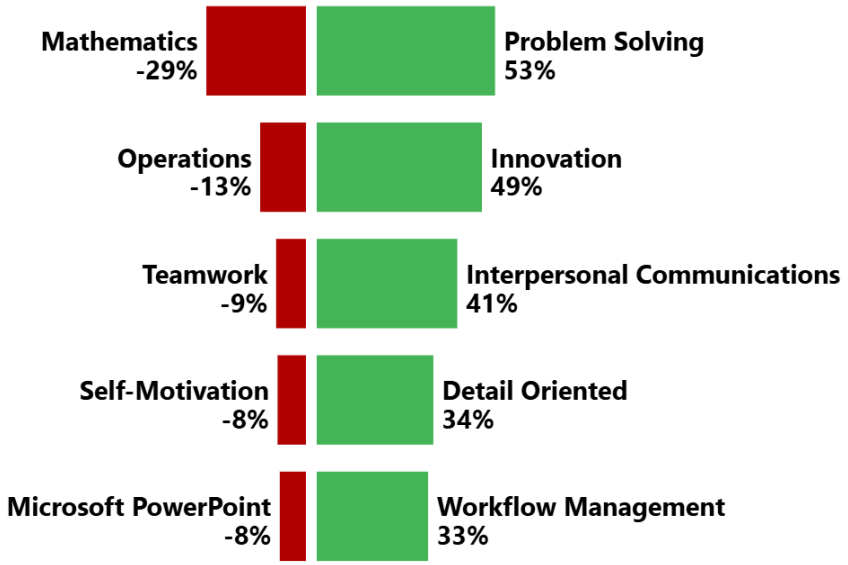


Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.5.8 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the drafters, engineering technicians, and mapping technicians occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with problem-solving skills has grown by 53% since the previous period (2018-

2023). Employers' desire for candidates with mathematics skills has decreased by 29% between the two periods in California.

Exhibit 2.5.8: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Drafters, Engineering Technicians, and Mapping Technicians in California



Source: Lightcast 2025.4 – Job Posting Analytics

Qualifications and Programs

Exhibit 2.5.9 displays the qualifications most frequently included in employer job advertisements for drafters, engineering technicians, and mapping technicians. A valid driver's license was the most frequently requested qualification in employer job advertisements, appearing in nearly 10% of job ads.

Exhibit 2.5.9: Top Qualifications Skills from Employer Job Ads for Drafters, Engineering Technicians, and Mapping Technicians Inland Empire/Desert Region and California, October 2023 – September 2025

Inland Empire/Desert Region		California	
Qualification	Share	Qualification	Share
Valid Driver's License	9%	Valid Driver's License	8%
Engineer in Training	8%	Architecture License	5%
CDL Class C License	4%	LEED Accredited Professional (AP)	3%
Land Surveyor in Training	3%	Engineer in Training	3%
NICET Certification (National Institute for Certification in Engineering Technologies)	3%	Professional Engineer (PE) License	2%

Source: Lightcast 2025.4 – Job Posting Analytics

The following community college programs prepare students for employment in the drafters, engineering technicians, and mapping technicians occupational group.

- Architectural Drafting (0953.10)
- Architecture and Architectural Technology (0201.00)
- Civil and Construction Management Technology (0957.00)
- Civil Drafting (0953.20)

- Construction Crafts Technology (0952.00)
- Drafting Technology (0953.00)
- Engineering Technology, General (requires Trigonometry) (0924.00)
- Environmental Technology (0303.00)
- Geographic Information Systems (2206.10)
- Manufacturing and Industrial Technology (0956.00)
- Public Works (2102.10)
- Surveying (0957.30)
- Water and Wastewater Technology (0958.00)

2.6: Other Construction and Related Workers

Exhibit 2.6.1 displays current and projected employment data for the other construction and related workers occupational group from 2024 to 2029. The other construction and related workers middle-skill occupational group contains three occupations that had nearly 2,200 jobs in 2024. This occupational group is projected to grow by 6%, adding over 100 jobs to the region through 2029. This occupational group offers strong median wages and is projected to have more than 100 job openings available annually over the next five years.

Exhibit 2.6.1: Current and Projected Employment for the Other Construction and Related Workers Occupational Group, Inland Empire/Desert Region, 2024-2029

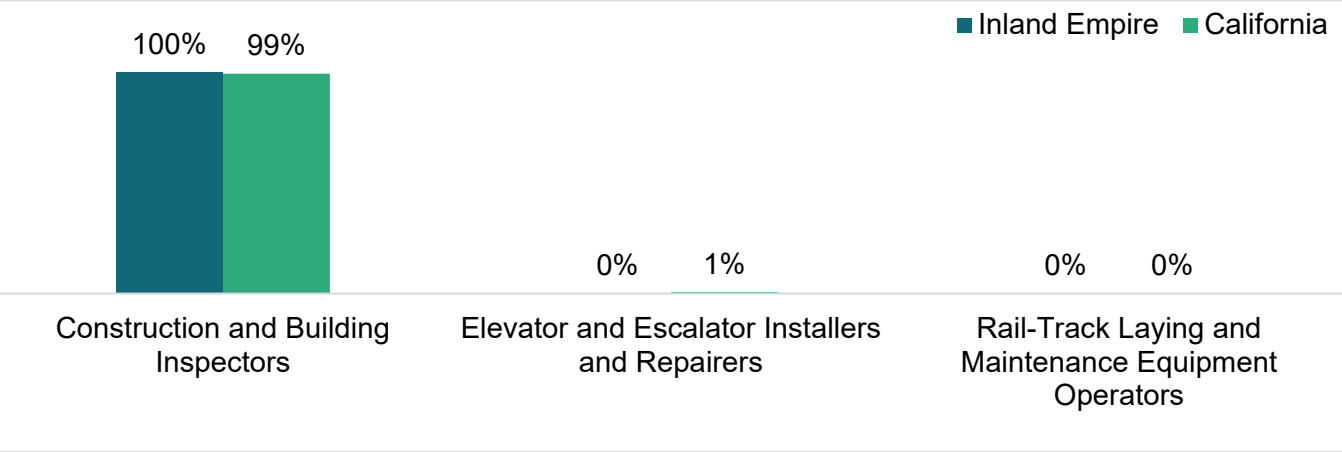
Occupation Title	2024 Jobs	2029 Jobs	2024-2029 % Change	Average Annual Openings	Median Hourly Earnings
Construction and Building Inspectors	1,524	1,632	7%	187	$40.76
Elevator and Escalator Installers and Repairers	436	455	4%	42	$56.91
Rail-Track Laying and Maintenance Equipment Operators	228	232	2%	19	$34.03
Total	**2,188**	**2,319**	**6%**	**248**	

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed

Over the last 24 months, October 2023 to September 2025, referred to as the “most recent period” going forward, 729 job ads were posted for the other construction and related workers occupational group in the Inland Empire, as compared to 7,444 job ads posted for the same occupations across California. In the previous period, October 2018 to September 2023, there were 1,988 job ads posted for this occupational group in the Inland Empire and 22,408 job ads posted in California.

Exhibit 2.6.2 displays the share of other construction and related worker job advertisements by occupation in the Inland Empire/Desert Region and California. All regional job advertisements for other construction and related workers were posted for construction and building inspectors.

Exhibit 2.6.2: Share of Advertisements by Occupation for the Other Construction and Related Workers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025

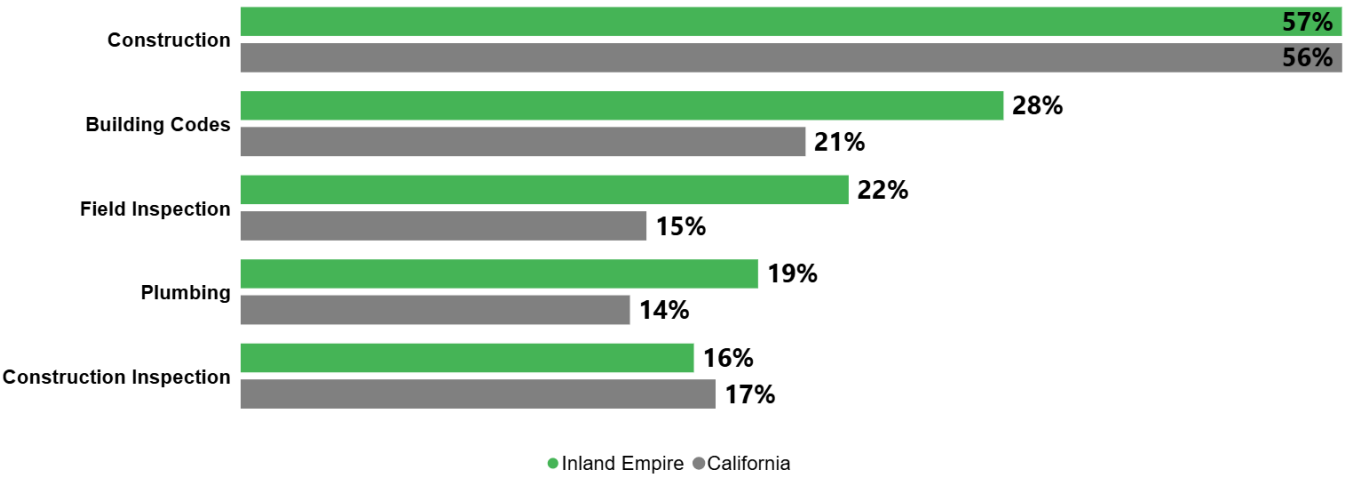


Source: Lightcast 2025.4 – Job Posting Analytics

Specialized Skills

Exhibit 2.6.3 displays the top specialized skills included in employer job advertisements for the other construction and related workers occupational group in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the specialized skills employers find critical to employment.

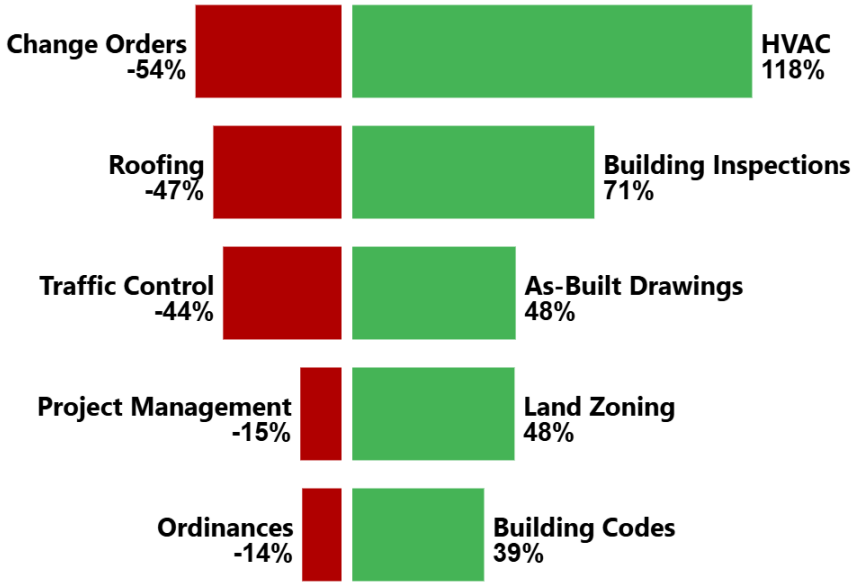
Exhibit 2.6.3: Top Specialized Skills from Employer Job Ads for the Other Construction and Related Workers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.6.4 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the other construction and related workers occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with HVAC skills has increased by 118% since the previous period (2018-2023). Employers' desire for candidates with change orders skills has decreased by 54% between the two periods in the Inland Empire.

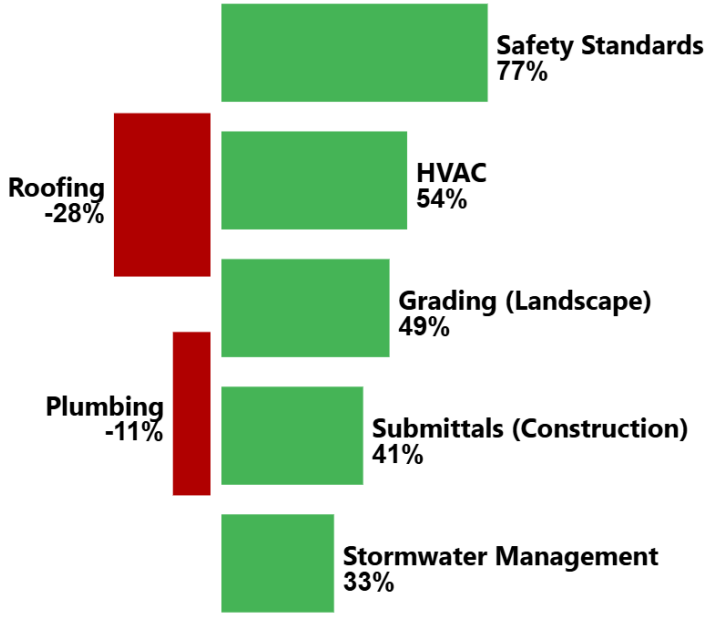
Exhibit 2.6.4: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Other Construction and Related Workers Occupational Group in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.6.5 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the other construction and related workers occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with safety standards skills has increased by over 75% since the previous period (2018-2023). Employers' desire for candidates with roofing skills has decreased by 28% between the two periods in California.

Exhibit 2.6.5: Specialized Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Other Construction and Related Workers Occupational Group in California

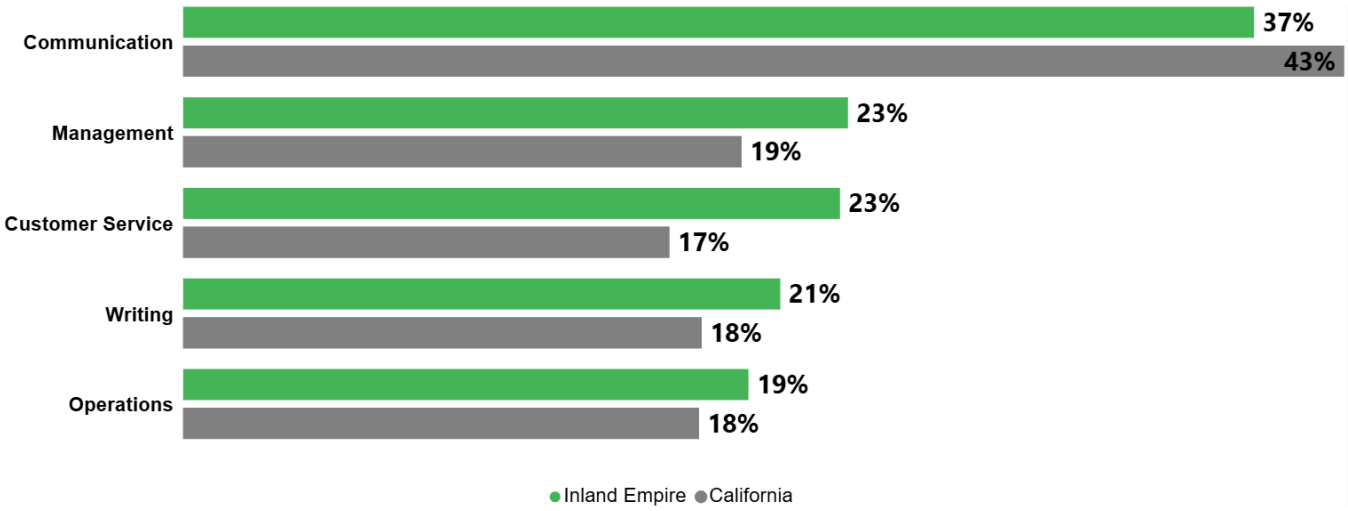


Source: Lightcast 2025.4 – Job Posting Analytics

Foundational Skills

Exhibit 2.6.6 displays the top foundational skills included in employer job advertisements for the other construction and related workers occupational group in the Inland Empire/Desert Region and their share of job ads in California. The top skills may provide insight into the foundational skills employers find critical to employment. Communication was the top foundational skill for this occupational group across both regions.

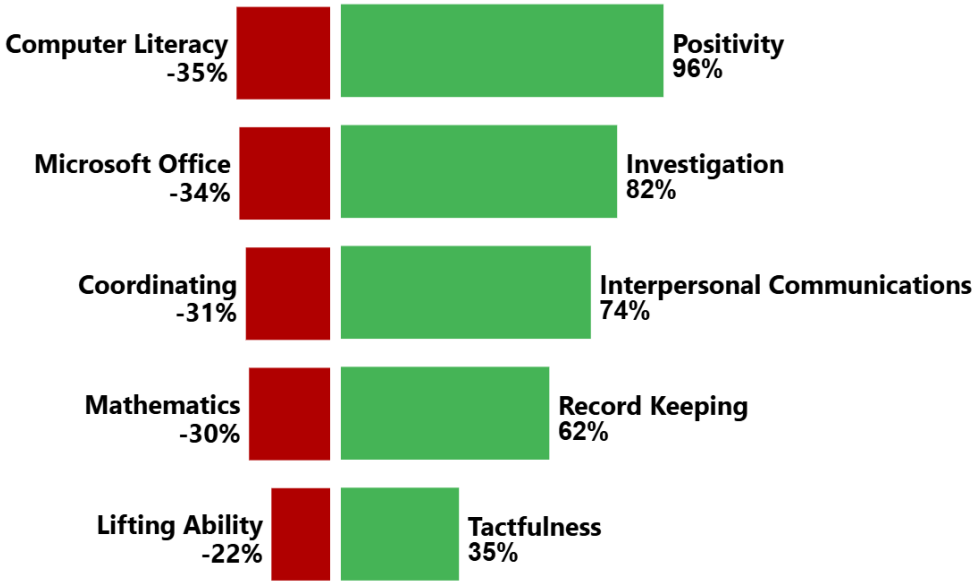
Exhibit 2.6.6: Top Foundational Skills from Employer Job Ads for the Other Construction and Related Workers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.6.7 displays the specialized skills that have increased or decreased the most in their share of job advertisements for the other construction and related workers occupational group in the Inland Empire/Desert Region, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with positivity skills has increased by nearly 100% since the previous period (2018-2023). Employers' desire for candidates with computer literacy and Microsoft Office skills has decreased by more than 33% between the two periods in the Inland Empire.

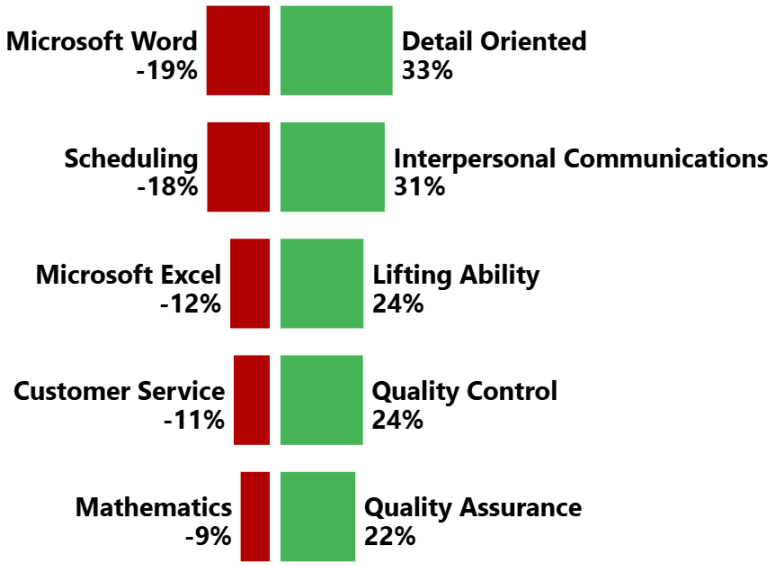
Exhibit 2.6.7: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for Other Construction and Related Workers Occupational Group in the Inland Empire/Desert Region



Source: Lightcast 2025.4 – Job Posting Analytics

Exhibit 2.6.8 displays the foundational skills that have increased or decreased the most in their share of job advertisements for the other construction and related workers occupational group in California, based on a comparison of the two time periods. Recent employer demand (2023-2025) for candidates with detail-oriented skills has grown by 33% since the previous period (2018-2023). Employers' desire for candidates with Microsoft Word skills has decreased by nearly 20% between the two periods in California.

Exhibit 2.6.8: Foundational Skills that Have Increased or Decreased the Most in Their Share of Job Advertisements for the Other Construction and Related Workers Occupational Group in California



Source: Lightcast 2025.4 – Job Posting Analytics

Qualifications and Programs

Exhibit 2.6.9 displays the qualifications most frequently included in employer job advertisements for the other construction and related workers occupational group. A valid driver's license was the most frequently requested skill in employer job advertisements, appearing in more than 35% of job ads.

Exhibit 2.6.9: Top Qualifications Skills from Employer Job Ads for the Other Construction and Related Workers Occupational Group, Inland Empire/Desert Region and California, October 2023 – September 2025

Inland Empire/Desert Region		California	
Qualification	Share	Qualification	Share
Valid Driver's License	37%	Valid Driver's License	35%
CDL Class C License	7%	CDL Class C License	6%
30-Hour OSHA General Industry Card	3%	Certified Welding Inspector	5%
Residential Building Inspector	3%	30-Hour OSHA General Industry Card	3%
Professional Engineer (PE) License	2%	ACI Concrete Field Testing Technician	2%

Source: Lightcast 2025.4 – Job Posting Analytics

The following community college programs prepare students for employment in the other construction and related workers occupational group.

- Industrial Systems Technology and Maintenance (0945.00)
- Diesel Technology (0947.00)
- Heavy Equipment Operation (0947.30)
- Construction Inspection (0957.20)

SECTION 3: HOW CAN SKILLS INFORMATION BE USED TO GUIDE CAREER EDUCATION PROGRAM DEVELOPMENT IN THE INLAND EMPIRE/DESERT REGION?

To identify which skills are increasing most noticeably in employer demand, we compared their prevalence in job postings across the two time periods analyzed. We then examined how many middle-skill occupational minor groups each skill appeared in. Weighting skills by the number of occupational groups in which they increased provides a clearer indication of which skill shifts are occurring broadly across the sector rather than within isolated occupations. Below is the distribution within each skills tier for skills which are increasing by 10% or more:

- Foundational skills (50.3% IE/D; 43.9% California)
    - These are broad, transferable competencies that support interpersonal communication, detail oriented, and coordinating competencies. While not technical or occupation-specific, these skills are increasingly central to ECU work activities, where attention to detail and coordinating different aspects of increasingly complex infrastructure are essential.
- Specialized or technical skills
    - Industry-specific (7.6% IE/D; 9.8% California)
        - These skills reflect deeper technical or operational expertise and show the strongest alignment with the technical demands of ECU work.
    - Occupation-specific: (13.1% IE/D; 17.7% California)
        - These are highly technical skills tied to particular roles or specialized tasks, such as CAD techniques, 3D modeling, and access controls. They require more advanced training and typically reflect the unique technical demands of specific ECU occupations.
    - Cross-sector: (30.0% IE/D; 28.6% California)
        - These are more specialized/technical than foundational skills but still found in multiple sectors. They require more advanced training but are not unique to the ECU field.

Using the same approach as described above, we present the distribution of skills that declined in prevalence between the two time periods. This approach highlights which skill declines are sector-wide rather than limited to a single occupational group. Below is the distribution within each skills tier for skills which are decreasing by 10% or more:

- Foundational skills (42.0% IE/D; 47.2% California)
    - The skills decreasing in prevalence are not the attention to detail or coordination abilities that appear in the growing analysis above. Instead, they are primarily customer facing and basic organizational competencies, such as customer service, management, and scheduling, that reflect tasks more easily handled through digital tools or by other internal roles. There decline across multiple occupational groups suggests that employers increasingly expect technology to support or streamline these functions.
- Specialized or technical skills
    - Industry-specific (5.8% IE/D; 8.3% California)
        - These declining skills tend to be broad or baseline technical competencies that employers increasingly treat as assumed knowledge rather than differentiating qualifications. Examples include roofing, surveying, and civil engineering. Their reduced appearances in postings does not necessarily indicate these skills are less important in practice but rather they may no longer list them explicitly because they are expected of any working entering a middle-skill ECU role.

- Occupation-specific: (13.0% IE/D; 5.6% California)
  - Shrinking skills in this tier reflect baseline or non-differentiating technical activities that serve as foundational aspects of many ECU occupations. These include skills such as antenna, cooling towers, bill of materials, and change orders. Their decline suggests that new technologies and automated workflow processes mean that personal expertise is no longer required to accomplish the same organizational tasks.
- Cross-sector: (39.1% IE/D; 38.9% California)
  - These are more specialized/technical than foundational skills but still found in multiple sectors. They require more advanced training but are not unique to the ECU field.

The distribution of growing skills indicates that employer demand is shifting in two notable directions. Foundational skills, such as interpersonal communication, [being] detail oriented, and coordination, remain essential across middle-skill ECU occupations; however, almost half of all skill growth (49% in the IE/D region) is concentrated in technical or specialized competencies that require deeper knowledge and technical proficiency. These include industry-specific skills such as building codes and construction management and project management, as well as occupation-specific skills tied to particular roles.

By comparison, the shrinking-skills analysis shows a consistent decline in both foundational and technical or specialized competencies. More than 42% of shrinking skills fall within the foundational category, but they are overwhelmingly skills associated with customer service and basic organizational competencies. Within the technical tiers, the shrinking skills tend to be more specific competencies (e.g., bill of materials, antenna, change orders, or roofing) that employers may appear to treat as assumed prerequisites rather than differentiating skills worth listing in job postings or use automated workflow to no longer require previous experience.

Taken together, these patterns reveal a clear transition in the nature of middle-skill ECU work. Tasks that are customer service or basic organizational workflow focused are declining across multiple occupational groups, reflecting functions that are increasingly supported, streamlined, or automated by digital systems and AI-enabled tools. Conversely, the skills that are rising in prevalence are those that rely on detail oriented and coordination focused competencies. These are domains where technology complements, rather than replaces, the work of middle-skill ECU professionals, especially with time management and problem solving where the finer details of operations are essential.[8]

This shift underscores the importance of preparing students for strong foundational competencies that support modern, technology-enabled energy, construction, and utilities work. For K12 and community colleges, these findings highlight several opportunities to strength program design and student outcomes:

Curriculum alignment with growing skills.

Growing skills indicate a need for stronger emphasis on both foundational and technical competencies. Colleges can review program and course learning outcomes to ensure rising skills, such as interpersonal communication, [being] detail oriented, coordination, building codes, and construction management, are explicitly and consistently taught. These competencies show the strongest growth across occupational minor groups and represent the skill sets most critical to modern, technology-integrated energy, construction, and utilities work. K12 ECU pathways can introduce early exposure to these foundational competencies, so students enter community college programs with aligned expectations and baseline readiness.

[8] Philadelphia Technician Training Institute. "Construction Industry: Impact Of Skill Levels On Career Growth." Accessed December 11, 2025. https://ptt.edu/construction-industry-impact-of-skill-levels-on-career-growth/

Aligning curriculum and pathways to key certifications and credentials,
Qualifications data across all minor occupational groups point to a consistent set of required and preferred certifications in the regional labor market. Programs can map course content, work requirements, and practicum experiences directly to credentials ensuring students graduate with credentials employers actively request. Where possible, high schools can embed pre-certification or dual enrollment opportunities to accelerate student readiness and facilitate smoother transitions into community college ECU programs.

K12 Pathway Alignment.
The qualification and program lists can aid K12 partners aligning foundational ECU pathway courses with postsecondary preparation. High schools offering Residential and Commercial Construction, Engineering and Heavy Construction, Environmental Resources, and Energy and Power Technology, and other related pathways can integrate early exposure to skills such as building codes and construction management, while preparing students for pre-certification opportunities linked to in-demand credentials.

APPENDICES

APPENDIX A: RESEARCH DEFINITIONS AND METHODOLOGIES

Definitions

Labor market information was pulled from Lightcast, a labor market analytics firm that specializes in providing insights for workforce development, economic planning, and education. Lightcast compiles its regional and occupational datasets from a variety of federal and state sources. Among these are the Quarterly Census of Employment and Wages (QCEW), which offers detailed industry employment and wage data, and other critical sources such as the U.S. Census Bureau's American Community Survey (ACS) and Quarterly Workforce Indicators, the Bureau of Labor Statistics' Occupational Employment and Wage Statistics and Current Population Survey, and data from the Bureau of Economic Analysis.[10] These combined resources provide comprehensive insights into employment trends, wage patterns, and quality job workforce characteristics. The baseline year of 2024 was used to offer the maximum comparability with the student data available, and the projected data was through 2029.

Annual job openings include the projected growth (new jobs) and replacement needs of an occupation annually. This figure is often used to assess the expected employer demand for an occupation, providing a number of job openings that will require new workers to fill.

Educational attainment is the highest level of education attained by workers aged 25 years or older. This information may illuminate mismatches between resident skills and employment needs.

An **occupation** is a set of activities or tasks employees are paid to perform. Employees that perform essentially the same tasks are in the same occupation, whether or not they work in the same industry. Some occupations are concentrated in a few particular industries; other occupations are found in many industries. For example, jobs for registered nurses are concentrated in the healthcare industry sector, but educational industries may also employ these jobs.

SOC code: The Standard Occupational Classification system is a federally defined system used to classify workers into occupational categories that are grouped together according to job duties.[11]

TOP code: The Taxonomy of Programs is a system of codes used by the State of California to compare differently named academic programs with similar outcomes across community colleges.[12] Each course offered by California Community Colleges is assigned to a TOP code.

Methodologies and Sources

The data sources used in this study include data from Lightcast, a labor market analytics firm that specializes in providing insights for workforce development, economic planning, and education. Lightcast compiles its regional and occupational datasets from a variety of federal and state sources. Among these are the Quarterly Census of Employment and Wages (QCEW), which offers detailed industry employment and wage data, and other critical sources such as the U.S. Census Bureau's American Community Survey (ACS) and Quarterly Workforce Indicators, the Bureau of Labor Statistics' Occupational Employment and Wage Statistics and Current Population Survey, and data from the Bureau of Economic Analysis.[13] These combined resources provide comprehensive insights into employment trends, wage patterns, and industry-specific workforce characteristics across the Inland Empire/Desert regions.

The Lightcast taxonomy organizes skills into a tiered structure that groups related competencies according to the type of work or task they support. Within this framework, skills are categorized as common, specialized, or software skills. To determine which skills should be included in our analysis, we examined how frequently individual skills appear in job postings. We calculated the median share of job ads in which common skills appear across all occupations, providing a baseline measure of typical skill prevalence. Our analysis found that common skills typically appeared in roughly five percent of job postings across occupations. We used this median value as the threshold for determining which skills were included in our research.

The skills analysis compares skills posted over a two-year period (October 2023 – September 2025) to a historical five-year period (October 2018 – September 2023) to identify skills that are growing and shrinking in terms of their prevalence in job ads. This report intentionally uses a two-year period for the current analysis to ensure a sufficient volume of recent job advertisements and avoid the instability that can come with relying on a single year of data. The five-year historical period provides a stable benchmark of longer-term industry skill patterns and reduces the influence of short-term fluctuations. This analysis also illuminates the skills with the highest share of job ads in the most recent period to address employer demand for skills that are persistently in-demand across time.

The Standard Occupational Classification (SOC) system aggregates occupation information by four levels: major group, minor group, broad occupation, and detailed occupation.[14] This report relies on the minor occupational groupings of detailed occupations for the skills analysis as it provides greater detail than the broader major occupational groups and ensures the feasibility and readability of this study that would lack in a detailed occupation skills analysis.

Appendix B: Additional Occupations Related to the CCCCO Energy, Construction, and Utilities Sector

Exhibit B.1 displays current and projected employment data for the miscellaneous occupational group from 2024 to 2029. The miscellaneous occupational group includes six occupations that had over 17,238 jobs in 2024. This occupational group is projected to grow by 3%, adding 34 jobs to the region through 2029.

Exhibit B.1: Additional Occupations Related to the CCCCO Energy, Construction, and Utilities Sector, Inland Empire/Desert Region, 2024-2029

SOC Minor Group Title	2024 Jobs	2029 Jobs	2024 - 2029 % Change	Average Annual Openings	Median Hourly Earnings
Environmental Science and Protection Technicians, Including Health	668	696	4%	80	$25.35
Meter Readers, Utilities	150	160	6%	14	$35.87
Explosives Workers, Ordnance Handling Experts, and Blasters	129	128	0%	12	$40.68
Model Makers, Metal and Plastic	26	24	-10%	3	$40.36
Nuclear Technicians	7	7	-10%	1	$40.71
Patternmakers, Metal and Plastic	1	2	12%	0	$33.65
Total	**982**	**1,016**	**3%**	**110**	**-**

Source: Lightcast 2025.4 – Occupation Table, QCEW Employees, Non-QCEW Employees, and Self-Employed