



# Education Report

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# Construction Management, General

California

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# Definition of Construction Management, General, CIP 52.2001

A program that prepares individuals to manage, coordinate, and supervise the construction process. Includes instruction in commercial, residential, mechanical, highway/heavy civil, electrical, environmental, industrial, and specialty construction; facilities management; budgeting and cost control; logistics and materials management; organization and scheduling; personnel management and labor relations; site safety; construction contracting; construction processes and techniques; and applicable codes and regulations.

# Awards

The table below is a list of postsecondary awards in CIP 52.2001 that were granted by institutions located in California in the 2021 academic year.

Schools	Certs & 2yr Awards <sup>1</sup>	4yr Awards <sup>2</sup>	Post-Grad Awards <sup>3</sup>	Avg Net Price <sup>4</sup>
California Polytechnic State University-San Luis Obispo		114		\$20,708
California State University-East Bay		48	32	\$12,631
Newschool of Architecture and Design		6	24	\$48,752
San Joaquin Valley College-Visalia	24			\$25,267
San Joaquin Valley College-Ontario	15			\$23,525
National University		12		\$9,966
University of Southern California			11	\$26,021
Learnet Academy Inc	1			
<b>Total</b>	<b>40</b>	<b>180</b>	<b>67</b>	

1. Undergraduate certificates and associate's degrees

2. Bachelor's degrees and post-baccalaureates

3. Master's, post-master's, and doctorates

4. Average net price represents full-time beginning undergraduate students who paid the in-state or in-district tuition rate and were awarded grant or scholarship aid from federal, state or local governments, or the institution. Data as of the 2020-2021 academic year.

Awards data are per the National Center for Education Statistics (NCES) and JobsEQ for the 2021 academic year. Any programs shown here reflect only data reported to the NCES; reporting is required of all schools participating in any federal finance assistance program authorized by Title IV of the Higher Education Act of 1965, as amended—other training providers in the region that do not report data to the NCES are not reflected in the above.

# Occupation Crosswalk

The below table lists all occupations linked with the program, Construction Management, General, CIP 52.2001.

		Education and Training Requirements			Educational Attainment				
		Typical Education Needed for Entry	Work Experience in a Related Occupation	Typical On-the-Job Training Needed to Attain Competency in the Occupation	No College	Some College, No Degree	Associate's Degree	Bachelor's Degree	Postgraduate Degree
11-9021	Construction Managers	Bachelor's degree	None	Moderate-term on-the-job training	25%	17%	9%	39%	10%

Education and training requirements are from the Bureau of Labor Statistics (BLS); educational attainment mix are regional data modeled by Chmura using Census educational attainment data projected to 2022Q4 along with source data from the BLS

## Definition of Construction Managers (11-9021)

Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.

# Occupation Details

As of 2022Q4, total employment for occupations linked to Construction Management, General in California was 54,127. Over the past three years, linked occupations shed 142 jobs in the region and are expected to need in aggregate approximately 34,192 newly trained workers over the next seven years.

Snapshot of Occupations Linked to Construction Management, General in California<sup>1</sup>

SOC	Occupation	Current						3-Year History	7-Year Forecast				
		Empl	Mean Ann Wages <sup>2</sup>	LQ	Unempl	Unempl Rate	Online Job Ads <sup>3</sup>	Ann %	Total Demand	Exits	Transfers	Empl Growth	Avg Ann Growth %
11-9021	Construction Managers	54,127	\$127,900	0.96	1,435	2.6%	1,157	-0.1%	34,192	9,131	21,041	4,019	1.0%
<b>Total - Linked Occupations</b>		<b>54,127</b>	<b>\$127,900</b>	<b>0.96</b>	<b>1,435</b>	<b>2.6%</b>	<b>1,157</b>	<b>-0.1%</b>	<b>34,192</b>	<b>9,131</b>	<b>21,041</b>	<b>4,019</b>	<b>1.0%</b>
<b>Total - All Occupations</b>		<b>19,219,968</b>	<b>\$71,900</b>	<b>1.00</b>	<b>797,161</b>	<b>4.1%</b>	<b>549,411</b>	<b>0.6%</b>	<b>17,029,863</b>	<b>6,722,656</b>	<b>9,379,252</b>	<b>927,955</b>	<b>0.7%</b>

Source: JobsEQ®

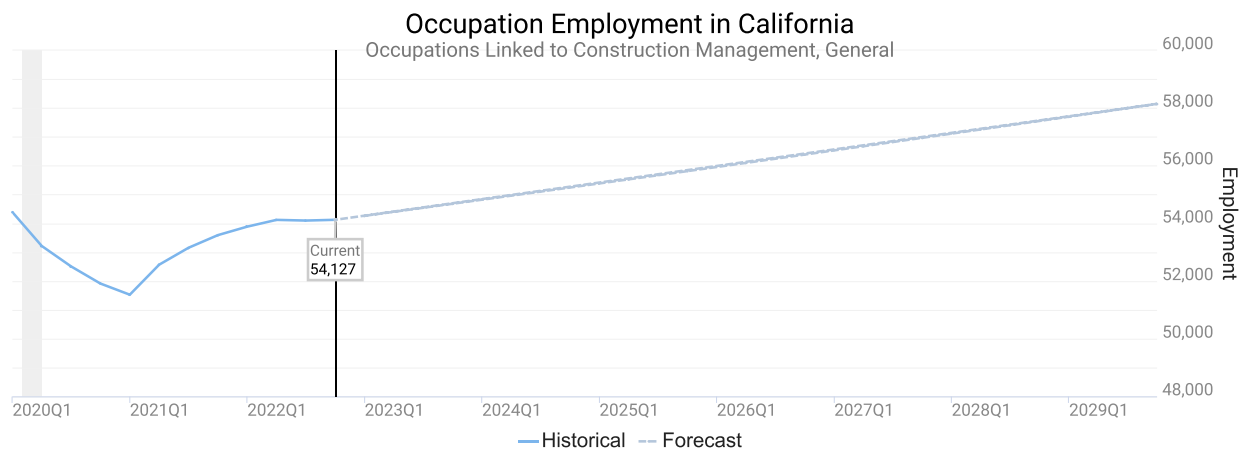
Data as of 2022Q4 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Data based on a four-quarter moving average unless noted otherwise.

2. Wage data represent the average for all Covered Employment

3. Data represent found online ads active within the last thirty days in the selected region. Due to alternative county-assignment algorithms, ad counts in this analytic may not match that shown in RTI (nor in the popup window ad list). Ad counts for ZCTA-based regions are estimates.



Source: JobsEQ®, Data as of 2022Q4. The shaded areas of the graph represent national recessions.

Occupation employment data are estimated via industry employment data and the industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2022Q3, imputed where necessary with preliminary estimates updated to 2022Q4. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns. Occupation unemployment figures are imputed by Chmura.

# Employment by Industry

The table illustrates the industries in California which most employ occupations linked to Construction Management, General. The single industry most employing these occupations in the region is Residential Building Construction, NAICS 2361. This industry employs 21,217 workers in the linked occupations—employment which is expected to increase by 1,559 jobs over the next ten years; furthermore, 16,650 additional new workers in these linked occupations will be needed for this industry due to separation demand, that is, to replace workers in this occupation and industry that retire or move into a different occupation.

**Industry Distribution for Occupations Linked to Construction Management, General in California**

NAICS Code	Industry Title	Current			10-Year Demand		
		% of Occ Empl	Empl	Exits	Transfers	Empl Growth	Total Demand
2361	Residential Building Construction	39.2%	21,217	5,039	11,611	1,559	18,209
2362	Nonresidential Building Construction	18.4%	9,950	2,409	5,552	1,158	9,119
2382	Building Equipment Contractors	8.9%	4,823	1,161	2,674	493	4,328
2381	Foundation, Structure, and Building Exterior Contractors	5.5%	2,980	731	1,685	437	2,852
2389	Other Specialty Trade Contractors	4.2%	2,296	550	1,267	211	2,028
2383	Building Finishing Contractors	4.1%	2,223	539	1,242	267	2,048
2371	Utility System Construction	3.3%	1,802	454	1,046	375	1,874
2373	Highway, Street, and Bridge Construction	2.7%	1,463	364	840	266	1,470
5413	Architectural, Engineering, and Related Services	2.0%	1,102	265	610	110	985
5511	Management of Companies and Enterprises	0.9%	467	114	262	60	437
2379	Other Heavy and Civil Engineering Construction	0.8%	437	108	249	74	432
5313	Activities Related to Real Estate	0.8%	429	104	240	53	398
2372	Land Subdivision	0.8%	425	103	238	54	396
5416	Management, Scientific, and Technical Consulting Services	0.7%	379	97	224	98	420
9221	Justice, Public Order, and Safety Activities	0.6%	343	83	192	43	319
9211	Executive, Legislative, and Other General Government Support	0.6%	333	81	187	44	312
5613	Employment Services	0.5%	289	72	166	54	292
	All Others	5.9%	3,170	779	1,794	476	3,049

Source: JobsEQ®

Data as of 2022Q4 except wages which are as of 2021. Note that occupation-by-industry wages represent adjusted national data and may not be consistent with regional, all-industry occupation wages shown elsewhere in JobsEQ.

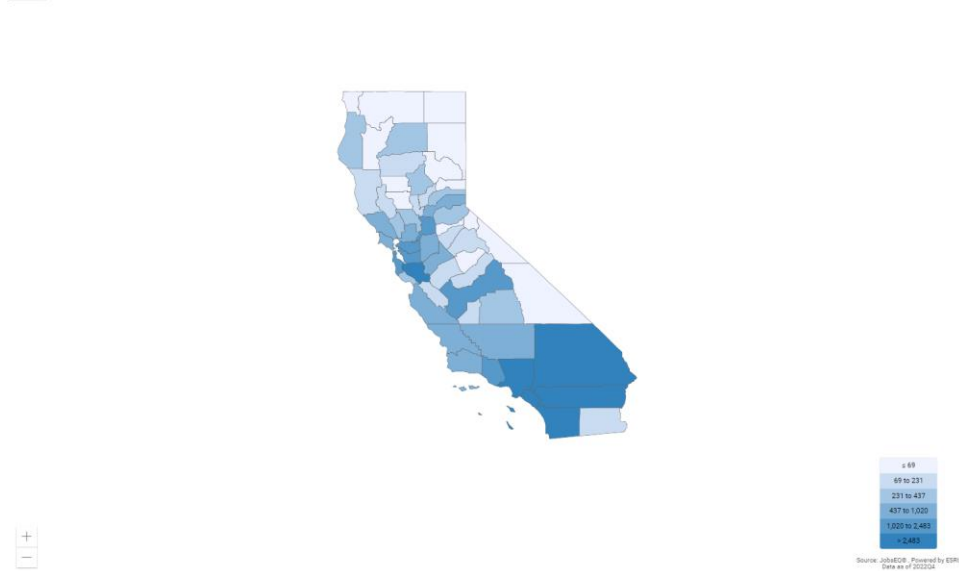
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# Geographic Distribution

The map below illustrates the county-level distribution of employed workers in California in occupations linked to Construction Management, General. Employment is shown by place of work.

California, Occupation Concentration by Place of Work for Occupations Linked to Construction Management, General



## Top Counties with Employment Linked to Construction Management, General, 2022Q4

Region	Employment
Los Angeles County, California	12,063
Orange County, California	5,372
San Diego County, California	4,879
Riverside County, California	3,475
Santa Clara County, California	2,614
San Bernardino County, California	2,483
Alameda County, California	2,438
Sacramento County, California	2,338
San Francisco County, California	1,807
Contra Costa County, California	1,652

Source: JobsEQ®

Occupation employment data are estimated via industry employment data and the industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2022Q3, imputed where necessary with preliminary estimates updated to 2022Q4.



# Demographic Profile

The population in California was 39,346,023 per American Community Survey data for 2016-2020.

Of individuals 25 to 64 in California, 35.4% have a bachelor's degree or higher which compares with 34.3% in the nation. Per American Community Survey 2016-2020 estimates, the region has about 576,714 students enrolled in grade 12.

## Summary<sup>1</sup>

	Percent		Value	
	California	USA	California	USA
<b>Demographics</b>				
Population (ACS)	—	—	39,346,023	326,569,308
Male	49.7%	49.2%	19,562,882	160,818,530
Female	50.3%	50.8%	19,783,141	165,750,778
Median Age <sup>2</sup>	—	—	36.7	38.2
Under 18 Years	22.8%	22.4%	8,956,641	73,296,738
18 to 24 Years	9.5%	9.3%	3,724,239	30,435,736
25 to 34 Years	15.3%	13.9%	6,007,913	45,485,165
35 to 44 Years	13.3%	12.7%	5,233,903	41,346,677
45 to 54 Years	12.8%	12.7%	5,039,155	41,540,736
55 to 64 Years	12.0%	12.9%	4,739,675	42,101,439
65 to 74 Years	8.3%	9.4%	3,270,380	30,547,950
<b>Population Growth</b>				
Population (Pop Estimates) <sup>4</sup>	—	—	39,029,342	333,287,557
Population Annual Average Growth <sup>4</sup>	0.3%	0.6%	108,479	1,940,990
People per Square Mile	—	—	250.4	94.3
<b>Educational Attainment, Age 25-64</b>				
No High School Diploma	15.2%	10.5%	3,199,850	17,929,220
High School Graduate	20.4%	25.4%	4,282,776	43,289,555
Some College, No Degree	21.0%	20.5%	4,412,172	34,959,338
Associate's Degree	8.0%	9.3%	1,678,082	15,776,790
Bachelor's Degree	22.6%	21.6%	4,741,354	36,888,244
Postgraduate Degree	12.9%	12.7%	2,706,412	21,630,870
<b>Social</b>				
Poverty Level (of all people)	12.6%	12.8%	4,853,434	40,910,326
Households Receiving Food Stamps/SNAP	9.0%	11.4%	1,183,873	13,892,407
Enrolled in Grade 12 (% of total population)	1.5%	1.3%	576,714	4,358,865
Disconnected Youth <sup>3</sup>	1.9%	2.5%	38,451	433,164
Children in Single Parent Families (% of all children)	32.8%	34.0%	2,796,858	23,628,508
Uninsured	7.2%	8.7%	2,806,173	28,058,903
Speak English Less Than Very Well (population 5 yrs and over)	17.4%	8.2%	6,432,102	25,312,024

Source: [JobsEQ®](https://www.chmuraecon.com/jobseq)

1. American Community Survey 2016-2020, unless noted otherwise

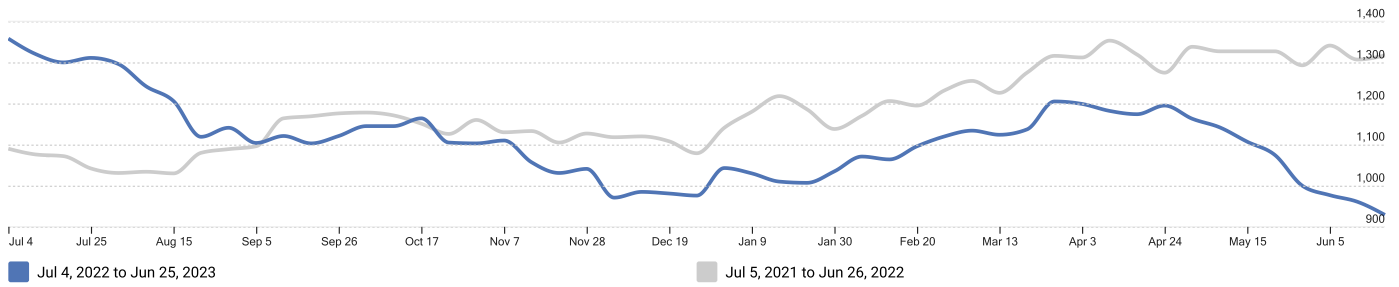
2. Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

3. Disconnected Youth are 16-19 year olds who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force.

4. Census Population Estimate for 2022, annual average growth rate since 2012. Post-2019 data for Connecticut counties are imputed by Chmura.

# RTI (Job Postings)

Active Job Ads by Date



## Occupations

SOC	Occupation	Active Job Ads
11- 9021.00	Construction Managers	6,635

## Locations

Location	Active Job Ads
Los Angeles, California	416
San Diego, California	221
Sacramento, California	212
San Francisco, California	210
Irvine, California	154
San Jose, California	128
Newport Beach, California	88
Fresno, California	64
Anaheim, California	60
Oakland, California	60

## Employers

Employer Name	Active Job Ads	
Jobot	476	
Cybercoders	314	
gpac	223	
CBRE	172	
goblusky	172	
Pacific Gas And Electric Company	68	
CDM Smith	52	
Jacobs	51	
Vanir Construction Management Inc.	48	
AECOM	46	

## Certifications

Certificate Name	Active Job Ads	
Project Management Professional (PMP)	265	
Driver's License	239	
Certified Construction Manager (CCM)	221	
Licensed Professional Engineer	155	
LEED Accredited Professional (not specified)	109	
OSHA 30	91	
OSHA 10	57	
First Aid Certification	46	
Certification in Cardiopulmonary Resuscitation (CPR)	42	
Institute of Inspection Cleaning and Restoration Certification (IICRC) Certified	13	

### Hard Skills

Skill Name	Active Job Ads	
Microsoft Office	1,657	
Microsoft Excel	1,438	
Microsoft Project	1,223	
Microsoft Outlook	661	
Microsoft Word	553	
Microsoft PowerPoint	379	
Commercial Construction	372	
Autodesk AutoCAD	329	
Change Management	263	
Finance	260	

### Soft Skills

Skill Name	Active Job Ads	
Communication (Verbal and written skills)	4,292	
Project Management	3,622	
Supervision/Management	2,862	
Cooperative/Team Player	2,018	
Organization	1,585	
Negotiation	1,557	
Problem Solving	1,067	
Detail Oriented/Meticulous	992	
Punctual	857	
Self-Motivated/Ability to Work Independently/Self Leadership	815	

### Job Titles

Job Title	Active Job Ads	
Project Manager	420	
Construction Project Manager	330	
Construction Manager	247	
Construction Project Director	164	
Assistant Project Manager	94	
Project Manager - Construction	66	
Preconstruction Manager	65	
Construction Project Coordinator	60	
Construction Project Engineer	59	
Senior Project Manager	51	

### Job Types

Type	Active Job Ads	
Full-Time	4,263	
Permanent	508	
Temporary (unspecified)	178	
Remote	169	
Part-Time	97	
Temporary (long-term)	27	
Temp-to-Hire	15	
Temporary (short-term)	10	
Remote Not Indicated	6,466	

### Programs

Program Name	Active Job Ads	
Construction Management	1,904	
Engineering	1,364	
Architecture	794	
Civil Engineering	570	
Business	317	
Construction	228	
Mechanical Engineering	199	
Marketing	171	
Business Administration	134	
Project Management	70	

### Education Levels

Minimum Education Level	Active Job Ads	
Bachelor's degree	3,154	
High school diploma or equivalent	642	
Associate's degree	161	
Master's degree	25	
Unspecified/other	2,653	

# California Regional Map



# FAQ

## What is CIP?

The 2010 Classification of Instructional Programs (CIP) is taxonomy of instructional program classifications and descriptions. It was developed and has been updated by the U.S. Department of Education's National Center for Education Statistics (NCES).

## What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 804 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 22 major groups, 95 minor groups, and 452 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

## What is the source of the job ads?

Job ads data are online job posts from the Real-Time Intelligence (RTI) data set, produced wholly by Chmura and gleaned from over 40,000 websites. Data reflect ads active during the last twelve month period ending 06/29/2023 and advertised for any Zip Code Tabulation Area in or intersecting with the region for which this report was produced. Historical ad volume is revised as additional data are made available and processed. Since many extraneous factors can affect short-term volume of online job postings, time-series data can be volatile and should be used with caution. All ad counts represent deduplicated figures.

## What is the program-to-occupation crosswalk?

Training programs are classified according to the Classification of Instructional Programs (CIP codes). For relating training programs, this report uses a modified version of the CIP to SOC crosswalk from the National Center for Education Statistics (NCES). While this is a very helpful crosswalk for estimating occupation production from training program awards data, the crosswalk is neither perfect nor comprehensive. Indeed, it is hard to imagine such a crosswalk being perfect since many training program graduates for one reason or another do not end up employed in occupations that are most related to the training program from which they graduated. Therefore, the education program analyses should be considered in this light.

As an example of the many scenarios that may unfold, consider a journalism degree that crosswalks into three occupations: editors, writers, and postsecondary communications teachers. Graduates with a journalism degree may get a job in one of these occupations—and that may be the most-likely scenario—but a good number of these graduates may get a job in a different occupation altogether (the job may be somewhat related, such as a reporter, or the job may be totally unrelated, such as a real estate agent). Furthermore, a graduate may stay in school or go back to school for a degree that will lead to other occupation possibilities. Still another possibility includes the graduate not entering the labor market (maybe being unemployed, being a non-participant, or moving to another region).

## What is separation demand?

Separation demand is the number of jobs required due to separations—labor force exits (including retirements) and turnover resulting from workers moving from one occupation into another. Note that separation demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The total projected demand for an occupation is the sum of the separation demand and the growth



demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

### **What is a location quotient?**

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an occupation (or industry) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

### **What is NAICS?**

The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top level category, known as the “sector,” which is the level examined in this report.

#### **About This Report**

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