JOBSEQ

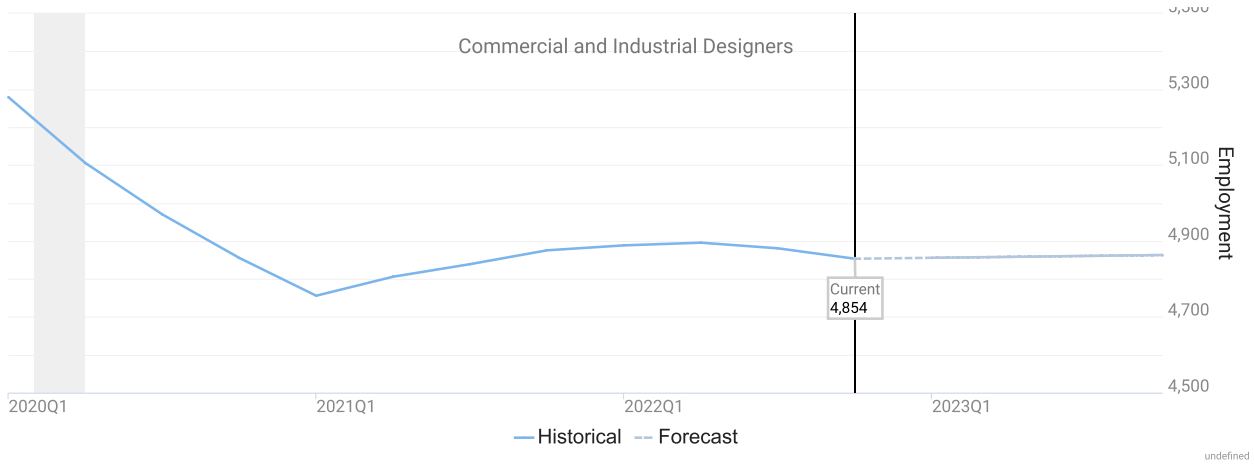
Occupation Report

Commercial and Industrial Designers

California

Occupation Snapshot

6-Digit Occupation	Empl	Avg Mean Wages	LQ	3-Year Empl Change	Annual Demand	Forecast Ann Growth
Commercial and Industrial Designers	**4,854**	**$99,300**	**1.31**	**-465**	**435**	**0.2%**



"Annual Demand" is the projected need for new entrants into an occupation. New entrants are needed due to expected growth and to replace workers who left the occupation due to factors such as retirement or switching careers.

"Forecast Ann Growth" is the expected change in jobs due to national, long-term trend projections (per the BLS) as well as local factors such as industry mix and population growth (as computed and modeled by Chmura).

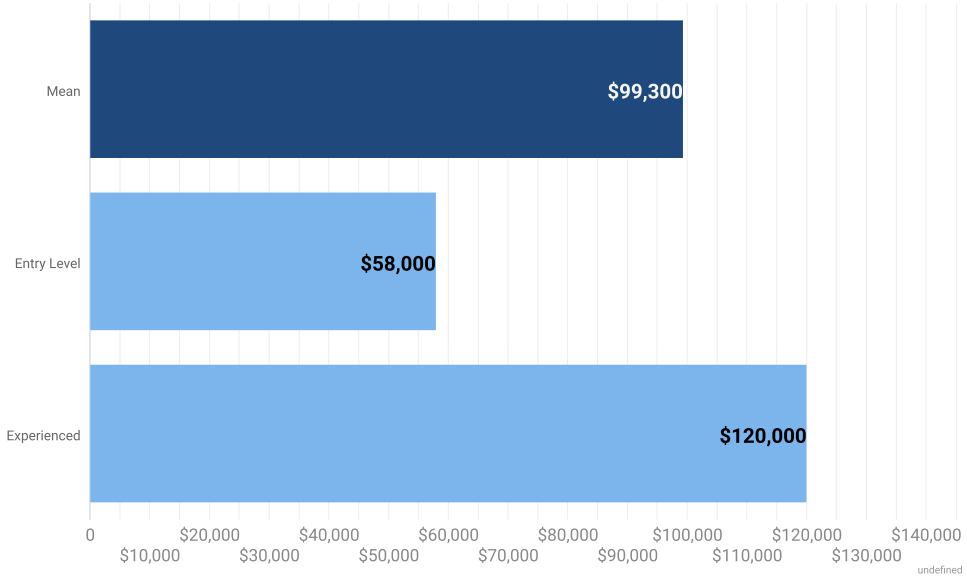
Employment by Industry

Industry Title	% of Occ Empl	Empl	10-Year Separations	10-Year Empl Growth	10-Year Total Demand
Specialized Design Services	23.2%	1,124	981	9	989
Architectural, Engineering, and Related Services	9.9%	480	418	1	418
Management of Companies and Enterprises	5.2%	253	223	7	229
Other Miscellaneous Manufacturing	4.0%	196	173	6	179
Computer and Peripheral Equipment Manufacturing	3.9%	189	167	6	173
Employment Services	2.6%	128	115	8	123
Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.6%	126	110	1	111
Scientific Research and Development Services	1.8%	86	79	9	88
Household Appliances and Electrical and Electronic Goods Merchant Wholesalers	1.6%	77	68	4	72
Semiconductor and Other Electronic Component Manufacturing	1.6%	76	67	2	69
Miscellaneous Durable Goods Merchant Wholesalers	1.5%	75	66	3	69
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	1.5%	74	64	-1	63
Converted Paper Product Manufacturing	1.5%	71	62	-1	60
Management, Scientific, and Technical Consulting Services	1.5%	71	66	10	75
Ship and Boat Building	1.4%	70	59	-5	53
Professional and Commercial Equipment and Supplies Merchant Wholesalers	1.3%	65	58	4	62
Plastics Product Manufacturing	1.3%	64	59	8	66
Web Search Portals, Libraries, Archives, and Other Information Services	1.2%	56	54	14	68
Apparel, Piece Goods, and Notions Merchant Wholesalers	1.2%	56	49	0	49
Office Furniture (including Fixtures) Manufacturing	1.1%	54	47	1	48
All Others	30.1%	1,463	1,275	14	1,289

The industry distribution indicates the industries in which workers in the occupation(s) are primarily found.

"10-Year Empl Growth" may show industries with positive as well as negative growth; this would indicate that the occupation(s) being examined are expected to expand within some industries while contracting in others.

Wages



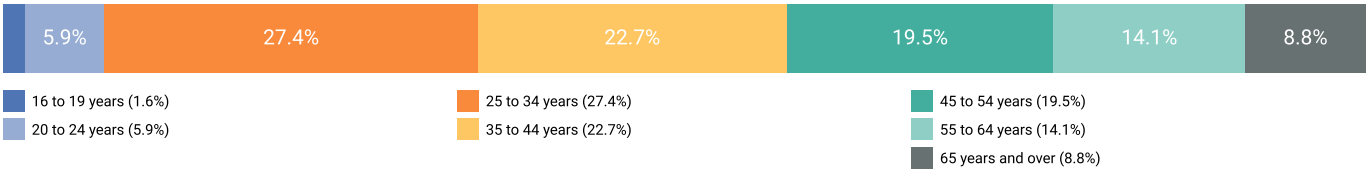
Occupation	Mean	Median	Entry Level	Experienced
Commercial and Industrial Designers	$99,300	$94,900	$58,000	$120,000

Occupation wages here utilize BLS OEWS data, imputed and brought forward by Chmura.

When this report is run for an occupation group, the table above displays up to the top ten detailed occupations which have the highest average wages within the occupation group.

Occupation Demographics

Age



- 16 to 19 years (1.6%)
- 20 to 24 years (5.9%)
- 25 to 34 years (27.4%)
- 35 to 44 years (22.7%)
- 45 to 54 years (19.5%)
- 55 to 64 years (14.1%)
- 65 years and over (8.8%)

Race

- White (69.1%)
- Black (2.8%)
- American Indian (0.4%)
- Asian (20.3%)
- Pacific Islander (0.2%)
- Two or More Races (7.1%)

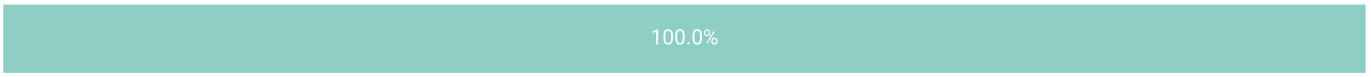
Ethnicity

- Non-Hispanic/Latino (81.8%)
- Hispanic or Latino (of any race) (18.2%)

Gender

- Male (57.5%)
- Female (42.5%)

Education and Training Requirements

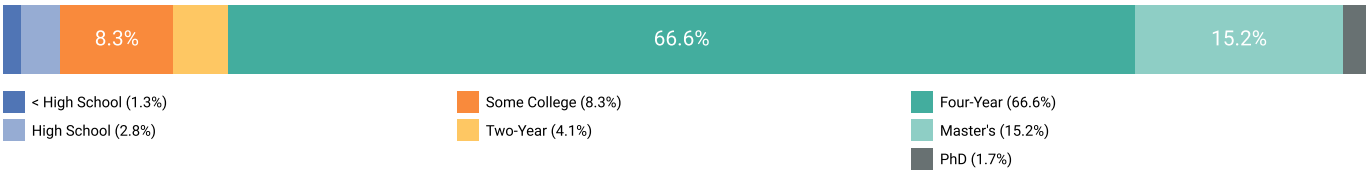


- Short-term OJT, no exp, no award (0.0%)
- Moderate-term OJT, no exp, no award (0.0%)
- Long-term training, no exp, no award (0.0%)
- Previous work experience, no award (0.0%)
- 2-year degree or certificate (0.0%)
- Bachelor's degree (100.0%)
- Postgraduate degree (0.0%)

Source: JobsEQ®, http://www.chmuraecon.com/jobseq

Education Profile

Educational Attainment



Occupation	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
Commercial and Industrial Designers	Bachelor's degree	None	None

The stacked bar chart here illustrates the estimated mix of educational attainment of the workers in this occupation(s) in aggregate.

The table indicates typical education and training requirements rather than the mix of attainment of workers in such positions.

Postsecondary Programs Linked to Commercial and Industrial Designers

Program	Awards
California College of the Arts	
Industrial and Product Design	37
California State University-Chico	
Design and Visual Communications, General	62
California State University-Long Beach	
Industrial and Product Design	34
FIDM-Fashion Institute of Design & Merchandising-Los Angeles	
Design and Visual Communications, General	69
Gnomon	
Design and Visual Communications, General	42
Otis College of Art and Design	
Industrial and Product Design	43
San Francisco State University	
Design and Visual Communications, General	80
Industrial and Product Design	52
University of California-Davis	
Design and Visual Communications, General	228
University of San Francisco	
Energy Systems Technology/Technician	13

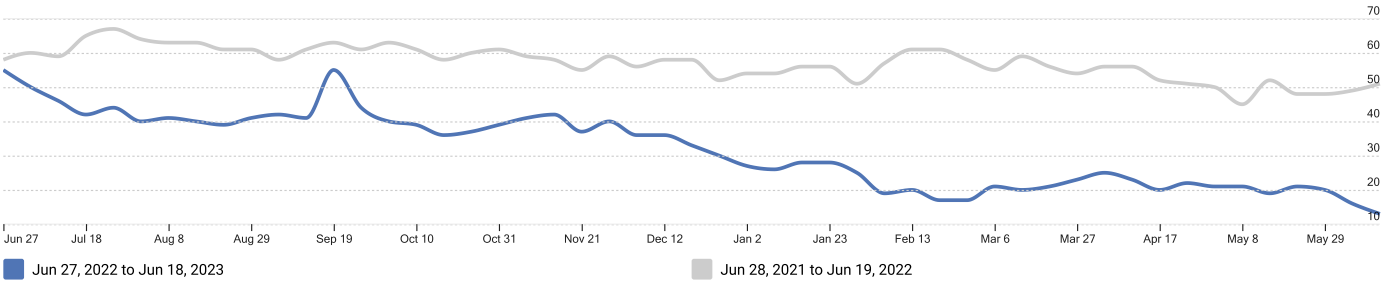
The number of graduates from postsecondary programs in the region identifies the pipeline of future workers as well as the training capacity to support industry demand.

Among postsecondary programs at schools located in California, the sampling above identifies those most linked to Commercial and Industrial Designers. For a complete list see JobsEQ®, http://www.chmuraecon.com/jobseq

Source: JobsEQ®, http://www.chmuraecon.com/jobseq

RTI (Job Postings)

Active Job Ads by Date



Online job ads are a timely indicator of local demand. Occupation assignments shown below are made by Chmura based upon analysis of job titles and job descriptions. Top employers and listed job requirements are shown on the following pages.

Occupations

SOC	Occupation	Active Job Ads	
27-1021.00	Commercial and Industrial Designers	183	

Locations

Location	Active Job Ads
San Francisco, California	14
Irvine, California	12
Los Angeles, California	11
El Segundo, CALIFORNIA 90245	8
Mountain View, California	7
Culver City, California	6
El Segundo, California 90245	4
San Mateo, California	4
Sunnyvale, California	4
Brea, CA 92821	3

Employers

Employer Name	Active Job Ads
Motion Recruitment	21
Mattel	12
Braintrust	10
Apple	6
Google	6
Rock 'n Roll	5
Crystal Equation	4
Sidecar	4
Aventon	3
Creative Circle	3

Hard Skills

Skill Name	Active Job Ads
Adobe Illustrator	76
Adobe Photoshop	76
Computer Aided Design Software (CAD Software)	60
Dassault Systemes SolidWorks Software	55
McNeel Rhino	43
Adobe Creative Suite	35
Prototyping	22
Visual Design	16
Presentation	14
Adobe InDesign	12

Job Titles

Job Title	Active Job Ads
Industrial Designer	34
Product Designer	19
Senior Product Designer	16
Senior Product Designer (Consumer Facing)	9
Senior Industrial Designer	8
Senior Product Designer / Web3 / Banking / Crypto	8
Product Designer V	6
CAD Sculptor, Industrial Design	3
Industrial Design Interns	3
Industrial Design Internship	3

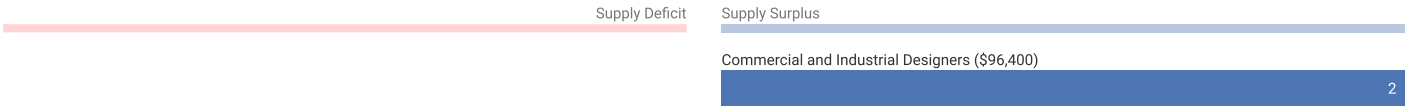
Education Levels

Minimum Education Level	Active Job Ads
Bachelor's degree	78
Unspecified/other	105

Programs

Program Name	Active Job Ads
Industrial Design	55
Computer Science	8
Mechanical Engineering	6
Product Design	5
Industrial	3
Architecture	2
Fine Arts	2
Psychology	2
Sociology	2
Design	1

Occupation Gaps

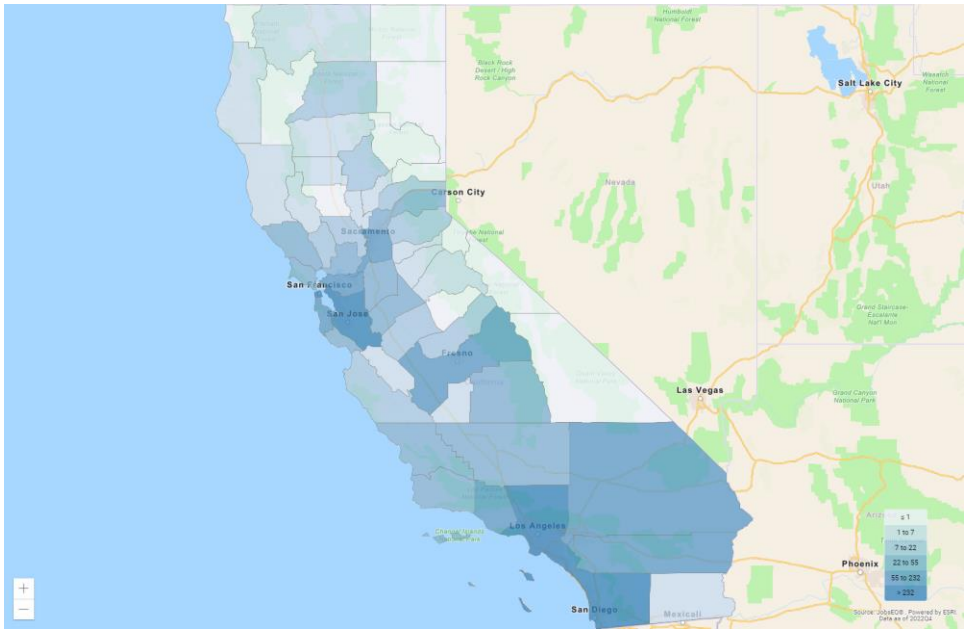


The above are the potential average annual gaps over 10 years. Many variables go into this analysis, but at its core it is based on a forecast comparing occupation demand growth to the local population growth and the projected educational attainment of those residents. When an area, for example, has an occupation expected to grow quickly but the educational requirement for the occupation does not match well with the educational attainment of its residents, there is a high potential for an occupation shortfall in the region. Alternatively, slow-growing or contracting occupations often represent potential supply surpluses.

The potential supply shortfall is an underlying force that the market needs to resolve one way or another, such as by employers recruiting from further distances for these occupations, wages going up to attract more candidates, and/or increased demand and wages enticing more local residents to get training for these occupations. While this an important analysis for determining local occupation needs, the occupation gap should be considered along with other regional data including growth and separation forecasts, unemployment rates, wage trends, and award and skill gap analyses.

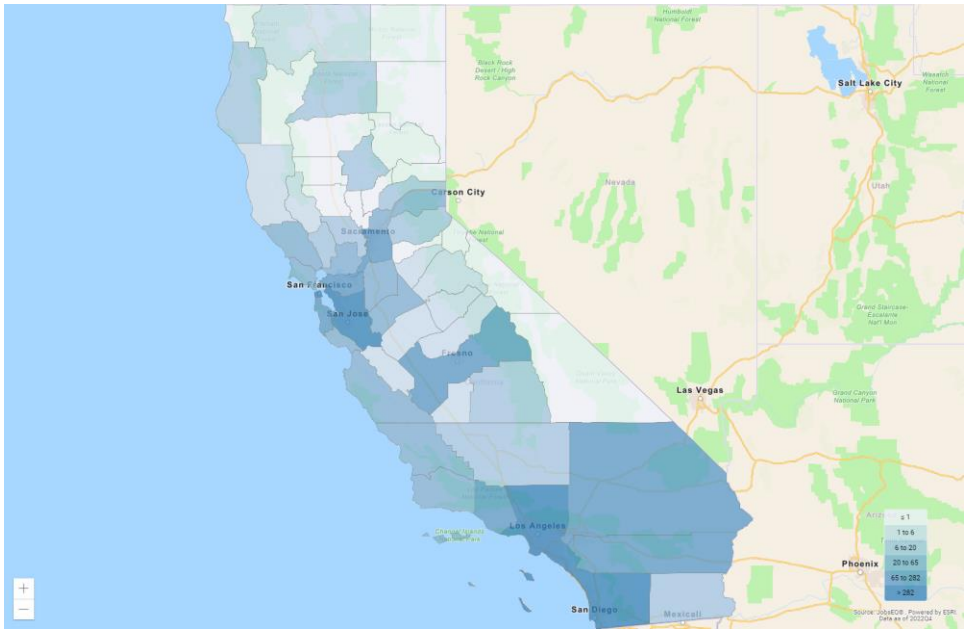
Source: JobsEQ®, http://www.chmuraecon.com/jobseq

Geographic Distribution



Top Counties by Place of Work for Commercial and Industrial Designers, 2022Q4

Region	Employment
Los Angeles County, California	1,371
Orange County, California	565
San Diego County, California	484
Santa Clara County, California	468
Alameda County, California	263
San Francisco County, California	233
San Bernardino County, California	185
Riverside County, California	158
Sacramento County, California	118
San Mateo County, California	104



Top Counties by Place of Residence for Commercial and Industrial Designers, 2022Q4

Region	Employment
Los Angeles County, California	1,400
Orange County, California	628
San Diego County, California	474
Santa Clara County, California	334
San Francisco County, California	307
Alameda County, California	282
Contra Costa County, California	147
Riverside County, California	137
San Bernardino County, California	135
Sacramento County, California	114

"Place of work" employment is based upon the location of employers for these workers. "Place of residence" data refers to the home locations of the workforce, which is typically the preferred data set to use when calculating labor availability within a drive-time or radius of a potential worksite.

California Regional Map

Source: JobsEQ®, http://www.chmuraecon.com/jobseq

Data Notes

- Occupation employment by default indicates employment by place of work. Occupation employment is as of 2022Q4 and is based on industry employment and local staffing patterns calculated by Chmura and utilizing BLS OEWS data. Employment forecasts are modeled by Chmura and are consistent with BLS national-level 10-year forecasts. Wages by occupation are as of 2022Q4, utilizing BLS OEWS data, imputed and brought forward by Chmura. Entry-level and experienced wages are derived from these source data, computed by Chmura.
- Industry employment is as of 2022Q4 and is based upon BLS QCEW data, imputed by Chmura where necessary, and supplemented by additional sources including Census ZBP data.
- Education and training requirements are from the BLS. Educational attainment mix and other occupation demographics data are modeled by Chmura for 2022Q4 using regional occupation employment from JobsEQ, ZCTA-level demographics data from the Census Bureau, and national occupation-demographics patterns from the BLS.
- Postsecondary awards are per the NCES and are for the 2020-2021 academic year. Any programs shown are linked with the occupation(s) being analyzed via the program-occupation crosswalk, which may not be comprehensive. Any programs shown reflect only data reported to the NCES; reporting is required of all Title IV schools. Training providers that do not report data to the NCES are not reflected.
- 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 06/28/2023 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.
- For skill and certification gaps, openings and candidates are based upon regional occupation demand (growth plus separations) and the percent of skill demand and supply. Skill demand mix data are per a one-year sample of RTI data; skill supply data are estimated using a five-year sample of resumes data; both data sets compiled as of August 2021. Data may be based, at least in part, on data from broader geographies; see the Skill Gaps analytic export for more details.
- Occupation gaps are modeled by Chmura, indicating long-term potential supply and demand mismatches in a region due, in part, to job demand and labor pool dyanamics, including educational attainment and projected growth.
- Occupation employment by place of residence is as of 2022Q4 and modeled by Chmura based upon occuaption employment by place of work and commuting patterns. Commuting patterns are derived from source data from the Census Bureau, occupation-specific commuting tendancies, and updated to reflect more recent population and employment estimates.
- Figures may not sum due to rounding.

FAQ

What is (LQ) location quotient?

Location quotient is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) 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 annual demand?

Annual demand is a of the sum of the annual projected growth demand and 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. Growth demand is the increase or decrease of jobs expected due to expansion or contraction of the overall number of jobs.