



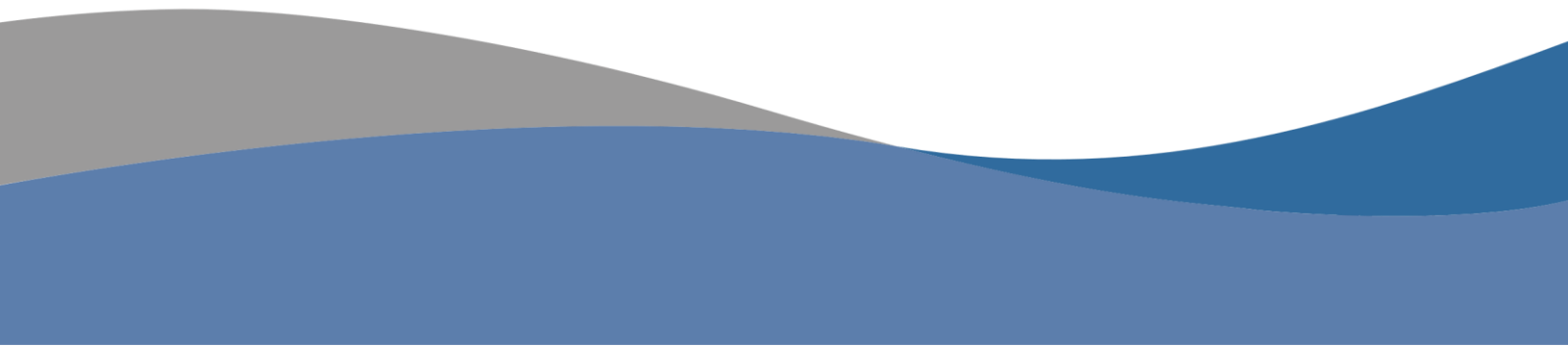
# Occupation Report

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# Artists and Related Workers

California

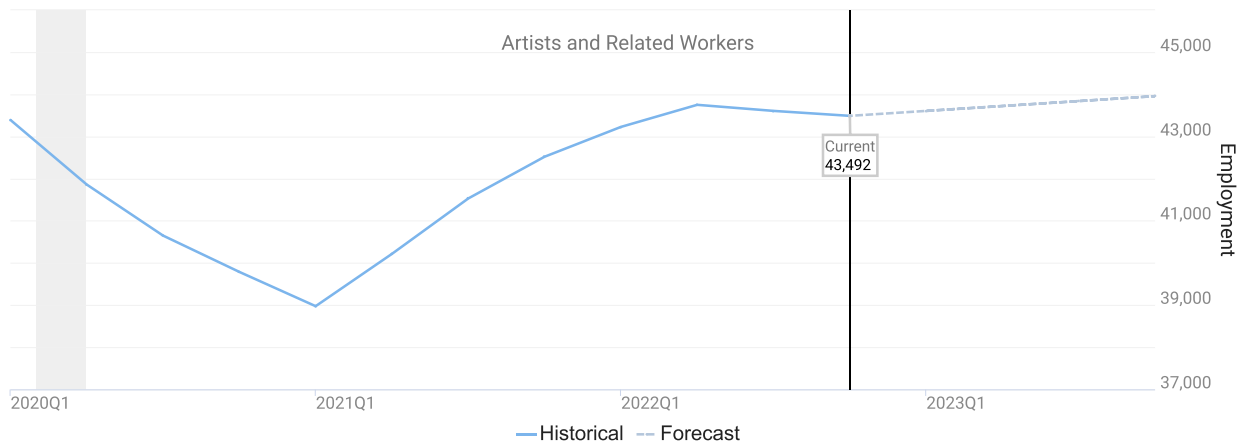
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# Occupation Snapshot

6-Digit Occupation	Empl	Avg Mean Wages	LQ	3-Year Empl Change	Annual Demand	Forecast Ann Growth
Art Directors	19,248	\$149,900	1.48	1,317	2,238	0.9%
Special Effects Artists and Animators	16,173	\$103,300	2.13	-1,048	1,963	1.3%
Fine Artists, Including Painters, Sculptors, and Illustrators	4,935	\$69,800	1.52	336	591	1.1%
Craft Artists	1,653	\$73,000	1.34	-72	197	1.1%
Artists and Related Workers, All Other	1,482	\$85,300	1.00	-415	179	1.2%
<b>Artists and Related Workers</b>	<b>43,492</b>	<b>\$118,300</b>	<b>1.64</b>	<b>118</b>	<b>5,168</b>	<b>1.1%</b>



- “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).

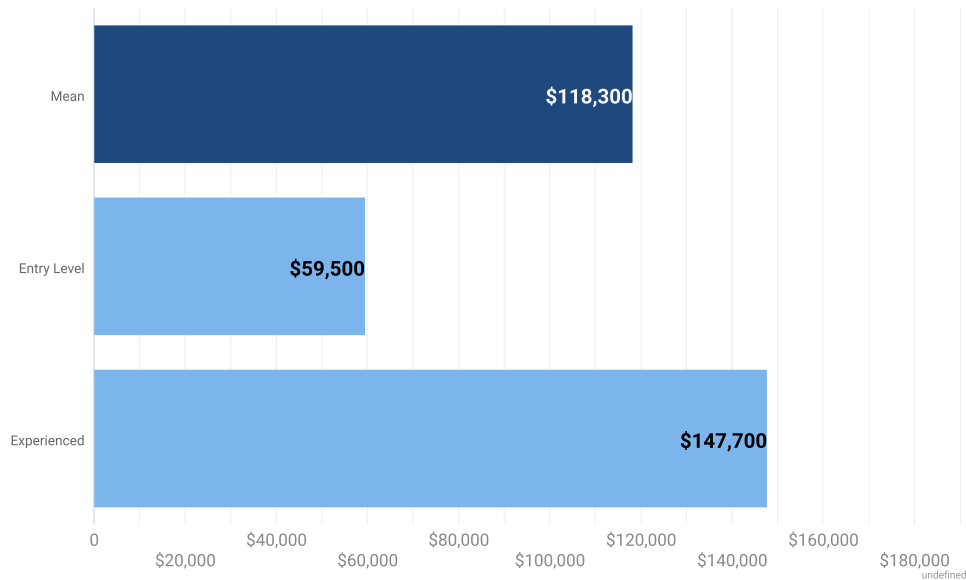
# Employment by Industry

Industry Title	% of Occ Empl	Empl	10-Year Separations	10-Year Empl Growth	10-Year Total Demand
Independent Artists, Writers, and Performers	26.2%	11,415	12,433	1,178	13,611
Motion Picture and Video Industries	25.4%	11,062	12,425	1,915	14,340
Advertising, Public Relations, and Related Services	17.6%	7,643	8,261	648	8,909
Specialized Design Services	9.6%	4,184	4,498	306	4,804
Software Publishers	2.3%	995	1,052	39	1,091
Personal Care Services	2.0%	852	935	101	1,036
Computer Systems Design and Related Services	1.6%	693	776	116	892
Management, Scientific, and Technical Consulting Services	1.3%	586	648	82	730
Web Search Portals, Libraries, Archives, and Other Information Services	1.2%	543	630	136	766
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	1.2%	514	546	26	572
Performing Arts Companies	1.0%	419	483	99	583
Management of Companies and Enterprises	1.0%	419	440	11	451
Newspaper, Periodical, Book, and Directory Publishers	0.8%	351	346	-35	311
Colleges, Universities, and Professional Schools	0.7%	293	316	23	339
Amusement Parks and Arcades	0.6%	271	330	101	431
Sound Recording Industries	0.6%	241	259	18	277
All Others	6.9%	3,013	3,192	142	3,334

 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

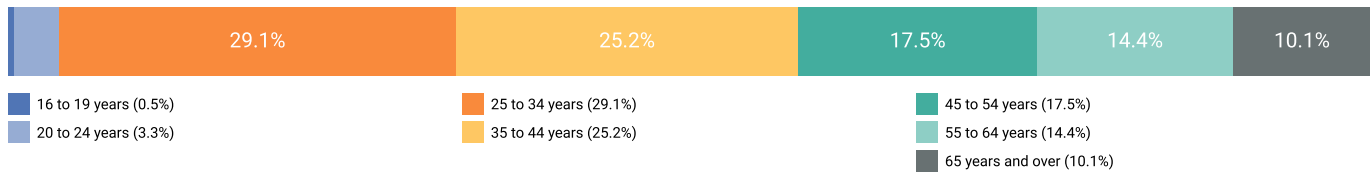


Occupation	Mean	Median	Entry Level	Experienced
Art Directors	\$149,900	\$133,300	\$84,300	\$182,700
Special Effects Artists and Animators	\$103,300	\$91,500	\$58,100	\$126,000
Artists and Related Workers, All Other	\$85,300	\$78,300	\$53,100	\$101,400
Craft Artists	\$73,000	\$56,300	\$42,100	\$88,400
Fine Artists, Including Painters, Sculptors, and Illustrators	\$69,800	\$65,100	\$42,900	\$83,300

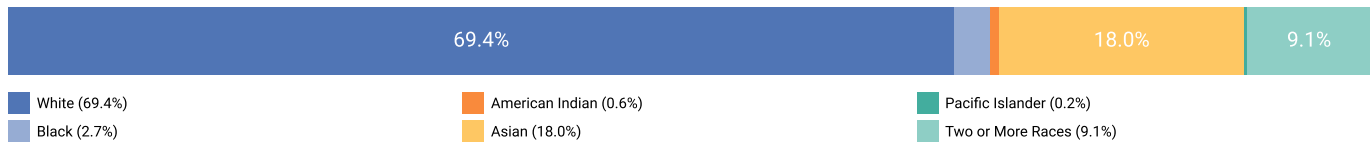
- 💡 Occupation wages here utilize BLS OEWS data, imputed and brought forward by Chmura.
- 💡 When this report is run for an occupation group, the table above displays up to the top ten detailed occupations which have the highest average wages within the occupation group.

# Occupation Demographics

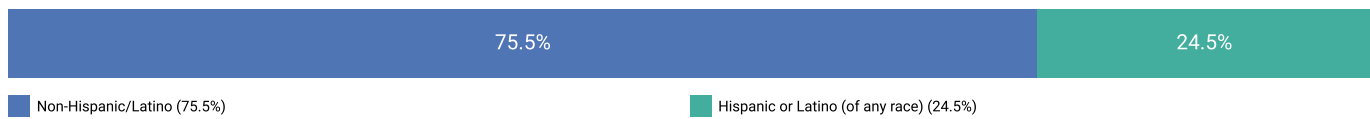
## Age



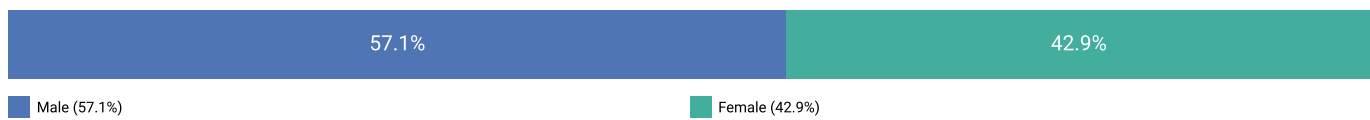
## Race



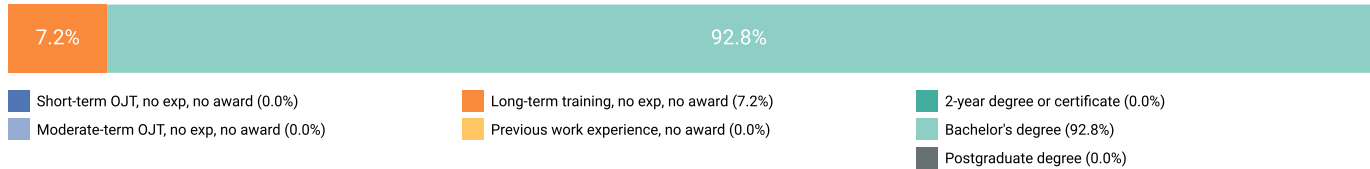
## Ethnicity



## Gender

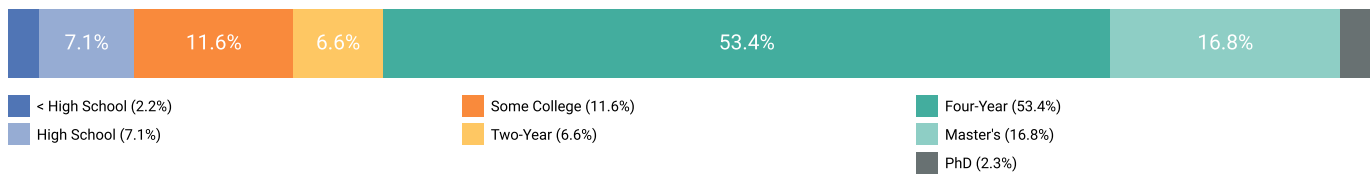


## Education and Training Requirements



# Education Profile

## Educational Attainment





Occupation	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
Art Directors	Bachelor's degree	5 years or more	None
Special Effects Artists and Animators	Bachelor's degree	None	None
Fine Artists, Including Painters, Sculptors, and Illustrators	Bachelor's degree	None	Long-term on-the-job training
Craft Artists	None	None	Long-term on-the-job training
Artists and Related Workers, All Other	None	None	Long-term on-the-job training

 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 Artists and Related Workers

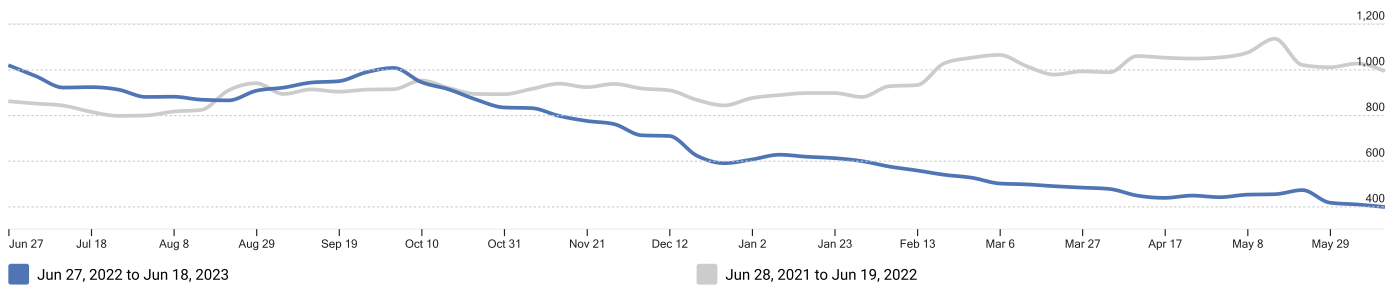
Program	Awards
<b>Academy of Art University</b>	
Animation, Interactive Technology, Video Graphics, and Special Effects	222
<b>Art Center College of Design</b>	
Graphic Design	99
<b>California State Polytechnic University-Pomona</b>	
Graphic Design	113
<b>California State University-Chico</b>	
Game and Interactive Media Design	81
<b>California State University-Fullerton</b>	
Fine/Studio Arts, General	323
<b>California State University-Long Beach</b>	
Fine/Studio Arts, General	204
<b>California State University-Northridge</b>	
Art/Art Studies, General	302
<b>Platt College-San Diego</b>	
Intermedia/Multimedia	48
<b>Sierra College</b>	
Graphic Design	99
<b>University of California-Santa Cruz</b>	
Game and Interactive Media Design	108


-  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 Artists and Related Workers. For a complete list see 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- 1014.00	Special Effects Artists and Animators	2,556
27- 1011.00	Art Directors	1,031
27- 1019.00	Artists and Related Workers, All Other	229
27- 1012.00	Craft Artists	30
27- 1013.00	Fine Artists, Including Painters, Sculptors, and Illustrators	27

### Locations

Location	Active Job Ads	
Los Angeles, California	581	
San Francisco, California	349	
Irvine, California	124	
Burbank, California	114	
Santa Monica, California	114	
Culver City, California	108	
San Diego, California	96	
Santa Clara Valley (Cupertino), California, United States	60	
Sacramento, California	52	
Redwood City, California	45	

### Employers

Employer Name	Active Job Ads	
Disney	222	
Electronic Arts	180	
Meta	165	
Apple	116	
Activision	115	
Michaels	109	
Riot Games	108	
Blizzard Entertainment	86	
Aquent	66	
Onward Search	62	

### Hard Skills

Skill Name	Active Job Ads	
Adobe Photoshop	1,433	
Autodesk Maya	1,293	
Adobe Illustrator	691	
Adobe Creative Suite	544	
Art Direction	512	
Graphic Design	477	
Python	476	
Adobe AfterEffects	414	
ZBrush	395	
SideFX Houdini	342	

### Job Titles

Job Title	Active Job Ads	
Art Director	116	
Creative Director	107	
Framer	56	
Associate Creative Director	42	
Senior Art Director	40	
Technical Artist	36	
3D Artist	31	
Lead Technical Artist	24	
Multimedia Specialist	23	
Motion Designer	20	

### Education Levels

Minimum Education Level	Active Job Ads	
Bachelor's degree	1,037	
High school diploma or equivalent	62	
Associate's degree	51	
Master's degree	15	
Doctoral or professional degree	1	
Unspecified/other	2,707	

### Programs

Program Name	Active Job Ads	
Graphic Design	210	
Computer Science	105	
Design	104	
Art	102	
Fine Arts	83	
Advertising	55	
Marketing	43	
Communications	39	
Engineering	32	
Computer Graphics	31	

# Top Skill and Certification Gaps

Top 10 Skill Gaps in California

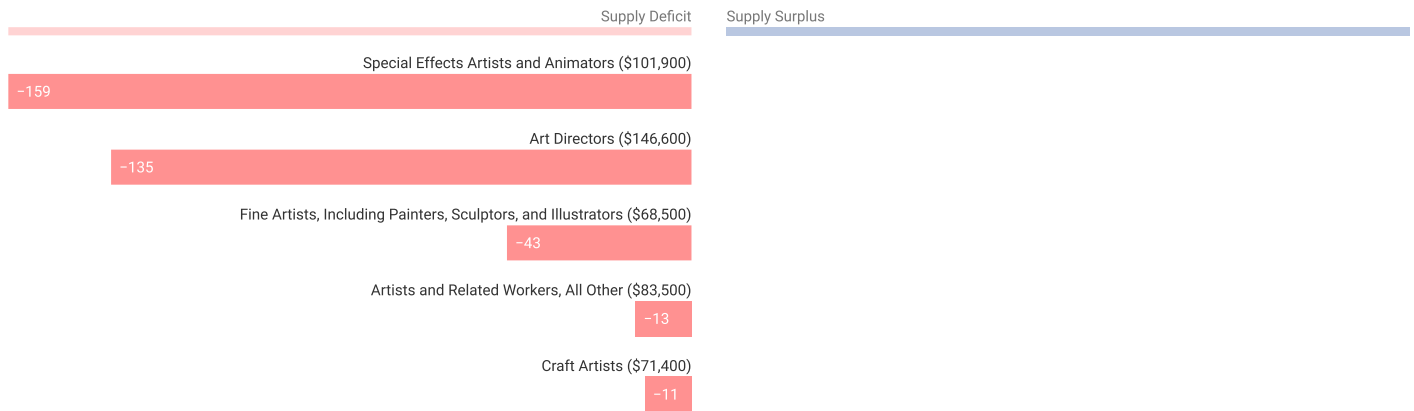
Name	Candidates	Openings	Gap
Autodesk Maya	1,211	1,304	-93
Adobe Photoshop	1,810	1,901	-91
Microsoft Office	207	285	-78
ZBrush	369	426	-57
Team Leadership	54	98	-44
Marketing	463	506	-43
Blender	135	166	-31
Personal Computers (PC)	149	175	-27
Drawing	93	116	-23
Asset Management	68	89	-21

Top 10 Certification Gaps in California

Name	Candidates	Openings	Gap
Certification in Cardiopulmonary Resuscitation (CPR)	4	1	3
First Aid Certification	3	0	3
Secret Clearance	14	7	7

 Skill and certifications gaps can help inform employee development programs, as well as provide a comparison of the needs of regional employers to the supply.

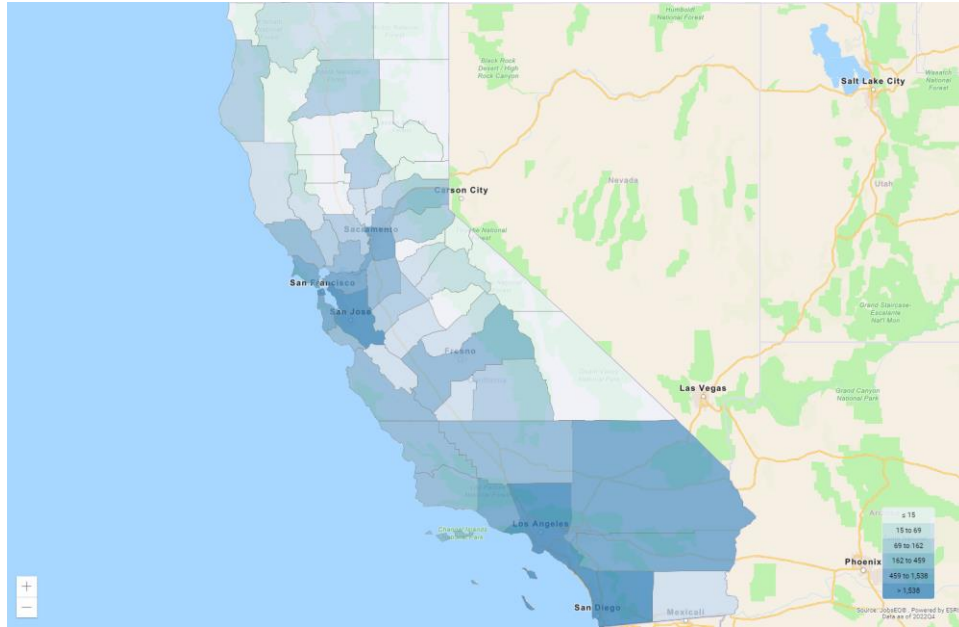
# Occupation Gaps



💡 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.

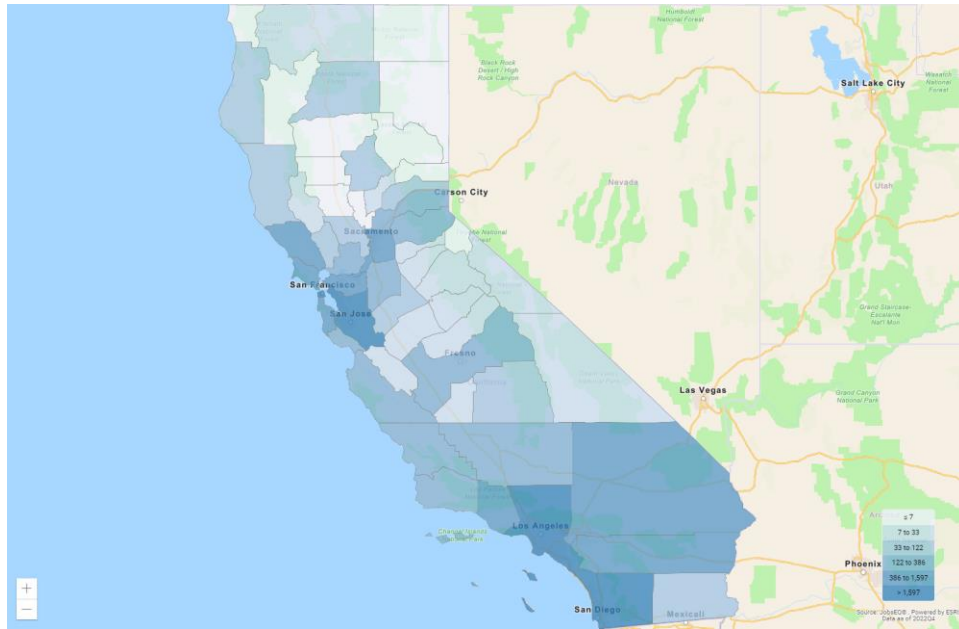
💡 The potential supply shortfall is an underlying force that the market needs to resolve one way or another, such as by employers recruiting from further distances for these occupations, wages going up to attract more candidates, and/or increased demand and wages enticing more local residents to get 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.

# Geographic Distribution



**Top Counties by Place of Work for Artists and Related Workers, 2022Q4**

Region	Employment
Los Angeles County, California	22,368
Orange County, California	3,140
San Diego County, California	2,674
San Francisco County, California	2,016
Santa Clara County, California	1,926
Alameda County, California	1,539
Riverside County, California	1,033
San Mateo County, California	940
San Bernardino County, California	795
Sacramento County, California	792



**Top Counties by Place of Residence for Artists and Related Workers, 2022Q4**

Region	Employment
Los Angeles County, California	21,986
Orange County, California	3,495
San Diego County, California	2,651
San Francisco County, California	2,004
Alameda County, California	1,673
Santa Clara County, California	1,597
Riverside County, California	971
San Mateo County, California	970
Contra Costa County, California	871
Sacramento County, California	780

💡 “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



# 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 dynamics, including educational attainment and projected growth.
- Occupation employment by place of residence is as of 2022Q4 and modeled by Chmura based upon occupation employment by place of work and commuting patterns. Commuting patterns are derived from source data from the Census Bureau, occupation-specific commuting tendencies, 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.