



Occupation Report

Special Effects Artists and Animators

California



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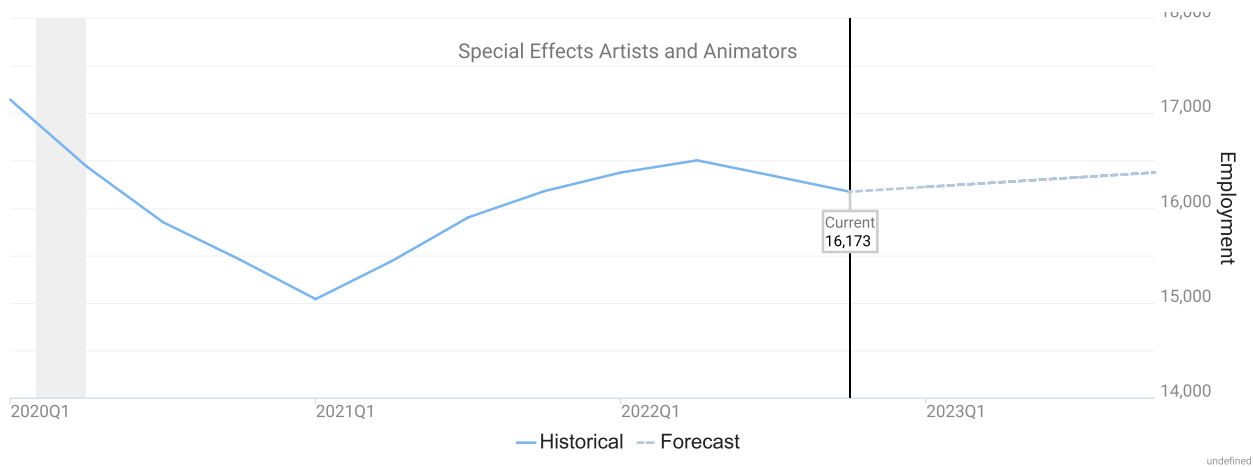
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Occupation Snapshot

6-Digit Occupation	Empl	Avg Mean Wages	LQ	3-Year Empl Change	Annual Demand	Forecast Ann Growth
Special Effects Artists and Animators	16,173	\$103,300	2.13	-1,048	1,963	1.3%



- 💡 “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).

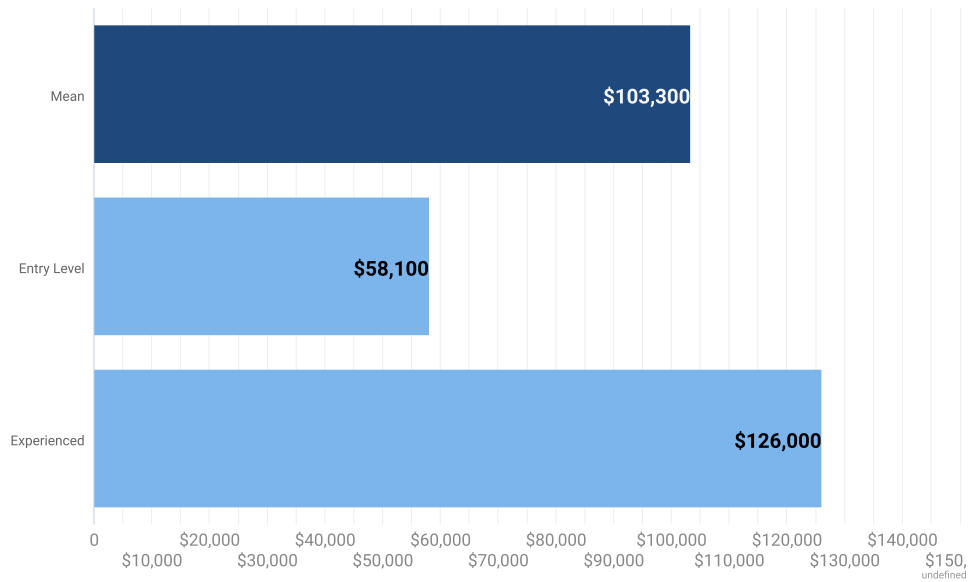
Employment by Industry

Industry Title	% of Occ Empl	Empl	10-Year Separations	10-Year Empl Growth	10-Year Total Demand
Motion Picture and Video Industries	49.1%	7,944	8,951	1,437	10,388
Independent Artists, Writers, and Performers	28.1%	4,549	4,926	409	5,335
Software Publishers	5.0%	802	848	31	879
Specialized Design Services	4.7%	752	805	49	854
Computer Systems Design and Related Services	3.2%	513	575	85	660
Web Search Portals, Libraries, Archives, and Other Information Services	1.5%	247	286	62	348
Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	1.5%	242	255	8	262
Advertising, Public Relations, and Related Services	1.4%	232	251	19	269
Management, Scientific, and Technical Consulting Services	0.5%	85	93	12	105
All Others	5.0%	807	856	39	895

 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

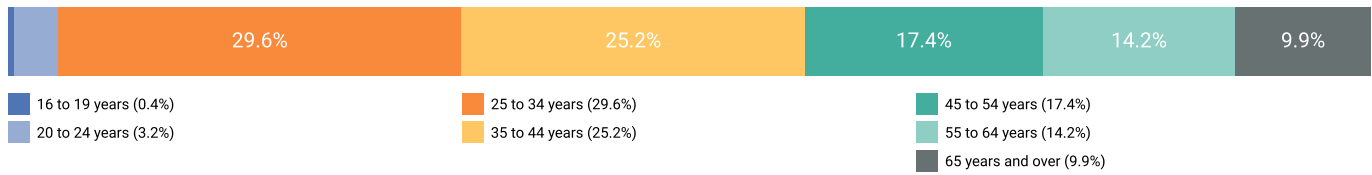


Occupation	Mean	Median	Entry Level	Experienced
Special Effects Artists and Animators	\$103,300	\$91,500	\$58,100	\$126,000

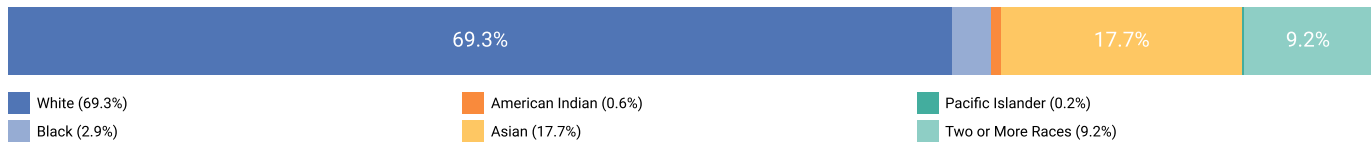
- 💡 Occupation wages here utilize BLS OEWS data, imputed and brought forward by Chmura.
- 💡 When this report is run for an occupation group, the table above displays up to the top ten detailed occupations which have the highest average wages within the occupation group.

Occupation Demographics

Age



Race



Ethnicity



Gender

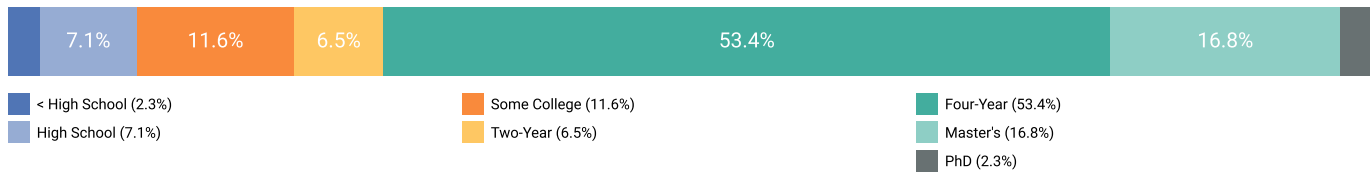


Education and Training Requirements



Education Profile

Educational Attainment





Occupation	Typical Entry-Level Education	Previous Work Experience	Typical On-the-Job Training
Special Effects Artists and Animators	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.

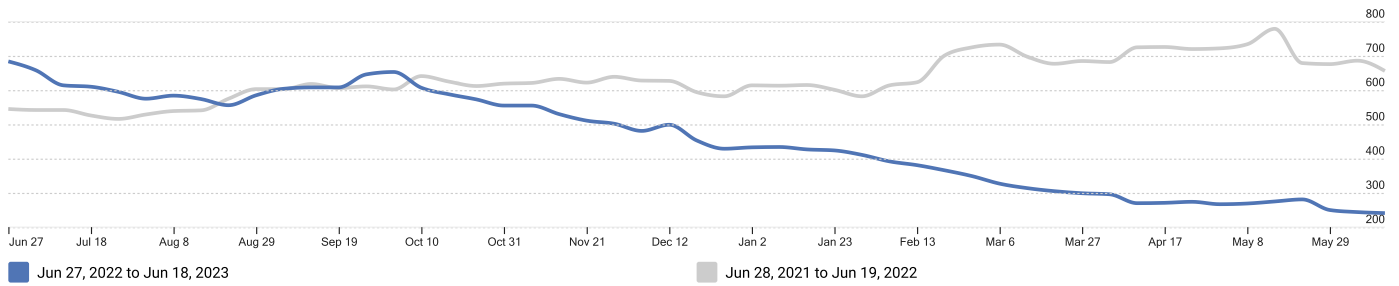
Postsecondary Programs Linked to Special Effects Artists and Animators


Program	Awards
Academy of Art University	
Animation, Interactive Technology, Video Graphics, and Special Effects	222
Computer Graphics	125
Web Page, Digital/Multimedia and Information Resources Design	142
California College of the Arts	
Animation, Interactive Technology, Video Graphics, and Special Effects	64
California Institute of the Arts	
Animation, Interactive Technology, Video Graphics, and Special Effects	45
California State University-Chico	
Game and Interactive Media Design	81
Laguna College of Art and Design	
Game and Interactive Media Design	50
Santa Monica College	
Animation, Interactive Technology, Video Graphics, and Special Effects	78
University of California-Santa Cruz	
Game and Interactive Media Design	108
University of Silicon Valley	
Animation, Interactive Technology, Video Graphics, and Special Effects	44

-  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 Special Effects Artists and Animators. 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

Locations

Location	Active Job Ads	
Los Angeles, California	383	
San Francisco, California	229	
Burbank, California	98	
Irvine, California	96	
Santa Monica, California	81	
San Diego, California	65	
Culver City, California	48	
Sacramento, California	34	
California, California	33	
Remote, US & Los Angeles, CA & Seattle, WA & Burlingame, CA	33	

Employers

Employer Name	Active Job Ads	
Disney	200	
Electronic Arts	159	
Meta	143	
Activision	107	
Riot Games	95	
Blizzard Entertainment	80	
Apple	47	
Onward Search	43	
PlayStation Global	43	
Aquent	41	

Hard Skills

Skill Name	Active Job Ads	
Autodesk Maya	1,225	
Adobe Photoshop	1,050	
Python	452	
Adobe Illustrator	376	
ZBrush	369	
SideFX Houdini	329	
Unreal Engine	311	
Adobe AfterEffects	307	
Blender	272	
Graphic Design	248	

Job Titles

Job Title	Active Job Ads	
Technical Artist	43	
3D Artist	31	
Lead Technical Artist	25	
Multimedia Specialist	25	
Motion Designer	23	
Senior Technical Artist	21	
Concept Artist	17	
3D Character Artist, Avatars	16	
Animator	15	
UI Artist	14	

Education Levels

Minimum Education Level	Active Job Ads	
Bachelor's degree	638	
Associate's degree	48	
High school diploma or equivalent	39	
Master's degree	13	
Doctoral or professional degree	1	
Unspecified/other	1,817	

Programs

Program Name	Active Job Ads	
Computer Science	105	
Graphic Design	97	
Art	61	
Fine Arts	60	
Design	48	
Engineering	30	
Computer Graphics	28	
Film	23	
Industrial Design	19	
Web Design	17	

Top Skill and Certification Gaps

Top 10 Skill Gaps in California

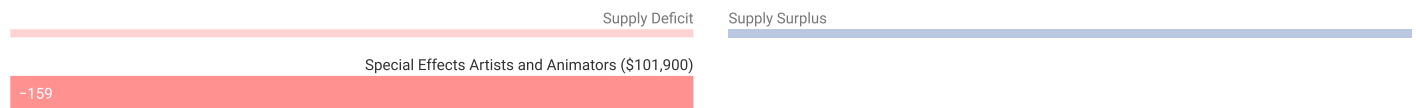
Name	Candidates	Openings	Gap
Blender	135	166	-31
Drawing	56	77	-21
ZBrush	256	269	-13
UNIX	8	19	-10
Project Management Software	1	12	-10
Git	32	40	-9
Art Direction	107	115	-8
C#	44	51	-7
Personal Computers (PC)	113	120	-6
Lua	8	14	-6



Top 10 Certification Gaps in California

Name	Candidates	Openings	Gap
Certification in Cardiopulmonary Resuscitation (CPR)	0	1	0
Secret Clearance	13	7	7

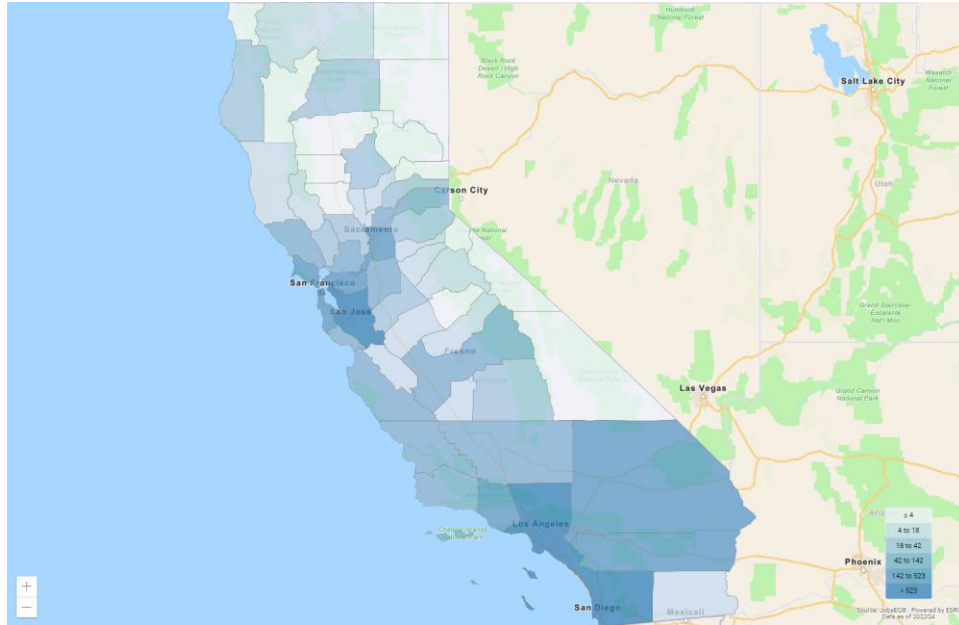
 Skill and certifications gaps can help inform employee development programs, as well as provide a comparison of the needs of regional employers to the supply.

Occupation Gaps



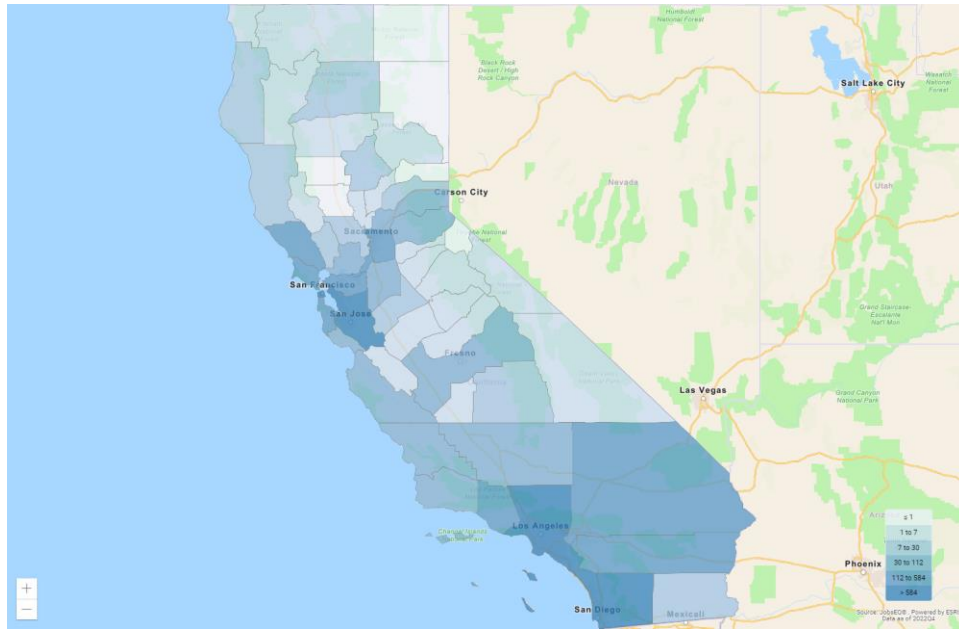
-  The above are the potential average annual gaps over 10 years. Many variables go into this analysis, but at its core it is based on a forecast comparing occupation demand growth to the local population growth and the projected educational attainment of those residents. When an area, for example, has 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 Special Effects Artists and Animators, 2022Q4

Region	Employment
Los Angeles County, California	9,822
Santa Clara County, California	816
Orange County, California	757
San Diego County, California	708
San Francisco County, California	691
Alameda County, California	524
San Mateo County, California	403
Riverside County, California	261
Ventura County, California	213
Sacramento County, California	209



Top Counties by Place of Residence for Special Effects Artists and Animators, 2022Q4

Region	Employment
Los Angeles County, California	9,567
Orange County, California	899
San Diego County, California	707
San Francisco County, California	699
Santa Clara County, California	664
Alameda County, California	584
San Mateo County, California	401
Contra Costa County, California	268
Riverside County, California	263
Ventura County, California	251

💡 “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.