



Education Report

Biology/Biological Sciences, General

California



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Definition of Biology/Biological Sciences, General, CIP 26.0101

A general program of biology at the introductory, basic level or a program in biology or the biological sciences that is undifferentiated as to title or content. Includes instruction in general biology and programs covering a variety of biological specializations.

Awards

The table below is a list of postsecondary awards in CIP 26.0101 that were granted by institutions located in California in the 2021 academic year.

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
University of California-Irvine		749		\$11,633
University of California-Riverside		618		\$13,502
University of California-Los Angeles		515	17	\$13,393
University of California-San Diego		268	170	\$15,632
Ventura College	418			\$3,971
San Francisco State University		348	47	\$13,641
University of California-Santa Barbara		377		\$17,333
University of California-Davis		364		\$16,640
University of California-Merced		360		\$11,586
California State University-Northridge		303	21	\$8,708
San Diego State University		282	27	\$6,867
California State University-Sacramento		265	13	\$7,778
Bakersfield College	274			\$6,989
California State Polytechnic University-Pomona		245	27	\$12,942
Fresno City College	272			\$6,391
Long Beach City College	270			\$6,550
California State University-Long Beach		247	10	\$9,171
University of California-Berkeley		233	15	\$17,652
California Polytechnic State University-San Luis Obispo		204	19	\$20,708
San Jose State University		171	32	\$14,603
California State University-San Marcos		183	11	\$14,296
California State University-Fullerton		175	14	\$4,939
Clovis Community College	187			\$6,305
Reedley College	155			\$7,089
California State University-Fresno		141	11	\$6,336
California State University-Channel Islands		147		\$14,493
San Bernardino Valley College	142			\$9,621
California State University-Los Angeles		122	14	\$2,695
California State Polytechnic University-Humboldt		129	5	\$13,904

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
University of California-Santa Cruz		128		\$19,615
California State University-San Bernardino		125	1	\$3,254
Yuba College	126			\$5,503
University of the Pacific		118	7	\$21,311
California State University-East Bay		114	9	\$12,631
San Diego Mesa College	121			\$7,663
Chabot College	119			\$8,576
California State University-Dominguez Hills		116	2	\$4,500
California State University-Stanislaus		117		\$7,230
Diablo Valley College	114			\$8,878
California State University-Monterey Bay		111		\$6,085
San Diego City College	107			\$8,370
Sierra College	102			\$5,921
Stanford University		61	40	\$14,402
California State University-Bakersfield		82	13	\$7,368
Mission College	94			\$6,727
Sonoma State University		89	2	\$7,055
Santa Barbara City College	85			\$14,000
Laney College	82			\$16,494
Napa Valley College	82			\$18,440
California State University-Chico		74	7	\$13,749
San Diego Miramar College	77			\$7,880
University of San Francisco		71	4	\$39,825
University of Southern California		70	2	\$26,021
Point Loma Nazarene University		59	8	\$34,851
Santa Clara University		67		\$48,469
Las Positas College	63			\$7,675
Palomar College	62			\$6,659
Loyola Marymount University		60		\$40,180
Orange Coast College	59			\$6,836
Sacramento City College	59			\$7,788
Citrus College	57			\$8,852
Pepperdine University		57		\$40,945
University of La Verne		57		\$22,538
California Lutheran University		56		\$24,065

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
University of San Diego		56		\$34,155
Antelope Valley Community College District	55			\$6,203
City College of San Francisco	54			\$9,261
Cuyamaca College	53			\$6,460
Moorpark College	49			\$4,856
College of the Canyons	47			\$6,400
Cosumnes River College	47			\$7,223
Chapman University		46		\$40,451
Grossmont College	46			\$5,999
Los Medanos College	44			\$7,231
De Anza College	43			\$8,236
Whittier College		41		\$22,091
Foothill College	40			\$9,820
Monterey Peninsula College	40			\$12,007
Saddleback College	40			\$7,918
Saint Mary's College of California		40		\$25,022
Los Angeles Valley College	39			\$11,833
Glendale Community College	38			\$7,823
Hartnell College	38			\$7,721
Madera Community College	38			
Dominican University of California		25	12	\$45,001
Occidental College		37		\$43,047
Fullerton College	35			\$11,191
Imperial Valley College	32			\$2,300
Santiago Canyon College	32			\$5,879
Azusa Pacific University		31		\$27,112
Taft College	31			\$7,143
University of Redlands		31		\$21,578
Allan Hancock College	30			\$6,629
Contra Costa College	30			\$9,405
Cabrillo College	29			\$18,139
Los Angeles Pierce College	29			\$12,995
Solano Community College	29			\$5,950
Golden West College	28			\$5,433
East Los Angeles College	27			\$12,028
Evergreen Valley College	26			\$15,650

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
California Baptist University		25		\$23,494
Notre Dame de Namur University		25		\$28,243
Butte College	24			\$10,736
Cuesta College	24			\$14,586
El Camino Community College District	24			\$13,296
West Valley College	24			\$6,890
Westmont College		24		\$33,554
California Institute of Technology		9	13	\$30,162
Cerritos College	22			\$9,557
American River College	21			\$8,101
Concordia University-Irvine		21		\$25,640
Merced College	21			\$13,426
Mt San Jacinto Community College District	21			\$7,704
The Master's University and Seminary		21		\$30,748
Southwestern College	20			\$6,789
College of San Mateo	19			\$5,427
Los Angeles Mission College	19			\$12,798
Riverside City College	19			\$7,161
Southern California University of Health Sciences		19		
Vanguard University of Southern California		19		\$20,427
Biola University		18		\$29,123
Skyline College	18			\$4,885
MiraCosta College	17			\$6,946
Scripps College		17		\$44,770
Berkeley City College	16			\$13,556
Chaffey College	16			\$13,939
Rio Hondo College	16			\$7,873
Mount Saint Mary's University		15		\$24,508
Oxnard College	15			\$3,441
Canada College	14			\$5,923
Pasadena City College	14			\$6,466
Santa Rosa Junior College	14			\$9,220
Irell & Manella Graduate School of Biological Sciences at City of Hope			13	
Pomona College		13		\$17,000

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
Cypress College	12			\$7,951
Folsom Lake College	12			\$8,276
Pacific Union College		12		\$22,767
College of the Desert	11			\$14,179
Irvine Valley College	11			\$4,860
Mills College		11		\$25,283
Ohlone College	11			\$12,787
William Jessup University		11		\$27,823
Claremont McKenna College		10		\$21,663
Gavilan College	10			\$8,705
Norco College	10			\$7,404
Santa Ana College	10			\$6,351
West Los Angeles College	10			\$10,259
Crafton Hills College	9			\$20,456
Los Angeles City College	9			\$10,898
La Sierra University		8		\$25,230
Simpson University		8		\$25,311
College of the Sequoias	7			\$5,205
Marymount California University		7		\$35,660
West Hills College-Lemoore	7			\$13,571
Mendocino College	6			\$8,465
Pitzer College		6		\$19,153
West Hills College-Coalinga	6			\$11,458
College of Alameda	5			\$12,583
College of Marin	5			\$7,717
Columbia College	5			\$10,735
Holy Names University		5		\$21,515
Los Angeles Southwest College	5			\$8,651
National University		5		\$9,966
Feather River Community College District	4			\$11,415
Harvey Mudd College		4		\$33,838
Los Angeles Harbor College	4			\$12,787
Los Angeles Trade Technical College	4			\$10,495
Mt San Antonio College	4			\$5,774
University of Saint Katherine		4		\$26,616
Fresno Pacific University		3		\$15,350

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
San Diego Christian College		3		\$34,564
College of the Redwoods	1			\$8,618
Lassen Community College	1			\$11,495
Moreno Valley College	1			\$4,899
Porterville College	1			\$5,757
Coastline Community College				\$8,953
College of the Siskiyous				\$11,340
Compton College				\$10,875
San Jose City College				\$17,618
Victor Valley College				\$12,848
Woodland Community College				\$7,480
Total	4,775	8,708	586	

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, Biology/Biological Sciences, General, CIP 26.0101.

		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
11-9121	Natural Sciences Managers	Bachelor's degree	5 years or more	None	1%	2%	2%	31%	63%
19-1029	Biological Scientists, All Other	Bachelor's degree	None	None	0%	0%	0%	42%	58%
19-1099	Life Scientists, All Other	Bachelor's degree	None	None	1%	0%	0%	20%	79%
19-4012	Agricultural Technicians	Associate's degree	None	Moderate-term on-the-job training	26%	16%	15%	33%	10%
19-4013	Food Science Technicians	Associate's degree	None	Moderate-term on-the-job training	29%	17%	16%	29%	8%
19-4021	Biological Technicians	Bachelor's degree	None	None	14%	12%	15%	37%	22%
19-4092	Forensic Science Technicians	Bachelor's degree	None	Moderate-term on-the-job training	13%	17%	13%	38%	18%
25-1042	Biological Science Teachers, Postsecondary	Doctoral or professional degree	None	None	1%	1%	1%	14%	82%
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Bachelor's degree	None	None	0%	2%	1%	41%	56%

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 Natural Sciences Managers (11-9121)

Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.

Definition of Biological Scientists, All Other (19-1029)

All biological scientists not listed separately.

Definition of Life Scientists, All Other (19-1099)

All life scientists not listed separately.

Definition of Agricultural Technicians (19-4012)

Work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

Definition of Food Science Technicians (19-4013)

Work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. Includes technicians who assist in research and development of production technology, quality control, packaging, processing, and use of foods.

Definition of Biological Technicians (19-4021)

Assist biological and medical scientists. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, collect data and samples, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.

Definition of Forensic Science Technicians (19-4092)

Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry.

Definition of Biological Science Teachers, Postsecondary (25-1042)

Teach courses in biological sciences. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Definition of Secondary School Teachers, Except Special and Career/Technical Education (25-2031)

Teach one or more subjects to students at the secondary school level.

Occupation Details

As of 2022Q4, total employment for occupations linked to Biology/Biological Sciences, General in California was 151,980. Over the past three years, linked occupations added 2,523 jobs in the region and are expected to need in aggregate approximately 89,294 newly trained workers over the next seven years.

Snapshot of Occupations Linked to Biology/Biological Sciences, General in California¹

SOC	Occupation	Current						3-Year History	7-Year Forecast				
		Empl	Mean Ann Wages ²	LQ	Unempl	Unempl Rate	Online Job Ads ³	Ann %	Total Demand	Exits	Transfers	Empl Growth	Avg Ann Growth %
25- 2031	Secondary School Teachers, Except Special and Career/Technical Education	105,321	\$100,400	0.85	2,531	2.4%	1,989	-1.0%	52,871	21,638	29,100	2,132	0.3%
19- 1029	Biological Scientists, All Other	12,701	\$105,400	2.15	296	2.3%	441	7.5%	8,292	1,741	5,956	595	0.7%
11- 9121	Natural Sciences Managers	12,225	\$200,000	1.31	276	2.3%	1,059	6.5%	7,714	2,219	4,792	703	0.8%
19- 4021	Biological Technicians	10,800	\$59,400	1.11	663	6.0%	836	3.5%	10,822	2,273	7,916	633	0.8%
25- 1042	Biological Science Teachers, Postsecondary	3,318	\$154,500	0.58	63	1.9%	371	-1.4%	2,243	1,090	921	232	1.0%
19- 4092	Forensic Science Technicians	2,712	\$95,600	1.41	86	3.1%	29	0.2%	2,667	538	1,914	215	1.1%
19- 4013	Food Science Technicians	2,109	\$52,800	1.42	30	1.4%	182	1.7%	2,208	303	1,817	88	0.6%
19- 4012	Agricultural Technicians	1,772	\$55,600	1.04	22	1.3%	65	6.2%	1,962	260	1,563	139	1.1%
19- 1099	Life Scientists, All Other	1,023	\$122,500	1.14	84	7.9%	12	-3.4%	515	111	348	56	0.8%
Total - Linked Occupations		151,980	\$106,000	0.94	4,051	2.6%	4,984	0.6%	89,294	30,174	54,327	4,794	0.4%
Total - All Occupations		19,219,968	\$71,900	1.00	797,161	4.1%	547,112	0.6%	17,029,863	6,722,656	9,379,252	927,955	0.7%

Source: [JobsEQ®](#)

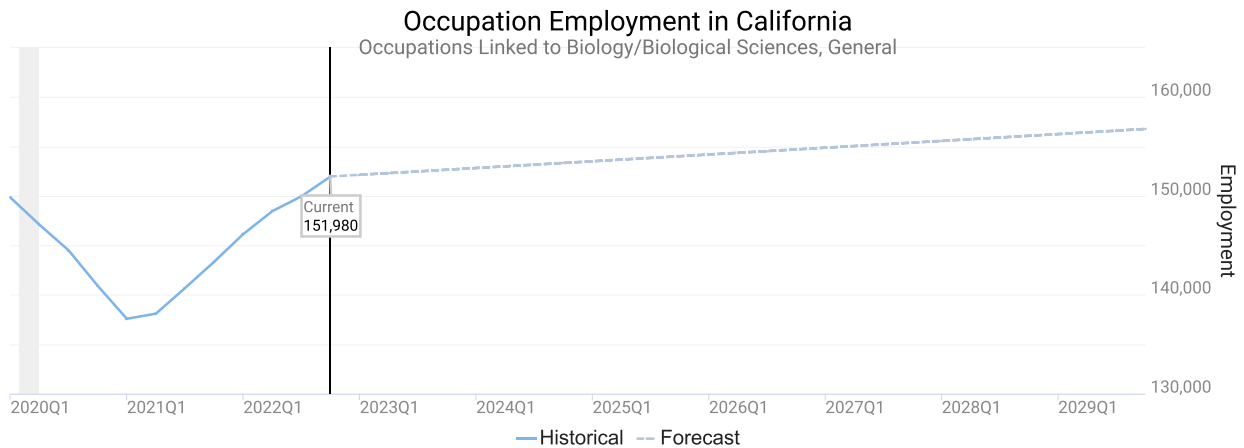
Data as of 2022Q4 unless noted otherwise

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.



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 Biology/Biological Sciences, General. The single industry most employing these occupations in the region is Elementary and Secondary Schools, NAICS 6111. This industry employs 103,786 workers in the linked occupations—employment which is expected to increase by 2,935 jobs over the next ten years; furthermore, 71,428 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 Biology/Biological Sciences, General in California

NAICS Code	Industry Title	Current			10-Year Demand		
		% of Occ Empl	Empl	Exits	Transfers	Empl Growth	Total Demand
6111	Elementary and Secondary Schools	68.3%	103,786	30,459	40,970	2,935	74,363
5417	Scientific Research and Development Services	13.3%	20,281	5,061	15,364	2,067	22,492
6113	Colleges, Universities, and Professional Schools	3.5%	5,254	1,798	3,676	528	6,001
3254	Pharmaceutical and Medicine Manufacturing	1.5%	2,235	579	1,782	190	2,550
9221	Justice, Public Order, and Safety Activities	1.2%	1,856	460	1,495	61	2,015
5416	Management, Scientific, and Technical Consulting Services	1.0%	1,545	354	1,169	209	1,733
9211	Executive, Legislative, and Other General Government Support	0.9%	1,399	361	1,182	89	1,633
9281	National Security and International Affairs	0.8%	1,284	271	849	-58	1,061
6221	General Medical and Surgical Hospitals	0.8%	1,183	367	891	42	1,300
5413	Architectural, Engineering, and Related Services	0.7%	1,139	285	944	35	1,264
9231	Administration of Human Resource Programs	0.7%	1,108	277	897	46	1,220
6112	Junior Colleges	0.7%	1,081	485	444	41	970
6215	Medical and Diagnostic Laboratories	0.6%	836	203	672	90	965
	All Others	5.9%	8,993	2,162	7,303	633	10,098

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.

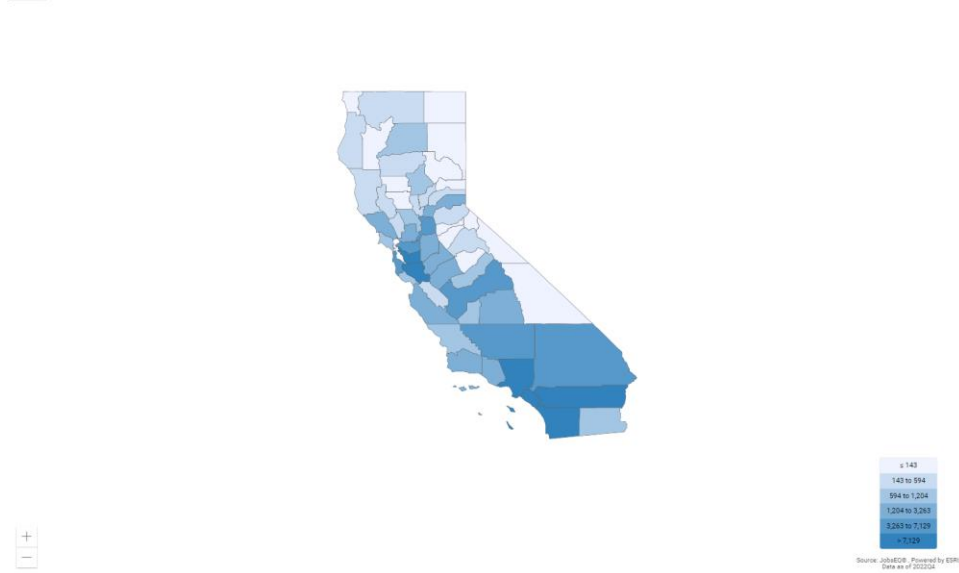
Note: Figures may not sum due to rounding.

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.

Geographic Distribution

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

California, Occupation Concentration by Place of Work for Occupations Linked to Biology/Biological Sciences, General



Top Counties with Employment Linked to Biology/Biological Sciences, General, 2022Q4

Region	Employment
Los Angeles County, California	33,555
San Diego County, California	16,337
Orange County, California	11,056
Santa Clara County, California	8,900
Alameda County, California	8,216
Riverside County, California	7,129
San Bernardino County, California	7,005
Sacramento County, California	6,269
San Mateo County, California	6,045
San Francisco County, California	4,322

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.

Summary¹

	Percent		Value	
	California	USA	California	USA
Demographics				
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 ²	—	—	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
Population Growth				
Population (Pop Estimates) ⁴	—	—	39,029,342	333,287,557
Population Annual Average Growth ⁴	0.3%	0.6%	108,479	1,940,990
People per Square Mile	—	—	250.4	94.3
Educational Attainment, Age 25-64				
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
Social				
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 ³	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

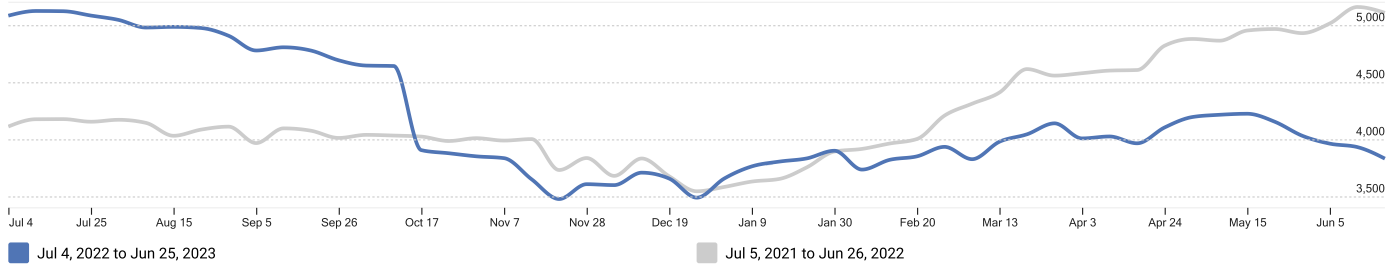
2. Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

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



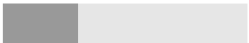
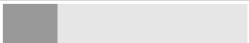
SOC	Occupation	Active Job Ads
25- 2031.00	Secondary School Teachers, Except Special and Career/Technical Education	7,721
11- 9121.01	Clinical Research Coordinators	4,986
19- 4021.00	Biological Technicians	3,769
19- 1029.01	Bioinformatics Scientists	1,740
19- 1029.02	Molecular and Cellular Biologists	1,431
25- 1042.00	Biological Science Teachers, Postsecondary	1,212
19- 4013.00	Food Science Technicians	911
11- 9121.02	Water Resource Specialists	379
19- 4012.00	Agricultural Technicians	291
11- 9121.00	Natural Sciences Managers	186

Locations

Location	Active Job Ads
Los Angeles, California	1,098
San Diego, California	947
University of California San Francisco	776
Los Angeles, CA, 90095, US	581
South San Francisco, California	533
University of California Davis	518

Locations

**Active
Job
Ads**

Location		
San Francisco, California	498	
University of Southern California (USC)	392	
University of California San Diego	338	
Sacramento, California	246	

Employers

Employer Name	Active Job Ads	
UCLA HEALTH	902	
San Francisco, California	804	
Oakland Unified School District	521	
Cedars-Sinai	484	
Los Angeles, California	430	
Kaiser Permanente	395	
Davis, California	389	
La Jolla, California	338	
University of Southern California	320	
Stanford University	312	

Certifications

Certificate Name	Active Job Ads	
Driver's License	444	
First Aid Certification	239	
Certification in Cardiopulmonary Resuscitation (CPR)	236	
Certified Research Administrator (CRA)	190	
Certified Clinical Research Coordinator (CCRC)	100	
Basic Life Support (BLS)	97	
National Phlebotomy Association Certified Phlebotomist	89	
Certified Clinical Research Associate (CCRA)	66	
Advanced Cardiac Life Support Certification (ACLS)	40	
Registered Nurse (RN)	30	

Hard Skills

Skill Name	Active Job Ads	
Teaching/Training, School	5,523	
Clinical Research	3,322	
Microsoft Excel	2,921	
Molecular Biology	2,550	
Microsoft Office	2,256	
Data Analysis	1,851	
Polymerase Chain Reaction (PCR)	1,701	
Cell Culture	1,588	
Microsoft Word	1,533	
Spanish	1,238	

Soft Skills

Skill Name	Active Job Ads	
Communication (Verbal and written skills)	11,342	
Cooperative/Team Player	7,002	
Organization	4,503	
Self-Motivated/Ability to Work Independently/Self Leadership	3,510	
Detail Oriented/Meticulous	3,321	
Interpersonal Relationships/Maintain Relationships	2,867	
Problem Solving	2,633	
Analytical	2,558	
Adaptability/Flexibility/Tolerance of Change and Uncertainty	2,166	
Supervision/Management	1,935	

Job Titles

Job Title	Active Job Ads	
Clinical Research Coordinator	372	
Lab Technician	200	
Intern I - High School	171	
Research Assistant	166	
Assistant Clinical Research Coordinator	141	
Research Associate	120	
English Teacher	114	
Staff Research Associate	108	
Research Lab Technician II	106	
Research Coordinator I	100	

Job Types

Type	Active Job Ads	
Full-Time	12,280	
Part-Time	2,659	
Permanent	1,782	
Temporary (unspecified)	1,573	
Remote	781	
Temporary (long-term)	423	
Temporary (short-term)	106	
Temp-to-Hire	64	
Remote Not Indicated	22,210	

Programs

Program Name	Active Job Ads	
Biology	2,839	
Science	1,233	
Biochemistry	1,114	
Chemistry	875	
Molecular Biology	814	
Life Science	496	
Computer Science	494	
Bioinformatics	472	
Microbiology	394	
Immunology	349	

Education Levels

Minimum Education Level	Active Job Ads	
Bachelor's degree	8,518	
Doctoral or professional degree	1,387	
High school diploma or equivalent	1,322	
Master's degree	1,140	
Associate's degree	1,110	
Unspecified/other	9,514	

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 07/05/2023 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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