



# Education Report

---

# Public Health, General

California

---



Definition of Public Health, General, CIP 51.2201 ..... 3  
Awards..... 4  
Occupation Crosswalk ..... 6  
Occupation Details ..... 7  
Employment by Industry ..... 8  
Geographic Distribution ..... 9  
Demographic Profile..... 10  
RTI (Job Postings) ..... 11  
California Regional Map ..... 16  
FAQ..... 17

# Definition of Public Health, General, CIP 51.2201

A program that generally prepares individuals to plan, manage, and evaluate public health care services; to function as public health professionals in public agencies, the private sector, and other settings; and to provide leadership in the field of public health. Includes instruction in epidemiology, biostatistics, public health principles, preventive medicine, health policy and regulations, health care services and related administrative functions, public health law enforcement, health economics and budgeting, public communications, and professional standards and ethics.

# Awards

The table below is a list of postsecondary awards in CIP 51.2201 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>
University of California-Berkeley		223	254	\$17,652
California State University-Northridge		338	75	\$8,708
California State University-Fullerton		299	26	\$4,939
San Jose State University		264	34	\$14,603
California State University-Los Angeles		197	24	\$2,695
San Diego State University		104	110	\$6,867
University of California-Merced		162	6	\$11,586
National University			156	\$9,966
California State University-Sacramento		139		\$7,778
University of California-San Diego		110	15	\$15,632
University of Southern California			125	\$26,021
West Coast University-Orange County			97	\$24,624
Touro University California			67	
California Baptist University		26	36	\$23,494
University of San Francisco			61	\$39,825
California State University-San Marcos			50	\$14,296
Santa Clara University		40		\$48,469
University of California-Davis			39	\$16,640
Claremont Graduate University		2	34	
University of the People	16	19		\$1,634
Los Angeles Pacific University			34	\$20,487
California Polytechnic State University-San Luis Obispo		32		\$20,708
California State University-Chico		31		\$13,749
Ashford University			28	\$23,585
University of California-Irvine			28	\$11,633
California State University-Long Beach			27	\$9,171
Charles R Drew University of Medicine and Science		4	23	\$26,470
San Francisco State University			21	\$13,641
California State University-San Bernardino		3	17	\$3,254
Loma Linda University			14	

Schools	Certs & 2yr Awards <sup>1</sup>	4yr Awards <sup>2</sup>	Post-Grad Awards <sup>3</sup>	Avg Net Price <sup>4</sup>
Stanford University			13	\$14,402
California State University-Fresno			10	\$6,336
The Chicago School of Professional Psychology at Los Angeles			8	\$33,638
La Sierra University		5		\$25,230
Pitzer College		1		\$19,153
University of California-Los Angeles				\$13,393
<b>Total</b>	<b>16</b>	<b>1,999</b>	<b>1,432</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, Public Health, General, CIP 51.2201.

		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
11-9111	Medical and Health Services Managers	Bachelor's degree	Less than 5 years	None	6%	10%	10%	35%	39%
21-1091	Health Education Specialists	Bachelor's degree	None	None	9%	10%	8%	44%	30%
21-1094	Community Health Workers	High school diploma or equivalent	None	Short-term on-the-job training	9%	10%	8%	44%	30%
25-1071	Health Specialties Teachers, Postsecondary	Doctoral or professional degree	Less than 5 years	None	1%	1%	1%	14%	83%

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 Medical and Health Services Managers (11-9111)

Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

## Definition of Health Education Specialists (21-1091)

Provide and manage health education programs that help individuals, families, and their communities maximize and maintain healthy lifestyles. Use data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies, and environments. May link health systems, health providers, insurers, and patients to address individual and population health needs. May serve as resource to assist individuals, other health professionals, or the community, and may administer fiscal resources for health education programs.

## Definition of Community Health Workers (21-1094)

Promote health within a community by assisting individuals to adopt healthy behaviors. Serve as an advocate for the health needs of individuals by assisting community residents in effectively communicating with healthcare providers or social service agencies. Act as liaison or advocate and implement programs that promote, maintain, and improve individual and overall community health. May deliver health-related preventive services such as blood pressure, glaucoma, and hearing screenings. May collect data to help identify community health needs.

## Definition of Health Specialties Teachers, Postsecondary (25-1071)

Teach courses in health specialties, in fields such as dentistry, laboratory technology, medicine, pharmacy, public health, therapy, and veterinary medicine.

# Occupation Details

As of 2022Q4, total employment for occupations linked to Public Health, General in California was 77,181. Over the past three years, linked occupations added 5,168 jobs in the region and are expected to need in aggregate approximately 64,121 newly trained workers over the next seven years.

Snapshot of Occupations Linked to Public Health, 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- 9111	Medical and Health Services Managers	53,626	\$138,100	0.97	878	1.6%	2,682	2.8%	43,914	11,857	21,174	10,883	2.7%
25- 1071	Health Specialties Teachers, Postsecondary	8,436	\$144,300	0.37	156	1.9%	2,167	0.3%	6,659	2,911	2,459	1,289	2.1%
21- 1094	Community Health Workers	7,882	\$57,200	1.00	143	1.8%	149	4.5%	7,393	2,439	3,985	968	1.7%
21- 1091	Health Education Specialists	7,238	\$74,300	1.05	135	1.9%	144	-0.7%	6,156	2,162	3,533	461	0.9%
<b>Total - Linked Occupations</b>		<b>77,181</b>	<b>\$124,500</b>	<b>0.83</b>	<b>1,312</b>	<b>1.7%</b>	<b>5,142</b>	<b>2.3%</b>	<b>64,121</b>	<b>19,370</b>	<b>31,151</b>	<b>13,601</b>	<b>2.3%</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>547,112</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®](#)

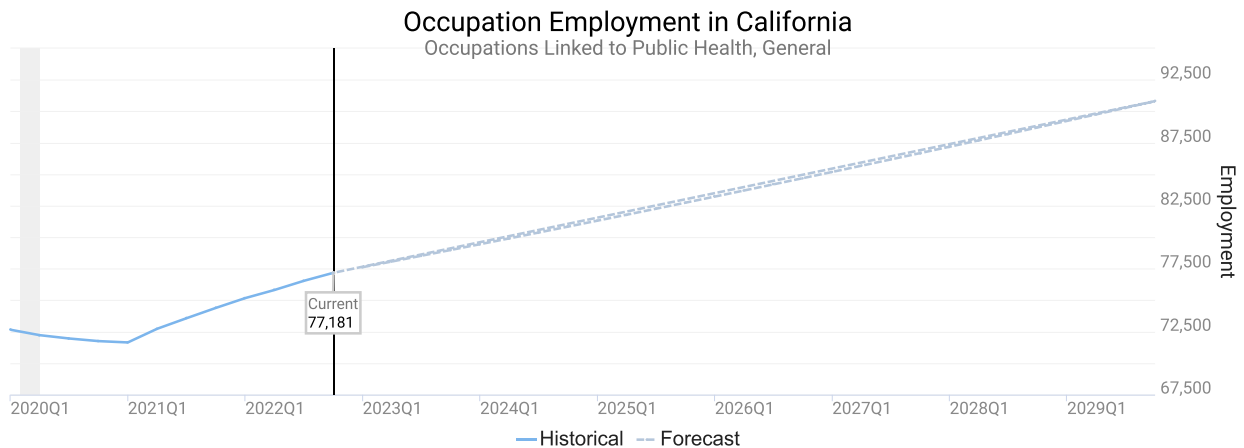
Data as of 2022Q4 unless noted otherwise

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 Public Health, General. The single industry most employing these occupations in the region is General Medical and Surgical Hospitals, NAICS 6221. This industry employs 15,551 workers in the linked occupations—employment which is expected to increase by 3,313 jobs over the next ten years; furthermore, 13,714 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 Public Health, General in California**

NAICS Code	Industry Title	Current			10-Year Demand		
		% of Occ Empl	Empl	Exits	Transfers	Empl Growth	Total Demand
6221	General Medical and Surgical Hospitals	20.1%	15,551	5,011	8,703	3,313	17,027
6214	Outpatient Care Centers	14.3%	11,053	3,898	6,751	3,784	14,433
6113	Colleges, Universities, and Professional Schools	9.7%	7,490	3,587	3,350	1,813	8,750
6211	Offices of Physicians	8.3%	6,435	2,094	3,683	1,673	7,450
6241	Individual and Family Services	5.6%	4,299	1,772	2,994	1,743	6,509
6216	Home Health Care Services	4.3%	3,328	1,091	1,936	1,118	4,145
6231	Nursing Care Facilities (Skilled Nursing Facilities)	3.7%	2,857	856	1,524	418	2,798
6213	Offices of Other Health Practitioners	3.3%	2,522	854	1,515	1,038	3,407
5511	Management of Companies and Enterprises	1.9%	1,472	479	841	299	1,619
9221	Justice, Public Order, and Safety Activities	1.8%	1,421	519	878	158	1,555
6233	Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly	1.8%	1,417	466	827	502	1,795
5417	Scientific Research and Development Services	1.7%	1,326	440	776	399	1,615
6112	Junior Colleges	1.7%	1,322	621	537	168	1,326
9211	Executive, Legislative, and Other General Government Support	1.6%	1,223	456	768	148	1,372
6219	Other Ambulatory Health Care Services	1.5%	1,143	400	698	372	1,470
6232	Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	1.4%	1,052	364	633	286	1,282
5613	Employment Services	1.4%	1,052	408	685	190	1,282
5241	Insurance Carriers	1.3%	1,038	378	647	229	1,255
6215	Medical and Diagnostic Laboratories	1.2%	949	308	547	306	1,161
6212	Offices of Dentists	1.1%	879	281	499	255	1,035
	All Others	12.1%	9,353	3,418	5,756	1,972	11,146

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.

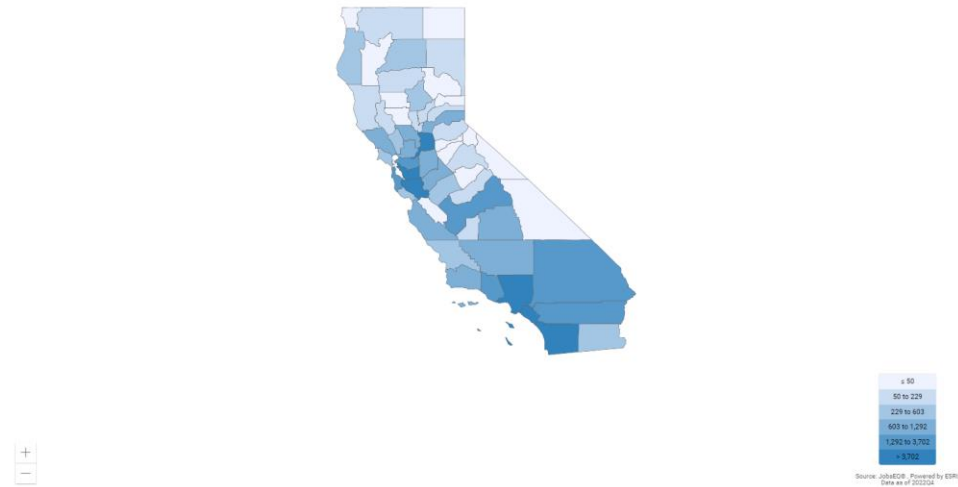


# Geographic Distribution

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

California, Occupation Concentration by Place of Work for Occupations Linked to Public Health, General

export



**Top Counties with Employment Linked to Public Health, General, 2022Q4**

Region	Employment
Los Angeles County, California	21,067
San Diego County, California	6,948
Orange County, California	6,201
Santa Clara County, California	4,456
Alameda County, California	3,792
Sacramento County, California	3,703
San Bernardino County, California	3,480
San Francisco County, California	3,275
Riverside County, California	2,810
Contra Costa County, California	1,868

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

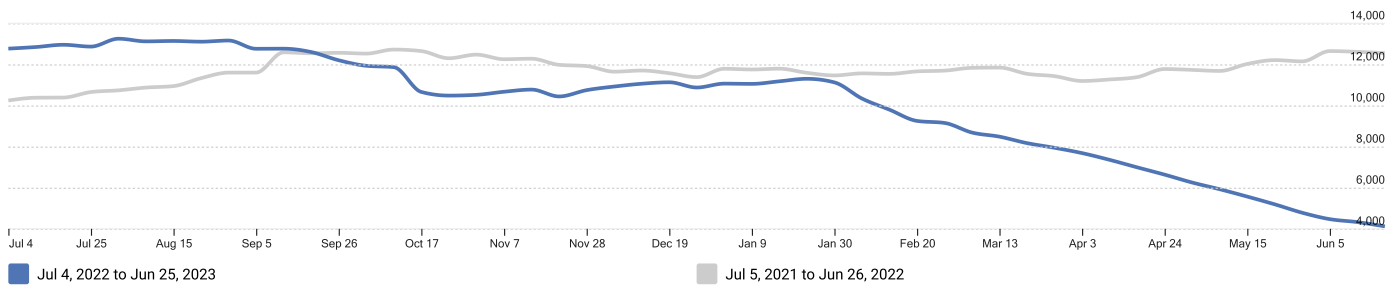
2. Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

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- 9111.00	Medical and Health Services Managers	43,952
25- 1071.00	Health Specialties Teachers, Postsecondary	6,202
21- 1094.00	Community Health Workers	711
21- 1091.00	Health Education Specialists	604

## Locations

Location	Active Job Ads
Los Angeles, California	2,725
San Diego, California	1,324
San Francisco, California	1,258
Sacramento, California	823
University of Southern California (USC)	818
University of California Davis	618
University of California San Francisco	597
San Jose, California	559
Irvine, California	515
Los Angeles, CA, 90095, US	443

## Employers

Employer Name	Active Job Ads	
CVS Health	1,514	
Kaiser Permanente	1,388	
Clinical Management Consultants	1,286	
Los Angeles, California	1,027	
UCLA HEALTH	877	
University of Southern California	868	
United Health Group	794	
Providence St. Joseph Health	599	
San Francisco, California	599	
Department of Veterans Affairs	397	

## Certifications

Certificate Name	Active Job Ads	
Basic Life Support (BLS)	3,061	
Registered Nurse (RN)	2,385	
Certification in Cardiopulmonary Resuscitation (CPR)	2,030	
Advanced Cardiac Life Support Certification (ACLS)	1,310	
Driver's License	1,222	
First Aid Certification	667	
Pediatric Advanced Life Support (PALS)	578	
Licensed Practical Nurse (LPN)	523	
Licensed Clinical Social Worker (LCSW)	483	
Registered Dental Assistant (RDA)	338	

### Hard Skills

Skill Name	Active Job Ads	
Microsoft Excel	6,711	
Microsoft Office	5,540	
Microsoft PowerPoint	3,211	
Microsoft Word	2,959	
Microsoft Outlook	2,885	
Teaching/Training, School	2,784	
Spanish	2,535	
Teaching/Training, Job	2,433	
Presentation	1,919	
Patient Care	1,541	

### Soft Skills

Skill Name	Active Job Ads	
Communication (Verbal and written skills)	27,744	
Cooperative/Team Player	21,684	
Supervision/Management	17,234	
Problem Solving	8,425	
Customer Service	8,205	
Organization	7,619	
Interpersonal Relationships/Maintain Relationships	7,469	
Leadership	7,061	
Self-Motivated/Ability to Work Independently/Self Leadership	5,700	
Adaptability/Flexibility/Tolerance of Change and Uncertainty	5,683	

### Job Titles

Job Title	Active Job Ads	
Patient Care Coordinator	392	
CA Pharmacy Manager	353	
Dental Assistant	296	
CA Staff Pharmacist Floater FT	229	
Director of Nursing	225	
Clinical Supervisor	204	
Director of Operations	184	
CA Staff Pharmacist PT	152	
Program Manager	150	
Care Coordinator	134	

### Job Types

Type	Active Job Ads	
Full-Time	28,203	
Permanent	5,416	
Part-Time	3,135	
Remote	2,785	
Temporary (unspecified)	1,153	
Temporary (long-term)	157	
Temporary (short-term)	74	
Temp-to-Hire	38	
Remote Not Indicated	48,684	

### Programs

Program Name	Active Job Ads	
Nursing	5,728	
Pharmacy	2,580	
Business Administration	2,134	
Business	1,736	
Healthcare Administration	1,431	
Public Health	1,223	
Social Work	1,184	
Medicine	1,101	
Healthcare	1,086	
Psychology	918	

### Education Levels

Minimum Education Level	Active Job Ads	
Bachelor's degree	18,803	
High school diploma or equivalent	4,776	
Master's degree	3,405	
Doctoral or professional degree	3,188	
Associate's degree	2,433	
Unspecified/other	18,864	

# 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**

This report and all data herein were produced by JobsEQ®, a product of Chmura Economics & Analytics. The information contained herein was obtained from sources we believe to be reliable. However, we cannot guarantee its accuracy and completeness.