

Education Report

Computer Science

Sacramento-Roseville-Folsom, CA MSA



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Definition of Computer Science, CIP 11.0701

A program that focuses on computer theory, computing problems and solutions, and the design of computer systems and user interfaces from a scientific perspective. Includes instruction in the principles of computational science, computer development and programming, and applications to a variety of end-use situations.



Awards

The table below is a list of postsecondary awards in CIP 11.0701 that were granted by institutions located in the Sacramento-Roseville-Folsom, CA MSA in the 2021 academic year.

Schools	Certs & 2yr Awards ¹	4yr Awards ²	Post-Grad Awards ³	Avg Net Price ⁴
University of California-Davis		360	84	\$16,640
California State University- Sacramento		261	49	\$7,778
American River College	43			\$8,101
Folsom Lake College	24			\$8,276
Cosumnes River College	17			\$7,223
William Jessup University		4	12	\$27,823
Sierra College	7			\$5,921
Sacramento City College				\$7,788
Total	91	625	145	

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, Computer Science, CIP 11.0701.

		Educat	tion and Training Require	ements		Educat	ional Attai	nment	
		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	Postgraduat e Degree
11-3021	Computer and Information Systems Managers	Bachelor's degree	5 years or more	None	3%	9%	8%	51%	30%
15-1212	Information Security Analysts	Bachelor's degree	Less than 5 years	None	3%	12%	10%	48%	27%
15-1221	Computer and Information Research Scientists	Master's degree	None	None	0%	3%	2%	37%	57%
15-1231	Computer Network Support Specialists	Associate's degree	None	Moderate-term on- the-job training	8%	18%	16%	45%	13%
15-1243	Database Architects	Bachelor's degree	Less than 5 years	None	4%	8%	7%	51%	30%
15-1251	Computer Programmers	Bachelor's degree	None	None	4%	9%	8%	56%	24%
15-1252	Software Developers	Bachelor's degree	None	None	1%	5%	4%	55%	35%
15-1253	Software Quality Assurance Analysts and Testers	Bachelor's degree	None	None	3%	9%	7%	58%	23%
15-1254	Web Developers	Bachelor's degree	None	None	3%	10%	10%	61%	16%
15-1255	Web and Digital Interface Designers	Bachelor's degree	None	None	4%	10%	9%	61%	16%
15-1299	Computer Occupations, All Other	Bachelor's degree	None	None	7%	16%	15%	45%	17%
15-2051	Data Scientists	Bachelor's degree	None	None	2%	5%	4%	40%	50%
25-1021	Computer Science Teachers, Postsecondary	Doctoral or professional degree	None	None	1%	1%	1%	14%	82%

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 Computer and Information Systems Managers (11-3021)

Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.

Definition of Information Security Analysts (15-1212)

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Definition of Computer and Information Research Scientists (15-1221)

Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.

Definition of Computer Network Support Specialists (15-1231)

Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.

Definition of Database Architects (15-1243)

Design strategies for enterprise databases, data warehouse systems, and multidimensional networks. Set standards for database operations, programming, query processes, and security. Model, design, and construct large relational databases or data warehouses. Create and optimize data models for warehouse infrastructure and workflow. Integrate new systems with existing warehouse structure and refine system performance and functionality.

Definition of Computer Programmers (15-1251)



Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

Definition of Software Developers (15-1252)

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

Definition of Software Quality Assurance Analysts and Testers (15-1253)

Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

Definition of Web Developers (15-1254)

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.

Definition of Web and Digital Interface Designers (15-1255)

Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links.

Definition of Computer Occupations, All Other (15-1299)

All computer occupations not listed separately.

Definition of Data Scientists (15-2051)

Develop and implement a set of techniques or analytics applications to transform raw data into meaningful information using data-oriented programming languages and visualization software. Apply data mining, data modeling, natural language processing, and machine learning to extract and analyze information from large structured and unstructured datasets. Visualize, interpret, and report data findings. May create dynamic data reports.

Definition of Computer Science Teachers, Postsecondary (25-1021)

Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.



Occupation Details

As of 2022Q4, total employment for occupations linked to Computer Science in the Sacramento-Roseville-Folsom, CA MSA was 25,394. Over the past three years, linked occupations added 3,344 jobs in the region and are expected to need in aggregate approximately 16,553 newly trained workers over the next seven years.

				Cu	irrent			History		7	-Year Forecas	st	
SOC	Occupation	Empl	Mean Ann Wages ²	LQ	Unempl	Unempl Rate	Online Job Ads ³	Ann %	Total Demand	Exits	Transfers	Empl Growth	Avg Ann Growth %
15- 1252	Software Developers	10,024	\$138,600	0.79	152	1.4%	175	11.3%	6,806	1,396	3,724	1,686	2.2%
15- 1299	Computer Occupations, All Other	4,234	\$102,600	1.32	119	2.6%	357	0.1%	2,545	745	1,489	311	1.0%
11- 3021	Computer and Information Systems Managers	4,011	\$171,900	1.07	61	1.4%	275	1.0%	2,502	532	1,626	344	1.2%
15- 1253	Software Quality Assurance Analysts and Testers	1,459	\$107,300	0.84	44	2.7%	76	11.7%	1,055	261	544	251	2.3%
15- 1251	Computer Programmers	1,136	\$109,500	0.96	22	1.8%	7	-12.8%	446	182	342	-79	-1.0%
15- 1212	Information Security Analysts	943	\$116,600	0.78	13	1.3%	77	2.1%	773	175	372	226	3.1%
15- 1231	Computer Network Support Specialists	834	\$76,100	0.64	27	2.8%	n/a	-1.0%	523	146	322	54	0.9%
15- 2051	Data Scientists	785	\$99,100	0.98	13	1.6%	26	10.2%	613	150	293	170	2.8%
15- 1254	Web Developers	632	\$87,700	0.80	7	1.1%	40	9.8%	395	102	241	53	1.2%
15- 1255	Web and Digital Interface Designers	544	\$98,200	0.69	21	3.4%	35	11.1%	377	120	212	45	1.1%
15- 1243	Database Architects	392	\$140,600	0.85	13	3.1%	20	10.7%	231	70	128	34	1.2%
15- 1221	Computer and Information Research Scientists	259	\$189,000	1.12	6	2.4%	57	-0.9%	190	49	92	50	2.5%
25- 1021	Computer Science Teachers, Postsecondary	141	\$146,000	0.54	3	2.2%	27	-2.4%	96	47	39	11	1.0%
	Total - Linked Occupations	25,394	\$129,100	0.90	503	1.9%	1,172	4.8%	16,553	3,973	9,424	3,155	1.7%
	Total - All Occupations	1,117,739	\$69,500	1.00	41,281	3.6%	36,980	1.1%	1,030,750	399,195	547,399	84,156	1.0%

Snapshot of Occupations Linked to Computer Science in the Sacramento-Roseville-Folsom, CA MSA¹

3-Year

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 in Sacramento-Roseville-Folsom, CA MSA



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 the Sacramento-Roseville-Folsom, CA MSA which most employ occupations linked to Computer Science. The single industry most employing these occupations in the region is Computer Systems Design and Related Services, NAICS 5415. This industry employs 5,844 workers in the linked occupations— employment which is expected to increase by 1,592 jobs over the next ten years; furthermore, 4,513 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.

		Current			10-Year		
NAICS Code	Industry Title	% of Occ Empl	Empl	Exits	Transfers	Empl Growth	Total Demand
5415	Computer Systems Design and Related Services	23.0%	5,844	1,317	3,197	1,592	6,105
5416	Management, Scientific, and Technical Consulting Services	5.0%	1,280	288	680	241	1,209
5511	Management of Companies and Enterprises	4.7%	1,202	262	644	200	1,106
5419	Other Professional, Scientific, and Technical Services	4.7%	1,190	245	589	83	918
5417	Scientific Research and Development Services	4.3%	1,097	247	584	243	1,074
5241	Insurance Carriers	3.3%	829	181	435	123	740
5132	Software Publishers	3.1%	780	167	413	150	731
5413	Architectural, Engineering, and Related Services	2.7%	696	147	359	92	599
5613	Employment Services	2.7%	690	159	361	124	643
9211	Executive, Legislative, and Other General Government Support	2.7%	679	145	344	34	523
6113	Colleges, Universities, and Professional Schools	2.6%	648	175	328	90	593
5182	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	2.3%	593	134	324	153	610
3341	Computer and Peripheral Equipment Manufacturing	2.3%	584	126	311	128	565
5242	Agencies, Brokerages, and Other Insurance Related Activities	1.7%	423	93	227	84	405
9221	Justice, Public Order, and Safety Activities	1.6%	418	93	215	36	343
9241	Administration of Environmental Quality Programs	1.6%	413	92	210	30	331
9231	Administration of Human Resource Programs	1.6%	409	88	207	21	317
5192	Web Search Portals, Libraries, Archives, and Other Information Services	1.5%	372	86	211	135	433
5162	Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	1.4%	361	80	194	78	352
9261	Administration of Economic Programs	1.4%	361	79	183	22	284
	All Others	25.7%	6,523	1,475	3,453	998	5,927

Industry Distribution for Occupations Linked to Computer Science in Sacramento-Roseville-Folsom, CA MSA

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 ZCTA-level distribution of employed workers in the Sacramento-Roseville-Folsom, CA MSA in occupations linked to Computer Science. Employment is shown by place of work.

Sacramento-Roseville-Folsom, CA MSA, Occupation Concentration by Place of Work for Occupations Linked



Top ZCTAs with Employment Linked to Computer Science, 2022Q4

R	gion Employment
ZCTA 95814	2,731
ZCTA 95630	2,550
ZCTA 95670	1,821
ZCTA 95678	908
ZCTA 95661	855
ZCTA 95834	769
ZCTA 95827	740
ZCTA 95616	729
ZCTA 95765	690
ZCTA 95833	675

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 the Sacramento-Roseville-Folsom, CA MSA was 2,338,866 per American Community Survey data for 2016-2020.

Of individuals 25 to 64 in the Sacramento-Roseville-Folsom, CA MSA, 34.9% 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 32,977 students enrolled in grade 12.

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Summary	1				
	Perce	ue			
	Sacramento-		Sacramento-	ito-	
	Roseville- Folsom CA MSA	1154	Roseville- Folsom CA MSA	LISA	
Demographics		00/1		00/1	
Population (ACS)	-	_	2,338,866	326,569,308	
Male	48.9%	49.2%	1,144,264	160.818.530	
Female	51.1%	50.8%	1.194.602	165.750.778	
Median Age ²		_	37.7	38.2	
Under 18 Years	22.9%	22.4%	534,856	73,296,738	
18 to 24 Years	9.3%	9.3%	217,186	30,435,736	
25 to 34 Years	14.3%	13.9%	334,204	45,485,165	
35 to 44 Years	13.0%	12.7%	304,174	41,346,677	
45 to 54 Years	12.5%	12.7%	293,032	41,540,736	
55 to 64 Years	12.6%	12.9%	294,545	42,101,439	
65 to 74 Years	9.1%	9.4%	212,741	30,547,950	
Population Growth					
Population (Pop Estimates) ⁴	_	-	2,416,702	333,287,557	
Population Annual Average Growth ⁴	1.0%	0.6%	22,644	1,940,990	
People per Square Mile	_	_	474.3	94.3	
Educational Attainment, Age 25-64					
No High School Diploma	9.8%	10.5%	120,110	17,929,220	
High School Graduate	20.7%	25.4%	253,915	43,289,555	
Some College, No Degree	24.7%	20.5%	302,315	34,959,338	
Associate's Degree	9.9%	9.3%	121,667	15,776,790	
Bachelor's Degree	23.1%	21.6%	283,204	36,888,244	
Postgraduate Degree	11.8%	12.7%	144,744	21,630,870	
Social					
Poverty Level (of all people)	12.7%	12.8%	293,134	40,910,326	
Households Receiving Food Stamps/SNAP	9.4%	11.4%	79,427	13,892,407	
Enrolled in Grade 12 (% of total population)	1.4%	1.3%	32,977	4,358,865	
Disconnected Youth ³	2.0%	2.5%	2,374	433,164	
Children in Single Parent Families (% of all children)	30.8%	34.0%	157,382	23,628,508	
Uninsured	5.0%	8.7%	115,185	28,058,903	
Speak English Less Than Very Well (population 5 yrs and over)	10.7%	8.2%	235,584	25,312,024	

Source: 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

		Active	
		Job	
SOC	Occupation	Ads	
11-3021.00	Computer and Information Systems Managers	3,451	
15-1252.00	Software Developers	1,927	
15-1299.08	Computer Systems Engineers/Architects	1,409	
15-1299.09	Information Technology Project Managers	649	
15-1212.00	Information Security Analysts	408	
15-1253.00	Software Quality Assurance Analysts and Testers	342	
15-1221.00	Computer and Information Research Scientists	295	
15-1254.00	Web Developers	256	
15-2051.01	Business Intelligence Analysts	167	
25-1021.00	Computer Science Teachers, Postsecondary	157	

Locations

	Active
	Job
Location	Ads
Sacramento, California	3,149
Folsom, California	679
Sacramento County, California	343
Sacramento, CA 94203	292
Roseville, California	239
Rancho Cordova, California	193



Locations

	Active
	Job
Location	Ads
University of California Davis	190
Davis, California	153
Sacramento, CA 95811	139
Sacramento, CA 95814 (Downtown area)	123



	Active	
	Job	
Employer Name	Ads	
Deloitte	376	
Intel Corporation	213	
PG&E Corporation	205	
Intel	151	
First American Financial Corporation	144	
eBay Inc.	133	
Cynet Systems	130	
Experis	125	
University of California, Davis	121	
Davis, California	119	

Employers

Certifications

	Active	
	Job	
Certificate Name	Ads	
Project Management Professional (PMP)	238	
Certified Information Systems Security Professional (CISSP)	230	
Certified Information Systems Auditor (CISA)	101	
Certified Information Security Manager (CISM)	99	
Certified ScrumMaster (CSM)	85	
Secret Clearance	59	
Driver's License	55	
Certification in Risk and Information Systems Control (CRISC)	40	
Cisco Certified Network Associate (CCNA)	38	
Certified Public Accountant (CPA)	30	



Hard Skills

	Active	
	Job	
Skill Name	Ads	
Agile	2,341	
Structured Query Language (SQL)	1,952	
Computer Programming/Coding	1,847	
Python	1,716	
Amazon Web Services (AWS)	1,468	
JavaScript	1,429	
Microsoft Azure	1,409	
Java	1,393	
Oracle	955	
Scrum	881	

Soft Skills

	Active
Skill Name	Ads
Communication (Verbal and written skills)	5,794
Cooperative/Team Player	4,702
Problem Solving	2,251
Analytical	2,247
Project Management	1,971
Self-Motivated/Ability to Work Independently/Self Leadership	1,464
Supervision/Management	1,405
Leadership	1,392
Prioritize	1,140
Organization	1,127



Job Titles

	Active	
	Job	
Job Title	Ads	
Principal IT Enterprise Architect, Enterprise Integration	180	
INFORMATION TECHNOLOGY ASSOCIATE	128	
Software Engineer	80	
.Net Developer	49	
INFORMATION TECHNOLOGY SUPERVISOR II	49	
INFORMATION TECHNOLOGY SPECIALIST I	41	
Remote - Cloud Database Architect	40	
INFORMATION TECHNOLOGY SPECIALIST II	38	
INFORMATION TECHNOLOGY MANAGER I	29	
DevOps Engineer	25	

Job Types

	Active
	Job
Туре	Ads
Full-Time	4,963
Remote	2,074
Permanent	1,029
Temporary (unspecified)	844
Temporary (long-term)	202
Part-Time	153
Temporary (short-term)	103
Temp-to-Hire	73
Remote Not Indicated	7,516



	Active
	Job
Program Name	Ads
Computer Science	2,701
Engineering	946
Computer Engineering	570
Business	562
Information Systems	416
Information Technology	391
Business Administration	371
Electrical Engineering	330
Mathematics	287
Management Information Systems	260

Programs

Education Levels

	Active
	Job
Minimum Education Level	Ads
Bachelor's degree	5,104
Master's degree	323
High school diploma or equivalent	188
Associate's degree	176
Doctoral or professional degree	57
Unspecified/other	3,742



Sacramento-Roseville-Folsom, CA MSA Regional Map





Region Definition

Sacramento-Roseville-Folsom, CA MSA is defined as the following counties:

El Dorado County, California

Placer County, California

Sacramento County, California

Yolo County, California



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 06/29/2023 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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