## . **Emsi** Occupation Overview

# **Computer Science** in San Diego-Chula Vista-Carlsbad, CA

Emsi Q2 2020 Data Set | www.economicmodeling.com

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## What is Emsi Data?

Emsi data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Emsi data is frequently cited in major publications such as The Atlantic, Forbes, Harvard Business Review, The New York Times, The Wall Street Journal, and USA Today.

*"Atlantic* **Forbes** 

Harvard **Business**  Ehe New Hork Eimes





## **Report Parameters**

#### 2 Occupations

15-1131 Computer Programmers

43-9011 Computer Operators

#### 1 MSA

41740 San Diego-Chula Vista-Carlsbad, CA

#### **Class of Worker**

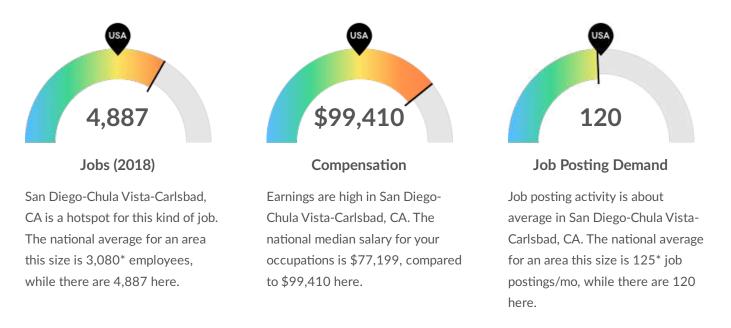
QCEW Employees, Non-QCEW Employees, and Self-Employed

The information in this report pertains to the chosen occupations and geographical area.

## .IPEmsi Occupation Overview

## **Executive Summary**

#### Average Job Posting Demand Over a Deep Supply of Regional Jobs



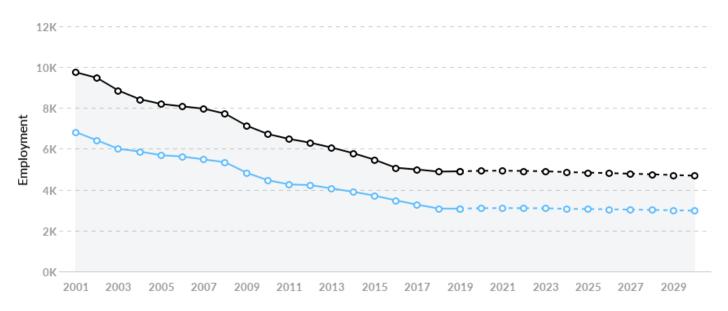
\*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and San Diego-Chula Vista-Carlsbad, CA. In other words, the values represent the national average adjusted for region size.

## .II Emsi Occupation Overview

## Jobs

## **Regional Employment Is Higher Than the National Average**

An average area of this size typically has 3,080<sup>\*</sup> jobs, while there are 4,887 here. This higher than average supply of jobs may make it easier for workers in this field to find employment in your area.



Region	2018 Jobs	2028 Jobs	Change	% Change
<ul> <li>San Diego-Chula</li> <li>Vista-Carlsbad, CA</li> </ul>	4,887	4,754	-134	-2.7%
<ul> <li>National Average</li> </ul>	3,080	3,011	-69	-2.2%

\*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and San Diego-Chula Vista-Carlsbad, CA. In other words, the values represent the national average adjusted for region size.



## **Regional Breakdown**



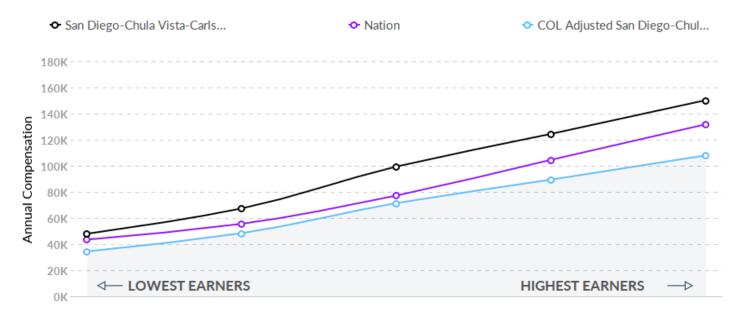
County	2018 Jobs
San Diego County, CA	4,887

Most Jobs are Found in the Computer Systems Design and Related Services Industry Sector

Industry	% of Occupation in Industry (2018)
Omputer Systems Design and Related Services	41.1%
Scientific Research and Development Services	7.0%
Software Publishers	7.0%
Management of Companies and Enterprises	3.3%
<ul> <li>Management, Scientific, and Technical Consulting Services</li> </ul>	2.7%
Education and Hospitals (State Government)	2.1%
• Other	36.9%

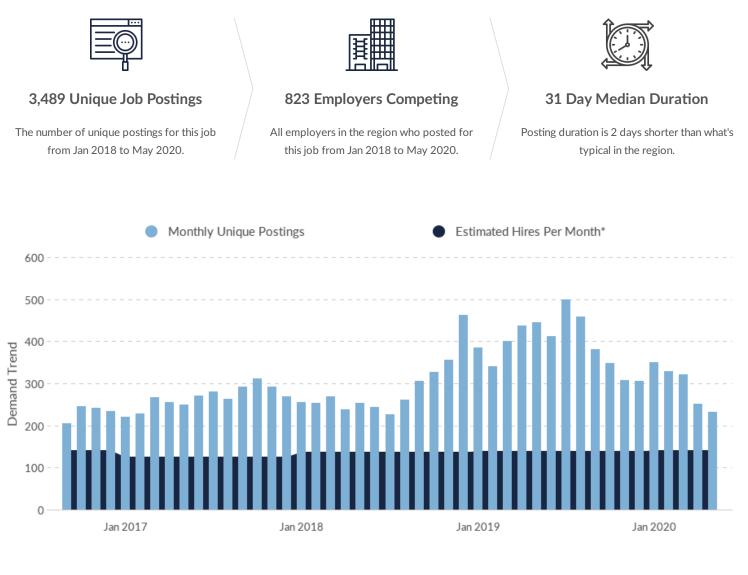
## Compensation

#### **Regional Compensation Is 29% Higher Than National Compensation**



For your occupations, the 2018 median wage in San Diego-Chula Vista-Carlsbad, CA is \$99,410, while the national median wage is \$77,199.

## Job Posting Activity

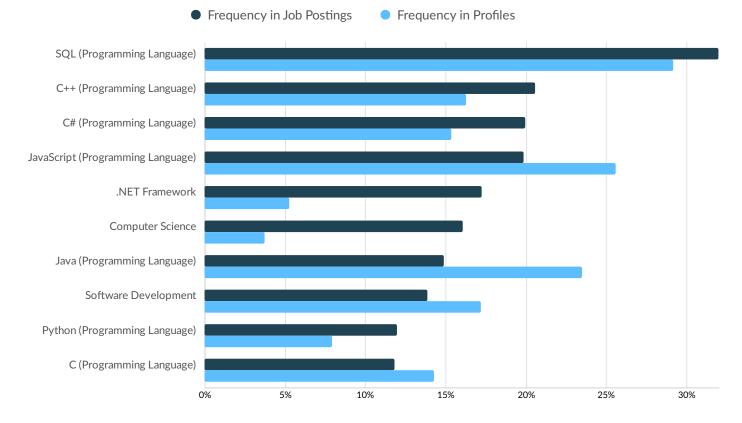


Occupation	Avg Monthly Postings (Jan 2018 - May 2020)	Avg Monthly Hires (Jan 2018 - May 2020)
Computer Programmers	326	122
Computer Operators	7	18

\*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Emsi hires are calculated using a combination of Emsi jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.

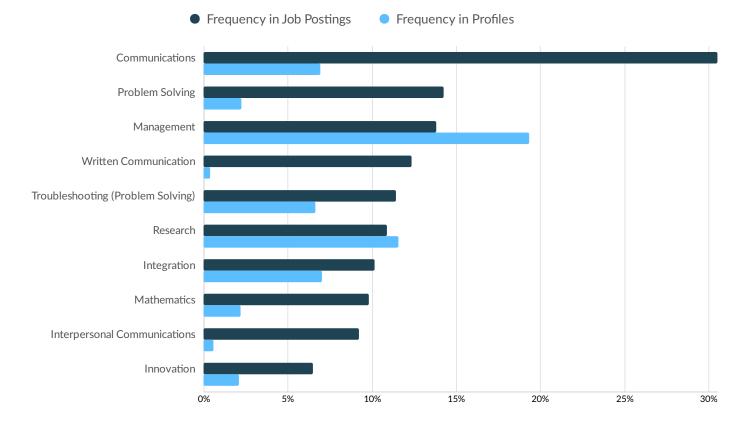
Top Companies	Unique Postings	Top Job Titles	Unique Postings
Revature	298	Programmers	505
Rockstar Games, Inc.	133	.Net Developers	332
University of California	121	Software Engineers	317
NIGEL FRANK INTERNATIONA	86	Junior Software Engineers	160
Russ Client	48	Statistical Programmers	151
Robert Half International Inc.	45 🔳	SQL Developers	109
CyberCoders, Inc.	40	CRM Developers	96
Mason Frank	39	Oracle Developers	92
Kforce Inc.	33	SAS Programmers	89
Volt Information Sciences Inc	31	Microsoft Dynamics Developers	76

## **Top Hard Skills**



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
SQL (Programming Language)	1,522	32%	626	29%
C++ (Programming Language)	978	21%	349	16%
C# (Programming Language)	949	20%	330	15%
JavaScript (Programming Language)	946	20%	550	26%
.NET Framework	820	17%	113	5%
Computer Science	765	16%	80	4%
Java (Programming Language)	708	15%	505	24%
Software Development	660	14%	369	17%
Python (Programming Language)	570	12%	170	8%
C (Programming Language)	563	12%	307	14%

## **Top Common Skills**

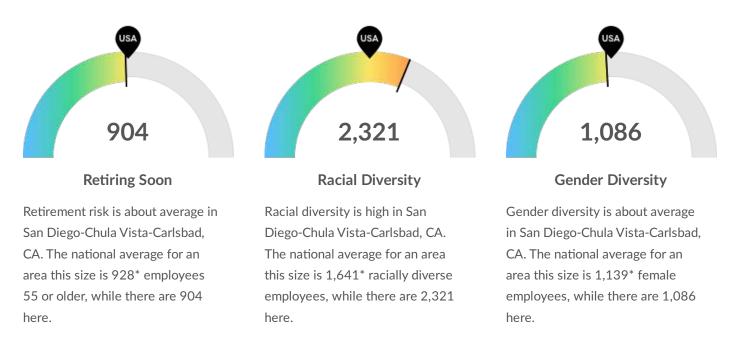


Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Communications	1,453	31%	149	7%
Problem Solving	679	14%	48	2%
Management	658	14%	415	19%
Written Communication	589	12%	8	0%
Troubleshooting (Problem Solving)	545	11%	143	7%
Research	519	11%	249	12%
Integration	483	10%	151	7%
Mathematics	467	10%	47	2%
Interpersonal Communications	439	9%	13	1%
Innovation	309	6%	45	2%

## .I Emsi Occupation Overview

## Demographics

#### Retirement Risk Is About Average, While Overall Diversity Is High



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## **Occupation Age Breakdown**

	% of Jobs	Jobs
• 14-18	0.2%	12
• 19-24	5.6%	273
• 25-34	25.1%	1,230
35-44	27.5%	1,348
<b>4</b> 5-54	23.1%	1,135
55-64	14.8%	723
65+	3.7%	181

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## **Occupation Race/Ethnicity Breakdown**

	% of Jobs	Jobs
• White	52.6%	2,581
• Asian	31.0%	1,518
Hispanic or Latino	10.8%	531
Two or More Races	2.7%	133
Black or African American	2.5%	125
American Indian or Alaska Native	0.2%	9
Native Hawaiian or Other Pacific Islander	0.1%	6

#### **Occupation Gender Breakdown**

	% of Jobs	Jobs
<ul> <li>Males</li> </ul>	77.8%	3,815
Females	22.2%	1,086

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## **Occupational Programs**



**5** Programs

Of the programs that can train for this job, 5 have produced completions in the last 5 years.



#### 1,750 Completions (2018)

The completions from all regional institutions for all degree types.



#### 383 Openings (2018)

The average number of openings for an occupation in the region is 288.

CIP Code	Top Programs	Completions (2018)
11.0701	Computer Science	1,458
52.1201	Management Information Systems, General	187
11.0201	Computer Programming/Programmer, General	89
11.0203	Computer Programming, Vendor/Product Certification	12
11.0803	Computer Graphics	4

Top Schools	Completions (2018)
University of California-San Diego	811
San Diego State University	241
National University	168 💼
California State University-San Marcos	136
Ashford University	113
California College San Diego	75
California College San Diego	50
Palomar College	40
Southwestern College	31
University of San Diego	24

## Appendix A - Data Sources and Calculations

#### **Location Quotient**

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

#### **Occupation Data**

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

#### **Staffing Patterns Data**

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

## **Cost of Living Data**

Emsi cost of living data is based on the Cost of Living Index published quarterly by the Council for Community and Economic Research (C2ER).

#### **Emsi Job Postings**

Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills, and geography.

#### **Institution Data**

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.