Occupation Overview

Emsi Q3 2019 Data Set

October 2019

Contra Costa Community College District

Parameters

Occupations

Regions

Timeframe

2019 - 2024

Datarun

2019.3 – QCEW Employees, Non-QCEW Employees, and Self-Employed

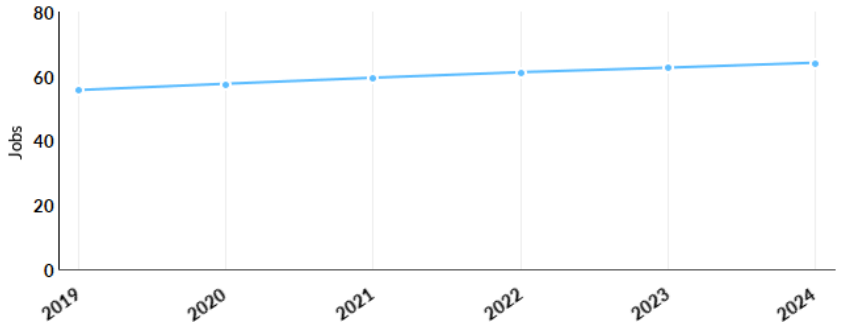
2 Computer and Mathematical Occupations in 3 California Counties

Occupation Summary for 2 Computer and Mathematical Occupations

56	14.3%	$38.25/hr
Jobs (2019)	**% Change (2019-2024)**	**Median Hourly Earnings**
4% above National average	Nation: 8.8%	Nation: $39.83/hr

Growth

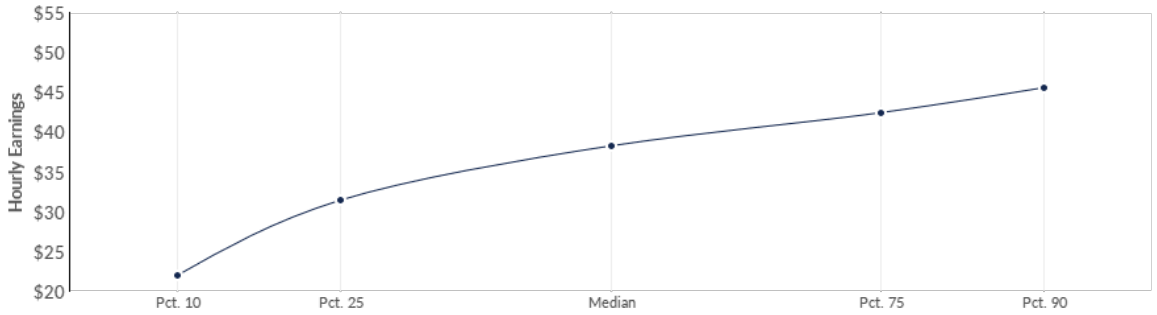
56	64	8	14.3%
2019 Jobs	2024 Jobs	Change (2019-2024)	% Change (2019-2024)



Occupation	2019 Jobs	2024 Jobs	Change	% Change
Mathematicians (15-2021)	49	57	8	16%
Miscellaneous Mathematical Science Occupations (15-2098)	7	8	1	14%

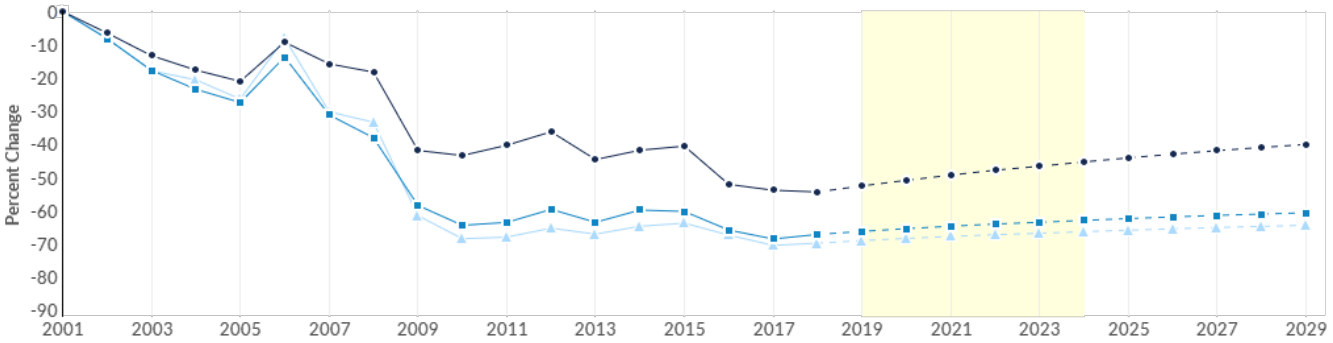
Percentile Earnings

$31.43/hr	$38.25/hr	$42.44/hr
25th Percentile Earnings	Median Earnings	75th Percentile Earnings



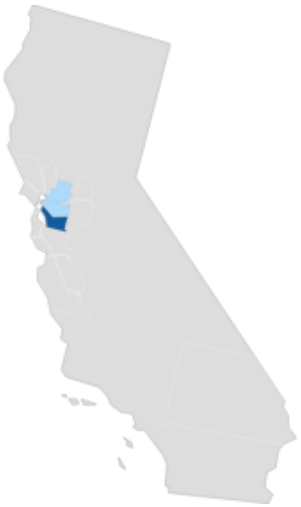
Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Mathematicians (15-2021)	$34.26	$38.61	$42.36
Miscellaneous Mathematical Science Occupations (15-2098)	$19.40	$26.30	$46.79

Regional Trends



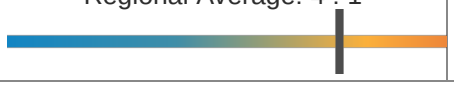
	Region	2019 Jobs	2024 Jobs	Change	% Change
●	Region	56	64	8	14.3%
●	California	719	790	71	9.9%
●	United States	5,913	6,432	519	8.8%

Regional Breakdown



County	2024 Jobs
Alameda County, CA	45
Solano County, CA	11
Contra Costa County, CA	<10

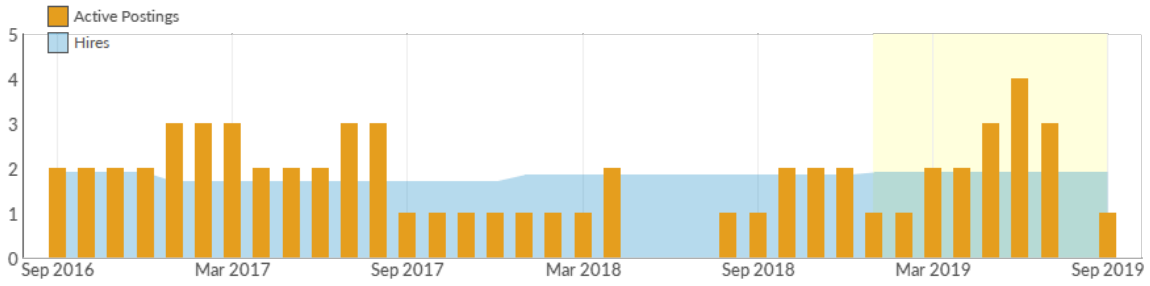
Job Postings Summary

5	4 : 1	60 days
Unique Postings	**Posting Intensity**	**Median Posting Duration**
22 Total Postings	Regional Average: 4 : 1 	Regional Average: 33 days

There were **22** total job postings for your selection from January 2019 to September 2019, of which **5** were unique. These numbers give us a Posting Intensity of **4-to-1**, meaning that for every 4 postings there is 1 unique job posting.This is close to the Posting Intensity for all other occupations and companies in the region (4-to-1), indicating that they are putting average effort toward hiring for this position.

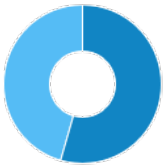
Job Postings vs. Hires

2	2
Avg. Monthly Postings (Jan 2019 - Sep 2019)	Avg. Monthly Hires (Jan 2019 - Sep 2019)



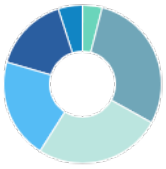
Occupation	Avg Monthly Postings (Jan 2019 - Sep 2019)	Avg Monthly Hires (Jan 2019 - Sep 2019)
Mathematicians	2	2
Miscellaneous Mathematical Science Occupations	0	0

Occupation Gender Breakdown



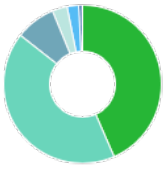
Gender	2018 Jobs	2018 Percent
Males	29	54.5%
Females	24	45.5%

Occupation Age Breakdown



	Age	2018 Jobs	2018 Percent
●	14-18	0	0.0%
●	19-24	2	4.0%
●	25-34	16	29.1%
●	35-44	14	25.9%
●	45-54	11	20.5%
●	55-64	8	15.5%
●	65+	3	5.0%

Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2018 Jobs	2018 Percent
●	Asian	23	43.4%
●	White	23	42.1%
●	Hispanic or Latino	4	8.2%
●	Black or African American	2	3.1%
●	Two or More Races	1	2.4%
●	Native Hawaiian or Other Pacific Islander	0	0.7%
●	American Indian or Alaska Native	0	0.1%

Occupational Programs

7	730	5
Programs (2017)	Completions (2017)	Openings (2017)

CIP Code	Program	Completions (2017)
27.0101	Mathematics, General	485
27.0301	Applied Mathematics, General	234
27.9999	Mathematics and Statistics, Other	5
27.0105	Topology and Foundations	3
27.0304	Computational and Applied Mathematics	2

Industries Employing 2 Computer and Mathematical Occupations

Industry	Occupation Group Jobs in Industry (2018)	% of Occupation Group in Industry (2018)	% of Total Jobs in Industry (2018)
Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)	12	22.2%	0.1%
Federal Government, Civilian, Excluding Postal Service	<10	18.3%	0.1%
Research and Development in Biotechnology (except Nanobiotechnology)	<10	9.7%	0.1%
Colleges, Universities, and Professional Schools (State Government)	<10	7.4%	0.0%
Pharmaceutical Preparation Manufacturing	<10	3.8%	0.0%

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.

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.

State Data Sources

This report uses state data from the following agencies: California Labor Market Information Department