

Electronics Technology Occupation Overview

Emsi Q2 2016 Data Set

July 2016

College of San Mateo



3401 CSM Drive
San Mateo, California 94402
650.358.6880

Parameters

Occupations

14 items selected. See Appendix A for details.

Regions

Code	Description
6001	Alameda County, CA
6013	Contra Costa County, CA
6075	San Francisco County, CA
6081	San Mateo County, CA
6085	Santa Clara County, CA

Timeframe

2014 - 2021

Datarun

2016.2 - QCEW Employees

Occupation Summary for ELEC CTE

<p>43,475 Jobs (2016) 66% above National average</p>	<p>+5.8% % Change (2014-2021) Nation: +1.5%</p>	<p>\$34.11/hr Median Hourly Earnings Nation: \$27.01/hr</p>
--	---	--

Growth

42,326

2014 Jobs

44,766

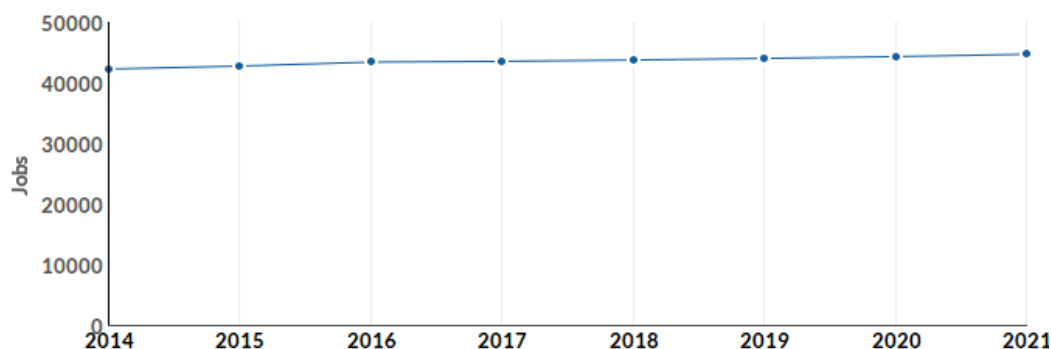
2021 Jobs

2,440

Change (2014-2021)

5.8%

% Change (2014-2021)



Occupation	2014 Jobs	2021 Jobs	Change	% Change
Electronics Engineers, Except Computer (17-2072)	11,213	11,419	206	2%
Electrical and Electronics Engineering Technicians (17-3023)	7,535	8,133	598	8%
Electro-Mechanical Technicians (17-3024)	532	580	48	9%
Radio, Cellular, and Tower Equipment Installers and Repairs (49-2021)	197	202	5	3%
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)	5,067	5,419	352	7%
Electrical and Electronics Installers and Repairers, Transportation Equipment (49-2093)	172	181	9	5%
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)	1,058	1,195	137	13%
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)	255	275	20	8%
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096)	141	94	-47	-33%
Electronic Home Entertainment Equipment Installers and Repairers (49-2097)	227	281	54	24%
Electrical Power-Line Installers and Repairers (49-9051)	693	853	160	23%
Telecommunications Line Installers and Repairers (49-9052)	2,420	2,599	179	7%
Electrical and Electronic Equipment Assemblers (51-2022)	10,651	11,361	710	7%

Occupation	2014 Jobs	2021 Jobs	Change	% Change
Electromechanical Equipment Assemblers (51-2023)	2,166	2,174	8	0%

Percentile Earnings

\$27.07/hr

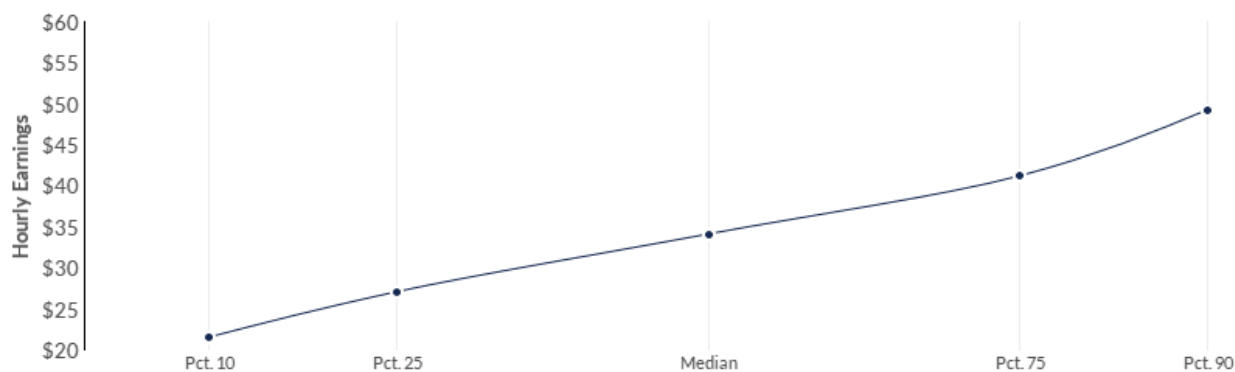
25th Percentile Earnings

\$34.11/hr

Median Earnings

\$41.22/hr

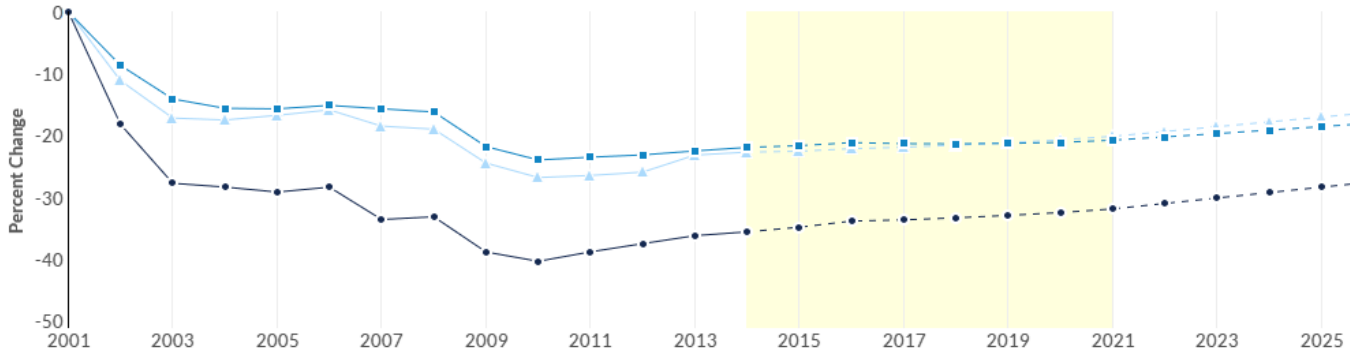
75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Electronics Engineers, Except Computer (17-2072)	\$45.28	\$57.35	\$70.02
Electrical and Electronics Engineering Technicians (17-3023)	\$25.65	\$31.52	\$38.03
Electro-Mechanical Technicians (17-3024)	\$20.70	\$26.39	\$33.13
Radio, Cellular, and Tower Equipment Installers and Repairs (49-2021)	\$16.47	\$23.30	\$29.93
Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)	\$24.90	\$31.91	\$35.53
Electrical and Electronics Installers and Repairers, Transportation Equipment (49-2093)	\$21.53	\$29.87	\$35.22
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)	\$22.61	\$29.24	\$36.44
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)	\$36.50	\$39.52	\$42.87
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096)	\$12.88	\$17.19	\$20.84
Electronic Home Entertainment Equipment Installers and Repairers (49-2097)	\$15.24	\$17.70	\$22.16
Electrical Power-Line Installers and Repairers (49-9051)	\$37.58	\$48.98	\$53.98
Telecommunications Line Installers and Repairers (49-9052)	\$30.78	\$33.46	\$36.11

Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Electrical and Electronic Equipment Assemblers (51-2022)	\$12.69	\$16.98	\$22.09
Electromechanical Equipment Assemblers (51-2023)	\$12.13	\$15.99	\$21.18

Regional Trends



Region	2014 Jobs	2021 Jobs	Change	% Change
● Region	42,326	44,766	2,440	5.8%
■ Nation	1,134,391	1,151,373	16,982	1.5%
▲ California	155,567	160,728	5,161	3.3%

Regional Breakdown



County	2021 Jobs
Santa Clara County, CA	25,555
Alameda County, CA	7,361
San Francisco County, CA	4,449
Contra Costa County, CA	3,947
San Mateo County, CA	3,454

Job Postings Summary

1,466

Unique Postings (May 2016)
5,259 Total Postings

4 : 1

Posting Intensity (May 2016)



There were 5,259 total job postings for 14 *Occupations* in May 2016, of which 1,466 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 lower than the Posting Intensity for all other occupations and companies in the region (5-to-1), indicating that companies may not be trying as hard to hire this position.

Occupation Gender Breakdown



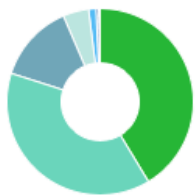
Gender	2016 Jobs	2016 Percent
● Males	32,205	74.1%
● Females	11,269	25.9%

Occupation Age Breakdown



Age	2016 Jobs	2016 Percent
14-18	135	0.3%
19-24	1,759	4.0%
25-34	7,558	17.4%
35-44	11,434	26.3%
45-54	12,908	29.7%
55-64	8,063	18.5%
65+	1,617	3.7%

Occupation Race/Ethnicity Breakdown



Race/Ethnicity	2016 Jobs	2016 Percent
Asian	17,973	41.3%
White	16,770	38.6%
Hispanic or Latino	5,928	13.6%
Black or African American	1,933	4.4%
Two or More Races	561	1.3%
Native Hawaiian or Other Pacific Islander	194	0.4%
American Indian or Alaska Native	115	0.3%

Occupational Programs

17 Programs (2014)	2,798 Completions (2014)	1,636 Openings (2014)
------------------------------	------------------------------------	---------------------------------

CIP Code	Program	Completions (2014)
14.1001	Electrical and Electronics Engineering	1,166
47.0604	Automobile/Automotive Mechanics Technology/Technician	1,162
46.0302	Electrician	358
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	78
47.0105	Industrial Electronics Technology/Technician	24

Industries Employing ELEC CTE

Industry	Occupation Group Jobs in Industry (2016)	% of Occupation Group in Industry (2016)	% of Total Jobs in Industry (2016)
Semiconductor and Related Device Manufacturing	6,430	14.8%	21.0%
Electronic Computer Manufacturing	4,925	11.3%	9.3%
Wired Telecommunications Carriers	4,349	10.0%	35.8%
Electrical Contractors and Other Wiring Installation Contractors	2,167	5.0%	8.6%
Other Electronic Component Manufacturing	1,429	3.3%	21.2%

Appendix A - Occupations

Code	Description
17-2072	Electronics Engineers, Except Computer
17-3023	Electrical and Electronics Engineering Technicians
17-3024	Electro-Mechanical Technicians
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairs
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Electronic Home Entertainment Equipment Installers and Repairers
49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers
51-2022	Electrical and Electronic Equipment Assemblers
51-2023	Electromechanical Equipment Assemblers

Appendix B - 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.

Completers Data

The completers 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.

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