

Program Market Demand

Electrician

Emsi Q3 2018 Data Set

September 2018

College of San Mateo



3401 CSM Drive
San Mateo, California 94402
650.358.6880

Parameters

Programs

Code	Description
46.0302	Electrician

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

Education Levels

Any

Completions Year

2015

Jobs Timeframe

2017 - 2024

Job Postings Timeframe

Sep 2016 - Aug 2018

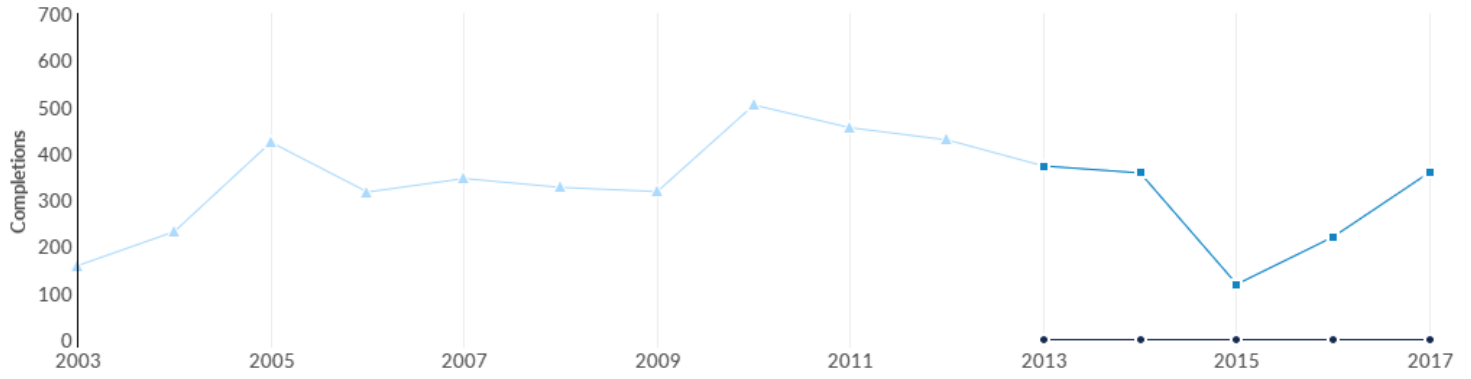
Program Overview



	Completions (2015)	% Completions	Institutions (2015)	% Institutions
● All Programs	119	100%	4	100%
● Distance Offered Programs	0	0%	0	0%
● Non-Distance Offered Programs	119	100%	4	100%

Institution	Completions (2015)	Growth % YOY (2015)	Market Share (2015)
Institute for Business and Technology	115	47.4%	96.6%
City College of San Francisco	2	-66.7%	1.7%
Foothill College	1	Insf. Data	0.8%
College of San Mateo	1	-93.8%	0.8%

Regional Trends



	2013 Completions	2015 Completions	% Change
● Distance Offered Programs	0	0	0.0%
■ Non-Distance Offered Programs	373	119	-68.1%
▲ All Programs	373	119	-68.1%

Job Postings vs. Hires

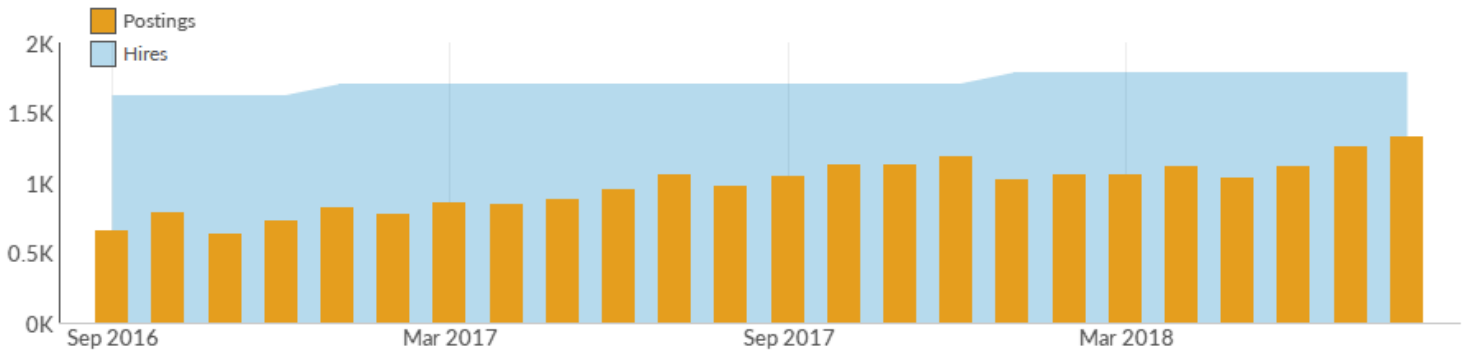
979

Avg. Monthly Postings (Sep 2016 - Aug 2018)

1,721


Avg. Monthly Hires (Sep 2016 - Aug 2018)

In an average month, there were 979 unique job postings for 6 Occupations, and 1,721 actually hired. This means there were approximately 2 hires for 6 Occupations for every 1 unique job posting.



Occupation	Avg Monthly Postings (Sep 2016 - Aug 2018)	Avg Monthly Hires (Sep 2016 - Aug 2018)
First-Line Supervisors of Construction Trades and Extraction Workers	579	676
Electricians	280	881
Security and Fire Alarm Systems Installers	117	95
Helpers--Electricians	2	57
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	1	8
Signal and Track Switch Repairers	0	0

Job Postings Summary

<p>8,019 Unique Postings 38,806 Total Postings</p>	<p>5 : 1 Posting Intensity  Regional Average: 4 : 1</p>	<p>38 days Median Posting Duration Regional Average: 33 days</p>
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There were 38,806 total job postings for your selection from September 2016 to August 2018, of which 8,019 were unique. These numbers give us a Posting Intensity of 5-to-1, meaning that for every 5 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.

Target Occupations

<p>29,869 Jobs (2017) 18% below National average</p>	<p>+18.7% % Change (2017-2024) Nation: +7.6%</p>	<p>\$37.69/hr Median Hourly Earnings Nation: \$26.07/hr</p>	<p>4,238 Annual Openings</p>
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Occupation	2017 Jobs	Annual Openings	Median Hourly Earnings	Growth (2017 - 2024)	Location Quotient (2017)
Electricians	15,168	2,292	\$38.18/hr	+21.41%	0.92
First-Line Supervisors of Construction Trades and Extraction Workers	12,033	1,488	\$41.01/hr	+13.21%	0.78
Security and Fire Alarm Systems Installers	1,476	232	\$25.05/hr	+24.93%	0.86
Helpers--Electricians	853	188	\$19.38/hr	+38.34%	0.48
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	212	25	\$45.75/hr	+17.92%	0.33
Signal and Track Switch Repairers	127	14	\$38.39/hr	+6.30%	0.59

Growth

29,869

2017 Jobs

35,447

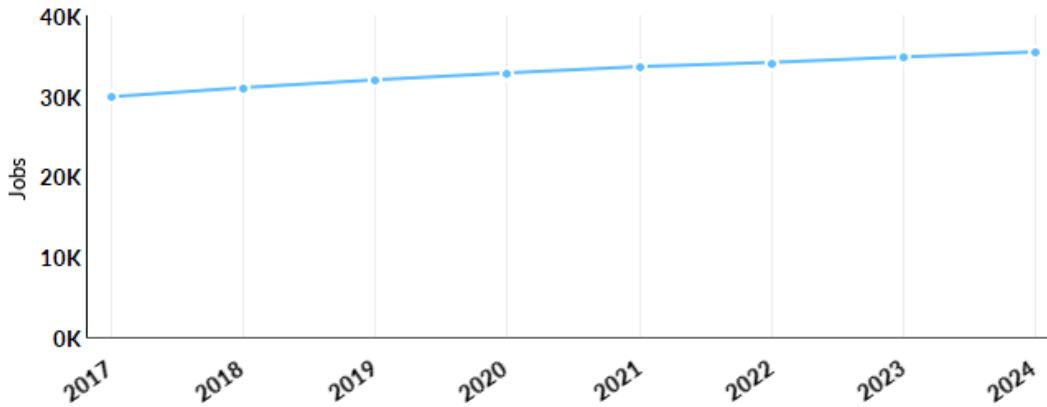
2024 Jobs

5,578

Change (2017-2024)

18.7%

% Change (2017-2024)



Occupation	2017 Jobs	2024 Jobs	Change	% Change
First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)	12,033	13,622	1,589	13%
Electricians (47-2111)	15,168	18,415	3,247	21%
Helpers--Electricians (47-3013)	853	1,180	327	38%
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)	212	250	38	18%
Security and Fire Alarm Systems Installers (49-2098)	1,476	1,844	368	25%
Signal and Track Switch Repairers (49-9097)	127	135	8	6%

Percentile Earnings

\$25.93/hr

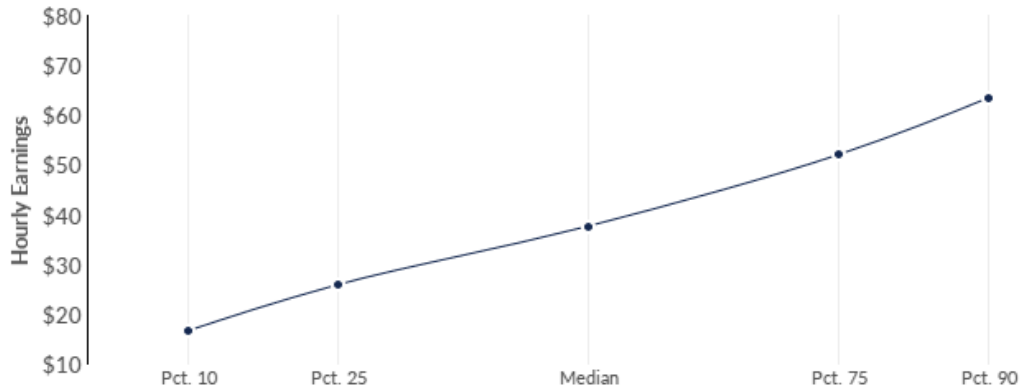
25th Percentile Earnings

\$37.69/hr

Median Earnings

\$52.08/hr

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
First-Line Supervisors of Construction Trades and Extraction Workers (47-1011)	\$29.47	\$41.01	\$54.86
Electricians (47-2111)	\$26.13	\$38.18	\$52.46
Helpers--Electricians (47-3013)	\$14.71	\$19.38	\$22.78
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay (49-2095)	\$40.58	\$45.75	\$50.83
Security and Fire Alarm Systems Installers (49-2098)	\$19.46	\$25.05	\$30.52
Signal and Track Switch Repairers (49-9097)	\$32.30	\$38.39	\$44.01

Top Companies Posting

Company	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
Cybercoders, Inc.	1,935 / 577	3 : 1	43 days
Outsource, Inc.	849 / 312	3 : 1	30 days
Pma Consultants, L.L.C.	10,425 / 227	46 : 1	187 days
Citizen	2,178 / 208	10 : 1	10 days
Tradesmen International, Inc	676 / 137	5 : 1	32 days
Helix Limited	399 / 93	4 : 1	60 days
Aerotek, Inc.	515 / 81	6 : 1	17 days
Homeadvisor, Inc.	265 / 66	4 : 1	8 days
Greystar Real Estate Partners, LLC	113 / 63	2 : 1	289 days
Trillium Staffing	726 / 60	12 : 1	53 days
Trueblue, Inc.	140 / 52	3 : 1	59 days
Bay Alarm Company	103 / 47	2 : 1	54 days
Delta Construction Partners Inc.	98 / 47	2 : 1	28 days
Solarcity Corporation	156 / 47	3 : 1	75 days
Cablecom, LLC	93 / 40	2 : 1	32 days
Johnson Controls, Inc.	208 / 38	5 : 1	68 days
AppleOne	85 / 36	2 : 1	20 days
University of California	105 / 36	3 : 1	54 days
Allied Universal	145 / 35	4 : 1	71 days
Growing People and Companies	86 / 32	3 : 1	31 days
Bergelectric Corp.	92 / 30	3 : 1	37 days
Grus Construction	83 / 30	3 : 1	15 days
Eversource Energy	50 / 29	2 : 1	207 days
Pacific Gas and Electric Company	72 / 28	3 : 1	14 days
ABM Industries Incorporated	67 / 26	3 : 1	44 days

RANDSTAD HOLDING nv	152 / 26	6 : 1		41 days
Fieldco	79 / 25	3 : 1		58 days
Vivint, Inc.	53 / 25	2 : 1		15 days
Advanced Employment Services, Inc	979 / 24	41 : 1		51 days
Robert Half International Inc.	163 / 24	7 : 1		21 days
Tesla Motors, Inc.	116 / 24	5 : 1		108 days
Blueprint Construction Services, Inc.	55 / 21	3 : 1		50 days
Lennar Corporation	89 / 20	4 : 1		123 days
Sunrun Inc.	134 / 20	7 : 1		49 days
Cintas Corporation	163 / 19	9 : 1		37 days
Mastec, Inc.	50 / 19	3 : 1		32 days
City of San Jose	85 / 18	5 : 1		39 days
The Davey Tree Expert Company	82 / 18	5 : 1		59 days
Cbre Group, Inc.	203 / 17	12 : 1		43 days
Fire Detection Unlimited Inc	37 / 17	2 : 1		62 days
Gw Electric USA Inc	45 / 17	3 : 1		57 days
Tesla, Inc.	45 / 17	3 : 1		23 days
Archoustics LLC	24 / 16	2 : 1		10 days
Center For Employment Opportunities, Inc.	32 / 16	2 : 1		33 days
Fairfield Residential LLC	45 / 16	3 : 1		48 days
Highcom Security Services, Inc	109 / 16	7 : 1		51 days
Interstate Companies, Inc.	35 / 15	2 : 1		5 days
Amazon.com, Inc.	54 / 14	4 : 1		51 days
California Department of Water Resources	40 / 14	3 : 1		44 days
Georgia-Pacific LLC	108 / 14	8 : 1		65 days

Top Posted Job Titles

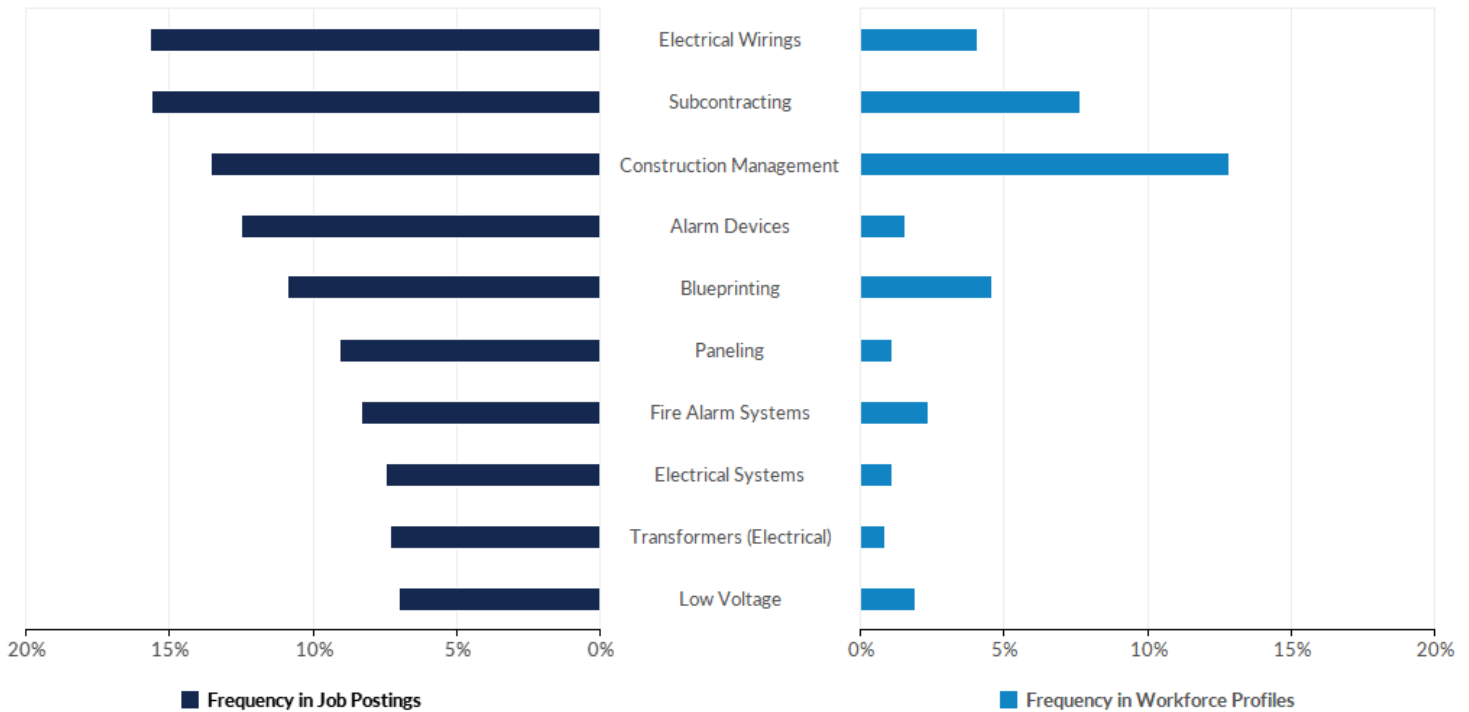
Job Title	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
Security Alarm Technician	1,790 / 539	3 : 1 	40 days
Journeyman Electrician	1,955 / 536	4 : 1 	35 days
Electrician	2,010 / 524	4 : 1 	35 days
Assistant Construction Project Manager	1,234 / 291	4 : 1 	41 days
Construction Scheduler	10,541 / 267	39 : 1 	173 days
Electrician Apprentice	809 / 243	3 : 1 	36 days
Construction Supervisor	871 / 241	4 : 1 	37 days
Assistant Construction Superintendent	633 / 219	3 : 1 	45 days
Construction Superintendent	716 / 198	4 : 1 	42 days
Project Manager (Management)	541 / 184	3 : 1 	34 days
Residential Electrician	1,564 / 180	9 : 1 	10 days
Superintendent (Construction and Extraction)	464 / 159	3 : 1 	43 days
Maintenance Technician (Installation, Maintenance, and Repair)	449 / 120	4 : 1 	56 days
Project Manager	507 / 119	4 : 1 	47 days
Maintenance Electrician (Installation, Maintenance, and Repair)	380 / 115	3 : 1 	42 days
Construction Foreman	343 / 100	3 : 1 	33 days
Project Coordinator (Management)	388 / 100	4 : 1 	39 days
Commercial Electrician	249 / 99	3 : 1 	41 days
Carpenter	269 / 97	3 : 1 	33 days
Construction Project Coordinator	921 / 88	10 : 1 	50 days
Foreman (Construction and Extraction)	356 / 84	4 : 1 	44 days
Construction Coordinator	325 / 81	4 : 1 	30 days
Maintenance Manager (Installation, Maintenance, and Repair)	265 / 77	3 : 1 	42 days
Construction Manager	239 / 72	3 : 1 	38 days

Electrical Apprentice	224 / 69	3 : 1		38 days
Plumbing Foreman	119 / 66	2 : 1		275 days
Electrical Superintendent	384 / 58	7 : 1		38 days
Field Supervisor	104 / 56	2 : 1		20 days
Construction Administrator	139 / 54	3 : 1		28 days
Cable Technician (Installation, Maintenance, and Repair)	168 / 52	3 : 1		30 days
Industrial Electrician	219 / 50	4 : 1		47 days
Security Systems Installer	172 / 48	4 : 1		41 days
Crew Leader	89 / 43	2 : 1		34 days
Electrical Foreman	228 / 42	5 : 1		54 days
Service Electrician	100 / 42	2 : 1		22 days
Janitor	62 / 38	2 : 1		31 days
Maintenance Coordinator	559 / 37	15 : 1		42 days
Air Conditioning (AC) Electrician	345 / 33	10 : 1		21 days
Superintendent (Management)	175 / 33	5 : 1		41 days
Estimator (Business and Financial Operations)	70 / 30	2 : 1		31 days
Plant Electrician	105 / 30	4 : 1		44 days
Facilities Electrician	92 / 29	3 : 1		35 days
Electrical Journeyman	64 / 28	2 : 1		40 days
Accountant	54 / 26	2 : 1		62 days
Maintenance Mechanic	105 / 26	4 : 1		36 days
Project Supervisor	105 / 25	4 : 1		28 days
Lead Electrician	141 / 24	6 : 1		50 days
Foreman (Production)	62 / 23	3 : 1		52 days
General Foreman	56 / 23	2 : 1		37 days
Project Administrator (Construction and Extraction)	46 / 23	2 : 1		33 days

The following provides insight into the supply and demand of relevant skills by comparing the frequency of skills present in job postings against skills present in today's workforce. Along with Emsi's job posting analytics, this comparison leverages Emsi's dataset of more than 100M online resumés and profiles. All resumés and profiles used in these comparisons have been updated within the last three years.

**The skills associated with workforce profiles represent workers of all education and experience levels.*

Top Hard Skills



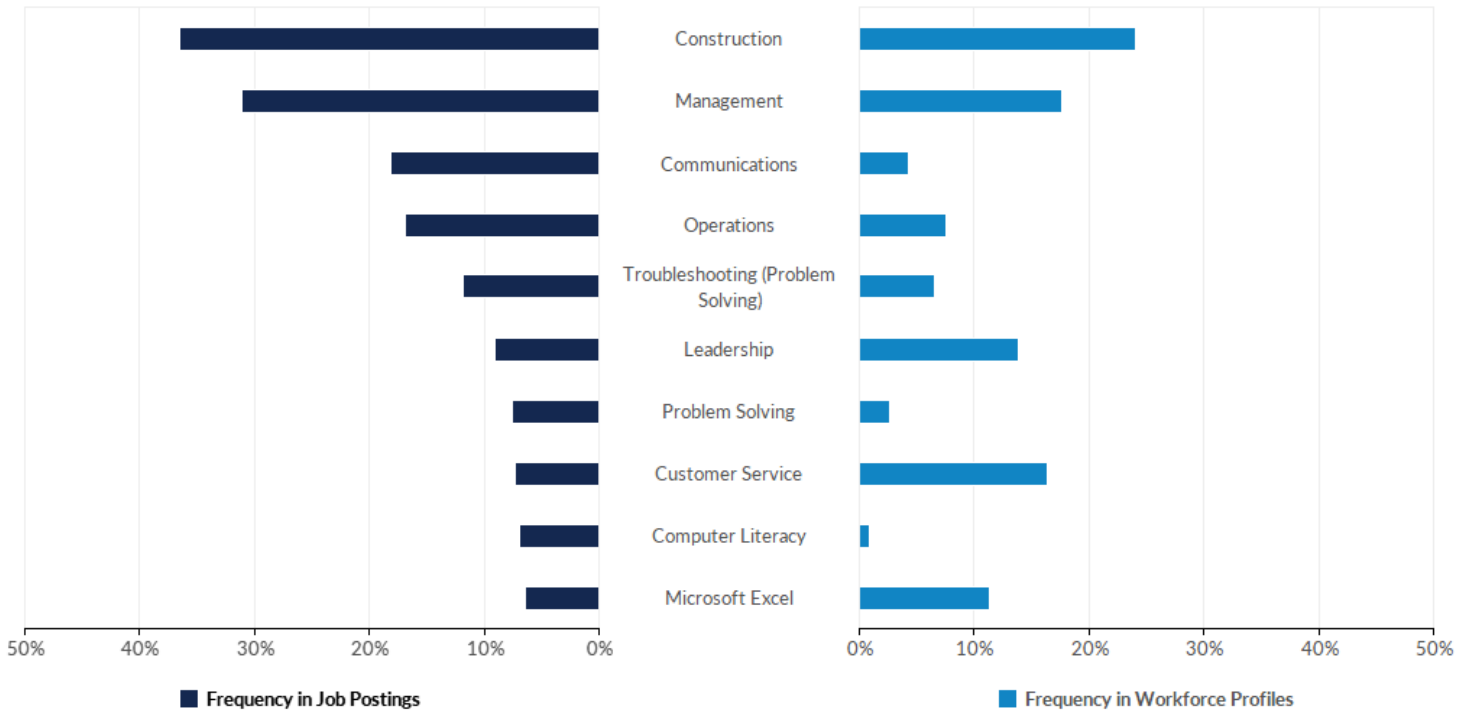
Top Hard Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Aug 2018)	Frequency in Profiles	Profiles with Skill / Total Profiles (2016 - 2018)
Electrical Wirings	16%	1,255 / 8,019	4%	320 / 7,872
Subcontracting	16%	1,254 / 8,019	8%	602 / 7,872
Construction Management	14%	1,088 / 8,019	13%	1,012 / 7,872
Alarm Devices	12%	1,001 / 8,019	2%	122 / 7,872
Blueprinting	11%	871 / 8,019	5%	360 / 7,872
Paneling	9%	729 / 8,019	1%	89 / 7,872
Fire Alarm Systems	8%	665 / 8,019	2%	188 / 7,872

Electrical Systems	7%	599 / 8,019	1%	88 / 7,872
Transformers (Electrical)	7%	585 / 8,019	1%	66 / 7,872
Low Voltage	7%	562 / 8,019	2%	149 / 7,872
Renovation	6%	483 / 8,019	7%	588 / 7,872
Submittals (Construction)	5%	432 / 8,019	3%	245 / 7,872
Electrical Codes	5%	413 / 8,019	0%	24 / 7,872
Access Controls	5%	405 / 8,019	1%	75 / 7,872
Circuit Switches	5%	405 / 8,019	1%	114 / 7,872
Carpentry	5%	404 / 8,019	6%	453 / 7,872
Personal Protective Equipment	5%	395 / 8,019	0%	16 / 7,872
Electrical Equipment	5%	368 / 8,019	1%	47 / 7,872
Voltage	5%	368 / 8,019	0%	33 / 7,872
Quality Management	4%	360 / 8,019	2%	176 / 7,872
Plumbing	4%	343 / 8,019	3%	246 / 7,872
Computer Control Systems	4%	339 / 8,019	0%	30 / 7,872
Control Systems	4%	335 / 8,019	0%	38 / 7,872
Test Equipment	4%	301 / 8,019	0%	39 / 7,872
Security Systems	4%	300 / 8,019	1%	58 / 7,872
Circuit Breakers	4%	289 / 8,019	1%	49 / 7,872
Purchasing	4%	288 / 8,019	3%	234 / 7,872
Occupational Health And Safety Administration (OSHA)	3%	279 / 8,019	1%	117 / 7,872
Roofing	3%	278 / 8,019	2%	163 / 7,872
Wiring Diagram	3%	268 / 8,019	0%	24 / 7,872
HVAC	3%	253 / 8,019	3%	207 / 7,872
Customer Satisfaction	3%	229 / 8,019	3%	206 / 7,872
High Voltage	2%	198 / 8,019	1%	79 / 7,872

Warehousing	2%	196 / 8,019	2%	153 / 7,872
Hydraulics	2%	195 / 8,019	1%	42 / 7,872
Painting	2%	189 / 8,019	3%	234 / 7,872
Telecommunications	2%	187 / 8,019	2%	148 / 7,872
Electronics	2%	180 / 8,019	2%	122 / 7,872
Budgeting	2%	171 / 8,019	6%	492 / 7,872
Building Codes	2%	163 / 8,019	0%	33 / 7,872
Drilling	2%	160 / 8,019	1%	42 / 7,872
Microsoft Access	2%	159 / 8,019	2%	156 / 7,872
National Electrical Codes	2%	157 / 8,019	0%	19 / 7,872
Electronic Components	2%	147 / 8,019	0%	0 / 7,872
Estimators	2%	142 / 8,019	2%	180 / 7,872
Preventive Maintenance	2%	141 / 8,019	2%	132 / 7,872
Oil And Gas	2%	137 / 8,019	1%	43 / 7,872
Relays	2%	136 / 8,019	0%	33 / 7,872
Incentive Programs	2%	126 / 8,019	0%	0 / 7,872
Voltmeter	2%	125 / 8,019	0%	16 / 7,872

Top Common Skills



Top Common Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Aug 2018)	Frequency in Profiles	Profiles with Skill / Total Profiles (2016 - 2018)
Construction	37%	2,929 / 8,019	24%	1,893 / 7,872
Management	31%	2,496 / 8,019	18%	1,389 / 7,872
Communications	18%	1,455 / 8,019	4%	336 / 7,872
Operations	17%	1,355 / 8,019	7%	590 / 7,872
Troubleshooting (Problem Solving)	12%	952 / 8,019	7%	518 / 7,872
Leadership	9%	728 / 8,019	14%	1,093 / 7,872
Problem Solving	8%	611 / 8,019	3%	209 / 7,872
Customer Service	7%	582 / 8,019	16%	1,293 / 7,872
Computer Literacy	7%	557 / 8,019	1%	66 / 7,872
Microsoft Excel	6%	511 / 8,019	11%	890 / 7,872
Coordinating	6%	478 / 8,019	3%	218 / 7,872
Microsoft Outlook	6%	468 / 8,019	3%	268 / 7,872

Project Management	6%	453 / 8,019	12%	934 / 7,872
Interpersonal Skills	5%	389 / 8,019	0%	38 / 7,872
Sales	5%	385 / 8,019	11%	828 / 7,872
Research	5%	373 / 8,019	8%	591 / 7,872
Innovation	5%	368 / 8,019	1%	68 / 7,872
Written Communication	4%	350 / 8,019	0%	17 / 7,872
Microsoft Office	4%	304 / 8,019	12%	958 / 7,872
Time Management	4%	296 / 8,019	2%	171 / 7,872
Verbal Communication Skills	4%	296 / 8,019	0%	6 / 7,872
Office Suite	3%	219 / 8,019	0%	9 / 7,872
Infrastructure	2%	191 / 8,019	1%	78 / 7,872
Critical Thinking	2%	155 / 8,019	0%	32 / 7,872
Microsoft Word	2%	147 / 8,019	8%	608 / 7,872
Decision Making	2%	143 / 8,019	0%	36 / 7,872
Driving	2%	139 / 8,019	1%	41 / 7,872
Mentorship	2%	132 / 8,019	1%	74 / 7,872
Spanish Language	2%	129 / 8,019	2%	126 / 7,872
Prioritization	2%	128 / 8,019	0%	34 / 7,872
Microsoft PowerPoint	1%	119 / 8,019	6%	494 / 7,872
First Aid	1%	115 / 8,019	1%	79 / 7,872
English Language	1%	110 / 8,019	2%	195 / 7,872
Team Building	1%	110 / 8,019	6%	510 / 7,872
Investigation	1%	108 / 8,019	1%	56 / 7,872
Cardiopulmonary Resuscitation	1%	105 / 8,019	1%	68 / 7,872
Spreadsheets	1%	105 / 8,019	0%	32 / 7,872
Multilingualism	1%	99 / 8,019	1%	64 / 7,872

Presentations	1%	99 / 8,019	3%	206 / 7,872
Listening Skills	1%	92 / 8,019	0%	5 / 7,872
Hospitality	1%	89 / 8,019	1%	55 / 7,872
Motor Control	1%	88 / 8,019	1%	46 / 7,872
Creativity	1%	83 / 8,019	0%	0 / 7,872
Trust	1%	82 / 8,019	0%	12 / 7,872
Real Estates	1%	81 / 8,019	2%	132 / 7,872
Writing	1%	81 / 8,019	2%	164 / 7,872
Training And Development	1%	77 / 8,019	1%	67 / 7,872
Teaching	1%	75 / 8,019	3%	271 / 7,872
Word Processor	1%	75 / 8,019	0%	14 / 7,872
Information Technology	1%	68 / 8,019	2%	157 / 7,872

Top Qualifications

Qualification	Postings with Qualification
Commercial Driver's License (CDL)	60
Transportation Worker Identification Credential (TWIC) Card	11
Professional Engineer	10
Certified Broadcast Radio Engineer	8
Certified Safety Professional	7
Certified Welding Inspector	6
Certified Construction Manager	5
Certified Welder	4
Master Of Business Administration (MBA)	4
Certified Crane Operator	3
Licensed Professional Engineer	3
PMI Certified	3
Certified First Responder	2
Certified Fire Alarm Technician	1
Certified Playground Safety Inspector	1
Certified Project Management Professional	1
Construction Health And Safety Technician	1
National Registry Emergency Medical Technician	1
Nursing Assistant Certification	1
Physical Security Professional	1
Project Management Professional Certification	1
Residential Electronics Systems Integrator	1

Appendix A - Data Sources and Calculations

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.

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.

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.

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.

State Data Sources

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