

Program Market Demand

2 Programs

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
26.0101	Biology/Biological Sciences, General
15.0401	Biomedical Technology/Technician

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

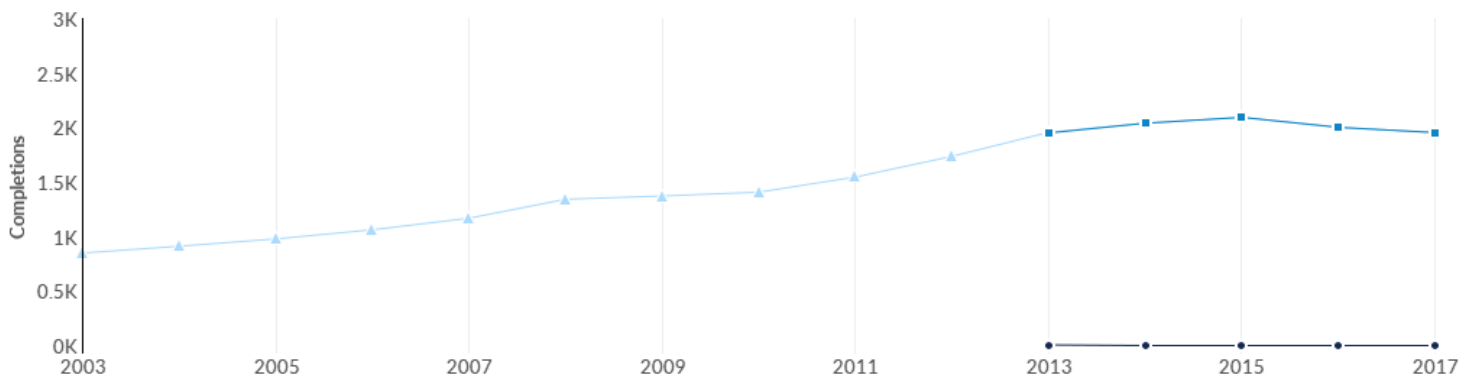


	Completions (2015)	% Completions	Institutions (2015)	% Institutions
● All Programs	2,095	100%	31	100%
● Distance Offered Programs	0	0%	0	0%
● Non-Distance Offered Programs	2,095	100%	31	100%

Institution	Completions (2015)	Growth % YOY (2015)	Market Share (2015)
University of California-Berkeley	432	-1.8%	20.6%
San Francisco State University	412	9.3%	19.7%
San Jose State University	151	0.7%	7.2%
California State University-East Bay	146	15.0%	7.0%
Stanford University	136	-4.9%	6.5%
University of San Francisco	86	26.5%	4.1%
City College of San Francisco	79	-32.5%	3.8%
Santa Clara University	71	6.0%	3.4%
Mission College	71	-6.6%	3.4%
Laney College	64	540.0%	3.1%
Diablo Valley College	60	140.0%	2.9%
Chabot College	58	-27.5%	2.8%
Ohlone College	40	-31.0%	1.9%
Las Positas College	38	35.7%	1.8%
Los Medanos College	37	0.0%	1.8%
Saint Mary's College of California	36	80.0%	1.7%
West Valley College	25	-37.5%	1.2%
De Anza College	24	-22.6%	1.1%
Contra Costa College	23	109.1%	1.1%
Mills College	16	-11.1%	0.8%
Foothill College	15	50.0%	0.7%
Canada College	15	25.0%	0.7%
College of San Mateo	14	-44.0%	0.7%
Notre Dame de Namur University	12	-14.3%	0.6%
Berkeley City College	8	100.0%	0.4%
Gavilan College	7	40.0%	0.3%
Holy Names University	7	-12.5%	0.3%

Evergreen Valley College	4	0.0%	0.2%
San Jose City College	4	-33.3%	0.2%
Skyline College	3	Insf. Data	0.1%
Merritt College	1	-96.3%	0.0%

Regional Trends



	2013 Completions	2015 Completions	% Change
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● Distance Offered Programs	6	0	-100.0%
■ Non-Distance Offered Programs	1,951	2,095	+7.4%
▲ All Programs	1,957	2,095	+7.1%

Job Postings vs. Hires

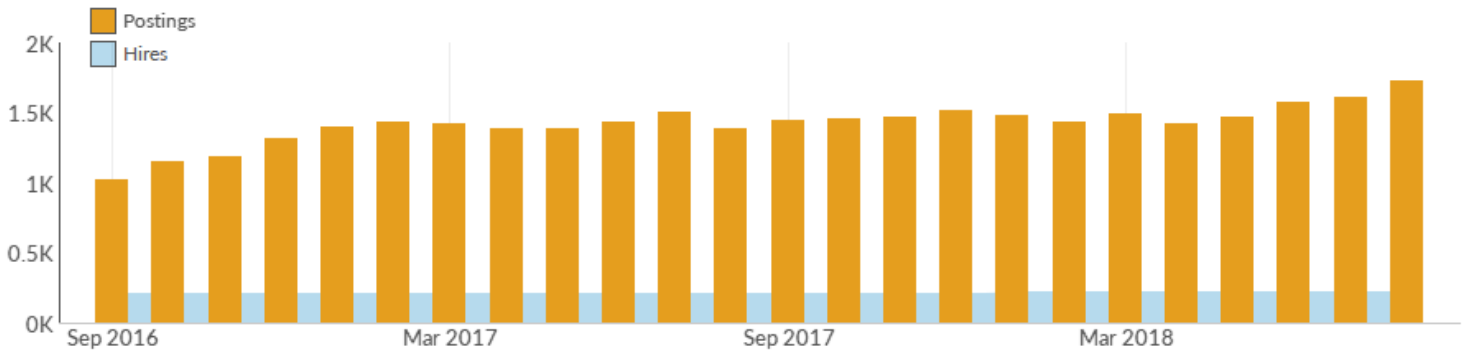
1,424

Avg. Monthly Postings (Sep 2016 - Aug 2018)

217


Avg. Monthly Hires (Sep 2016 - Aug 2018)

In an average month, there were 1,424 unique job postings for 4 Occupations, and 217 actually hired. This means there was approximately 1 hire for every 7 unique job postings for 4 Occupations.



Occupation	Avg Monthly Postings (Sep 2016 - Aug 2018)	Avg Monthly Hires (Sep 2016 - Aug 2018)
Natural Sciences Managers	1,200	85
Biological Scientists, All Other	113	96
Medical Equipment Repairers	101	19
Life Scientists, All Other	10	17

Job Postings Summary

<p>11,351 Unique Postings 56,876 Total Postings</p>	<p>5 : 1 Posting Intensity</p>  <p>Regional Average: 4 : 1</p>	<p>40 days Median Posting Duration Regional Average: 33 days</p>
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There were 56,876 total job postings for your selection from September 2016 to August 2018, of which 11,351 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>6,792 Jobs (2017) 93% above National average</p>	<p>+12.5% % Change (2017-2024) Nation: +8.2%</p>	<p>\$53.06/hr Median Hourly Earnings Nation: \$37.33/hr</p>	<p>717 Annual Openings</p>
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Occupation	2017 Jobs	Annual Openings	Median Hourly Earnings	Growth (2017 - 2024)	Location Quotient (2017)
Biological Scientists, All Other	3,128	317	\$44.28/hr	+8.73%	3.37
Natural Sciences Managers	2,717	290	\$75.31/hr	+15.24%	2.01
Medical Equipment Repairers	576	74	\$29.07/hr	+22.57%	0.54
Life Scientists, All Other	372	36	\$49.41/hr	+8.33%	2.08

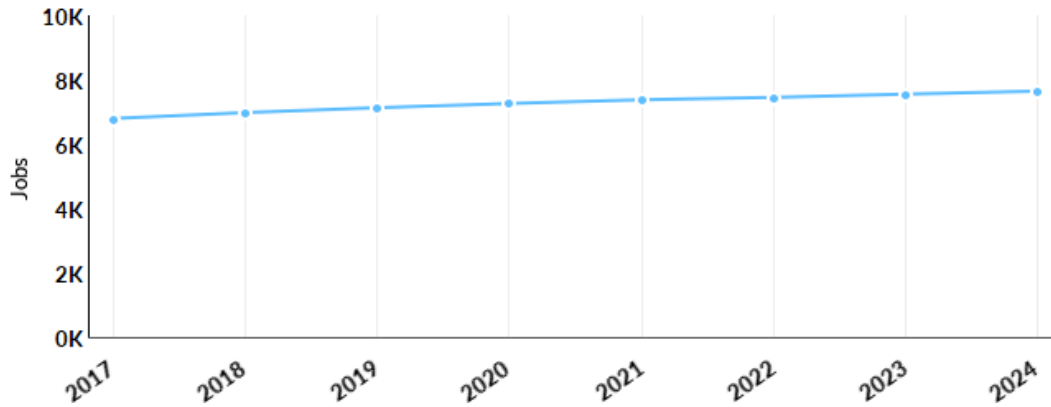
Growth

6,792
2017 Jobs

7,641
2024 Jobs

849
Change (2017-2024)

12.5%
% Change (2017-2024)



Occupation	2017 Jobs	2024 Jobs	Change	% Change
Natural Sciences Managers (11-9121)	2,717	3,131	414	15%
Biological Scientists, All Other (19-1029)	3,128	3,401	273	9%
Life Scientists, All Other (19-1099)	372	403	31	8%
Medical Equipment Repairers (49-9062)	576	706	130	23%

Percentile Earnings

\$38.72/hr

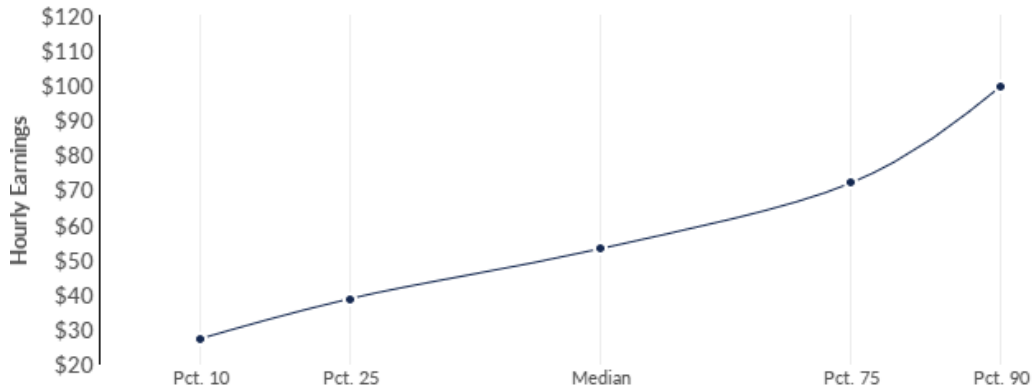
25th Percentile Earnings

\$53.06/hr

Median Earnings

\$71.91/hr

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Natural Sciences Managers (11-9121)	\$59.73	\$75.31	\$98.86
Biological Scientists, All Other (19-1029)	\$33.44	\$44.28	\$55.29
Life Scientists, All Other (19-1099)	\$36.79	\$49.41	\$65.51
Medical Equipment Repairers (49-9062)	\$22.40	\$29.07	\$37.43

Top Companies Posting

Company	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
University of California	3,264 / 424	8 : 1	43 days
Biospace, Inc	2,424 / 393	6 : 1	44 days
Gilead Sciences, Inc.	1,019 / 235	4 : 1	58 days
Roche Laboratories Inc.	591 / 169	3 : 1	55 days
Abbvie Inc.	796 / 147	5 : 1	38 days
Kaiser Permanente	1,590 / 147	11 : 1	61 days
Cybercoders, Inc.	694 / 139	5 : 1	43 days
Pharmacyclics LLC	1,413 / 127	11 : 1	62 days
REAL STAFFING GROUP LTD	2,917 / 127	23 : 1	17 days
Sutter Health	724 / 127	6 : 1	47 days
Covance Inc.	446 / 123	4 : 1	44 days
Genentech, Inc.	351 / 118	3 : 1	38 days
PRA Health Sciences, Inc.	196 / 109	2 : 1	3 days
Aerotek, Inc.	720 / 104	7 : 1	24 days
Kelly Services, Inc.	836 / 97	9 : 1	50 days
Jazz Pharmaceuticals PLC	534 / 91	6 : 1	58 days
ACCENTURE, INC.	234 / 89	3 : 1	35 days
Deloitte LLP	310 / 89	3 : 1	41 days
Agile Media Inc	309 / 86	4 : 1	128 days
Nektar Therapeutics	364 / 83	4 : 1	70 days
Amgen Inc.	610 / 82	7 : 1	50 days
Thermo Fisher Scientific Inc	402 / 78	5 : 1	36 days
Bayside Solutions, Inc.	389 / 66	6 : 1	31 days
Oracle Corporation	164 / 64	3 : 1	55 days
Anthem, Inc.	193 / 63	3 : 1	41 days

Ascent, Llc.	154 / 63	2 : 1		40 days
Google Inc.	161 / 63	3 : 1		47 days
Abbott Laboratories	260 / 59	4 : 1		51 days
Five Prime Therapeutics, Inc.	358 / 56	6 : 1		47 days
Apex Systems, Inc.	1,092 / 54	20 : 1		55 days
Stanford University	180 / 54	3 : 1		113 days
Jazz	440 / 51	9 : 1		34 days
Icon Clinical Research, Inc	220 / 50	4 : 1		45 days
Exelixis, Inc.	146 / 49	3 : 1		47 days
Pfizer Inc.	282 / 49	6 : 1		45 days
Advanced Clinical Inc	179 / 48	4 : 1		60 days
Sodexo, Inc.	863 / 47	18 : 1		16 days
Achaogen, Inc.	103 / 44	2 : 1		32 days
Ucsf	362 / 42	9 : 1		77 days
Calico LLC	82 / 39	2 : 1		36 days
Uber Technologies, Inc.	86 / 38	2 : 1		60 days
Cytokinetics, Incorporated	82 / 37	2 : 1		48 days
ASTRAZENECA PLC	891 / 36	25 : 1		52 days
Medix	137 / 36	4 : 1		32 days
Airbnb, Inc.	107 / 35	3 : 1		41 days
Apex Life Science Advisors LLC	152 / 35	4 : 1		27 days
Virtual Vacations	35 / 34	1 : 1		12 days
Mlive Media Group	83 / 33	3 : 1		8 days
Natera, Inc.	127 / 32	4 : 1		57 days
23andme, Inc.	105 / 31	3 : 1		64 days

Top Posted Job Titles

Job Title	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
Clinical Research Associate (CRA) (Management)	5,627 / 1,084	5 : 1	36 days
Clinical Manager (Management)	5,189 / 978	5 : 1	38 days
Research Associate (Life, Physical, and Social Science)	4,362 / 673	6 : 1	37 days
Clinical Research Coordinator (Management)	4,725 / 597	8 : 1	42 days
Project Manager (Management)	1,549 / 364	4 : 1	34 days
Clinical Trials Manager	2,233 / 286	8 : 1	45 days
Bioinformatics Scientist	1,247 / 256	5 : 1	38 days
Director of Clinical Research	935 / 243	4 : 1	43 days
Biomedical Equipment Technician	1,094 / 239	5 : 1	31 days
Clinical Director	843 / 216	4 : 1	49 days
Biologist	710 / 214	3 : 1	34 days
Software Engineer	793 / 202	4 : 1	43 days
Science Manager	639 / 178	4 : 1	48 days
Director of Operations	825 / 177	5 : 1	44 days
Laboratory Manager	555 / 175	3 : 1	36 days
Clinical Trials Assistant	1,016 / 174	6 : 1	34 days
Operations Manager	909 / 171	5 : 1	42 days
Medical Director	834 / 165	5 : 1	49 days
Program Manager	784 / 153	5 : 1	40 days
Director of Data Management	482 / 134	4 : 1	35 days
Research Analyst (Life, Physical, and Social Science)	465 / 123	4 : 1	44 days
Principal Scientist	631 / 100	6 : 1	38 days
Clinical Research Manager	266 / 95	3 : 1	29 days
Director of Research	308 / 95	3 : 1	50 days

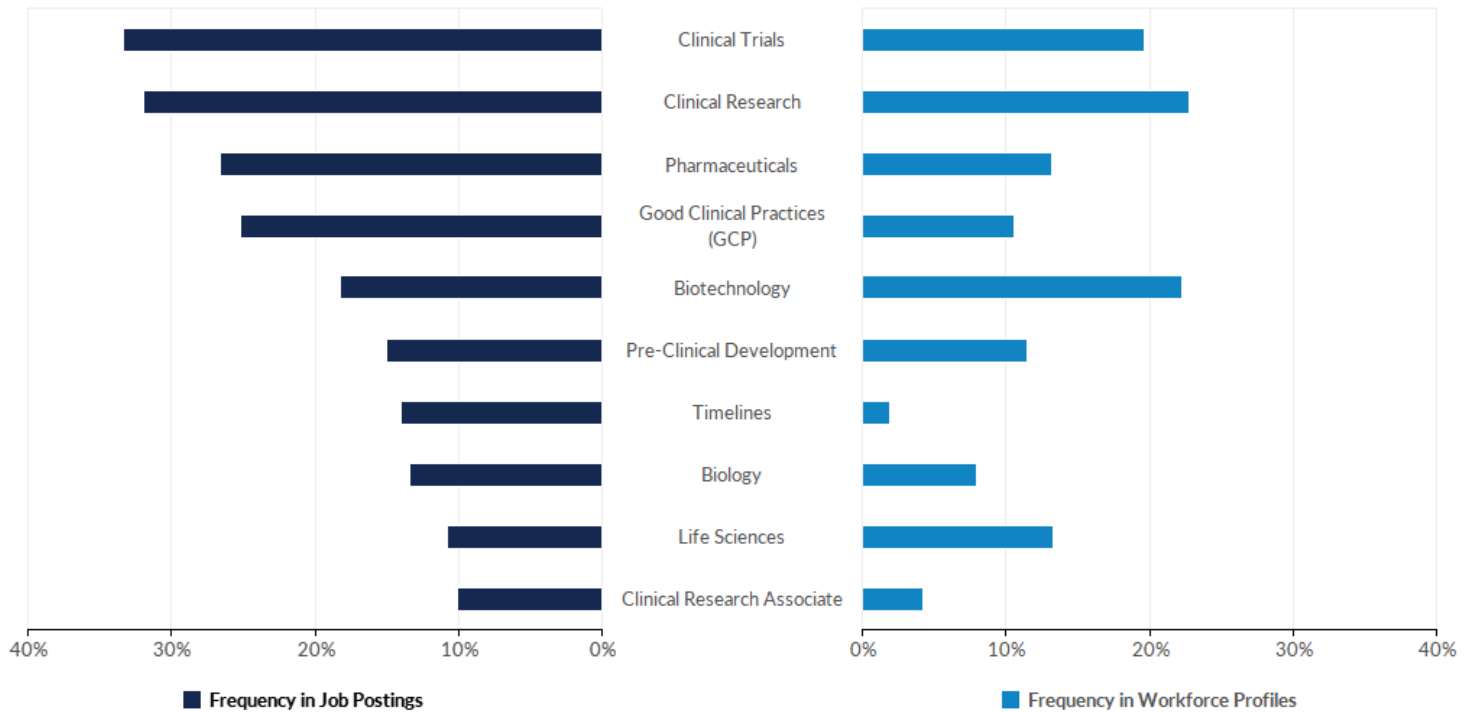
Maintenance Technician (Installation, Maintenance, and Repair)	710 / 95	7 : 1		45 days
Clinical Research Associate (CRA) (Life, Physical, and Social Science)	441 / 91	5 : 1		14 days
Research and Development (R&D) Manager	303 / 70	4 : 1		46 days
Business Development Director	234 / 67	3 : 1		48 days
Project Manager (Computer and Mathematical)	374 / 67	6 : 1		53 days
Director of Regulatory Affairs	376 / 60	6 : 1		57 days
Managing Consultant	164 / 57	3 : 1		44 days
Research Coordinator (Life, Physical, and Social Science)	296 / 55	5 : 1		39 days
Research Administrator	195 / 52	4 : 1		52 days
Research Scientist	225 / 50	5 : 1		35 days
Field Service Engineer	527 / 46	11 : 1		46 days
Medical Science Liaison	191 / 46	4 : 1		48 days
Data Scientist	234 / 44	5 : 1		38 days
Bioinformatician	155 / 42	4 : 1		29 days
Safety Director (Management)	134 / 42	3 : 1		41 days
Director of Science	114 / 39	3 : 1		51 days
Research Manager	123 / 39	3 : 1		28 days
Scientific Analyst	95 / 39	2 : 1		34 days
Development Scientist	114 / 38	3 : 1		34 days
Senior Scientist	119 / 38	3 : 1		31 days
Molecular Biology Research Associate	204 / 37	6 : 1		47 days
Data Analytics Manager	103 / 36	3 : 1		38 days
Pharmacologist	276 / 36	8 : 1		64 days
Assembly Mechanic	148 / 35	4 : 1		33 days
Clinical Trials Specialist	193 / 33	6 : 1		51 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



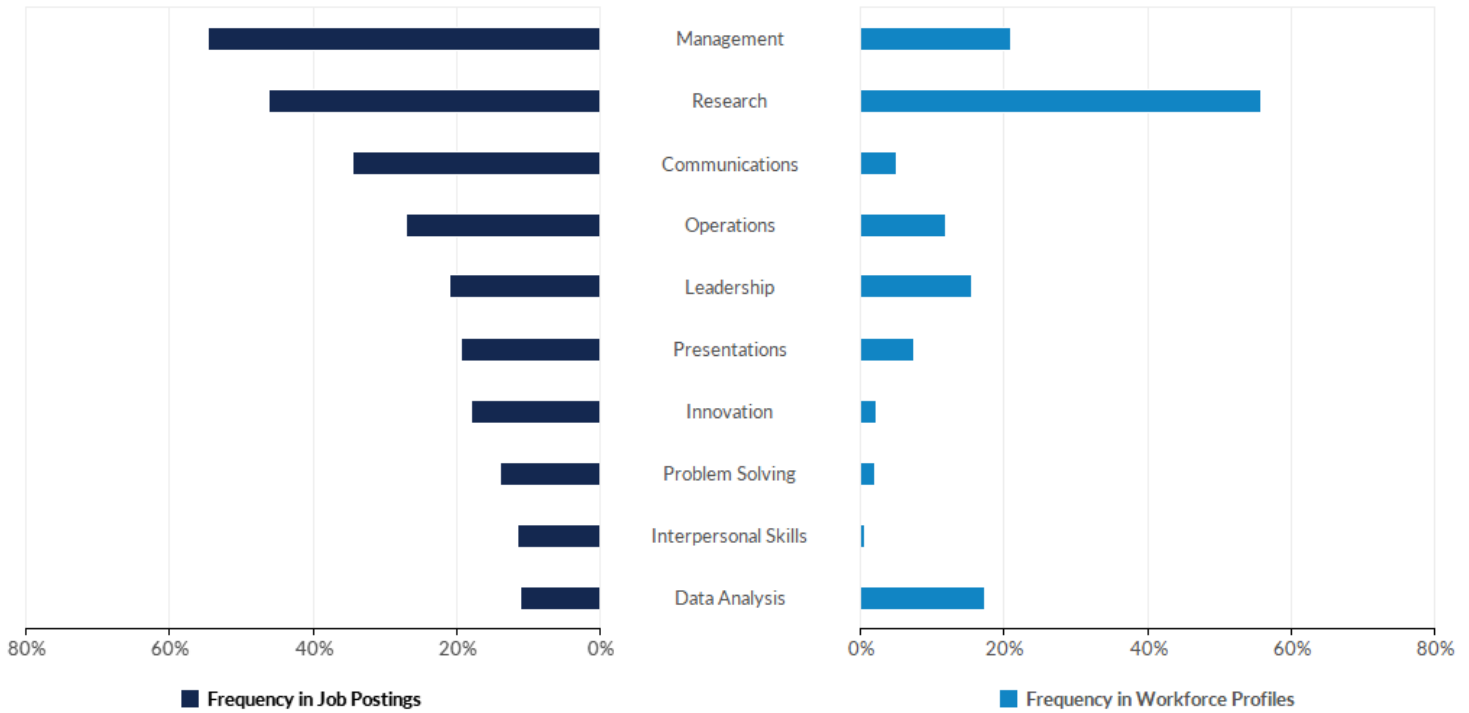
Top Hard Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Aug 2018)	Frequency in Profiles	Profiles with Skill / Total Profiles (2016 - 2018)
Clinical Trials	33%	3,785 / 11,351	20%	1,915 / 9,757
Clinical Research	32%	3,629 / 11,351	23%	2,218 / 9,757
Pharmaceuticals	27%	3,017 / 11,351	13%	1,290 / 9,757
Good Clinical Practices (GCP)	25%	2,856 / 11,351	11%	1,028 / 9,757
Biotechnology	18%	2,065 / 11,351	22%	2,172 / 9,757
Pre-Clinical Development	15%	1,706 / 11,351	11%	1,120 / 9,757
Timelines	14%	1,584 / 11,351	2%	190 / 9,757

Biology	13%	1,517 / 11,351	8%	780 / 9,757
Life Sciences	11%	1,226 / 11,351	13%	1,301 / 9,757
Clinical Research Associate	10%	1,149 / 11,351	4%	410 / 9,757
Drug Development	10%	1,129 / 11,351	9%	866 / 9,757
Case Report Forms	9%	1,049 / 11,351	2%	226 / 9,757
Data Management	9%	1,028 / 11,351	5%	442 / 9,757
Ich Guidelines	8%	960 / 11,351	1%	111 / 9,757
Clinical Trial Management Systems	8%	902 / 11,351	8%	733 / 9,757
Biopharmaceuticals	8%	882 / 11,351	4%	431 / 9,757
Irb	7%	781 / 11,351	5%	487 / 9,757
Data Collection	7%	757 / 11,351	4%	347 / 9,757
Clinical Study Reports	6%	685 / 11,351	1%	80 / 9,757
Diseases And Disorders	6%	649 / 11,351	3%	296 / 9,757
Product Quality Assurance	5%	614 / 11,351	4%	435 / 9,757
Bioinformatics	5%	599 / 11,351	6%	575 / 9,757
Auditing	5%	591 / 11,351	2%	236 / 9,757
Chemistry	5%	556 / 11,351	10%	948 / 9,757
Molecular Biology	5%	517 / 11,351	16%	1,595 / 9,757
Biostatistics	4%	508 / 11,351	2%	232 / 9,757
Coherent Remote File System (CRFS)	4%	502 / 11,351	1%	143 / 9,757
Milestones	4%	486 / 11,351	1%	55 / 9,757
Data Science	4%	473 / 11,351	3%	296 / 9,757
Clinical Works	4%	452 / 11,351	16%	1,517 / 9,757
Genomics	4%	451 / 11,351	6%	565 / 9,757
Regulatory Requirements	4%	449 / 11,351	1%	90 / 9,757
Business Development	4%	441 / 11,351	3%	324 / 9,757

Biochemistry	4%	439 / 11,351	12%	1,126 / 9,757
Cell Biology	4%	434 / 11,351	11%	1,101 / 9,757
Budgeting	4%	423 / 11,351	3%	272 / 9,757
Immunology	4%	420 / 11,351	7%	687 / 9,757
Non-Disclosure Agreement (Intellectual Property Law)	4%	420 / 11,351	1%	104 / 9,757
Oncology	4%	402 / 11,351	11%	1,110 / 9,757
Microsoft Access	3%	393 / 11,351	2%	239 / 9,757
New Product Development	3%	390 / 11,351	5%	496 / 9,757
Statistics	3%	389 / 11,351	7%	723 / 9,757
Antibodies	3%	356 / 11,351	4%	392 / 9,757
Computational Biology	3%	355 / 11,351	2%	243 / 9,757
Drug Discovery	3%	355 / 11,351	8%	821 / 9,757
Clinical Study Design	3%	351 / 11,351	2%	225 / 9,757
Trial Master File	3%	350 / 11,351	1%	97 / 9,757
Research And Development	3%	348 / 11,351	4%	397 / 9,757
Templates	3%	332 / 11,351	1%	83 / 9,757
Pharmacovigilance	3%	329 / 11,351	2%	147 / 9,757

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)
Management	55%	6,190 / 11,351	21%	2,048 / 9,757
Research	46%	5,228 / 11,351	56%	5,441 / 9,757
Communications	35%	3,921 / 11,351	5%	500 / 9,757
Operations	27%	3,056 / 11,351	12%	1,155 / 9,757
Leadership	21%	2,372 / 11,351	16%	1,519 / 9,757
Presentations	19%	2,202 / 11,351	7%	731 / 9,757
Innovation	18%	2,040 / 11,351	2%	224 / 9,757
Problem Solving	14%	1,573 / 11,351	2%	202 / 9,757
Interpersonal Skills	11%	1,303 / 11,351	1%	52 / 9,757
Data Analysis	11%	1,250 / 11,351	17%	1,683 / 9,757
Written Communication	9%	1,071 / 11,351	0%	35 / 9,757
Writing	9%	1,022 / 11,351	6%	588 / 9,757

Coordinating	8%	954 / 11,351	3%	329 / 9,757
Microsoft Excel	8%	925 / 11,351	12%	1,138 / 9,757
Computer Literacy	8%	904 / 11,351	0%	45 / 9,757
Mentorship	8%	882 / 11,351	2%	202 / 9,757
Verbal Communication Skills	7%	756 / 11,351	0%	7 / 9,757
Decision Making	6%	668 / 11,351	1%	61 / 9,757
Microsoft PowerPoint	6%	637 / 11,351	9%	867 / 9,757
Project Management	5%	541 / 11,351	11%	1,067 / 9,757
Sales	5%	535 / 11,351	6%	629 / 9,757
Time Management	5%	516 / 11,351	2%	186 / 9,757
Microsoft Outlook	4%	491 / 11,351	2%	223 / 9,757
Customer Service	4%	423 / 11,351	8%	816 / 9,757
Negotiation	4%	423 / 11,351	1%	125 / 9,757
Microsoft Office	4%	406 / 11,351	12%	1,190 / 9,757
Creativity	4%	402 / 11,351	0%	0 / 9,757
Computer Sciences	3%	379 / 11,351	2%	188 / 9,757
Prioritization	3%	373 / 11,351	0%	41 / 9,757
Quality Assurance	3%	358 / 11,351	3%	337 / 9,757
Teaching	3%	351 / 11,351	10%	1,015 / 9,757
Critical Thinking	3%	328 / 11,351	1%	80 / 9,757
Mathematics	3%	308 / 11,351	2%	171 / 9,757
Program Management	2%	280 / 11,351	7%	704 / 9,757
Information Technology	2%	278 / 11,351	2%	177 / 9,757
Proposal (Business)	2%	273 / 11,351	1%	104 / 9,757
Troubleshooting (Problem Solving)	2%	269 / 11,351	2%	210 / 9,757
Office Suite	2%	268 / 11,351	0%	4 / 9,757

Infrastructure	2%	235 / 11,351	1%	85 / 9,757
Spreadsheets	2%	218 / 11,351	0%	31 / 9,757
Driving	2%	213 / 11,351	0%	15 / 9,757
Investigation	2%	188 / 11,351	1%	64 / 9,757
Financial Services	2%	184 / 11,351	1%	57 / 9,757
Microsoft Word	1%	168 / 11,351	8%	770 / 9,757
Editing	1%	164 / 11,351	4%	393 / 9,757
Career Development	1%	160 / 11,351	0%	21 / 9,757
Team Building	1%	160 / 11,351	2%	222 / 9,757
Physics	1%	155 / 11,351	2%	232 / 9,757
Integration	1%	148 / 11,351	1%	140 / 9,757
Business Acumen	1%	145 / 11,351	0%	4 / 9,757

Top Qualifications

Qualification	Postings with Qualification
Master Of Business Administration (MBA)	105
Licensed Vocational Nurses	31
Certified Clinical Research Associate	25
Licensed Practical Nurse	23
Nurse Practitioner	21
Radiation Oncologist	20
Certified Rehabilitation Counselor	17
Certified Retirement Administrator	17
Certified Quality Auditor	14
Medical Technologist	13
Medical License	11
Certified Nursing Assistant	10
Certified Telecom Management Administrator	10
Certified Retirement Counselor	9
Project Management Professional Certification	9
Certified Radiology Administrator	7
Doctor Of Medicine (MD)	7
PMI Certified	7
Registered Education Savings Planning	6
Clinical Nurse Specialists (CNS)	5
Patient Care Technician	5
(American Society For Quality) ASQ Certified	4
Advanced Practice Registered Nurse	4
Certified Diabetes Educator	4
Certified Master Trainer	4
Cisco Certified Internetwork Expert	4

Cisco Certified Network Associate	4
American Registry Of Radiologic Technologists (ARRT) Certified	3
Career Readiness Certificate	3
Certified Lighting Efficiency Professional	3
Certified Medical Assistant	3
Registered Vascular Technologist	3
Reverse Engineering Malware Certification	3
Certified Associate Project Manager	2
Certified In Production And Inventory Management	2
Certified Lodging Security Supervisor	2
Certified Meeting Profesional	2
Certified Professional In Supplier Diversity (CPSD)	2
Certified Professional In Supply Management (Standards Organizations)	2
Certified Public Accountant	2
Certified Sales Executive	2
Cisco Certified Design Expert (CCDE)	2
Cisco Certified Design Professional	2
Cisco Certified Network Professional	2
Cisco Certified Security Professional	2
Cisco Certified Voice Professional	2
Licensed Clinical Social Worker (LCSW)	2
Licensed Marriage And Family Therapist (LMFT)	2
Microsoft Certified Systems Administrator (MCSA)	2
Radiologic Technologist	2

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