

# Program Market Demand

2 Business, Management, Marketing, and Related Support Services

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
52.0302	Accounting Technology/Technician and Bookkeeping
52.1601	Taxation

## 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

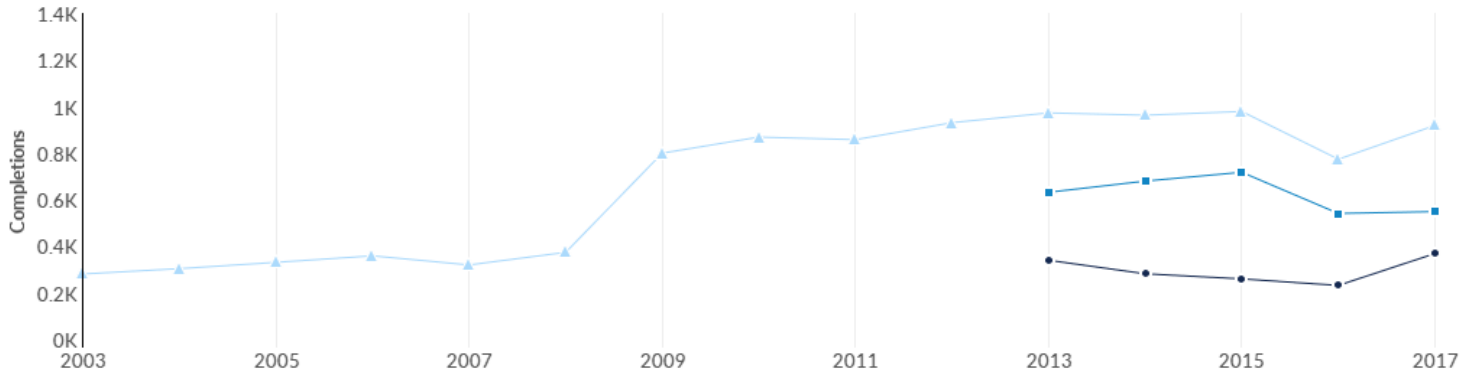
# Program Overview



	Completions (2015)	% Completions	Institutions (2015)	% Institutions
● All Programs	980	100%	24	100%
● Distance Offered Programs	261	27%	2	8%
● Non-Distance Offered Programs	719	73%	22	92%

Institution	Completions (2015)	Growth % YOY (2015)	Market Share (2015)
Golden Gate University-San Francisco	221	13.3%	22.6%
College of San Mateo	169	28.0%	17.2%
De Anza College	81	3.8%	8.3%
Chabot College	81	-3.6%	8.3%
San Jose State University	52	79.3%	5.3%
Diablo Valley College	44	-20.0%	4.5%
Skyline College	42	-19.2%	4.3%
Foothill College	40	21.2%	4.1%
Mission College	34	25.9%	3.5%
Evergreen Valley College	30	0.0%	3.1%
Canada College	30	-14.3%	3.1%
Los Medanos College	24	-40.0%	2.4%
San Jose City College	24	-4.0%	2.4%
City College of San Francisco	17	-43.3%	1.7%
Laney College	15	-25.0%	1.5%
Berkeley City College	15	15.4%	1.5%
Gavilan College	13	-7.1%	1.3%
Merritt College	12	140.0%	1.2%
College of Alameda	12	9.1%	1.2%
Las Positas College	9	-25.0%	0.9%
Contra Costa College	6	50.0%	0.6%
Ohlone College	5	-54.5%	0.5%
West Valley College	3	-62.5%	0.3%
California State University-East Bay	1	-94.7%	0.1%

# Regional Trends



	2013 Completions	2015 Completions	% Change
● Distance Offered Programs	341	261	-23.5%
■ Non-Distance Offered Programs	633	719	+13.6%
▲ All Programs	974	980	+0.6%

# Job Postings vs. Hires

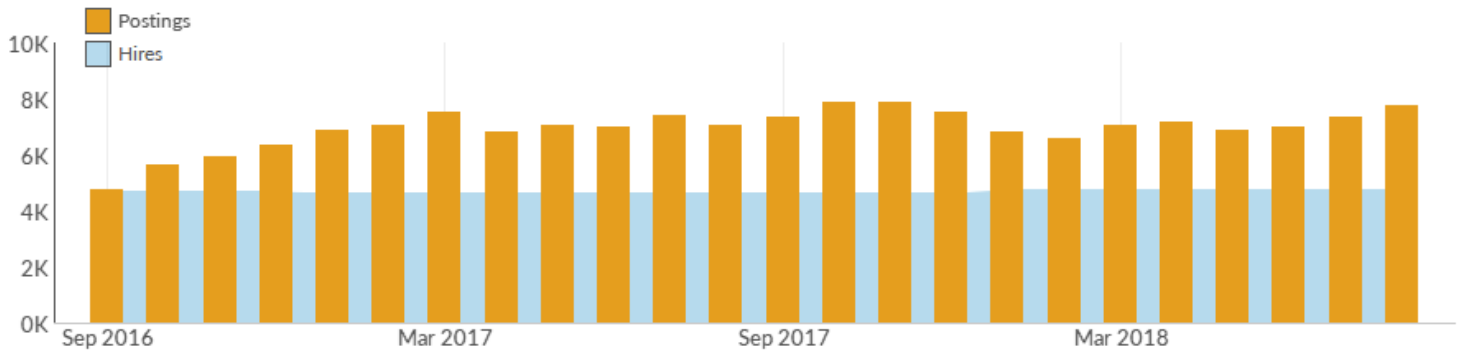
6,952

Avg. Monthly Postings (Sep 2016 - Aug 2018)

4,680


Avg. Monthly Hires (Sep 2016 - Aug 2018)

In an average month, there were 6,952 unique job postings for 10 Occupations, and 4,680 actually hired. This means there was approximately 1 hire for every 1.5 unique job postings for 10 Occupations.



Occupation	Avg Monthly Postings (Sep 2016 - Aug 2018)	Avg Monthly Hires (Sep 2016 - Aug 2018)
Accountants and Auditors	4,465	1,834
Bookkeeping, Accounting, and Auditing Clerks	1,823	1,779
Payroll and Timekeeping Clerks	296	267
Billing and Posting Clerks	189	451
Financial Examiners	93	40
Tax Preparers	63	182
Statistical Assistants	10	8
Tax Examiners and Collectors, and Revenue Agents	10	22
Brokerage Clerks	2	56
Gaming Cage Workers	0	40

## Job Postings Summary

<p>61,815 Unique Postings 345,242 Total Postings</p>	<p>6 : 1 Posting Intensity  Regional Average: 4 : 1</p>	<p>32 days Median Posting Duration Regional Average: 33 days</p>
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There were 345,242 total job postings for your selection from September 2016 to August 2018, of which 61,815 were unique. These numbers give us a Posting Intensity of 6-to-1, meaning that for every 6 postings there is 1 unique job posting.

This is higher than the Posting Intensity for all other occupations and companies in the region (4-to-1), indicating that they may be trying harder to hire for this position.

## Target Occupations

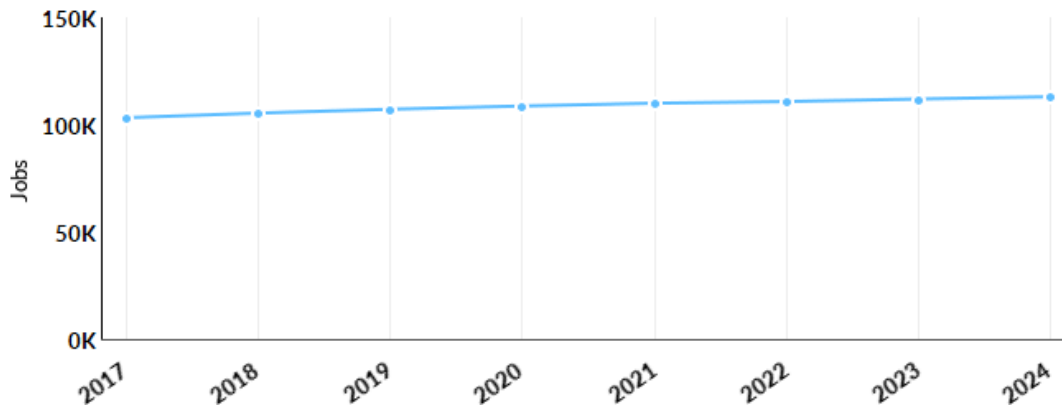
<p>103,163 Jobs (2017) 9% <b>above</b> National average</p>	<p><b>+9.5%</b> % Change (2017-2024) Nation: <b>+6.3%</b></p>	<p><b>\$29.16/hr</b> Median Hourly Earnings Nation: \$22.51/hr</p>	<p>11,996 Annual Openings</p>
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Occupation	2017 Jobs	Annual Openings	Median Hourly Earnings	Growth (2017 - 2024)	Location Quotient (2017)
Accountants and Auditors	41,839	4,588	\$38.08/hr	<b>+12.13%</b>	1.29
Bookkeeping, Accounting, and Auditing Clerks	37,342	4,519	\$24.18/hr	<b>+5.44%</b>	0.94
Billing and Posting Clerks	10,417	1,335	\$23.05/hr	<b>+15.74%</b>	0.90
Payroll and Timekeeping Clerks	4,948	532	\$28.75/hr	<b>+4.79%</b>	1.27
Tax Preparers	3,580	460	\$26.94/hr	<b>+12.46%</b>	1.57
Brokerage Clerks	1,877	217	\$28.48/hr	<b>+6.98%</b>	1.36
Financial Examiners	1,351	122	\$52.56/hr	<b>+9.10%</b>	1.06
Tax Examiners and Collectors, and Revenue Agents	804	57	\$40.32/hr	<b>+0.75%</b>	0.59
Gaming Cage Workers	801	133	\$14.89/hr	<b>+5.12%</b>	1.93
Statistical Assistants	203	34	\$27.40/hr	<b>+21.18%</b>	0.77



# Growth

103,163 2017 Jobs	112,939 2024 Jobs	9,776 Change (2017-2024)	9.5% % Change (2017-2024)
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Occupation	2017 Jobs	2024 Jobs	Change	% Change
Accountants and Auditors (13-2011)	41,839	46,916	5,077	12%
Financial Examiners (13-2061)	1,351	1,474	123	9%
Tax Examiners and Collectors, and Revenue Agents (13-2081)	804	810	6	1%
Tax Preparers (13-2082)	3,580	4,026	446	12%
Billing and Posting Clerks (43-3021)	10,417	12,057	1,640	16%
Bookkeeping, Accounting, and Auditing Clerks (43-3031)	37,342	39,375	2,033	5%
Gaming Cage Workers (43-3041)	801	842	41	5%
Payroll and Timekeeping Clerks (43-3051)	4,948	5,185	237	5%
Brokerage Clerks (43-4011)	1,877	2,008	131	7%
Statistical Assistants (43-9111)	203	246	43	21%

# Percentile Earnings

\$22.74/hr

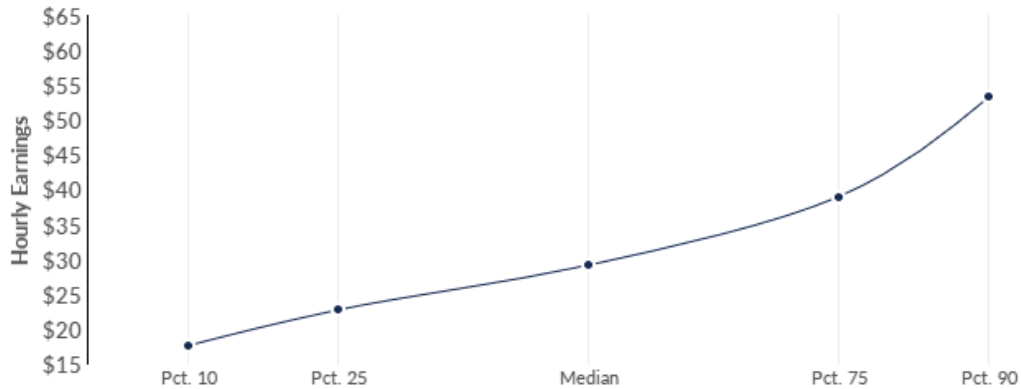
25th Percentile Earnings

\$29.16/hr

Median Earnings

\$39.01/hr

75th Percentile Earnings



Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Accountants and Auditors (13-2011)	\$29.80	\$38.08	\$50.17
Financial Examiners (13-2061)	\$38.68	\$52.56	\$72.21
Tax Examiners and Collectors, and Revenue Agents (13-2081)	\$31.87	\$40.32	\$52.56
Tax Preparers (13-2082)	\$20.85	\$26.94	\$40.52
Billing and Posting Clerks (43-3021)	\$18.79	\$23.05	\$28.55
Bookkeeping, Accounting, and Auditing Clerks (43-3031)	\$19.12	\$24.18	\$29.72
Gaming Cage Workers (43-3041)	\$12.64	\$14.89	\$18.50
Payroll and Timekeeping Clerks (43-3051)	\$23.64	\$28.75	\$34.74
Brokerage Clerks (43-4011)	\$22.80	\$28.48	\$35.90
Statistical Assistants (43-9111)	\$23.20	\$27.40	\$31.80

# Top Companies Posting

Company	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
Robert Half International Inc.	84,787 / 9,239	9 : 1	23 days
Accountemps	61,901 / 5,496	11 : 1	24 days
Accounting Principals, Inc	6,194 / 2,124	3 : 1	32 days
H&R Block, Inc.	5,778 / 1,316	4 : 1	51 days
AppleOne	3,171 / 1,097	3 : 1	25 days
RANDSTAD HOLDING nv	6,660 / 990	7 : 1	32 days
Mutual of Omaha	2,051 / 775	3 : 1	6 days
Cybercoders, Inc.	4,265 / 723	6 : 1	51 days
Deloitte LLP	3,506 / 683	5 : 1	60 days
Uber Technologies, Inc.	2,062 / 608	3 : 1	24 days
Ernst & Young LLP	2,753 / 460	6 : 1	80 days
Pricewaterhousecoopers LLP	3,518 / 377	9 : 1	56 days
RANDSTAD UK HOLDING LTD	1,810 / 331	5 : 1	33 days
Ledgent LLC	1,025 / 328	3 : 1	124 days
Parker and Lynch	799 / 324	2 : 1	40 days
Creative Financial Staffing LLC	683 / 309	2 : 1	62 days
Cvpartners, Inc.	526 / 309	2 : 1	37 days
Kpmg LLP	2,820 / 305	9 : 1	91 days
Wells Fargo & Company	1,788 / 274	7 : 1	21 days
Kelly Services, Inc.	1,535 / 251	6 : 1	33 days
Anthem, Inc.	537 / 246	2 : 1	19 days
University of California	1,131 / 243	5 : 1	45 days
Kforce Inc.	1,339 / 242	6 : 1	55 days
Google Inc.	736 / 230	3 : 1	54 days
Pridestaff, Inc	1,201 / 201	6 : 1	61 days

Nelson	311 / 194	2 : 1		29 days
Andersen Tax LLC	704 / 181	4 : 1		58 days
Intuit Inc.	486 / 179	3 : 1		19 days
Oracle Corporation	672 / 167	4 : 1		57 days
Bpm, Inc.	614 / 165	4 : 1		42 days
Moss Adams LLP	401 / 151	3 : 1		59 days
Kaiser Permanente	1,019 / 126	8 : 1		65 days
Career Opportunities Inc	303 / 124	2 : 1		30 days
ACCENTURE, INC.	350 / 106	3 : 1		35 days
Talentburst, Inc.	1,244 / 104	12 : 1		43 days
Controller's Group, Inc.	167 / 100	2 : 1		16 days
Lafayette Group, Inc.	534 / 94	6 : 1		31 days
Rgp	285 / 94	3 : 1		56 days
Valintry Corporation	532 / 92	6 : 1		119 days
AMF Bowling Inc.	91 / 89	1 : 1		142 days
Bvoh, LLC	174 / 84	2 : 1		32 days
State of California	1,118 / 84	13 : 1		20 days
RemX	234 / 83	3 : 1		37 days
Lighthouse Management Group, Inc.	267 / 82	3 : 1		32 days
RHI AG	292 / 82	4 : 1		16 days
First Republic Bank	461 / 80	6 : 1		44 days
Union Bank	573 / 78	7 : 1		135 days
Bank of The West	372 / 76	5 : 1		26 days
Crowe Horwath LLP	428 / 73	6 : 1		69 days
Golden Gate Search Group LLC	163 / 73	2 : 1		33 days

## Top Posted Job Titles

Job Title	Total/Unique (Sep 2016 - Aug 2018)	Posting Intensity	Median Posting Duration
Accountant	50,164 / 9,421	5 : 1	31 days
Staff Accountant	22,669 / 3,372	7 : 1	30 days
Auditor	19,989 / 3,275	6 : 1	41 days
Accounts Payable Clerk	26,764 / 3,095	9 : 1	27 days
Bookkeeper	21,913 / 2,796	8 : 1	25 days
Payroll Specialist	10,880 / 2,136	5 : 1	30 days
Accounting Clerk	13,701 / 1,863	7 : 1	29 days
Tax Preparer	6,574 / 1,428	5 : 1	44 days
General Ledger Accountant	6,463 / 1,369	5 : 1	32 days
Accounts Payable Analyst	5,800 / 1,087	5 : 1	32 days
Billing Specialist	6,326 / 1,065	6 : 1	31 days
Entry Level Sales	3,939 / 979	4 : 1	6 days
Financial Analyst	4,660 / 964	5 : 1	38 days
Accounting Assistant	3,227 / 843	4 : 1	27 days
Tax Associate	4,072 / 805	5 : 1	45 days
Assistant Controller	3,037 / 765	4 : 1	36 days
Accounts Receivable Representative	4,611 / 742	6 : 1	29 days
Accounting Analyst (Business and Financial Operations)	3,785 / 725	5 : 1	37 days
Tax Manager	3,817 / 697	5 : 1	48 days
Payroll Clerk	6,435 / 685	9 : 1	29 days
Assurance Services Senior Associate	4,695 / 680	7 : 1	55 days
Accounts Payable Processor	3,059 / 622	5 : 1	32 days
Tax Analyst	2,887 / 604	5 : 1	39 days
Revenue Accountant	2,395 / 586	4 : 1	40 days

Billing Clerk	5,110 / 553	9 : 1		26 days
Revenue Analyst	2,366 / 517	5 : 1		37 days
Tax Accountant	2,371 / 468	5 : 1		32 days
Compliance Analyst	2,101 / 450	5 : 1		38 days
Reporting Accountant	1,947 / 428	5 : 1		32 days
Cost Accountant	1,915 / 421	5 : 1		33 days
Payroll Administrator	2,289 / 389	6 : 1		25 days
Tax Senior - Public	1,621 / 358	5 : 1		45 days
Financial Controller	1,179 / 351	3 : 1		37 days
Property Accountant	2,275 / 340	7 : 1		30 days
Fund Accountant	2,266 / 336	7 : 1		32 days
Data Entry Clerk	1,775 / 334	5 : 1		25 days
Payroll Analyst	1,609 / 334	5 : 1		36 days
Tax Staff	2,342 / 332	7 : 1		47 days
Accounting Associate	1,337 / 327	4 : 1		32 days
Medical Biller	1,288 / 319	4 : 1		32 days
Account Manager (Management)	1,534 / 314	5 : 1		36 days
Project Accountant	1,738 / 312	6 : 1		36 days
Taxi Driver	631 / 255	2 : 1		15 days
Payroll Accountant	1,116 / 242	5 : 1		32 days
Tax Director (Business and Financial Operations)	1,002 / 241	4 : 1		48 days
Controller	865 / 239	4 : 1		43 days
Services Manager	1,322 / 223	6 : 1		63 days
Seasonal Tax Preparer	943 / 209	5 : 1		21 days
Billing Analyst (Office and Administrative Support)	1,095 / 205	5 : 1		32 days

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Account Coordinator (Office and  
Administrative Support)

682 / 203

3 : 1



30 days

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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

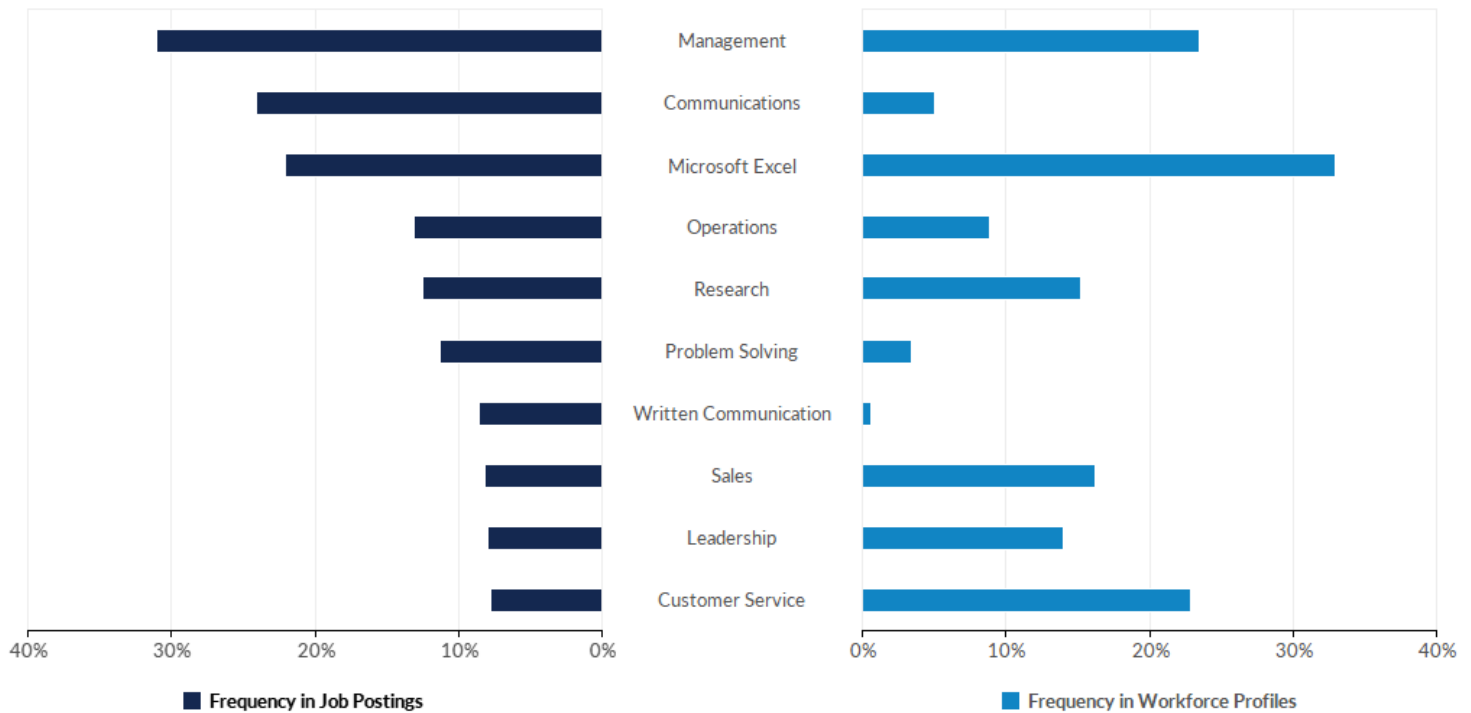
Skill	Frequency in Postings	Postings with Skill / Total Postings (Sep 2016 - Aug 2018)	Frequency in Profiles	Profiles with Skill / Total Profiles (2016 - 2018)
Accounting	76%	46,786 / 61,815	61%	23,575 / 38,415
Auditing	37%	22,958 / 61,815	31%	11,943 / 38,415
Accounts Payable	31%	19,282 / 61,815	28%	10,701 / 38,415
Financial Statements	24%	14,982 / 61,815	29%	11,031 / 38,415
Generally Accepted Accounting Principles	21%	12,802 / 61,815	14%	5,504 / 38,415
Bookkeeping	19%	11,572 / 61,815	17%	6,425 / 38,415
General Ledger	17%	10,753 / 61,815	18%	6,815 / 38,415



Accounts Receivable	17%	10,571 / 61,815	23%	8,707 / 38,415
Reconciliation	15%	8,972 / 61,815	20%	7,662 / 38,415
Microsoft Access	13%	8,040 / 61,815	7%	2,867 / 38,415
Billing	12%	7,321 / 61,815	11%	4,206 / 38,415
Collections	11%	6,928 / 61,815	8%	3,225 / 38,415
Internal Controls	11%	6,807 / 61,815	12%	4,451 / 38,415
Balance Sheet	8%	5,104 / 61,815	6%	2,290 / 38,415
Accruals	8%	4,904 / 61,815	9%	3,393 / 38,415
Tax Return	7%	4,541 / 61,815	10%	4,014 / 38,415
Budgeting	7%	4,504 / 61,815	14%	5,420 / 38,415
Fixed Asset	7%	4,247 / 61,815	9%	3,292 / 38,415
Forecasting	6%	3,812 / 61,815	10%	3,688 / 38,415
Internal Auditing	5%	3,342 / 61,815	6%	2,453 / 38,415
Bank Reconciliations	5%	3,340 / 61,815	10%	3,739 / 38,415
Sarbanes-Oxley Act (SOX) Compliance	5%	3,033 / 61,815	8%	3,206 / 38,415
Financial Auditing	5%	2,976 / 61,815	5%	1,897 / 38,415
Investments	5%	2,972 / 61,815	5%	1,901 / 38,415
Economics	5%	2,952 / 61,815	3%	1,075 / 38,415
Income Tax	5%	2,818 / 61,815	7%	2,804 / 38,415
Professional Services	4%	2,777 / 61,815	1%	285 / 38,415
Deposit Accounts	4%	2,491 / 61,815	6%	2,483 / 38,415
Ledgers (Accounting)	4%	2,380 / 61,815	2%	774 / 38,415
Process Improvements (Business)	4%	2,334 / 61,815	1%	486 / 38,415
Revenue Recognition	4%	2,211 / 61,815	5%	2,094 / 38,415
Receivables	4%	2,206 / 61,815	3%	994 / 38,415
Technical Accounting	3%	2,051 / 61,815	1%	300 / 38,415

Accounting Softwares	3%	1,984 / 61,815	4%	1,418 / 38,415
Equities	3%	1,914 / 61,815	2%	629 / 38,415
Tax Planning	3%	1,894 / 61,815	2%	610 / 38,415
External Auditor	3%	1,861 / 61,815	2%	611 / 38,415
Tax Preparation	3%	1,836 / 61,815	9%	3,350 / 38,415
Financial Analysis	3%	1,818 / 61,815	18%	6,821 / 38,415
Accounting Systems	3%	1,809 / 61,815	1%	499 / 38,415
Enterprise Resource Planning	3%	1,781 / 61,815	2%	761 / 38,415
Work Order	3%	1,718 / 61,815	0%	61 / 38,415
Purchasing	3%	1,601 / 61,815	6%	2,325 / 38,415
Depreciation	2%	1,515 / 61,815	4%	1,363 / 38,415
Corporate Tax	2%	1,507 / 61,815	6%	2,125 / 38,415
Tax Consulting	2%	1,487 / 61,815	2%	672 / 38,415
Consolidation (Financial)	2%	1,477 / 61,815	3%	1,187 / 38,415
Financial Accounting	2%	1,461 / 61,815	13%	5,174 / 38,415
Analysis Of Variance	2%	1,408 / 61,815	5%	1,833 / 38,415
Use Tax	2%	1,403 / 61,815	3%	1,135 / 38,415

## 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	31%	19,184 / 61,815	23%	9,019 / 38,415
Communications	24%	14,911 / 61,815	5%	1,936 / 38,415
Microsoft Excel	22%	13,657 / 61,815	33%	12,647 / 38,415
Operations	13%	8,089 / 61,815	9%	3,410 / 38,415
Research	13%	7,732 / 61,815	15%	5,861 / 38,415
Problem Solving	11%	6,958 / 61,815	3%	1,332 / 38,415
Written Communication	9%	5,264 / 61,815	1%	230 / 38,415
Sales	8%	5,018 / 61,815	16%	6,249 / 38,415
Leadership	8%	4,936 / 61,815	14%	5,378 / 38,415
Customer Service	8%	4,776 / 61,815	23%	8,788 / 38,415
Data Entry	8%	4,755 / 61,815	8%	3,149 / 38,415
Innovation	7%	4,227 / 61,815	1%	289 / 38,415

Interpersonal Skills	6%	3,963 / 61,815	1%	381 / 38,415
Financial Services	6%	3,849 / 61,815	3%	1,003 / 38,415
Verbal Communication Skills	6%	3,743 / 61,815	0%	83 / 38,415
Microsoft Outlook	6%	3,728 / 61,815	11%	4,147 / 38,415
Microsoft Office	6%	3,666 / 61,815	23%	8,729 / 38,415
Filing	5%	3,306 / 61,815	6%	2,178 / 38,415
Business Administration	5%	2,894 / 61,815	3%	1,309 / 38,415
Time Management	4%	2,561 / 61,815	7%	2,553 / 38,415
Presentations	4%	2,232 / 61,815	3%	1,184 / 38,415
Computer Literacy	4%	2,195 / 61,815	1%	480 / 38,415
Mentorship	4%	2,172 / 61,815	1%	316 / 38,415
Coordinating	3%	2,028 / 61,815	2%	846 / 38,415
Office Suite	3%	2,000 / 61,815	0%	29 / 38,415
Microsoft PowerPoint	3%	1,968 / 61,815	19%	7,214 / 38,415
Clerical Works	3%	1,805 / 61,815	2%	776 / 38,415
Data Analysis	3%	1,709 / 61,815	5%	2,035 / 38,415
Spreadsheets	3%	1,578 / 61,815	3%	1,042 / 38,415
Prioritization	3%	1,550 / 61,815	1%	194 / 38,415
Writing	2%	1,493 / 61,815	2%	874 / 38,415
Information Technology	2%	1,466 / 61,815	2%	827 / 38,415
Decision Making	2%	1,369 / 61,815	1%	269 / 38,415
Critical Thinking	2%	1,250 / 61,815	1%	354 / 38,415
Microsoft Word	2%	1,240 / 61,815	20%	7,701 / 38,415
Real Estates	2%	1,216 / 61,815	3%	1,032 / 38,415
Multilingualism	2%	1,160 / 61,815	1%	523 / 38,415
Investigation	2%	1,016 / 61,815	1%	348 / 38,415

Memos	2%	974 / 61,815	2%	742 / 38,415
Project Management	2%	962 / 61,815	5%	1,952 / 38,415
Business Savvy	1%	778 / 61,815	0%	3 / 38,415
Governance	1%	772 / 61,815	0%	142 / 38,415
Creativity	1%	714 / 61,815	0%	0 / 38,415
Mathematics	1%	697 / 61,815	1%	362 / 38,415
English Language	1%	621 / 61,815	4%	1,413 / 38,415
Spanish Language	1%	616 / 61,815	2%	642 / 38,415
Word Processor	1%	614 / 61,815	1%	218 / 38,415
Integration	1%	577 / 61,815	1%	371 / 38,415
Requirement Prioritization	1%	571 / 61,815	0%	115 / 38,415
Construction	1%	569 / 61,815	2%	587 / 38,415

# Top Qualifications

Qualification	Postings with Qualification
Certified Public Accountant	3,291
Master Of Business Administration (MBA)	1,586
Certified Internal Auditor	1,177
Certified Information Security Manager	718
Financial Accounting Standards Board (FASB) Certified	478
Certified Information Systems Security Professional	440
Certified Fraud Examination	337
Chartered Financial Analyst	155
Certified Purchasing Professional	151
Chartered Accountant	133
Certified Professional Coder	85
Certified Fraud Examiner	77
Certified Accounting Technician	66
Certified Coding Specialist	56
Certified In Risk And Information Systems Control	56
Certified Regulatory Compliance Manager	55
Certified Financial Planner	50
Certified Financial Services Auditor	47
Registered Health Information Administrator	41
Certified Financial Risk Management	39
Certified In The Governance Of Enterprise IT	37
Certified Management Accountant	35
Certified Linux Administrator	33
Registered Health Information Technician	32
Registered Investment Advisor	29
(American Society For Quality) ASQ Certified	26

Chartered Alternative Investment Analyst	26
Certified Business Continuity Professional	24
Certified In Healthcare Compliance	24
Certified Government Financial Manager	18
Certified Relocation Professional	17
Certified Risk Professional	17
Certified Quality Auditor	16
Master Of Public Administration	16
Registered Investment Adviser	15
Certified Defense Financial Manager	13
Certification In Control Self-Assessment	12
Certified Bank Auditor	12
Series 7 General Securities Representative License (Stockbroker)	12
Certified Employee Benefit Specialist	11
Global Professional In Human Resources	11
Certified Fraud Specialist	9
GIAC Security Essentials Certification	9
Certified Government Auditing Professional (CGAP)	8
Certified Medical Assistant	8
Global Information Assurance Certification	8
Certificate Of Cloud Security Knowledge	7
Chartered Global Management Accountant	7
GIAC Security Leadership Certification	7
Licensed Practical Nurse	7

# 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