BU's BEST

Biomedical Workforce Data 2018

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This data can also be found online at:

www.bu.edu/BEST

Labor Insight™

About

Labor Insight™ is software offered by Burning Glass® Technologies. This tool allows educational institutions and others to analyze the job market so as to identify demand for specific jobs as well as the skills and credentials employers are seeking to fill the jobs. The data also enable analysis of regional demand and job trends.   The information allows educational institutions to plan programming to meet employer needs. Moreover, trainees can use the data to identify training opportunities that will best prepare them to achieve their career goals.

Workflow

1. Craft a search based on criteria: industry, job type, required credentials, skill demand, experience, location, etc.

2. View reports: top employers, top job titles, top job skills, education/credentials, job demand maps, job trends, etc.

Notes

All searches were performed such that the reported jobs require or request a PhD.

Caveats & Disclaimers

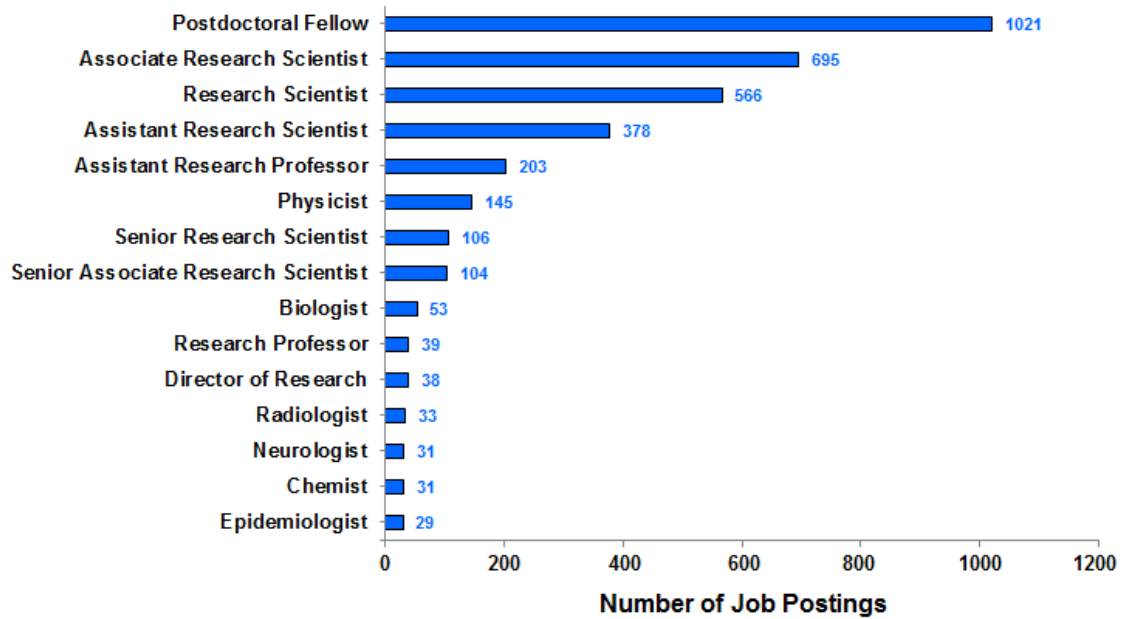Date ranges are January 2018 – December 2018 for job searches.

As the data are generated through job advertisements, small and mid-sized companies hiring small numbers of employees might not be listed in "top employers" but should not be ruled out.
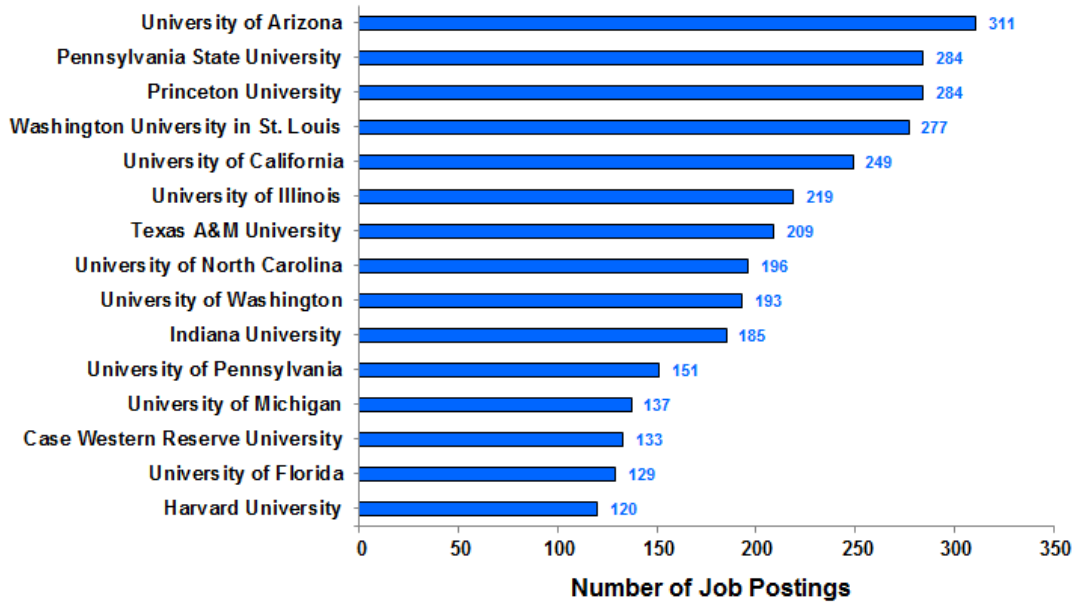
Academic Research

Number of Jobs Postings in Search:
10,099

Top Job Titles: Academic Research

Job Title	Number of Job Postings
Postdoctoral Fellow	1021
Associate Research Scientist	695
Research Scientist	566
Assistant Research Scientist	378
Assistant Research Professor	203
Physicist	145
Senior Research Scientist	106
Senior Associate Research Scientist	104
Biologist	53
Research Professor	39
Director of Research	38
Radiologist	33
Neurologist	31
Chemist	31
Epidemiologist	29

Top Employers: Academic Research

Employer	Number of Job Postings
University of Arizona	311
Pennsylvania State University	284
Princeton University	284
Washington University in St. Louis	277
University of California	249
University of Illinois	219
Texas A&M University	209
University of North Carolina	196
University of Washington	193
Indiana University	185
University of Pennsylvania	151
University of Michigan	137
Case Western Reserve University	133
University of Florida	129
Harvard University	120

Specialized (Hard) Skills: Academic Research

Horizontal bar chart titled "Specialized (Hard) Skills: Academic Research" with x-axis "Number of Job Postings":
- Experimental Skills: 2123
- Teaching: 2006
- Biology: 1798
- Molecular Biology: 1669
- Data Analysis: 1576
- Grant Writing: 1274
- Biochemistry: 1188
- Physics: 1133
- Chemistry: 1086
- Cancer Knowledge: 962
- Data Collection: 946
- Public Health & Safety: 844
- Budgeting: 814
- Genetics: 754
- Microscopy: 751

Baseline (Soft) Skills: Academic Research

Horizontal bar chart titled "Baseline (Soft) Skills: Academic Research" with x-axis "Number of Job Postings":
- Research: 9784
- Communication Skills: 3449
- Writing: 2789
- Teamwork & Collaboration: 2464
- Organizational Skills: 1219
- Planning: 1139
- Detail-Oriented: 821
- Creativity: 820
- Mentoring: 769
- Problem Solving: 751
- Presentation Skills: 610
- English Proficiency: 534
- Editing: 468
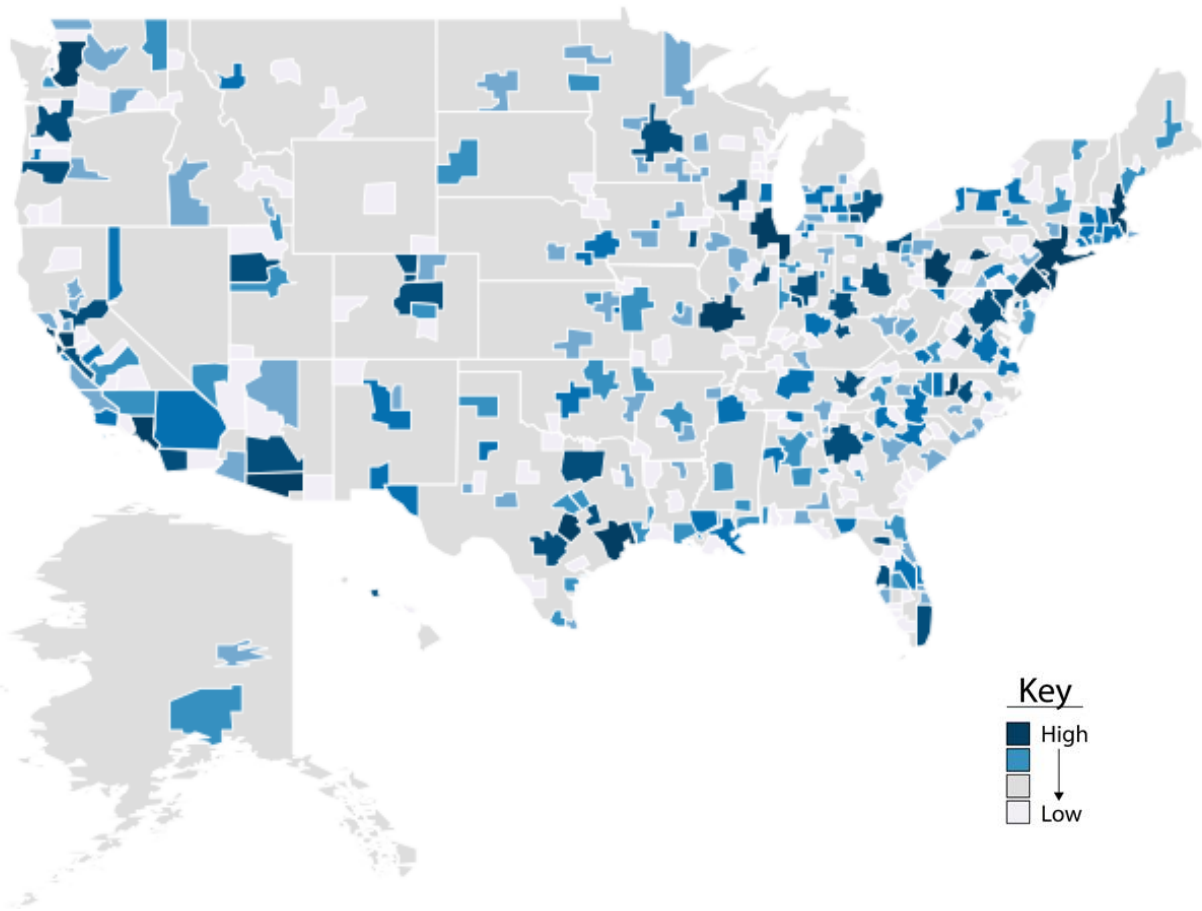- Computer Literacy: 412
- Multitasking: 378

Computer Skills: Academic Research
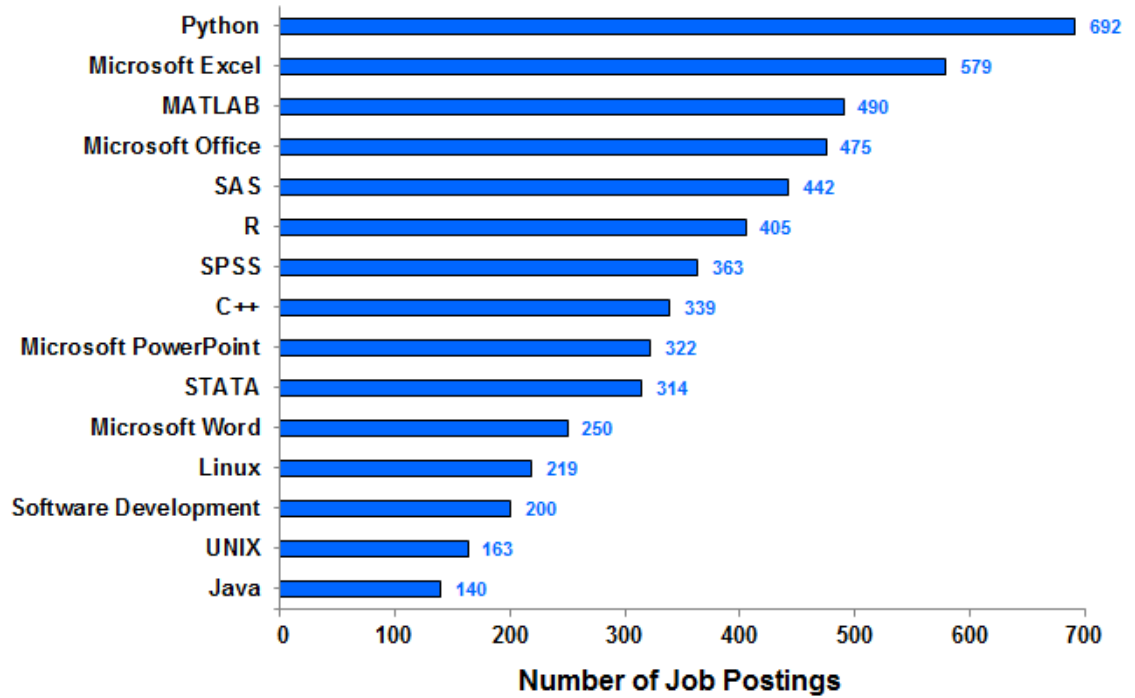
Job Postings by Year: Academic Research
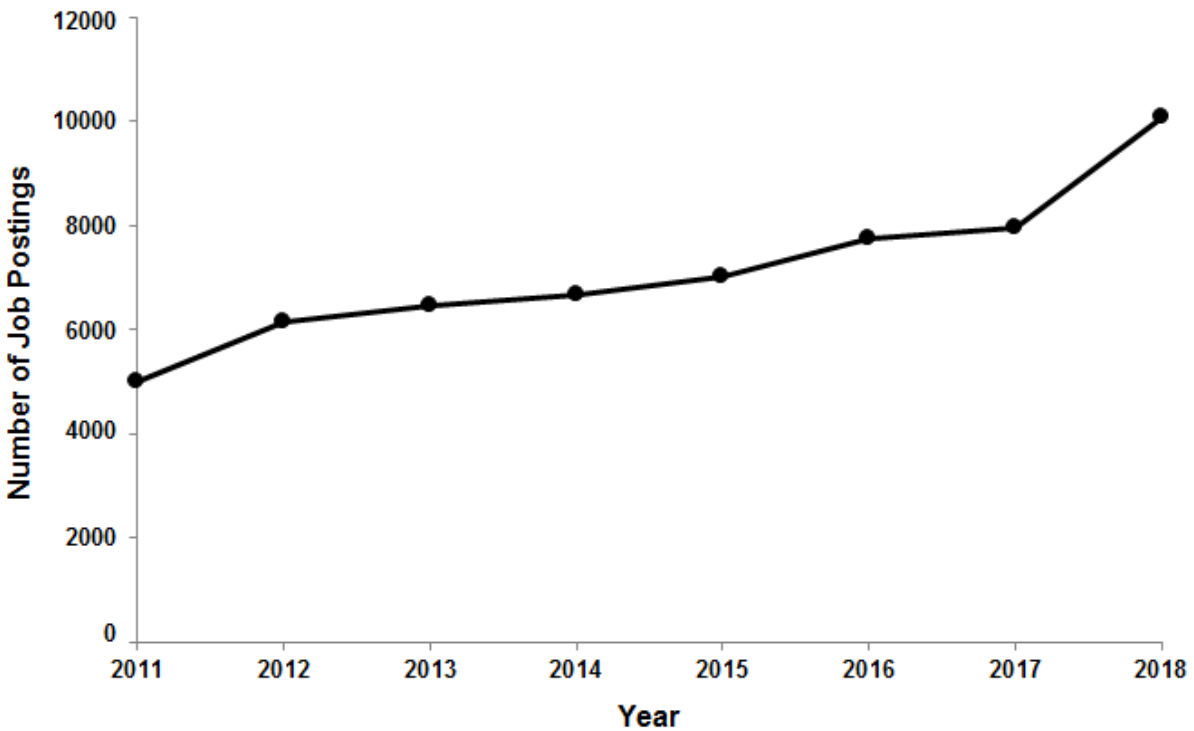
High Demand Areas: Academic Research

Metro Area	Job Postings
New York-Jersey City, NY-NJ-PA	566
Los Angeles-Long Beach-Anaheim, CA	525
Chicago-Naperville-Elgin, IL-IN-WI	482
San Francisco-Oakland-Hayward, CA	362
Boston-Cambridge-Nashua, MA-NH	350
Seattle-Tacoma-Bellevue, WA	290
Durham-Chapel Hill, NC	272
Tucson, AZ	268
Trenton, NJ	264
St. Louis, MO-IL	234
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	187
Houston-The Woodlands-Sugar Land, TX	186
State College, PA	173
Austin-Round Rock, TX	154
Pittsburgh, PA	153

Business & Administration

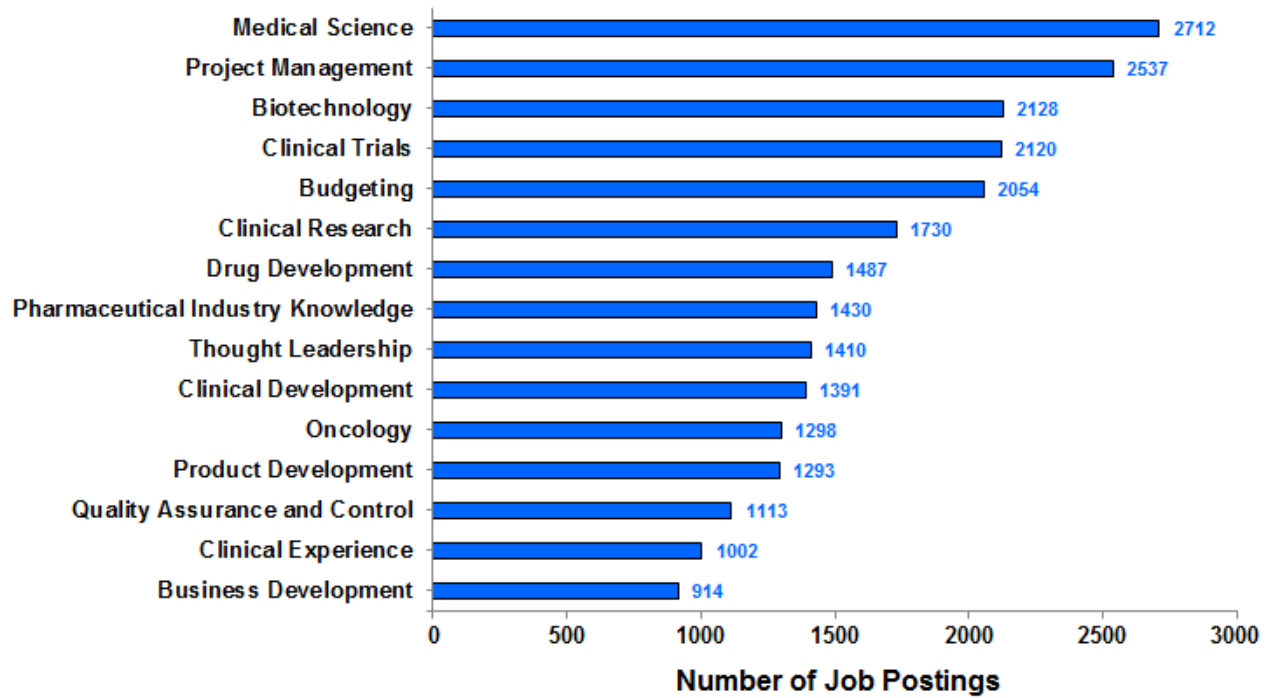## Number of Jobs Postings in Search:
8,728

Top Job Titles: Business & Administration

Job Title	Number of Job Postings
Medical Science Liaison	813
Senior Medical Science Liaison	310
Analytics Consultant	246
Oncology Medical Science Liaison	195
Program Manager	188
Neuroscience Medical Science Liaison	157
Neurology Medical Science Liaison	152
Project Manager	152
Development Associate	151
Director of Business Development	138
Medical Director	125
Hematology Medical Science Liaison	124
Clinical Manager	84
Quality Assurance Manager	75
Senior Project Manager	72

Top Employers: Business & Administration

Employer	Number of Job Postings
inVentiv Health	433
Celgene Corporation	336
Anthem Blue Cross	316
Amgen	242
Johnson & Johnson	241
Sanofi Aventis	215
Merck & Company	159
Novartis	150
Bristol-Myers Squibb	118
Syneos Health	112
Regeneron	101
Genentech	97
Mallinckrodt Pharmaceuticals	94
AstraZeneca	93
Sarepta Therapeutics	90
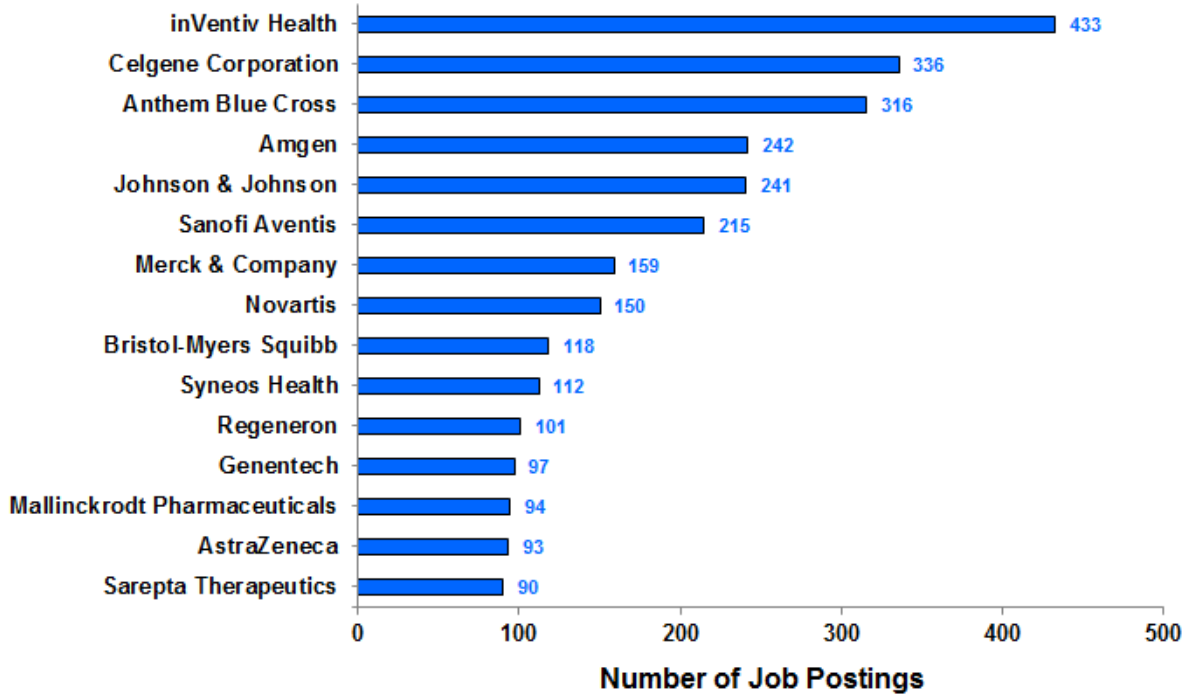
Specialized (Hard) Skills: Business & Administration

Skill	Number of Job Postings
Medical Science	2712
Project Management	2537
Biotechnology	2128
Clinical Trials	2120
Budgeting	2054
Clinical Research	1730
Drug Development	1487
Pharmaceutical Industry Knowledge	1430
Thought Leadership	1410
Clinical Development	1391
Oncology	1298
Product Development	1293
Quality Assurance and Control	1113
Clinical Experience	1002
Business Development	914

Baseline (Soft) Skills: Business & Administration

Skill	Number of Job Postings
Research	5576
Communication Skills	5192
Teamwork & Collaboration	4330
Planning	2443
Building Effective Relationships	2255
Problem Solving	1762
Writing	1594
Presentation Skills	1392
Organizational Skills	1228
Leadership	1072
Creativity	1030
Detail-Oriented	838
Time Management	838
Decision Making	807
English Proficiency	800

Computer Skills: Business & Administration

Skill	Number of Job Postings
Microsoft Excel	1265
Microsoft PowerPoint	1045
Microsoft Office	929
Microsoft Word	674
SAS	519
SQL	485
Microsoft Project	387
Teradata	319
Microsoft SharePoint	268
Python	203
Microsoft Access	152
Tableau	116
R	105
Software Development	100
SAP	95
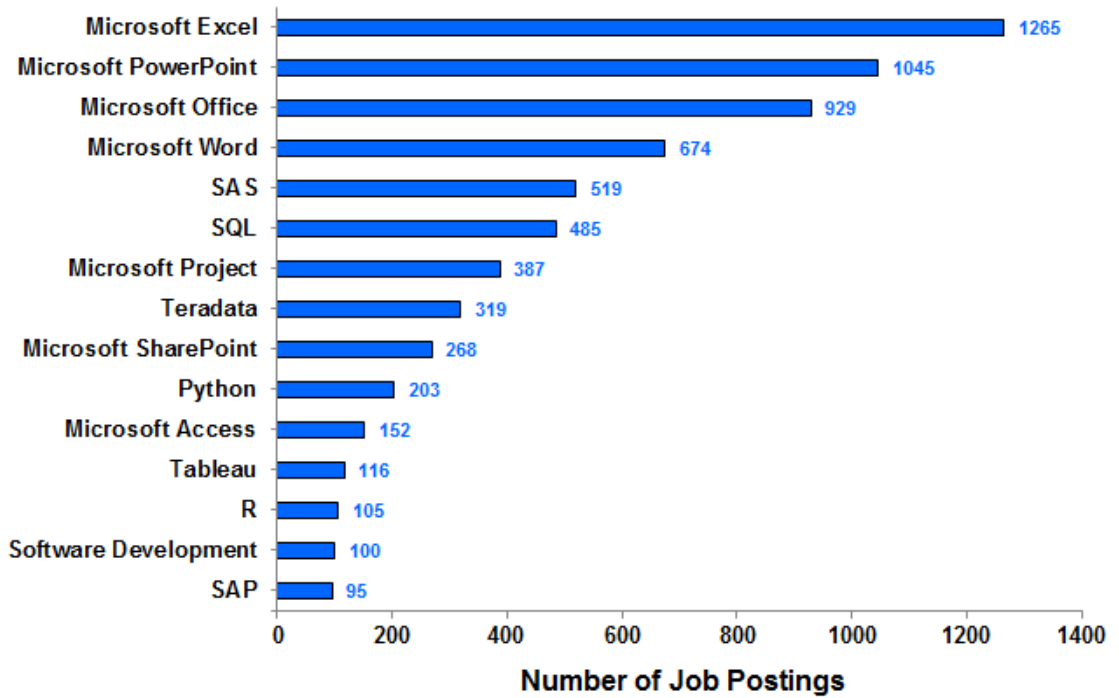
Job Postings by Year: Business & Administration
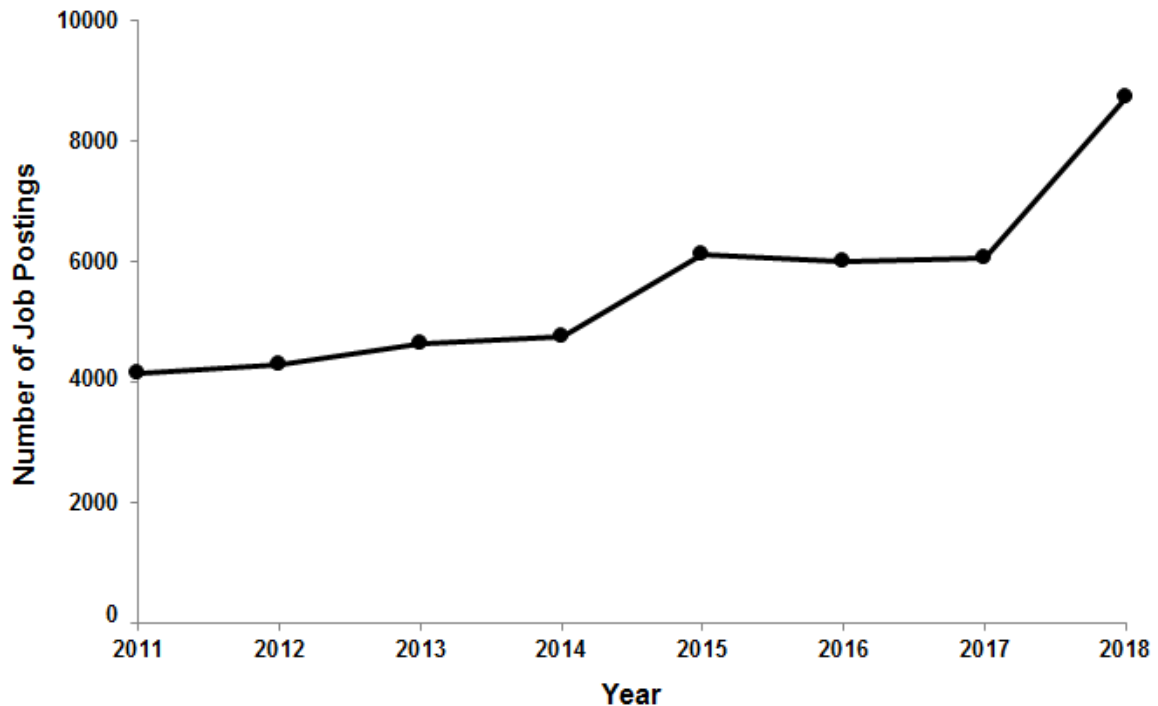
High Demand Areas: Business & Administration
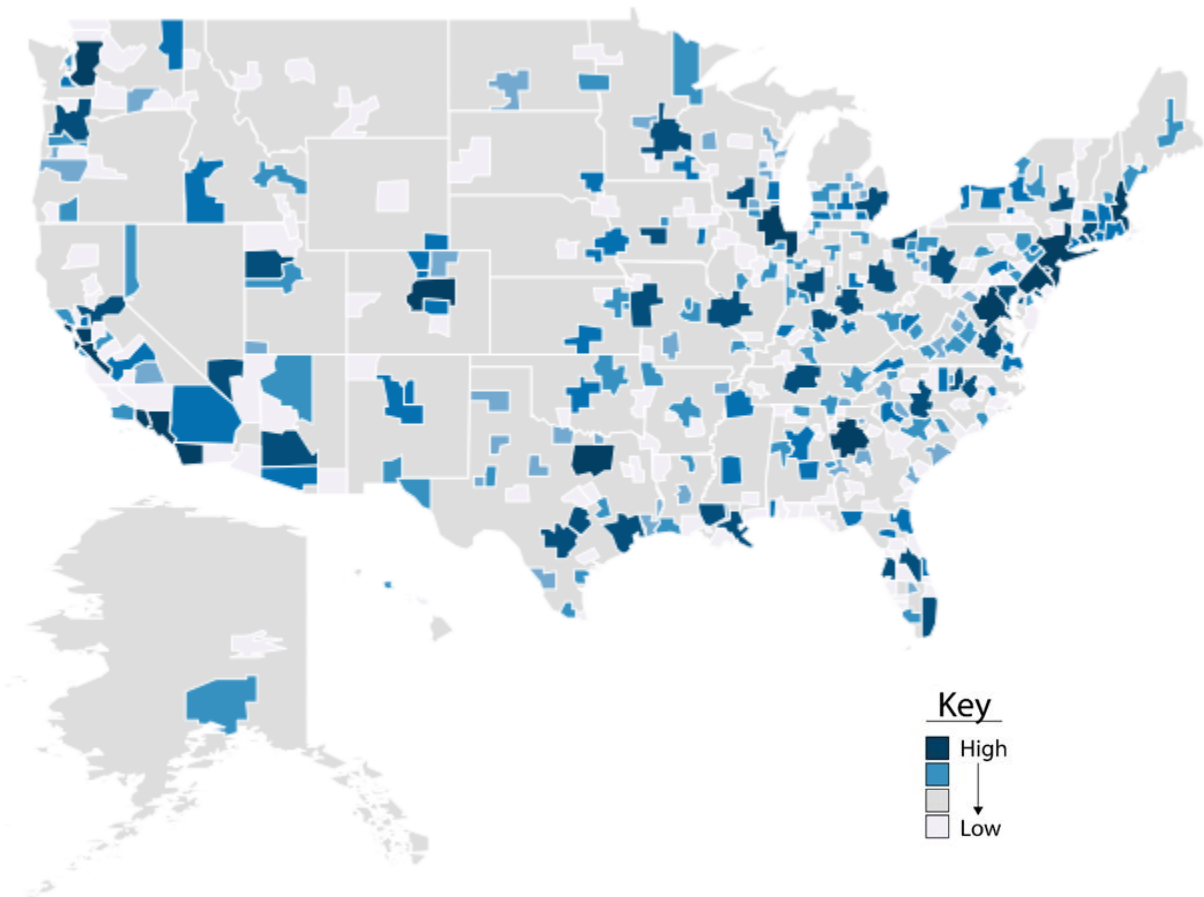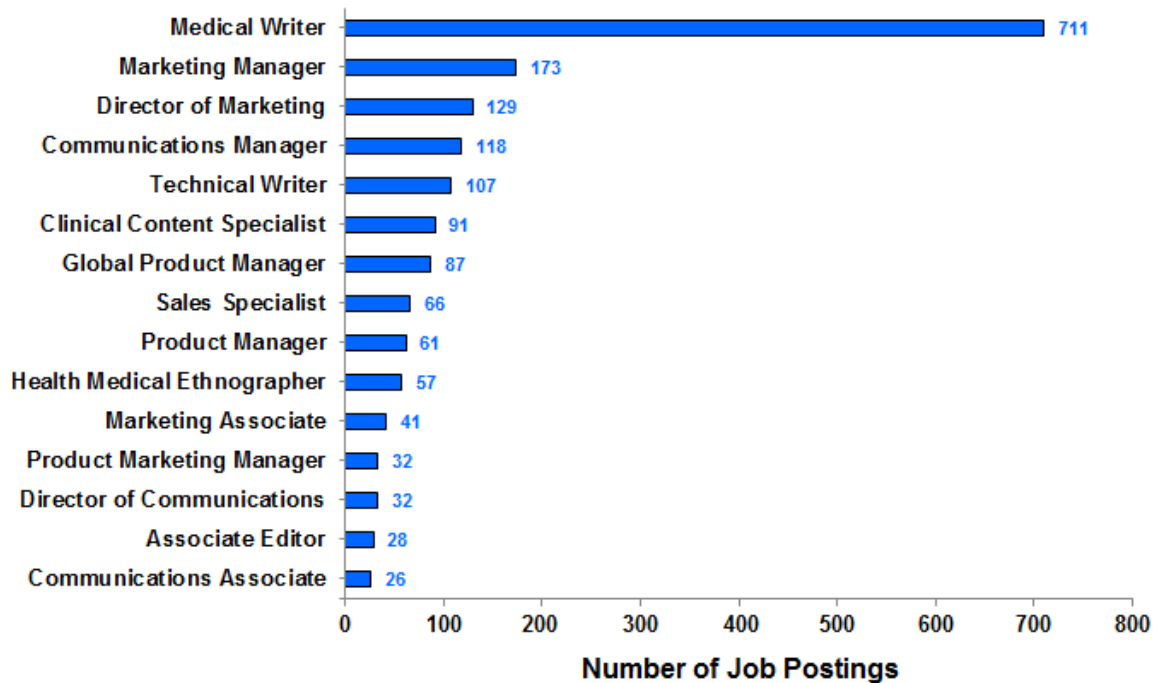

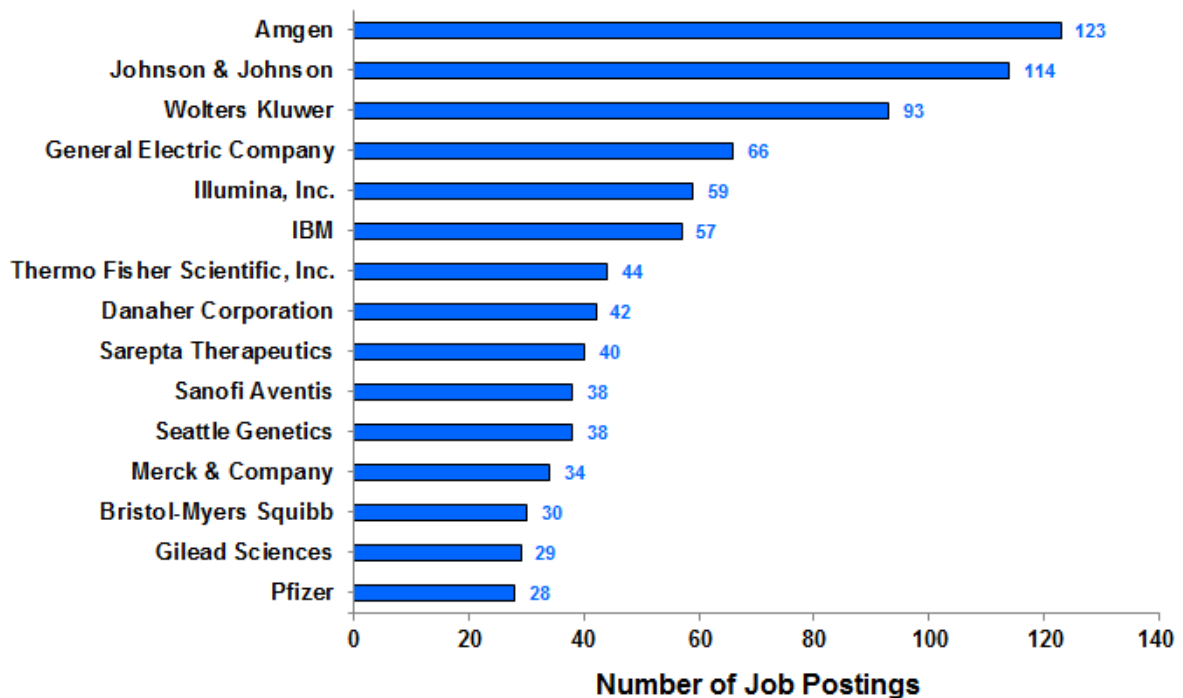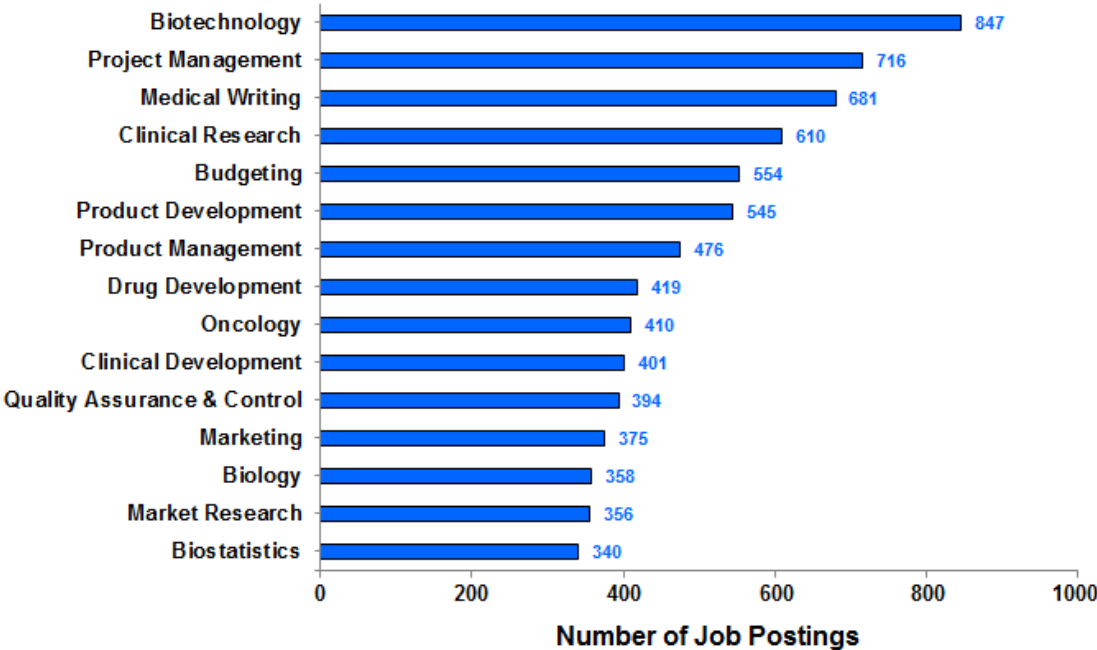| Metro Area	Job Postings
New York-Newark-Jersey City, NY-NJ-PA	973
Boston-Cambridge-Nashua, MA-NH	966
San Francisco-Oakland-Hayward, CA	719
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	419
Washington-Arlington-Alexandria, DC-VA-MD-WV	330
Los Angeles-Long Beach-Anaheim, CA	319
Chicago-Naperville-Elgin, IL-IN-WI	309
San Diego-Carlsbad, CA	246
Seattle-Tacoma-Bellevue, WA	204
Oxnard-Thousand Oaks-Ventura, CA	178
Denver-Aurora-Lakewood, CO	137
Atlanta-Sandy Springs-Roswell, GA	133
Dallas-Fort Worth-Arlington, TX	133
Trenton, NJ	133
San Jose-Sunnyvale-Santa Clara, CA	129

Communication

Number of Jobs Postings in Search: 3,095
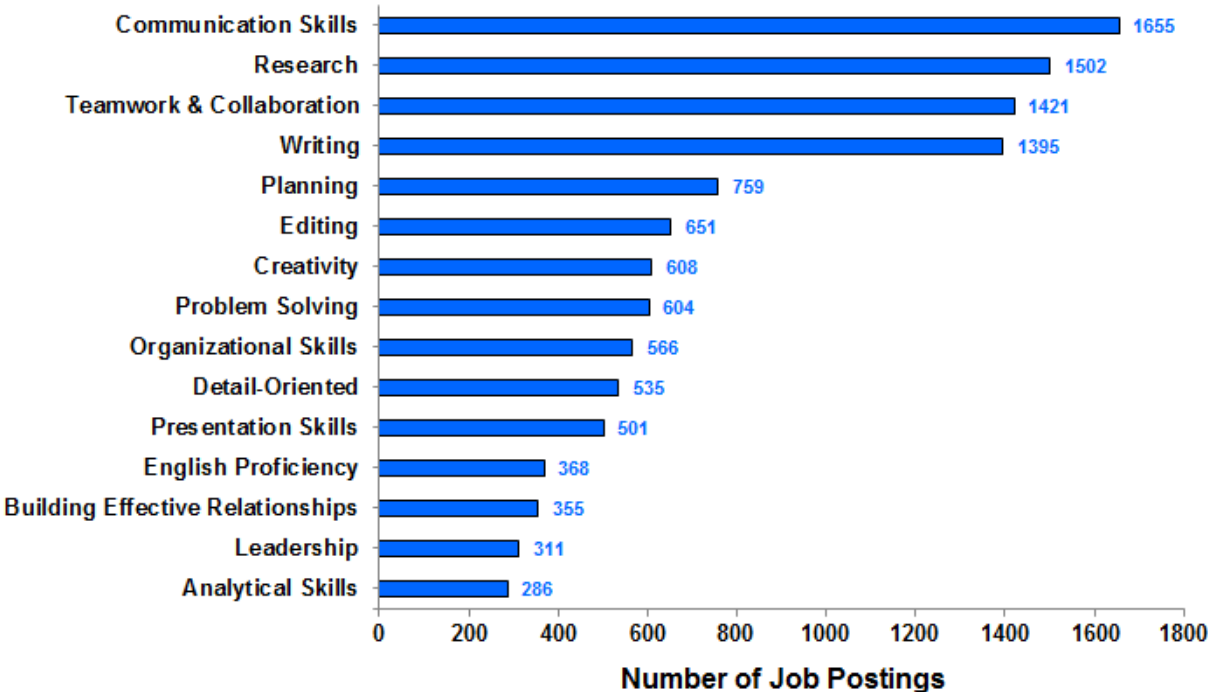
Top Job Titles: Communication

Job Title	Number of Job Postings
Medical Writer	711
Marketing Manager	173
Director of Marketing	129
Communications Manager	118
Technical Writer	107
Clinical Content Specialist	91
Global Product Manager	87
Sales Specialist	66
Product Manager	61
Health Medical Ethnographer	57
Marketing Associate	41
Product Marketing Manager	32
Director of Communications	32
Associate Editor	28
Communications Associate	26

Top Employers: Communication

Employer	Number of Job Postings
Amgen	123
Johnson & Johnson	114
Wolters Kluwer	93
General Electric Company	66
Illumina, Inc.	59
IBM	57
Thermo Fisher Scientific, Inc.	44
Danaher Corporation	42
Sarepta Therapeutics	40
Sanofi Aventis	38
Seattle Genetics	38
Merck & Company	34
Bristol-Myers Squibb	30
Gilead Sciences	29
Pfizer	28

Specialized (Hard) Skills: Communication

Skill	Number of Job Postings
Biotechnology	847
Project Management	716
Medical Writing	681
Clinical Research	610
Budgeting	554
Product Development	545
Product Management	476
Drug Development	419
Oncology	410
Clinical Development	401
Quality Assurance & Control	394
Marketing	375
Biology	358
Market Research	356
Biostatistics	340

Number of Job Postings

Baseline (Soft) Skills: Communication

Skill	Number of Job Postings
Communication Skills	1655
Research	1502
Teamwork & Collaboration	1421
Writing	1395
Planning	759
Editing	651
Creativity	608
Problem Solving	604
Organizational Skills	566
Detail-Oriented	535
Presentation Skills	501
English Proficiency	368
Building Effective Relationships	355
Leadership	311
Analytical Skills	286

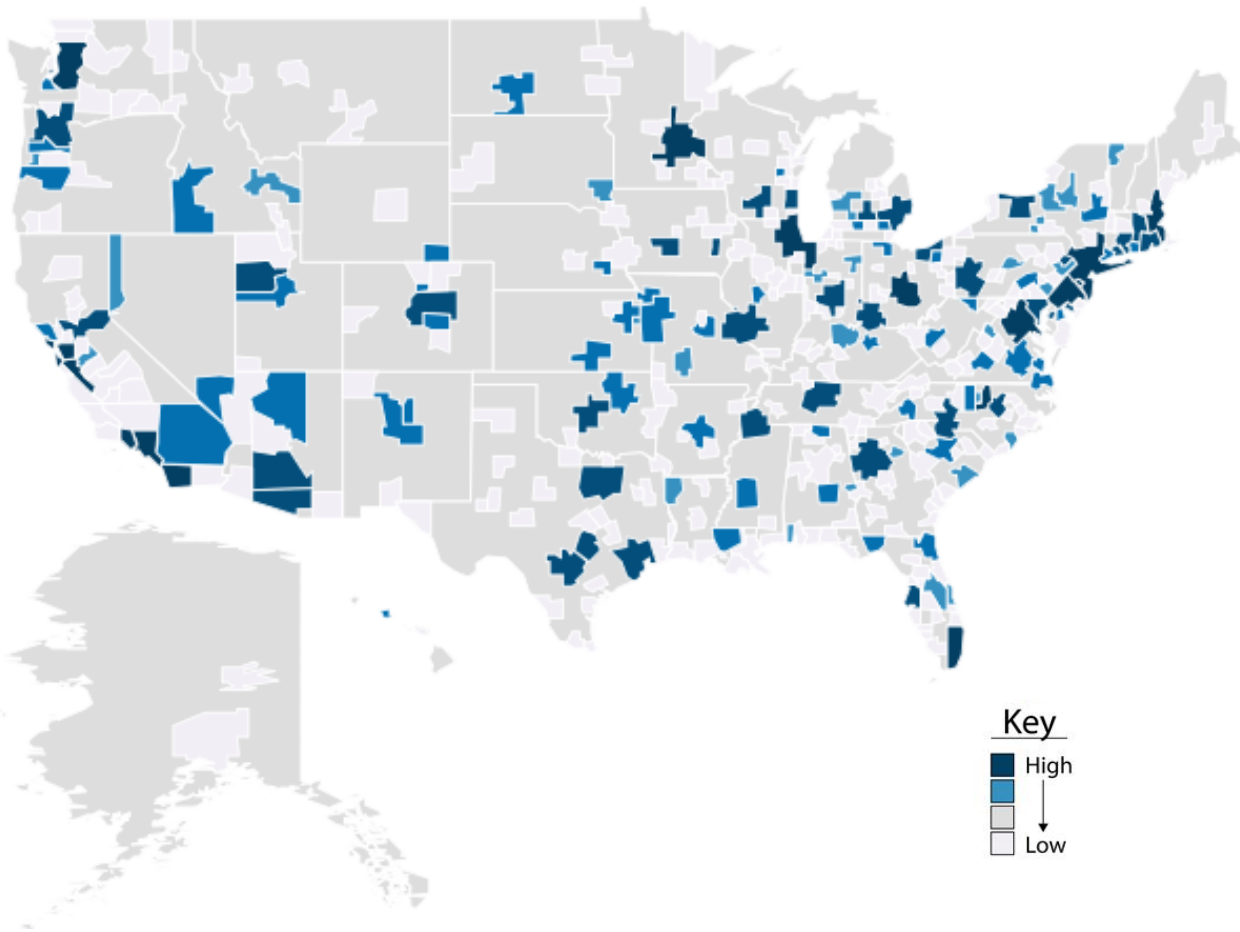**Number of Job Postings**

Computer Skills: Communication
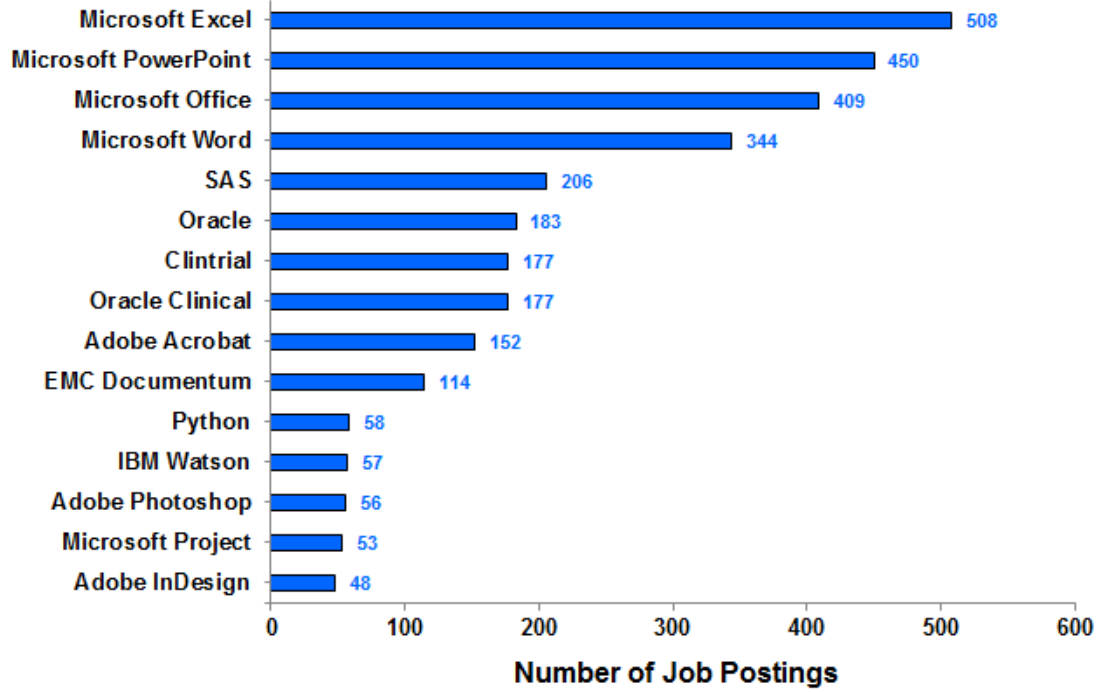
Job Postings by Year: Communication
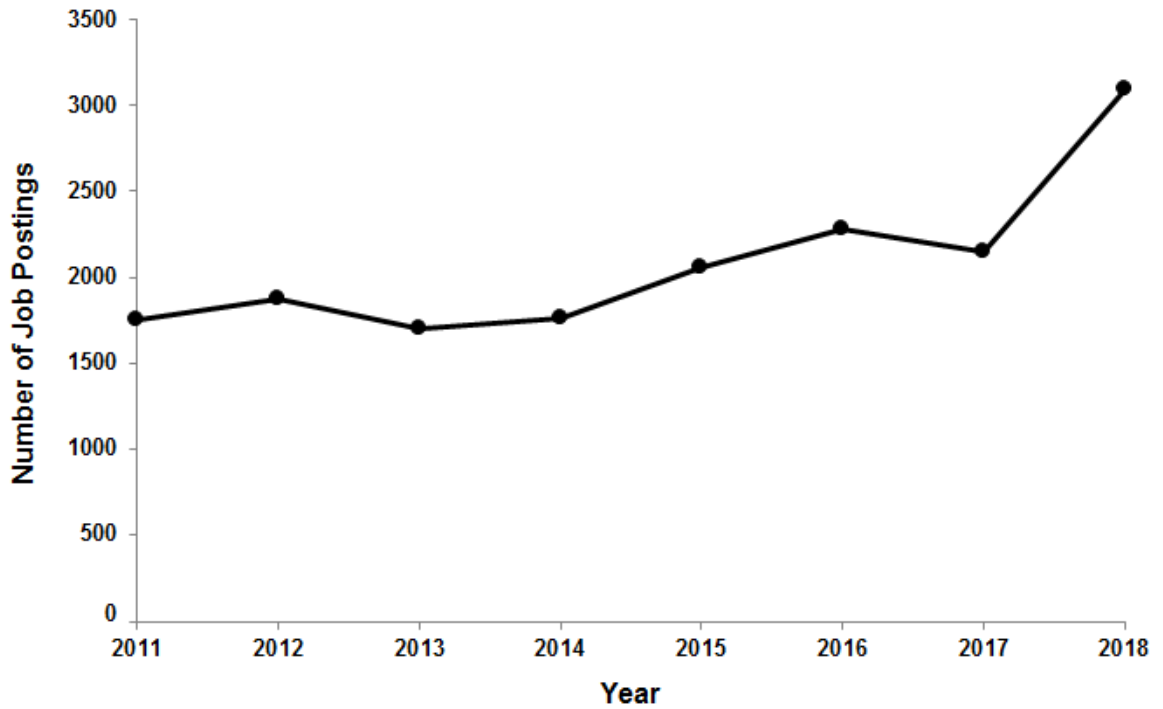
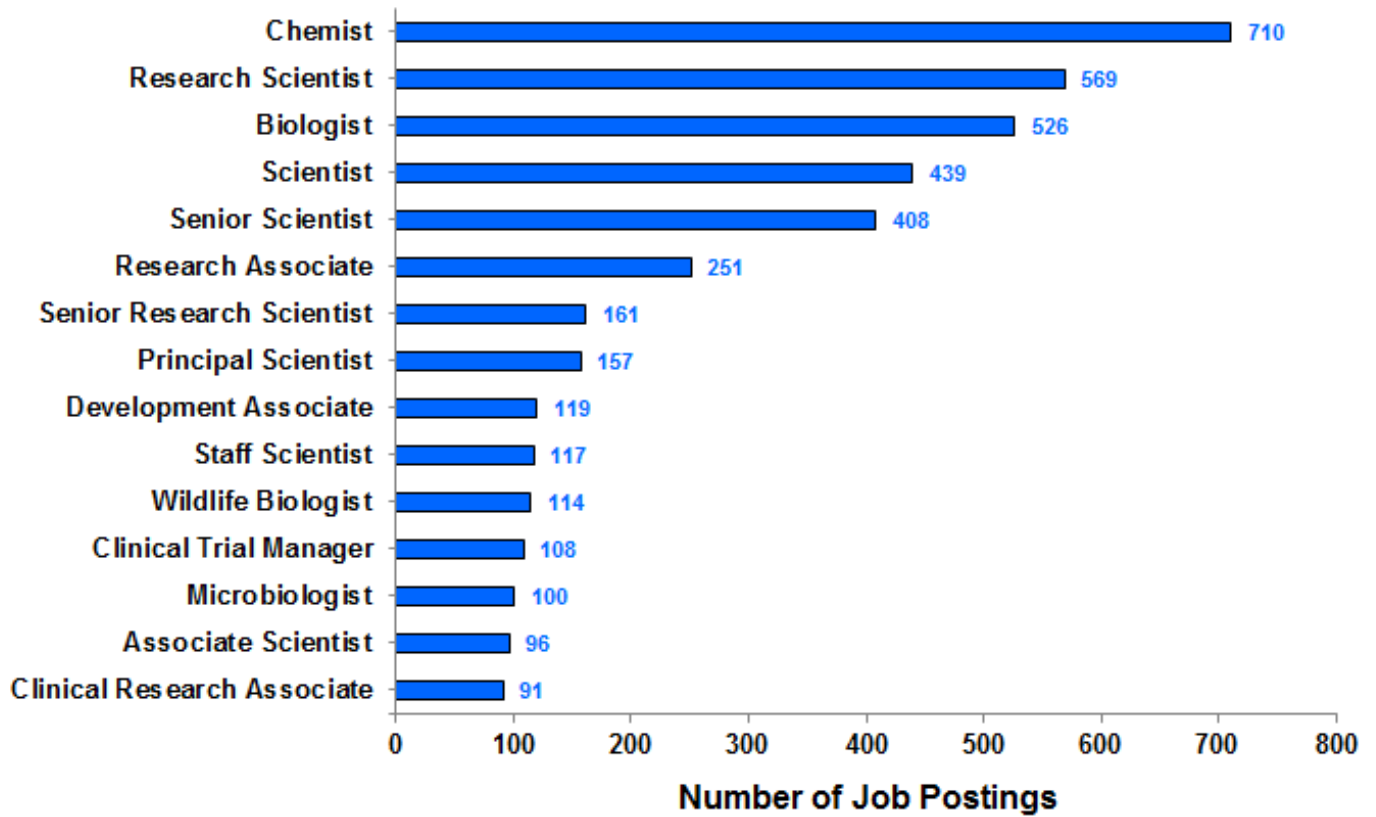# High Demand Areas: Communication

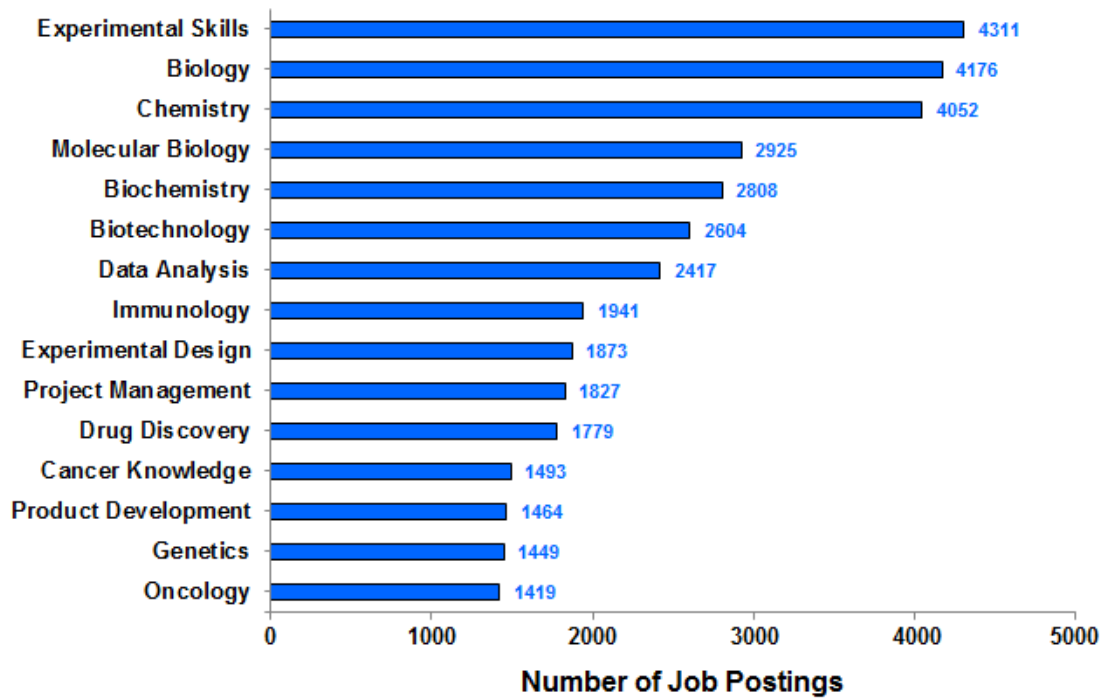| Metro Area	Job Postings
Boston-Cambridge-Nashua, MA-NH	536
New York-Newark-Jersey City, NY-NJ-PA	355
San Francisco-Oakland-Hayward, CA	284
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	145
San Diego-Carlsbad, CA	143
Oxnard-Thousand Oaks-Ventura, CA	142
Los Angeles-Long Beach-Anaheim, CA	118
Washington-Arlington-Alexandria, DC-VA-MD-WV	100
San Jose-Sunnyvale-Santa Clara, CA	98
Seattle-Tacoma-Bellevue, WA	79
Chicago-Naperville-Elgin, IL-IN-WI	74
Trenton, NJ	70
Durham-Chapel Hill, NC	39
Miami-Fort Lauderdale-West Palm Beach, FL	33
Columbus, OH	30

Industry Research

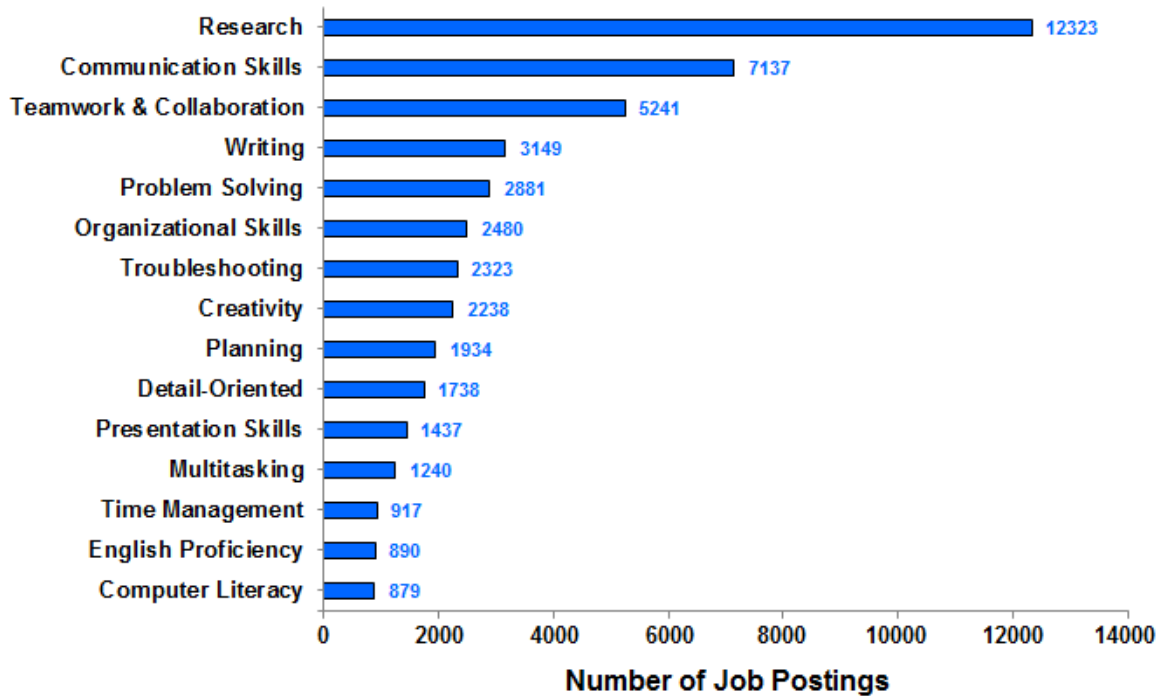## Number of Jobs Postings in Search:
13,371

Top Job Titles: Industry Research

Job Title	Number of Job Postings
Chemist	710
Research Scientist	569
Biologist	526
Scientist	439
Senior Scientist	408
Research Associate	251
Senior Research Scientist	161
Principal Scientist	157
Development Associate	119
Staff Scientist	117
Wildlife Biologist	114
Clinical Trial Manager	108
Microbiologist	100
Associate Scientist	96
Clinical Research Associate	91

Top Employers: Industry Research

Employer	Number of Job Postings
Pfizer	293
Merck & Company	273
Bristol-Myers Squibb	258
Johnson & Johnson	219
US Dept of Agriculture	173
Takeda Pharmaceuticals NA, Inc.	162
Celgene Corporation	155
Mayo Foundation	139
Amgen	135
Pharmaceutical Product Development	132
Gilead Sciences	131
US Government	128
Vertex Pharmaceuticals	120
AbbVie	118
Genentech	111

20
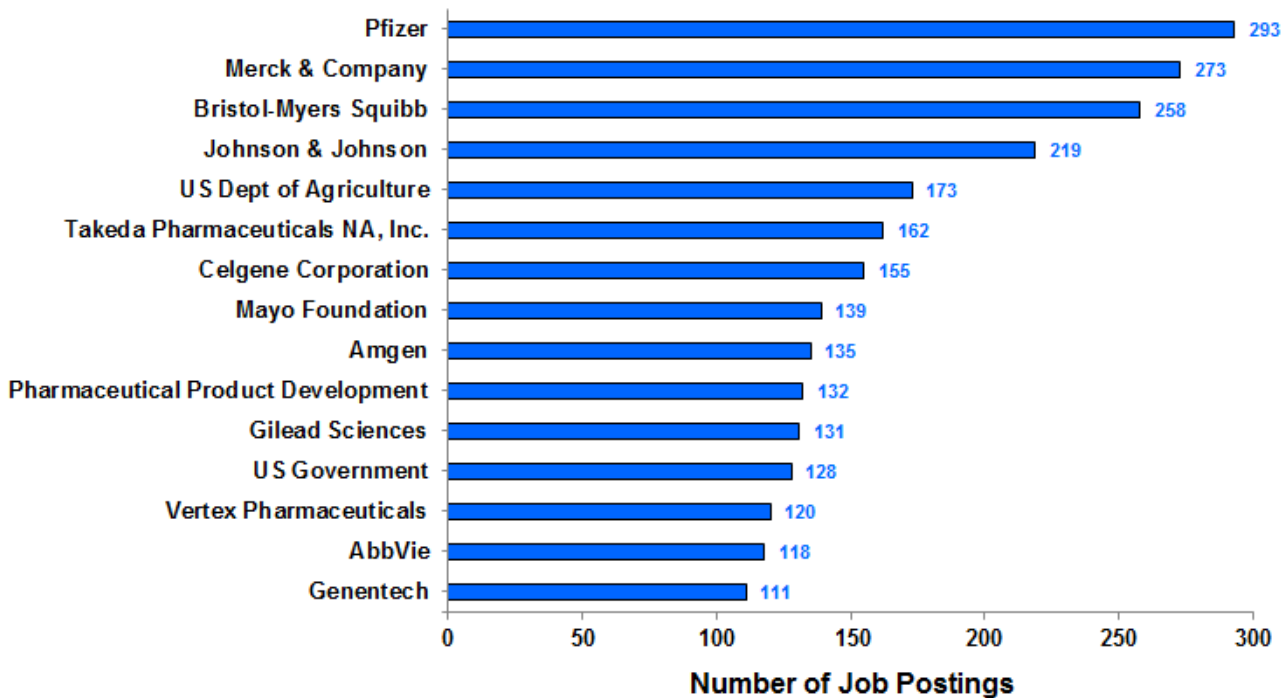
Specialized (Hard) Skills: Industry Research

Skill	Number of Job Postings
Experimental Skills	4311
Biology	4176
Chemistry	4052
Molecular Biology	2925
Biochemistry	2808
Biotechnology	2604
Data Analysis	2417
Immunology	1941
Experimental Design	1873
Project Management	1827
Drug Discovery	1779
Cancer Knowledge	1493
Product Development	1464
Genetics	1449
Oncology	1419

Baseline (Soft) Skills: Industry Research

| Skill	Number of Job Postings
Research	12323
Communication Skills	7137
Teamwork & Collaboration	5241
Writing	3149
Problem Solving	2881
Organizational Skills	2480
Troubleshooting	2323
Creativity	2238
Planning	1934
Detail-Oriented	1738
Presentation Skills	1437
Multitasking	1240
Time Management	917
English Proficiency	890
Computer Literacy	879

Computer Skills: Industry Research
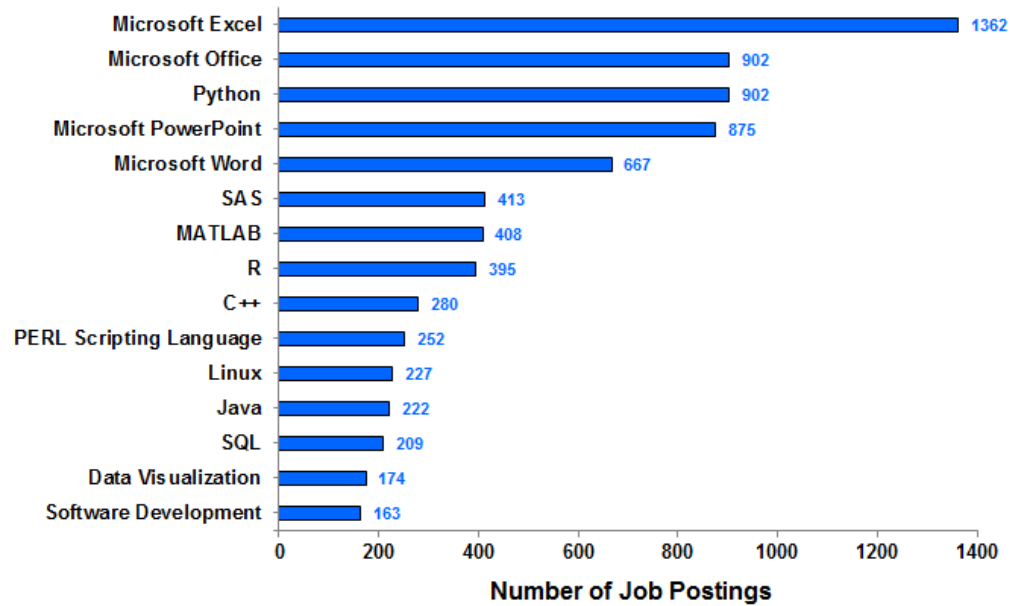
Job Postings by Year: Industry Research
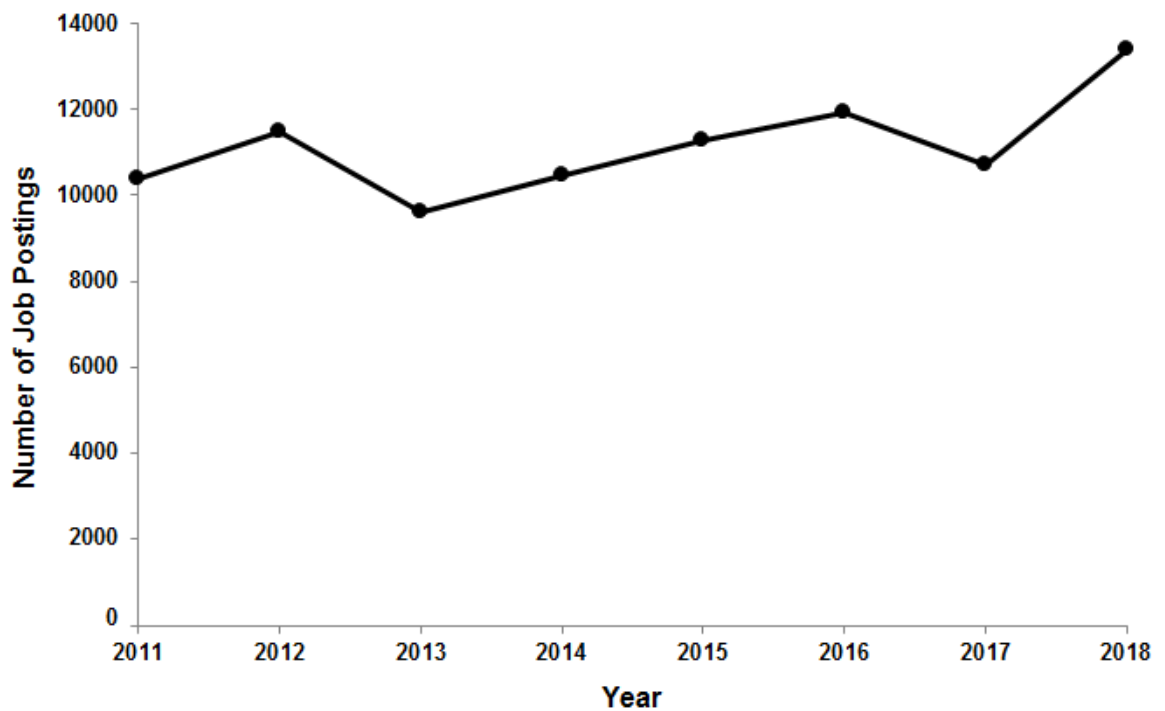
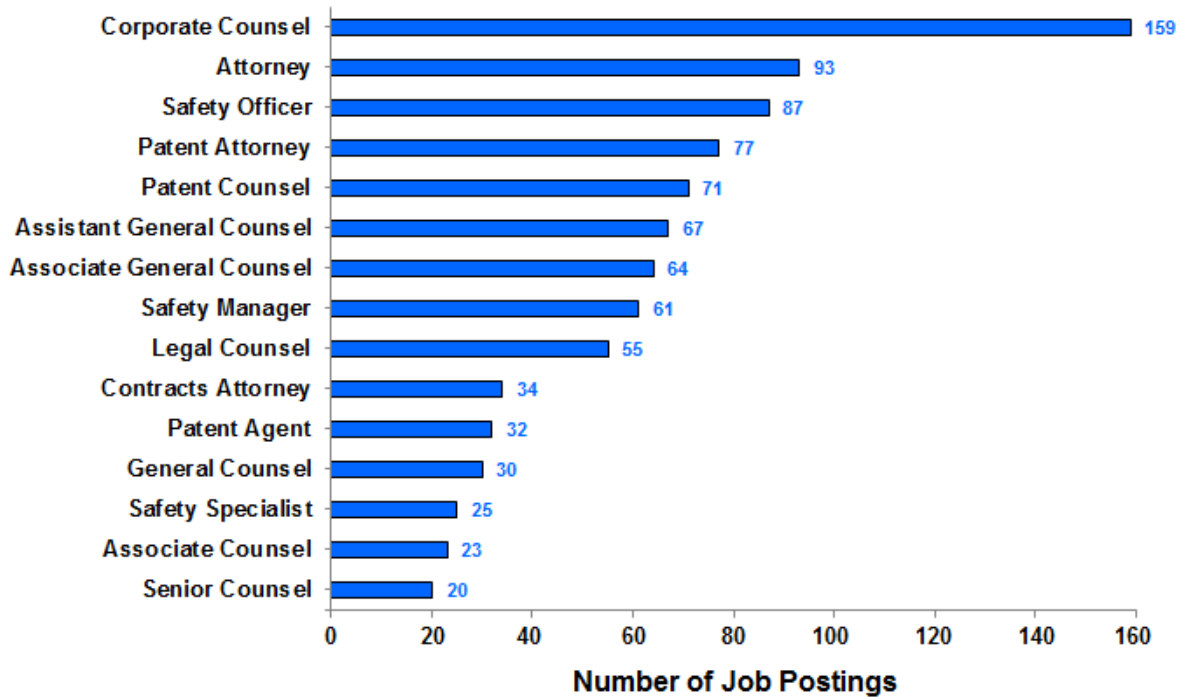# High Demand Areas: Industry Research
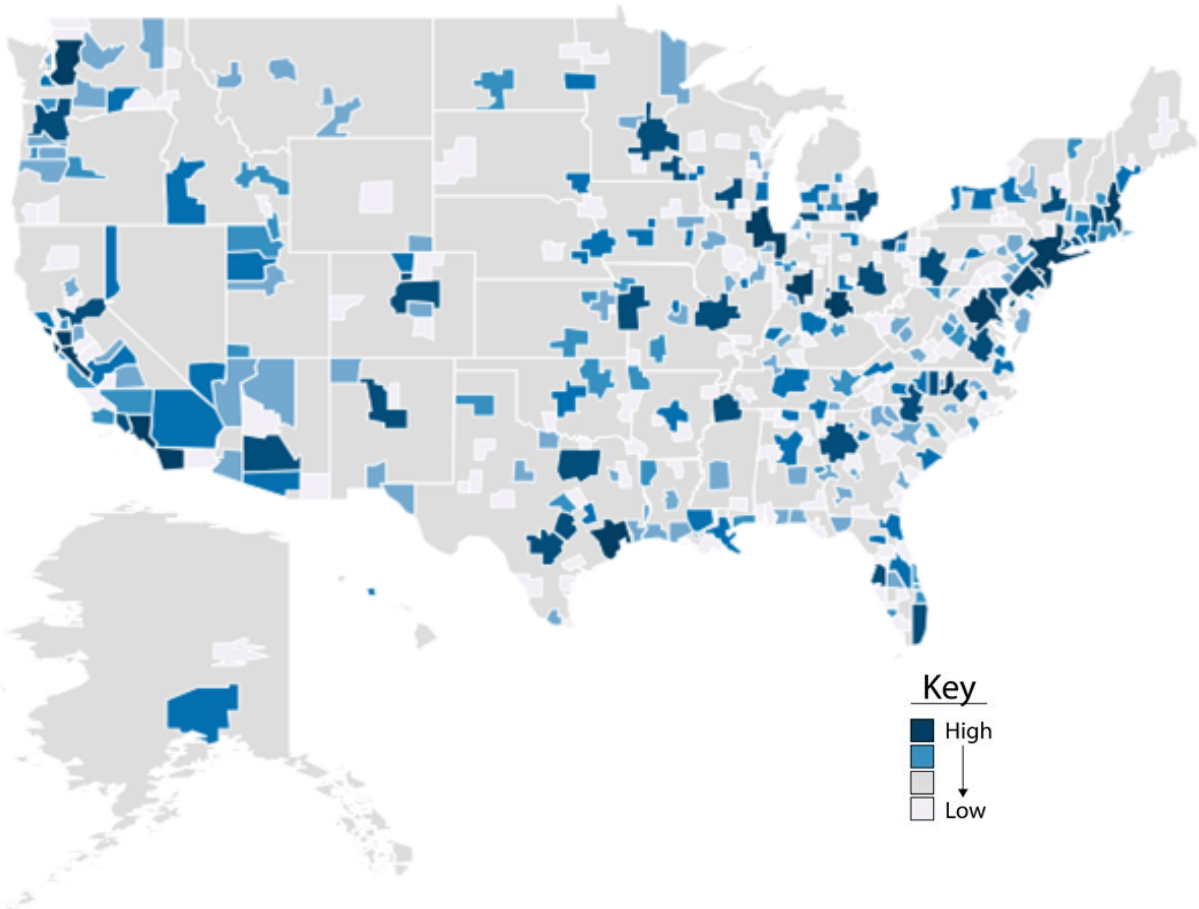
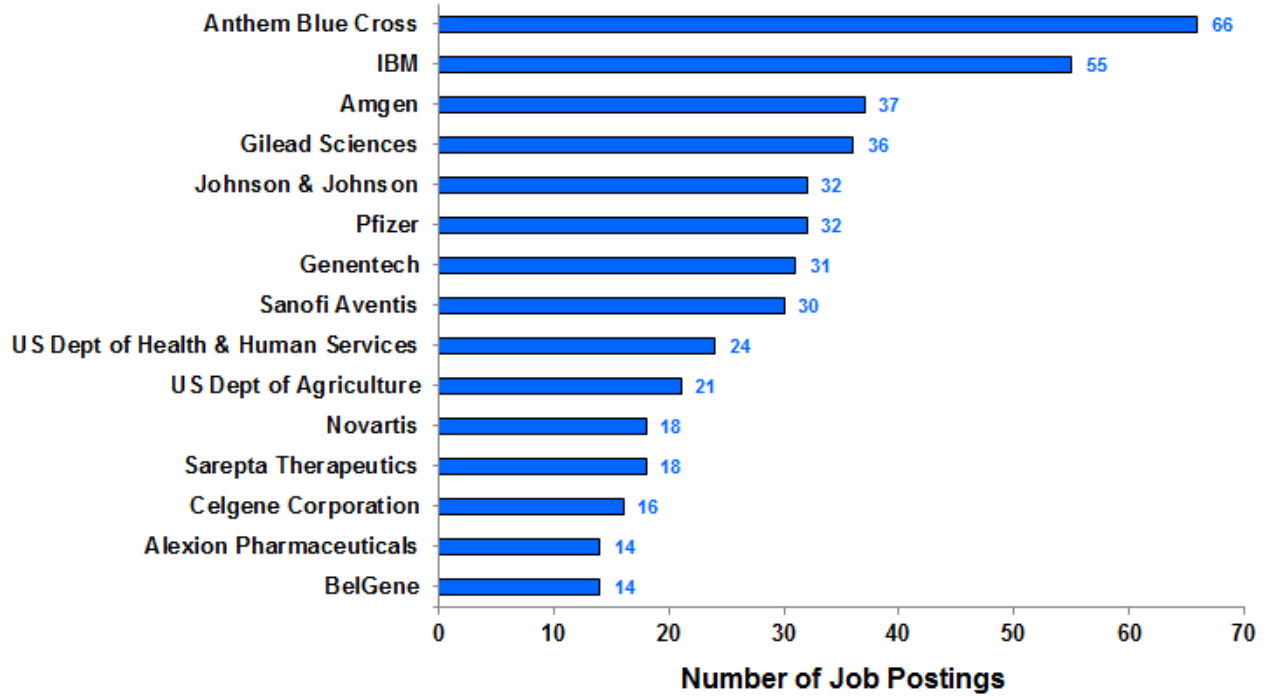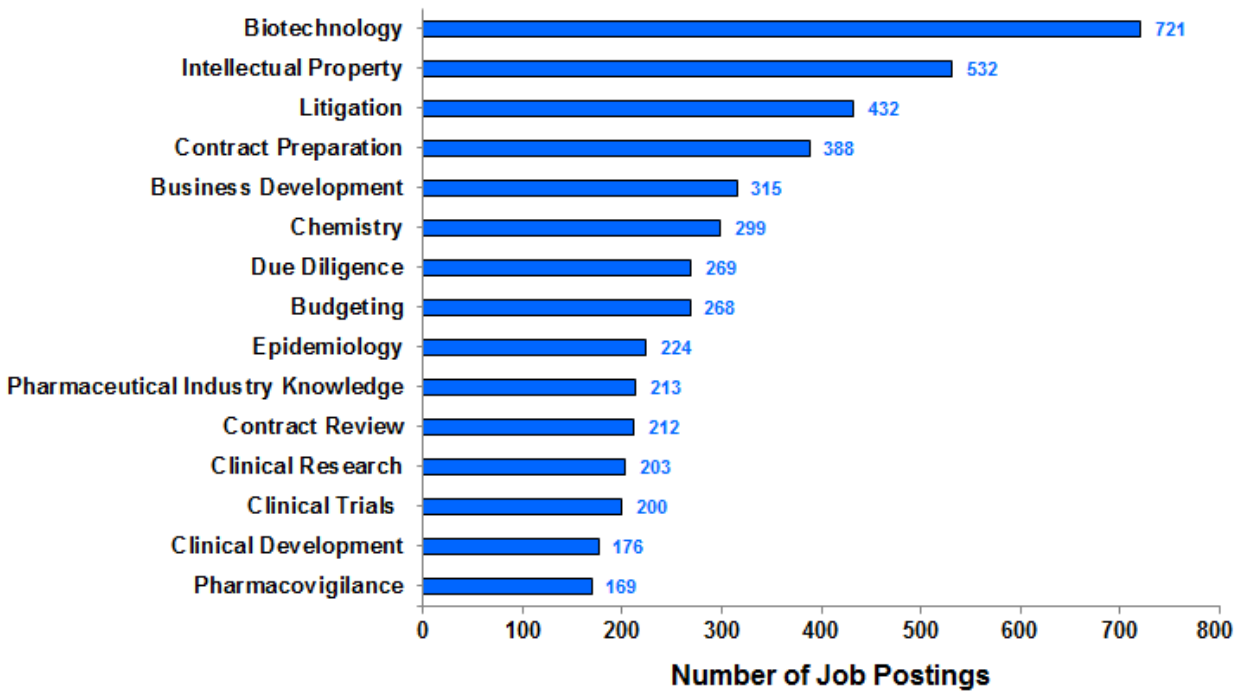| Metro Area	Job Postings
Boston-Cambridge-Nashua, MA-NH	2,164
San Francisco-Oakland-Hayward, CA	1,681
New York-Newark-Jersey City, NY-NJ-PA	1,103
Washington-Arlington-Alexandria, DC-VA-MD-WV	692
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	645
San Diego-Carlsbad, CA	630
Chicago-Naperville-Elgin, IL-IN-WI	382
San Jose-Sunnyvale-Santa Clara, CA	339
Los Angeles-Long Beach-Anaheim, CA	282
Seattle-Tacoma-Bellevue, WA	271
San Diego-Carlsbad, CA	249
Chicago-Naperville-Elgin, IL-IN-WI	214
San Jose-Sunnyvale-Santa Clara, CA	195
Los Angeles-Long Beach-Anaheim, CA	172
Seattle-Tacoma-Bellevue, WA	157

Law

Number of Jobs Postings in Search:
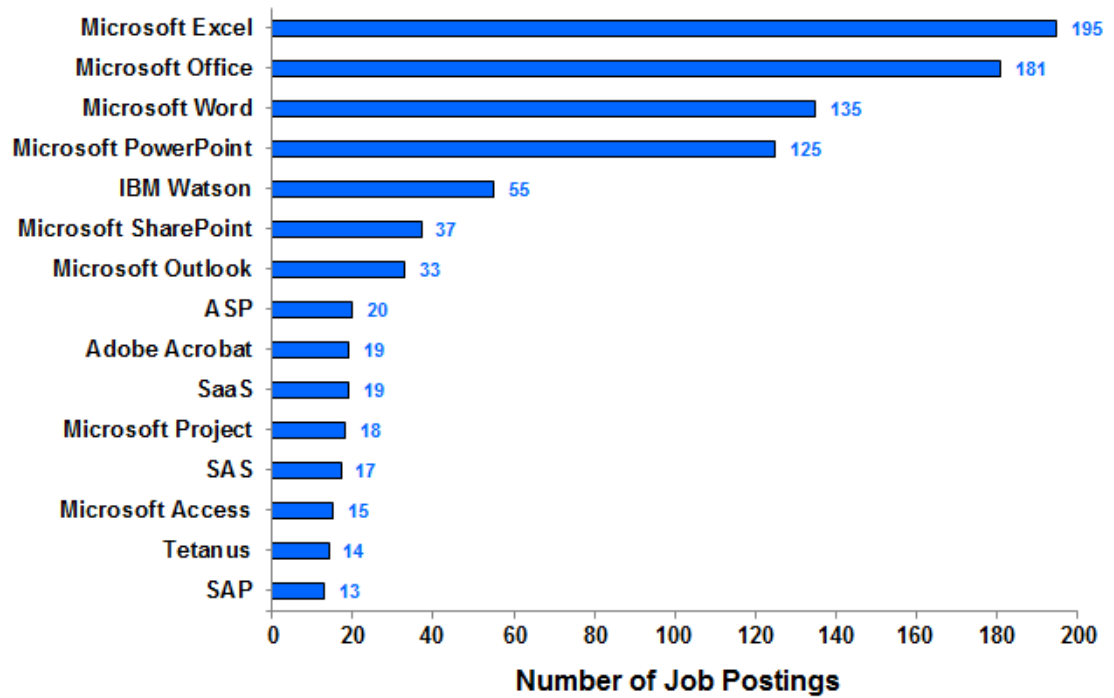
1,898

Top Job Titles: Law

Job Title	Number of Job Postings
Corporate Counsel	159
Attorney	93
Safety Officer	87
Patent Attorney	77
Patent Counsel	71
Assistant General Counsel	67
Associate General Counsel	64
Safety Manager	61
Legal Counsel	55
Contracts Attorney	34
Patent Agent	32
General Counsel	30
Safety Specialist	25
Associate Counsel	23
Senior Counsel	20

Top Employers: Law

Employer	Number of Job Postings
Anthem Blue Cross	66
IBM	55
Amgen	37
Gilead Sciences	36
Johnson & Johnson	32
Pfizer	32
Genentech	31
Sanofi Aventis	30
US Dept of Health & Human Services	24
US Dept of Agriculture	21
Novartis	18
Sarepta Therapeutics	18
Celgene Corporation	16
Alexion Pharmaceuticals	14
BelGene	14

Specialized (Hard) Skills: Law

Skill	Number of Job Postings
Biotechnology	721
Intellectual Property	532
Litigation	432
Contract Preparation	388
Business Development	315
Chemistry	299
Due Diligence	269
Budgeting	268
Epidemiology	224
Pharmaceutical Industry Knowledge	213
Contract Review	212
Clinical Research	203
Clinical Trials	200
Clinical Development	176
Pharmacovigilance	169

Baseline (Soft) Skills: Law

Skill	Number of Job Postings
Communication Skills	1040
Research	895
Teamwork & Collaboration	694
Writing	487
Organizational Skills	352
Detail-Oriented	321
Creativity	270
Planning	237
Problem Solving	221
Presentation Skills	173
Analytical Skills	158
English Proficiency	143
Multitasking	143
Computer Literacy	120
Building Effective Relationships	101

Computer Skills: Law

Job Postings by Year: Law
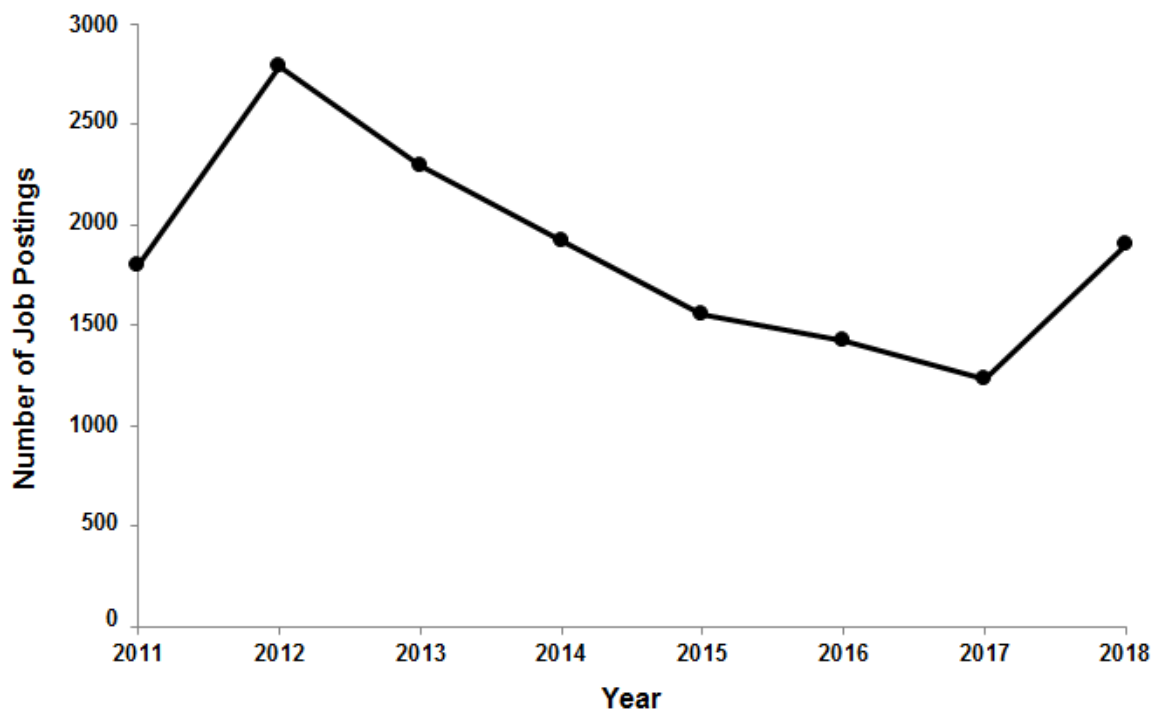
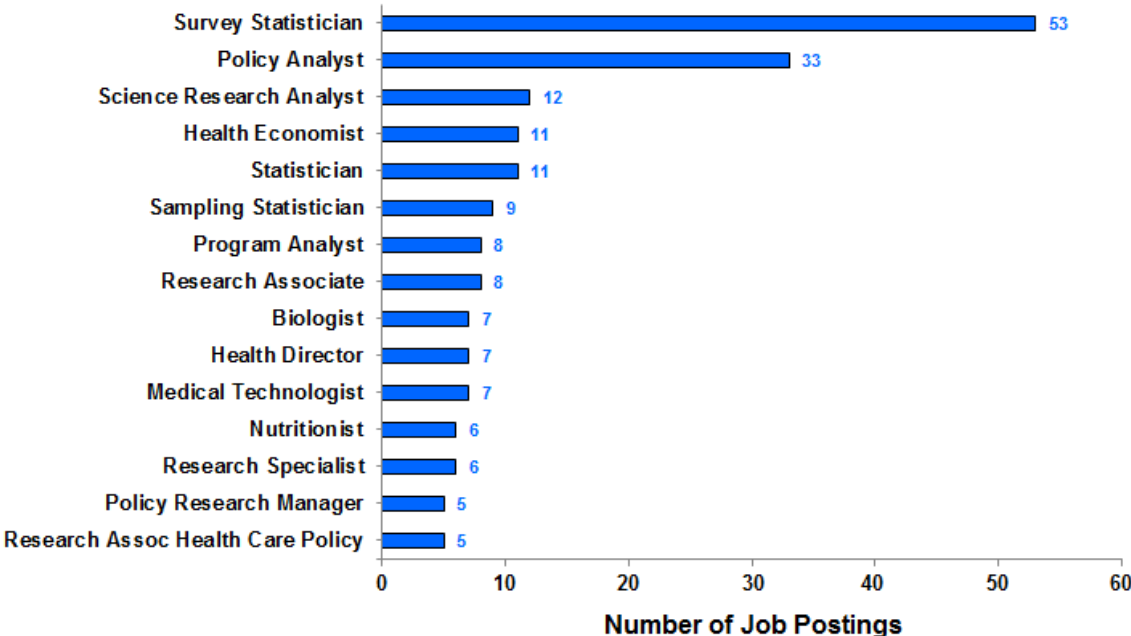# High Demand Areas: Law
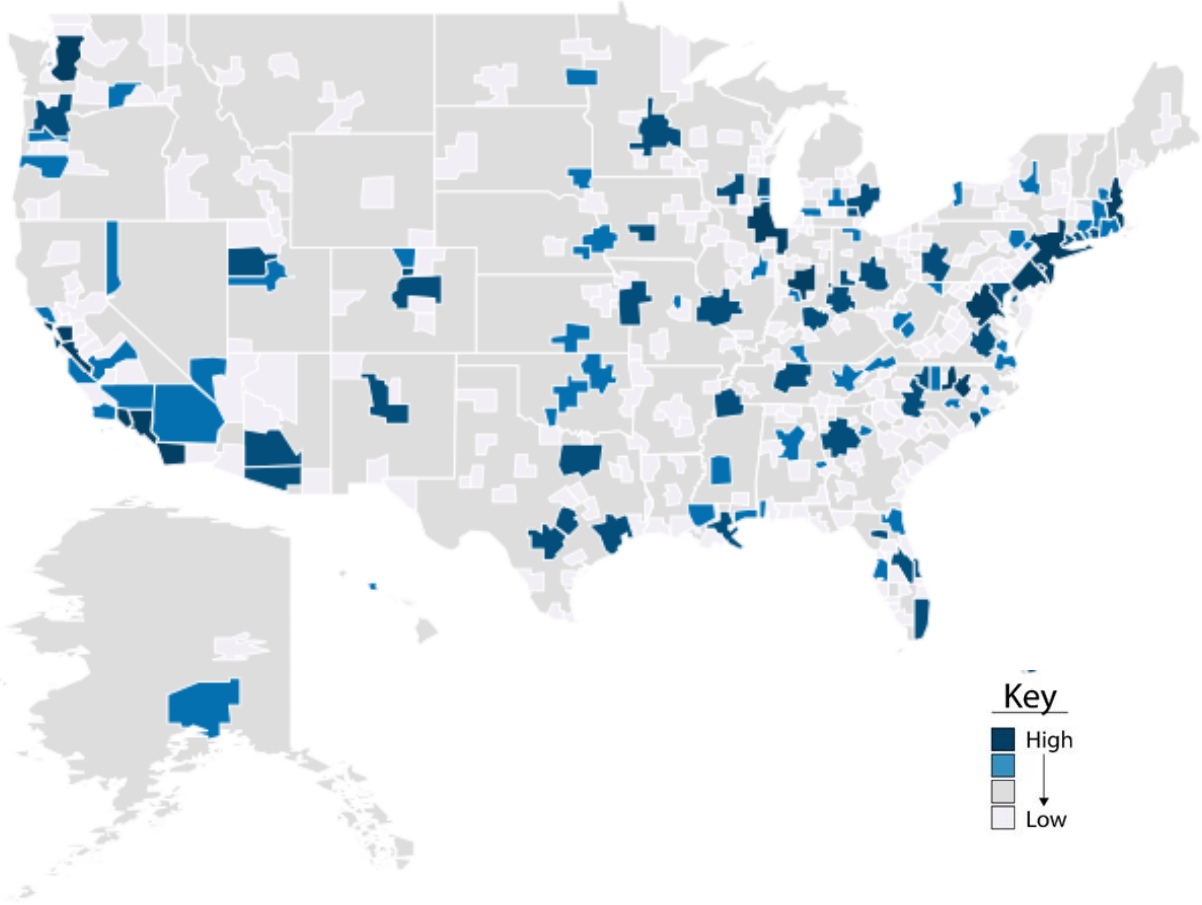
Metro Area	Job Postings
Boston-Cambridge-Nashua, MA-NH	313
New York-Newark-Jersey City, NY-NJ-PA	242
San Francisco-Oakland-Hayward, CA	233
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	82
Washington-Arlington-Alexandria, DC-VA-MD-WV	79
San Jose-Sunnyvale-Santa Clara, CA	62
San Diego-Carlsbad, CA	58
Los Angeles-Long Beach-Anaheim, CA	57
Chicago-Naperville-Elgin, IL-IN-WI	55
Oxnard-Thousand Oaks-Ventura, CA	49
Raleigh, NC	39
Seattle-Tacoma-Bellevue, WA	33
Trenton, NJ	27
Durham-Chapel Hill, NC	25
Indianapolis-Carmel-Anderson, IN	25

Policy

Number of Jobs Postings in Search:
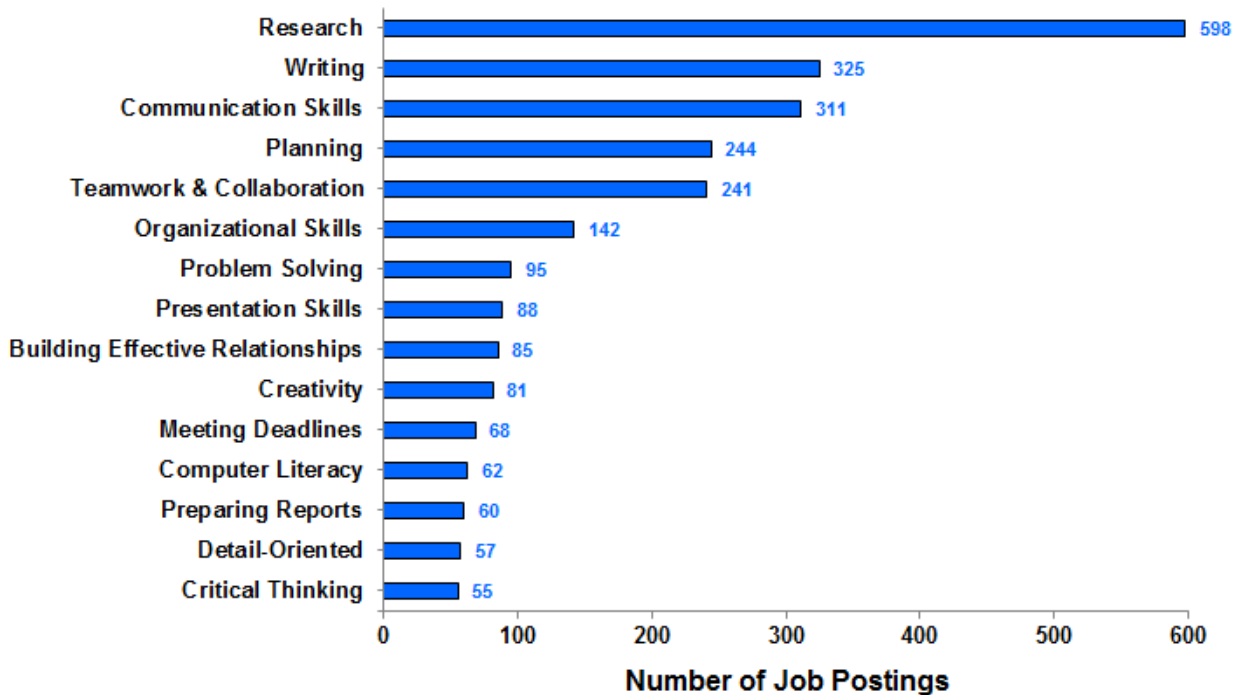## 673

Top Job Titles: Policy

Job Title	Number of Job Postings
Survey Statistician	53
Policy Analyst	33
Science Research Analyst	12
Health Economist	11
Statistician	11
Sampling Statistician	9
Program Analyst	8
Research Associate	8
Biologist	7
Health Director	7
Medical Technologist	7
Nutritionist	6
Research Specialist	6
Policy Research Manager	5
Research Assoc Health Care Policy	5

Top Employers: Policy

Employer	Number of Job Postings
Mathematica Policy Research	34
US Dept of Commerce	21
Research Triangle Institute	16
US Census Bureau	13
US Dept of Health & Human Services	13
US Dept of Veterans Affairs	11
US Government	11
University of California	10
RAND Corporation	9
Rutgers University	9
University of Alabama	9
Princeton University	8
John Hopkins University	7
NYC Dept of Health & Mental Hygiene	7
City of New Orleans	6

Specialized (Hard) Skills: Policy

Skill	Number of Job Postings
Public Administration	255
Economics	240
Policy Research	231
Data Collection	205
Public Health & Safety	199
Budgeting	194
Policy Analysis	160
Surveys	159
Psychology	152
Staff Management	151
Statistics	142
Project Management	132
Data Analysis	126
Teaching	109
Scheduling	102

Number of Job Postings
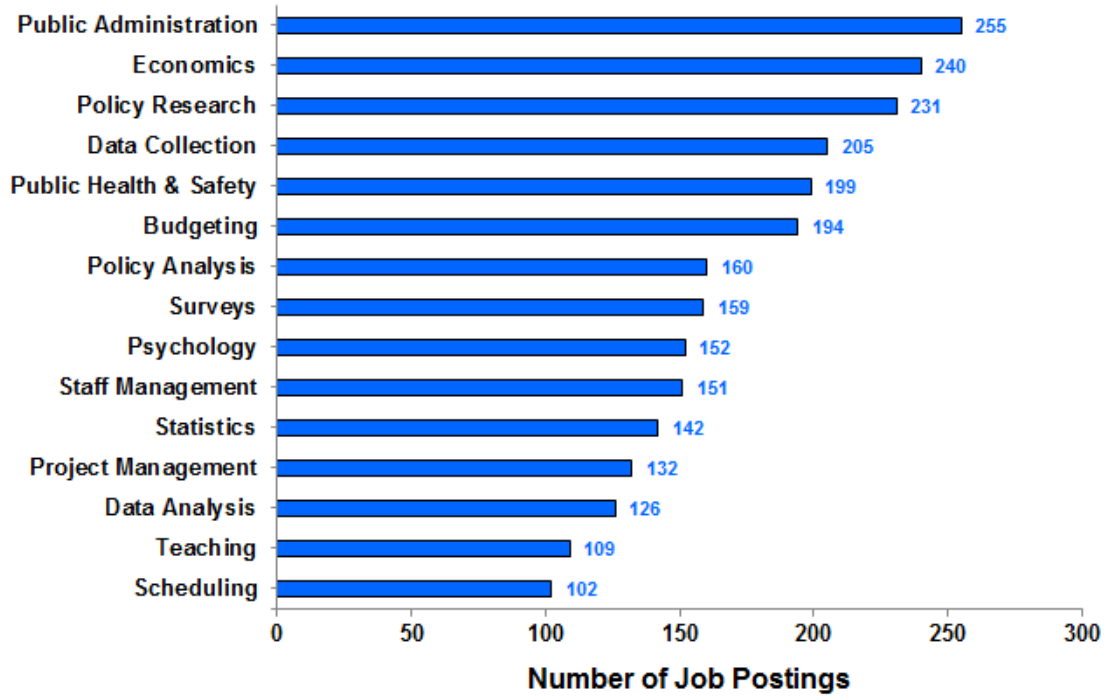
Baseline (Soft) Skills: Policy

Skill	Number of Job Postings
Research	598
Writing	325
Communication Skills	311
Planning	244
Teamwork & Collaboration	241
Organizational Skills	142
Problem Solving	95
Presentation Skills	88
Building Effective Relationships	85
Creativity	81
Meeting Deadlines	68
Computer Literacy	62
Preparing Reports	60
Detail-Oriented	57
Critical Thinking	55

Number of Job Postings

31

Computer Skills: Policy

Skill	Number of Job Postings
Public Administration	255
Microsoft Excel	120
SAS	108
STATA	87
Microsoft PowerPoint	67
Microsoft Office	66
Microsoft Word	61
R	57
SPSS	55
Mathematica	52
ASP	44
Microsoft Access	36
SQL	29
Statistical Programming	28
Data Visualization	21

Number of Job Postings

Job Postings by Year: Policy

High Demand Areas: Policy

Metro Area	Job Postings
Washington-Arlington-Alexandria, DC-VA-MD-WV	118
New York-Newark-Jersey City, NY-NJ-PA	48
Boston-Cambridge-Nashua, MA-NH	44
San Francisco-Oakland-Hayward, CA	41
Chicago-Naperville-Elign, IL-IN-WI	32
Baltimore-Colombia-Towson, MD	22
Denver-Aurora-Lakewood, CO	20
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	19
Seattle-Tacoma-Bellevue, WA	18
Trenton, NJ	18
Durham-Chapel Hill, NC	16
Los Angeles-Long Beach-Anaheim, CA	16
New Orleans-Metairie, LA	16
Detroit-Warren-Dearborn, MI	10
Tuscaloosa, AL	9

Teaching

Number of Jobs Postings in Search:
2,496

Top Job Titles: Teaching

Job Title	Number of Job Postings
Assistant Professor of Biology	575
Assistant Professor of Chemistry	433
Adjunct Instructor	168
Biology Lecturer	118
Professor of Chemistry	89
Biology Instructor	60
Associate Professor of Chemistry	57
High School Chemistry Teacher	57
High School Physics Teacher	46
Professor of Biology	46
Chemistry Instructor	45
Biology Faculty	37
High School Biology Teacher	33
Assistant Professor of Pharmacology	27
Associate Professor of Pharmacology	23

Top Employers: Teaching

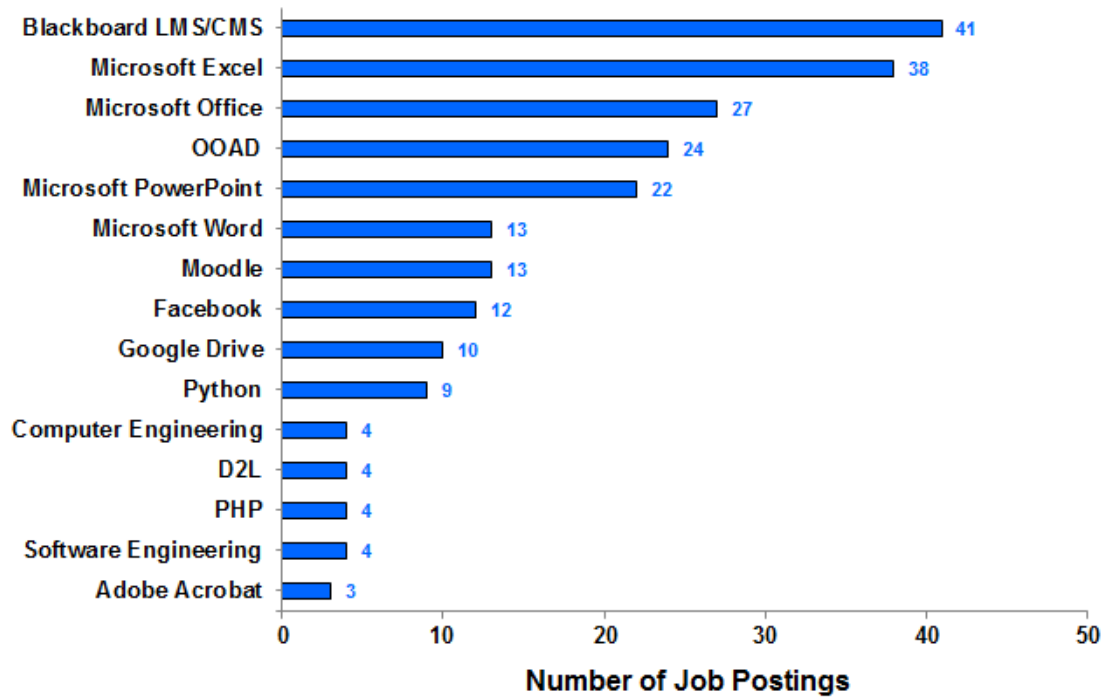| Employer	Number of Job Postings
BASIS.ed (Basis Educational Group)	63
Pennsylvania State University	42
University of Cincinnati	30
SUNY (State University of New York)	28
Texas A&M University	28
University of California, Berkeley	25
Indiana University	23
University of South Florida	21
University of Kentucky	19
San Mateo Union High School District	17
University of Colorado	17
St. Mary Health Care	15
University of California	15
University of Chicago	15
University of Illinois	15

Specialized (Hard) Skills: Teaching
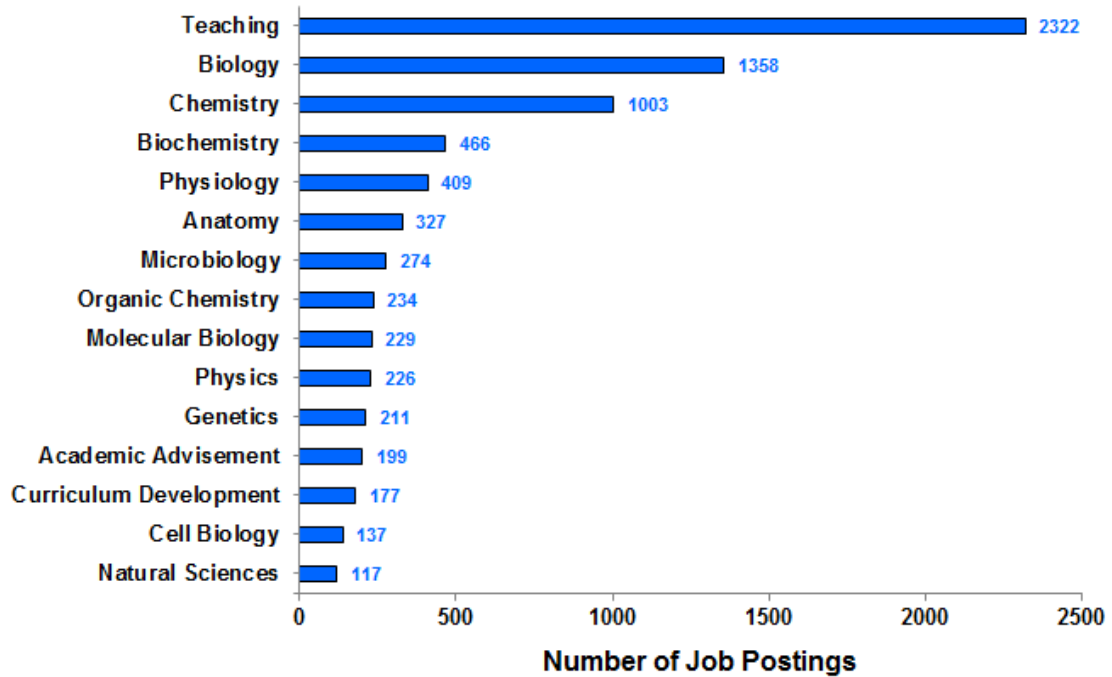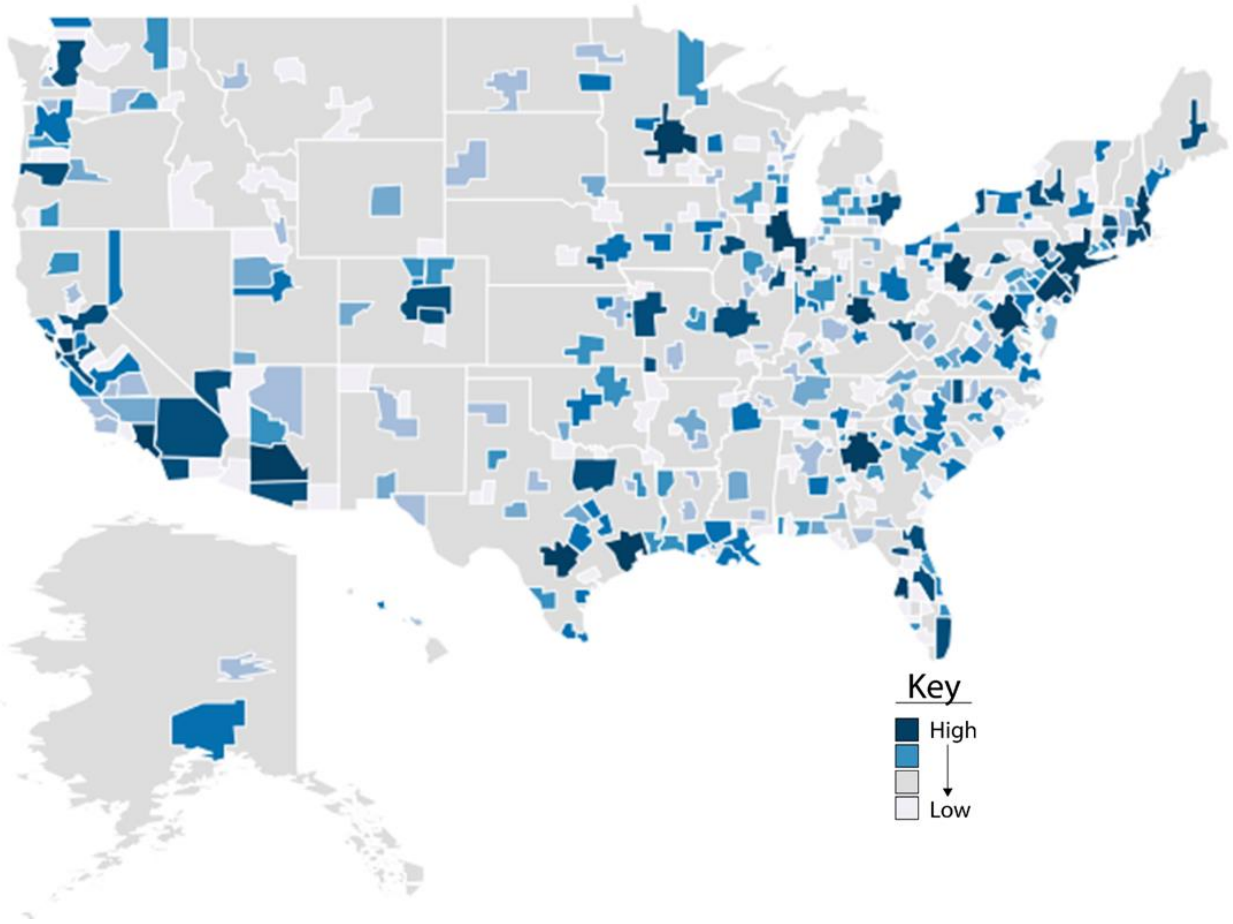

Baseline (Soft) Skills: Teaching
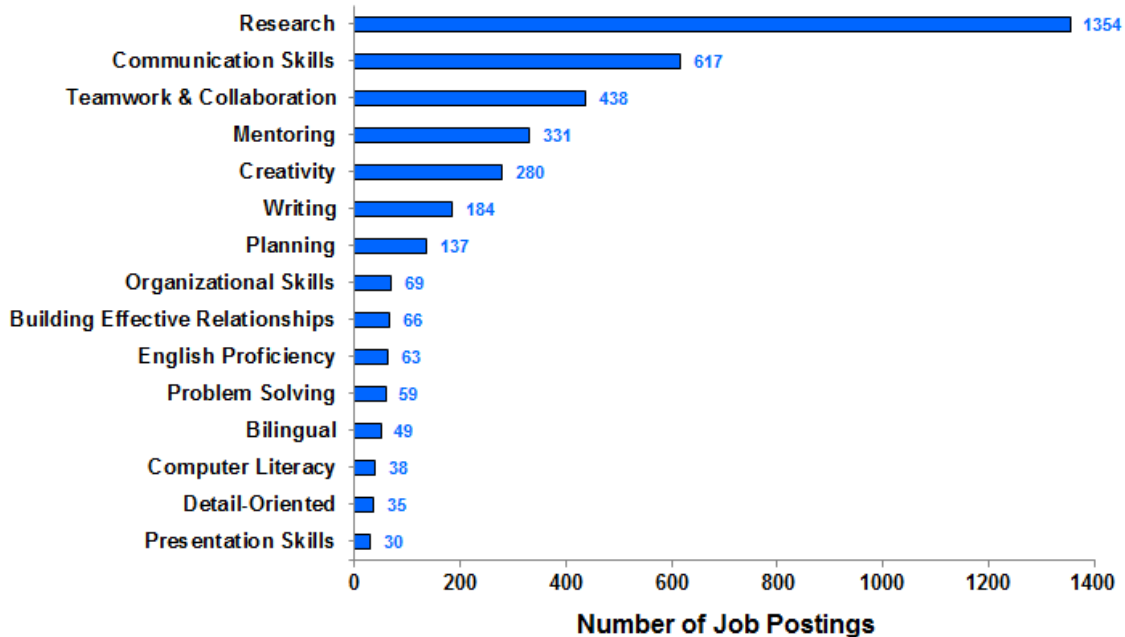
Computer Skills: Teaching

Job Postings by Year: Teaching
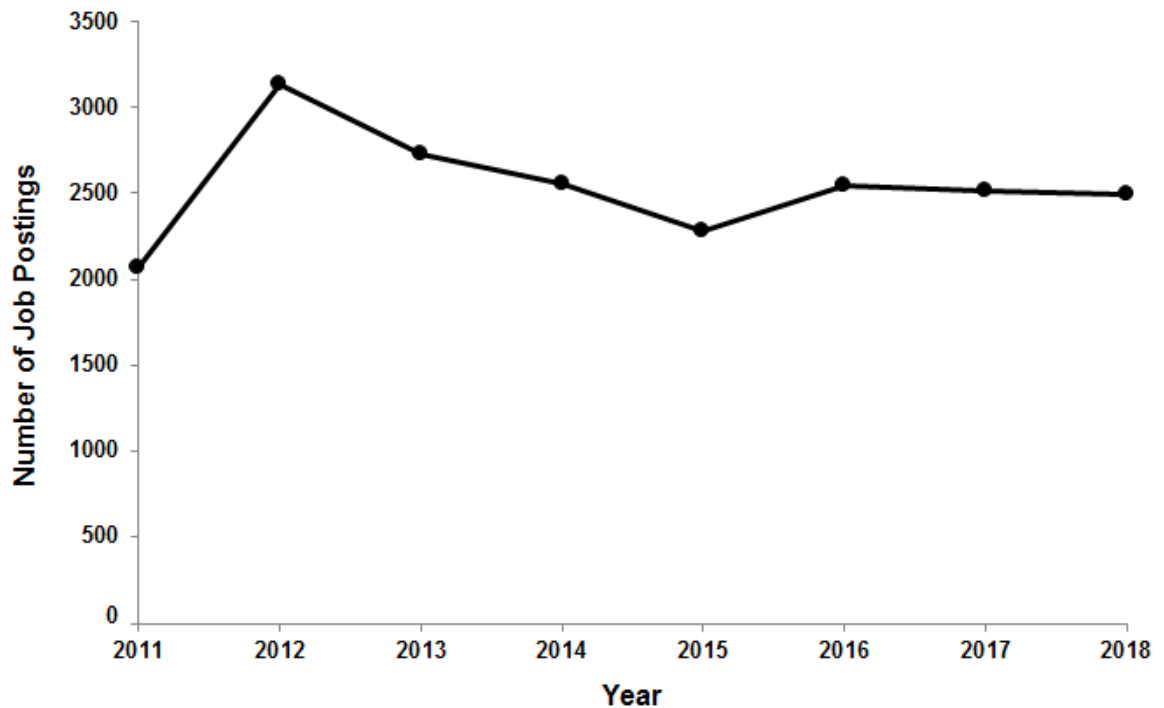
High Demand Areas: Teaching

Metro Area	Job Postings
New York-Newark-Jersey City, NY-NJ-PA	123
Los Angeles-Long Beach-Anaheim, CA	94
San Francisco-Oakland-Hayward, CA	89
Phoenix-Mesa-Scottsdale, AZ	81
Chicago-Naperville-Elgin, IL-IN-WI	68
Boston-Cambridge-Nashua, MA-NH	44
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	42
Cincinnati, OH-KY-IN	34
Minneapolis-St. Paul-Bloomington, MN-WI	34
Atlanta-Sandy Springs-Roswell, GA	33