

# Science, Technology, Engineering & Mathematics (5-Digit SOC) in Wisconsin



200 Washington St Ste 120  
Wausau, Wisconsin 54403-5530

# Contents

What is Lightcast Data? .....	1
Report Parameters .....	2
Workforce Map .....	3
Executive Summary .....	4
Supply (Jobs) .....	5
Demographic Details .....	9
Compensation .....	11
Demand .....	12
What skills are they posting for? .....	18
Occupation Gain and Drain .....	19
Graduate Pipeline .....	26
Appendix A (Occupations) .....	27

## What is Lightcast Data?

Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Lightcast data is frequently cited in major publications such as *The Atlantic*, *Forbes*, *Harvard Business Review*, *The New York Times*, *The Wall Street Journal*, and *USA Today*.



## Report Parameters

### 89 Occupations

---

11-3013 Facilities Managers

---

11-9041 Architectural and Engineering Managers

---

15-1211 Computer Systems Analysts

---

15-1231 Computer Network Support Specialists

---

15-1241 Computer Network Architects

---

15-1244 Network and Computer Systems

---

Administrators

---

15-1251 Computer Programmers

---

15-1252 Software Developers

---

15-1254 Web Developers

---

*See Appendix A for all 89 Occupations*

---

### 1 State

---

55 Wisconsin

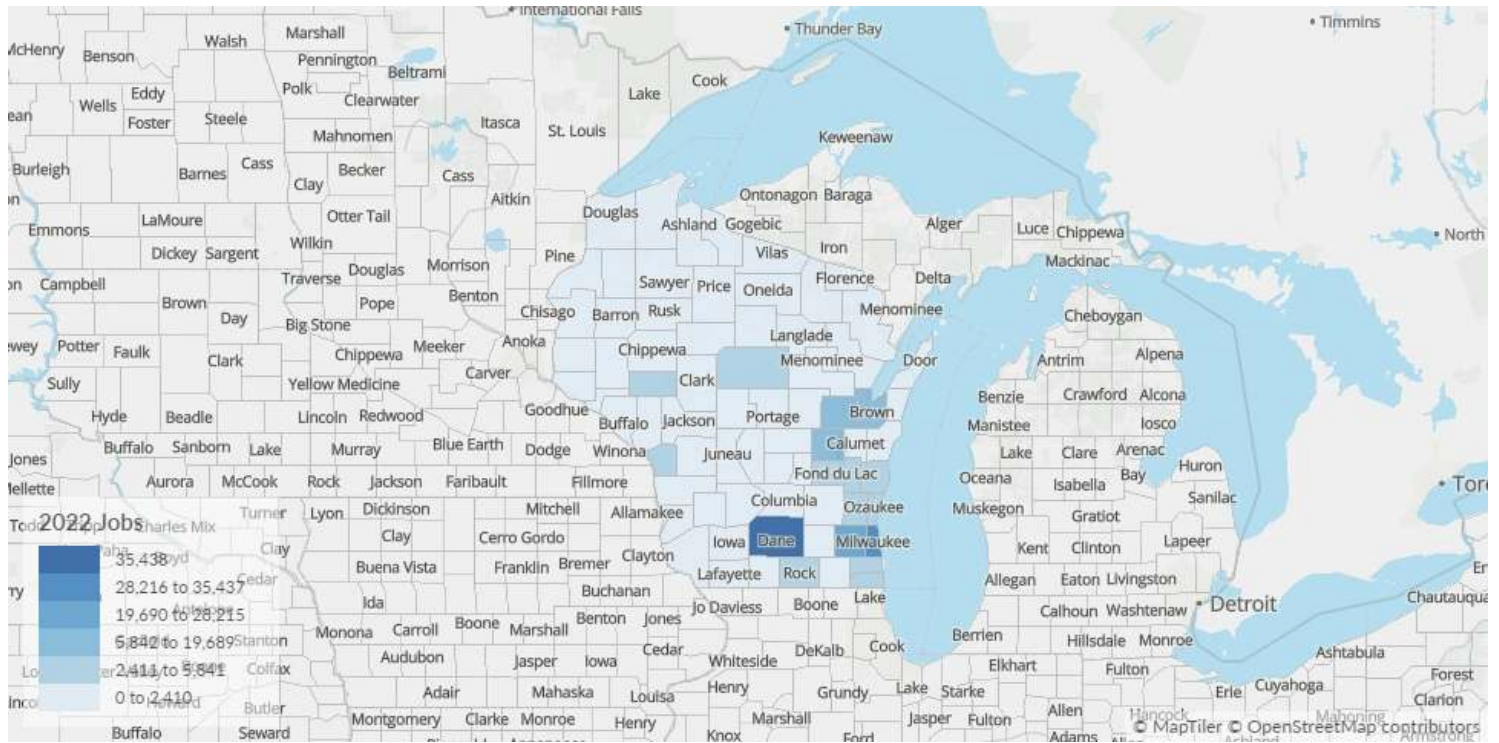
---

### Class of Worker

QCEW Employees, Non-QCEW Employees, and Self-Employed

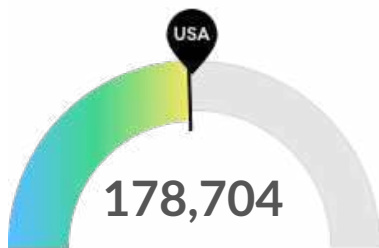
The information in this report pertains to the chosen occupations and geographical area.

# Workforce Map



## Executive Summary

### Average Hiring Competition Over an Average Supply of Regional Talent



**Supply (Jobs)**

Wisconsin is about average for this kind of talent. The national average for an area this size is 183,683\* employees, while there are 178,704 here.



**Compensation**

The cost for talent is low in Wisconsin. The national median salary for your occupations is \$83,221, while you'll pay \$72,977 here.



**Demand (Job Postings)**

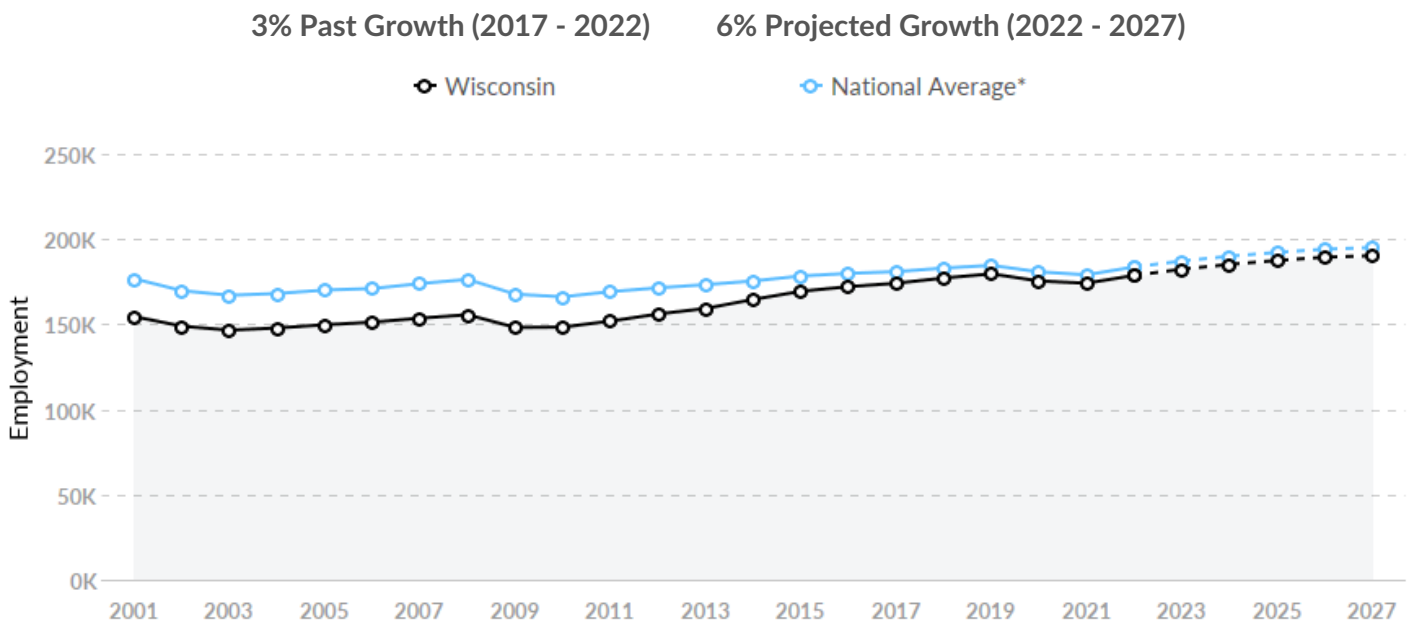
Competition from online job postings is about average in Wisconsin. The national average for an area this size is 7,901\* job postings/mo, while there are 7,908 here.

\*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and Wisconsin. In other words, the values represent the national average adjusted for region size.

# Supply (Jobs)

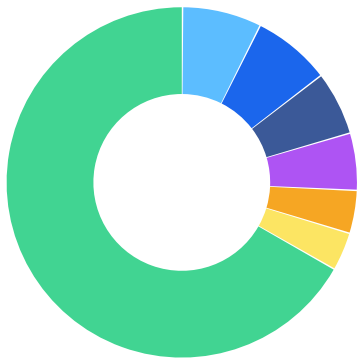
## Supply Is About Equal to the National Average

The regional vs. national average employment helps you understand if the supply of your occupations is a strength or weakness for Wisconsin, and how it is changing relative to the nation. An average area of this size would have 183,683\* employees, while there are 178,704 here. The gap between expected and actual employment is expected to remain roughly the same over the next 5 years.



\*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and Wisconsin. In other words, the values represent the national average adjusted for region size.

## Most Jobs are Found in the Architectural, Engineering, and Related Services Industry Sector

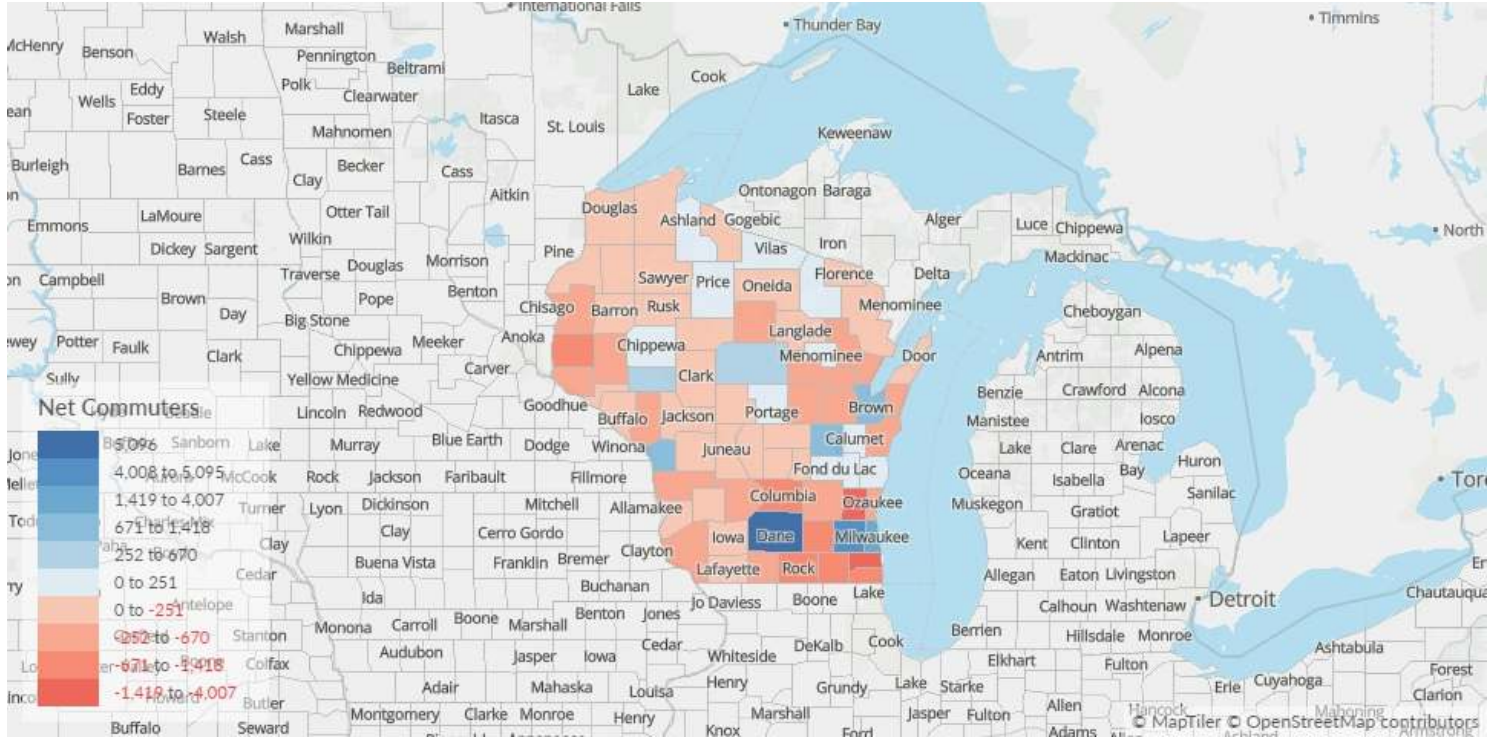


Industry	% of Occupation in Industry (2022)
 Architectural, Engineering, and Related Services	7.3%
 Computer Systems Design and Related Services	7.2%
 Building Equipment Contractors	5.9%
 Management of Companies and Enterprises	5.3%
 Local Government, Excluding Education and Hospitals	4.0%
 Software Publishers	3.5%
 Other	66.8%



## Place of Work vs Place of Residence

Understanding where talent in Wisconsin currently works compared to where talent lives can help you optimize site decisions.



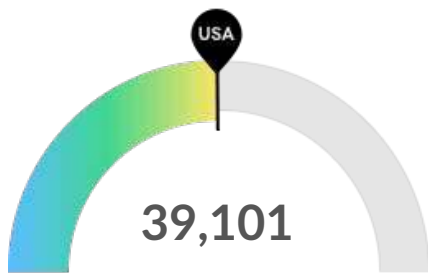
### Where Talent Works

### Where Talent Lives

County	Name	2022 Employment
55025	Dane County, WI	35,438
55079	Milwaukee County, WI	28,216
55133	Waukesha County, WI	19,690
55999	[Wisconsin, county not ...]	10,050
55009	Brown County, WI	8,282

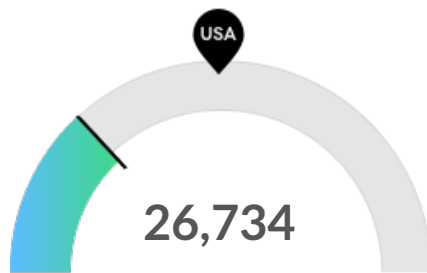
County	Name	2022 Workers
55025	Dane County, WI	30,342
55079	Milwaukee County, WI	26,249
55133	Waukesha County, WI	15,682
55999	[Wisconsin, county not ...]	10,128
55009	Brown County, WI	7,177

## Retirement Risk Is About Average, While Overall Diversity Is Low



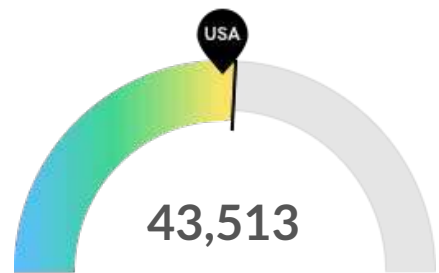
**Retiring Soon**

Retirement risk is about average in Wisconsin. The national average for an area this size is 39,352\* employees 55 or older, while there are 39,101 here.



**Racial Diversity**

Racial diversity is low in Wisconsin. The national average for an area this size is 60,867\* racially diverse employees, while there are 26,734 here.



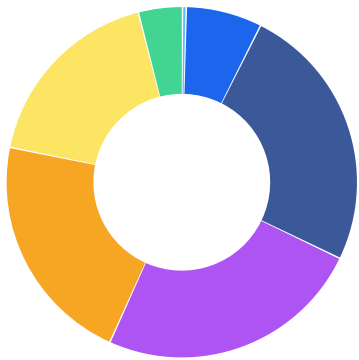
**Gender Diversity**

Gender diversity is about average in Wisconsin. The national average for an area this size is 41,495\* female employees, while there are 43,513 here.

\*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and Wisconsin. In other words, the values represent the national average adjusted for region size.

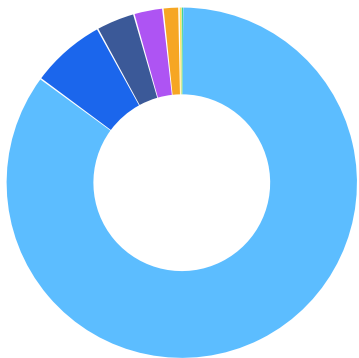
## Demographic Details

### Occupation Age Breakdown



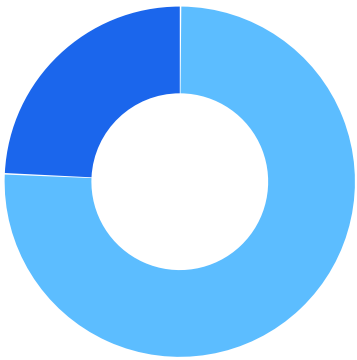
	% of Jobs	Jobs
14-18	0.3%	611
19-24	7.0%	12,522
25-34	24.7%	44,180
35-44	24.6%	43,926
45-54	21.5%	38,365
55-64	17.8%	31,852
65+	4.1%	7,249

### Occupation Race/Ethnicity Breakdown



	% of Jobs	Jobs
White	85.0%	151,969
Asian	6.9%	12,367
Hispanic or Latino	3.6%	6,360
Black or African American	2.7%	4,800
Two or More Races	1.5%	2,623
American Indian or Alaska Native	0.3%	538
Native Hawaiian or Other Pacific Islander	0.0%	46

## Occupation Gender Breakdown

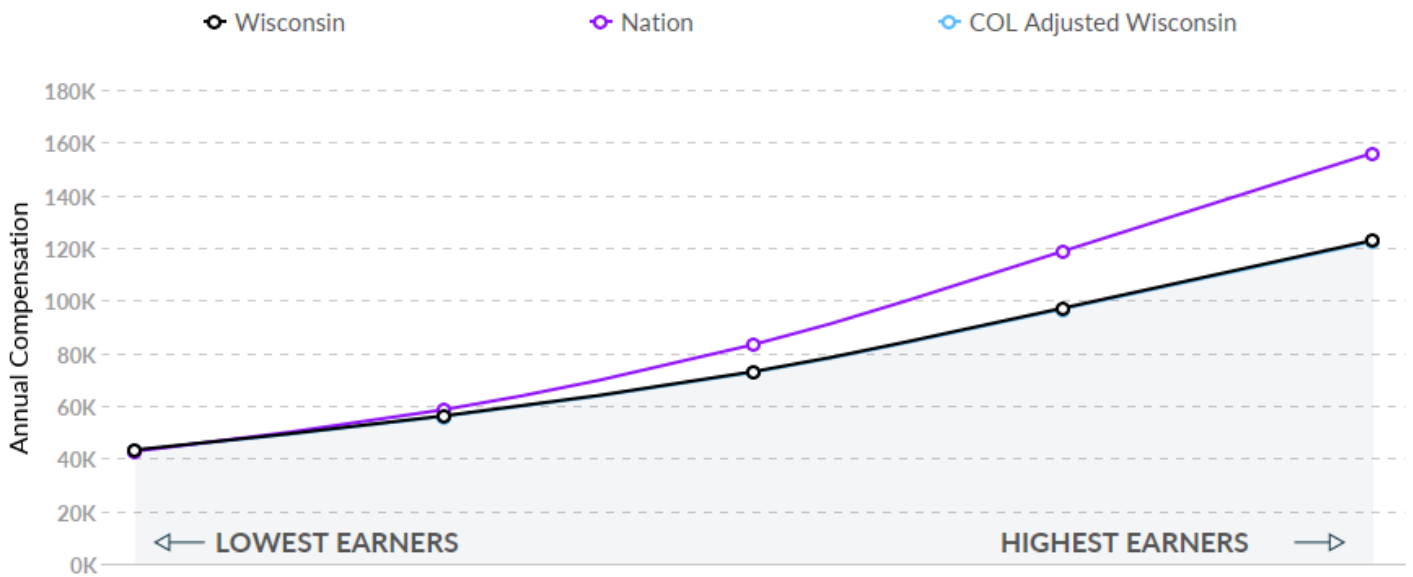


	% of Jobs	Jobs
<span style="color: #00AEEF;">●</span> Males	75.7%	135,190
<span style="color: #0056B3;">●</span> Females	24.3%	43,513

# Compensation

## Talent Is 12% Cheaper, While the Cost of Living May Make Attraction Difficult

In 2021, the median compensation for your occupations in Wisconsin is \$72,977. Based on the national median wage of \$83,221 for this position, this means you will spend about 12% less to employ your occupations here. However, their actual purchasing power will be 13% less than the national median when we adjust for regional cost of living (which is 0% higher than average). This may make it harder to attract talent to the region at this price.



# Demand



**7,130 Employers Competing**

All employers in the region who posted for this job over the last 12 months.



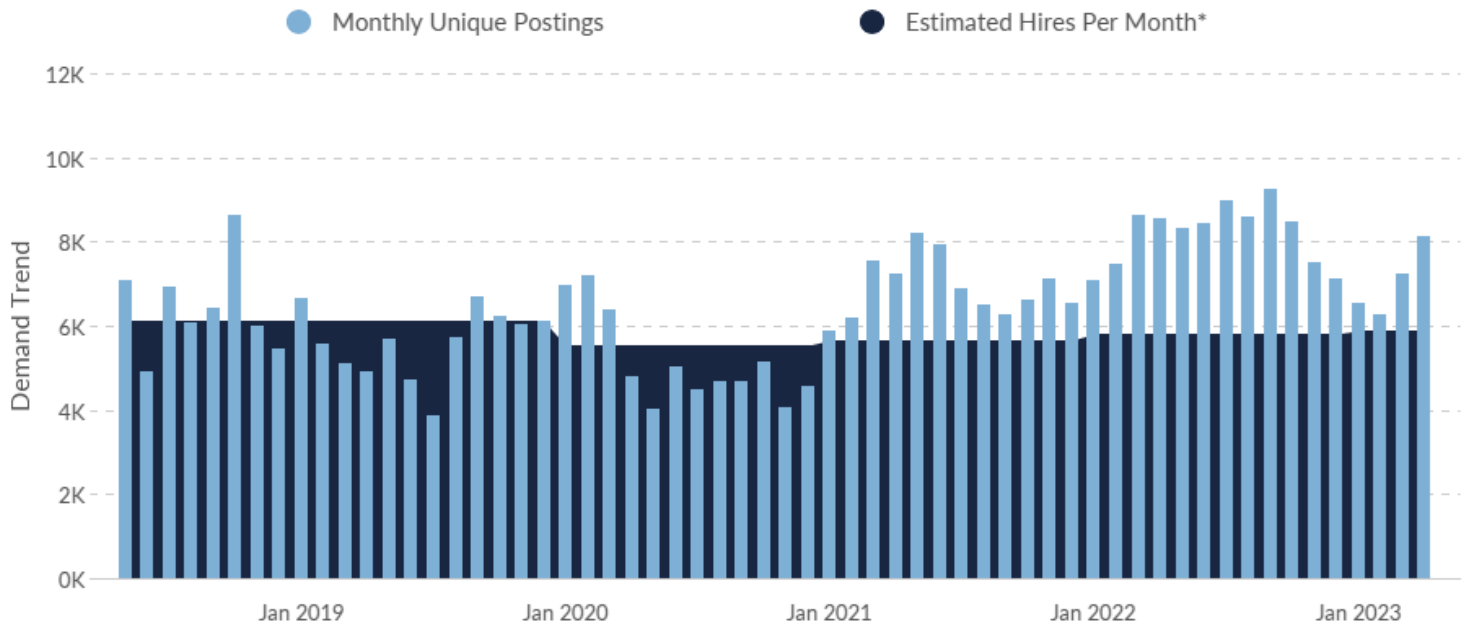
**94,899 Unique Job Postings**

The number of unique postings for this job over the last 12 months.



**27 Day Median Duration**

Posting duration is 3 days shorter than what's typical in the region.



Occupation	Avg Monthly Postings (May 2022 - Apr 2023)	Avg Monthly Hires (May 2022 - Apr 2023)
Software Developers	1,049	683
Industrial Engineering Technologists and Technicians	697	56
Clinical Laboratory Technologists and Technicians	450	194

\*A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.











Occupation	Avg Monthly Postings (May 2022 - Apr 2023)	Avg Monthly Hires (May 2022 - Apr 2023)
Computer Systems Analysts	348	309
Industrial Engineers	435	284
Data Scientists	256	61
Mechanical Engineers	354	219
Electrical Engineers	393	103
Web Developers	169	139
Civil Engineers	300	158
Operations Research Analysts	223	55
Architectural and Engineering Managers	306	89
Network and Computer Systems Administrators	140	251
Life, Physical, and Social Science Technicians, All Other	155	85
Electrical and Electronic Engineering Technologists and Technicians	178	66
Electricians	161	518
Computer Network Architects	156	77
Dietitians and Nutritionists	158	41
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	106	160
Computer Programmers	95	89
Engineering Technologists and Technicians, Except Drafters, All Other	101	57
Engineers, All Other	126	48
Medical Scientists, Except Epidemiologists	102	39
Facilities Managers	128	56
Drafters, All Other	87	8
Chemists	93	51
Chemical Engineers	111	10

Occupation	Avg Monthly Postings (May 2022 - Apr 2023)	Avg Monthly Hires (May 2022 - Apr 2023)
Telecommunications Equipment Installers and Repairers, Except Line Installers	74	117
Mechanical Drafters	84	90
Electro-Mechanical and Mechatronics Technologists and Technicians	75	7
Technical Writers	42	34
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	50	14
Computer Network Support Specialists	45	95
Operating Engineers and Other Construction Equipment Operators	32	526
Civil Engineering Technologists and Technicians	43	48
Electrical and Electronics Drafters	38	20
Statisticians	43	21
Mechanical Engineering Technologists and Technicians	34	68
Biological Scientists, All Other	28	22
Electronics Engineers, Except Computer	30	31
Environmental Engineers	38	22
Sales Engineers	22	38
Architectural and Civil Drafters	26	76
Web and Digital Interface Designers	24	36
Environmental Scientists and Specialists, Including Health	30	42
Chemical Technicians	16	54
Computer Hardware Engineers	16	16
Dental Laboratory Technicians	13	40
Conservation Scientists	17	28
Microbiologists	18	41



Occupation	Avg Monthly Postings (May 2022 - Apr 2023)	Avg Monthly Hires (May 2022 - Apr 2023)
Materials Engineers	15	12
Broadcast Technicians	11	15
Survey Researchers	11	2
Surveying and Mapping Technicians	11	27
Hazardous Materials Removal Workers	10	63
Fire Inspectors and Investigators	6	8
Petroleum Engineers	14	4
Agricultural Technicians	9	37
Zoologists and Wildlife Biologists	8	12
Soil and Plant Scientists	6	21
Physicists	9	10
Geoscientists, Except Hydrologists and Geographers	7	7
Sound Engineering Technicians	6	14
Stationary Engineers and Boiler Operators	7	23
Marine Engineers and Naval Architects	5	2
Bioengineers and Biomedical Engineers	5	10
Anthropologists and Archeologists	3	2
Atmospheric and Space Scientists	5	4
Aerospace Engineers	5	7
Hydrologists	3	6
Economists	4	10
Nuclear Engineers	5	3
Airline Pilots, Copilots, and Flight Engineers	4	27
Biochemists and Biophysicists	2	11
Power Distributors and Dispatchers	5	3

Occupation	Avg Monthly Postings (May 2022 - Apr 2023)	Avg Monthly Hires (May 2022 - Apr 2023)
Materials Scientists	2	3
Ophthalmic Laboratory Technicians	3	22
Nuclear Technicians	3	4
Nuclear Power Reactor Operators	2	2
Aerospace Engineering and Operations Technologists and Technicians	1	4
Locomotive Engineers	2	37
Mining and Geological Engineers, Including Mining Safety Engineers	2	1
Mathematicians	1	0
Environmental Engineering Technologists and Technicians	1	9
Cartographers and Photogrammetrists	1	8
Agricultural Engineers	0	0
Astronomers	1	0
Rail Yard Engineers, Dinkey Operators, and Hostlers	1	3
Ship Engineers	0	5

Top Companies	Unique Postings	Top Job Titles	Unique Postings
Actalent	3,220 	Maintenance Technicians	2,821 
University Of Wisconsin-Madiso...	1,203 	Software Engineers	1,601 
Uline	1,192 	Manufacturing Engineers	1,525 
Randstad	1,025 	Electrical Engineers	1,420 
FIS	615 	Mechanical Engineers	1,241 

## Top Distinguishing Skills by Demand

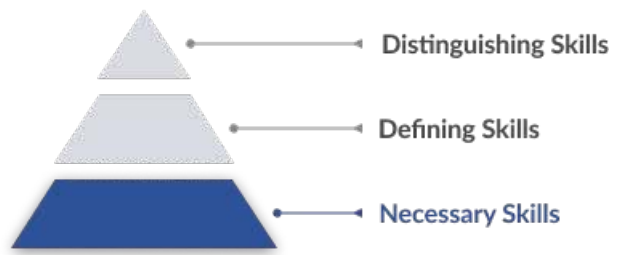
Not enough data to display Distinguishing Skills for this occupation.

## Top Defining Skills by Demand

Not enough data to display Defining Skills for this occupation.

## Top Necessary Skills by Demand

An occupation's Necessary Skills are the specialized skills required for that job and relevant across other similar jobs. An employee needs these skills as building blocks to perform the more complex Defining Skills.

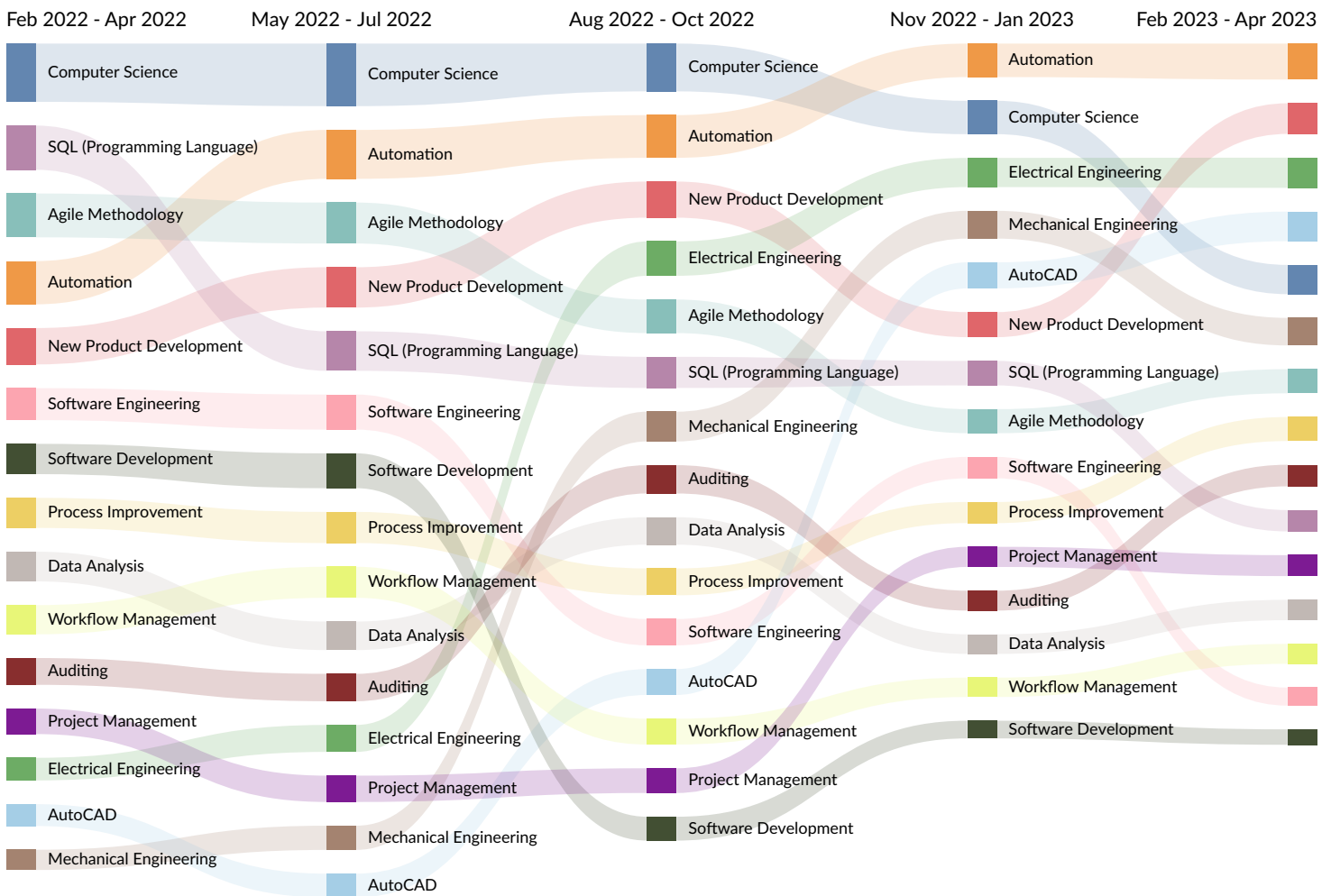


Skill	Salary Boosting	Job Postings Requesting
Computer Science	✓	80,653
SQL (Programming Language)	✗	72,059
New Product Development	✗	61,350
Automation	✗	54,996
JavaScript (Programming Language)	✗	46,798
Java (Programming Language)	✓	46,791
Agile Methodology	✗	45,563
Project Management	✗	45,335
Valid Driver's License	✗	45,214
Process Improvement	✗	44,761

# What skills are they posting for?

## Top 15 Skills for Your Selected Job Types by Quarter

Skills help us understand the direction an occupation is headed.



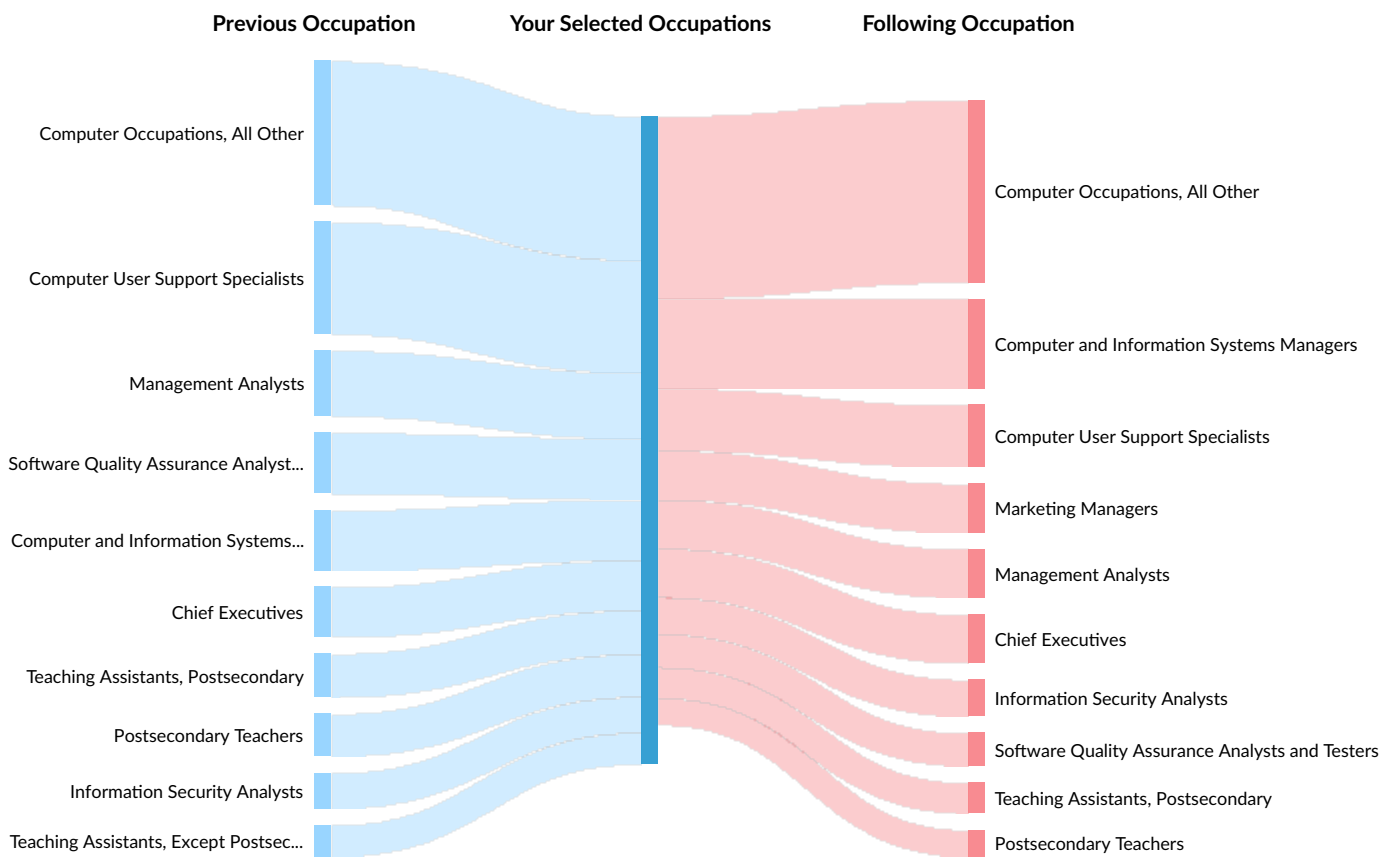
# Occupation Gain and Drain

## Occupation Gain and Drain

The table below analyzes the profiles of current and past people in your selected occupations. The left column shows job transitions from other occupations to your selected occupations. The right column shows job transitions from your selected occupations to other occupations.

Please note, results are only available at the national level and the 2 and 5 digit SOC level. Other SOC levels will be converted to 5-digit SOC. Also your selection has been limited to 100 occupations.

The following represents the job transitions of employees in your selected occupations in the United States:



Previous Occupations	Transitions
Computer Occupations, All Other	50,528
Computer User Support Specialists	39,414
Management Analysts	22,962

Previous Occupations	Transitions
Software Quality Assurance Analysts and Testers	21,362
Computer and Information Systems Managers	21,245
Chief Executives	17,533
Teaching Assistants, Postsecondary	15,306
Postsecondary Teachers	14,956
Information Security Analysts	12,527
Teaching Assistants, Except Postsecondary	11,071
Marketing Managers	10,796
Market Research Analysts and Marketing Specialists	10,323
First-Line Supervisors of Office and Administrative Support Workers	9,088
Managers, All Other	8,341
Database Administrators	7,874
General and Operations Managers	7,750
Business Operations Specialists, All Other	7,053
Computer and Information Research Scientists	5,916
Graphic Designers	4,866
Customer Service Representatives	4,682
Project Management Specialists	4,524
Retail Salespersons	4,291
Sales Managers	4,005
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	3,600
Producers and Directors	3,481
Teachers and Instructors, All Other	3,381
Training and Development Specialists	3,375
First-Line Supervisors of Production and Operating Workers	3,252

Previous Occupations	Transitions
Social and Human Service Assistants	3,225
Financial Managers	3,058
Tutors	2,799
Human Resources Specialists	2,622
Secondary School Teachers, Except Special and Career/Technical Education	2,292
Public Relations Specialists	2,089
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	2,078
Financial and Investment Analysts	1,982
Public Relations Managers	1,766
Accountants and Auditors	1,759
First-Line Supervisors of Mechanics, Installers, and Repairers	1,613
Biological Technicians	1,607
Educational, Guidance, and Career Counselors and Advisors	1,567
Social Science Research Assistants	1,524
Natural Sciences Managers	1,497
Inspectors, Testers, Sorters, Samplers, and Weighers	1,408
Coaches and Scouts	1,398
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,357
Industrial Production Managers	1,334
Stockers and Order Fillers	1,315
Executive Secretaries and Executive Administrative Assistants	1,262
Waiters and Waitresses	1,244
Maintenance and Repair Workers, General	1,237
Social and Community Service Managers	1,149

Previous Occupations	Transitions
Commercial and Industrial Designers	1,035
Transportation, Storage, and Distribution Managers	1,034
Compliance Officers	1,025
Human Resources Managers	999
Medical and Health Services Managers	965
Editors	927
Construction Managers	907
Logisticians	875
Registered Nurses	862
First-Line Supervisors of Construction Trades and Extraction Workers	764
Buyers and Purchasing Agents	628
Medical Assistants	521
Occupational Health and Safety Specialists	258
Following Occupations	Transitions
Computer Occupations, All Other	63,873
Computer and Information Systems Managers	31,420
Computer User Support Specialists	21,728
Marketing Managers	17,213
Management Analysts	17,152
Chief Executives	17,035
Information Security Analysts	12,952
Software Quality Assurance Analysts and Testers	11,611
Teaching Assistants, Postsecondary	10,789
Postsecondary Teachers	9,400



Following Occupations	Transitions
First-Line Supervisors of Office and Administrative Support Workers	8,902
Managers, All Other	8,159
General and Operations Managers	7,678
Market Research Analysts and Marketing Specialists	6,880
Teaching Assistants, Except Postsecondary	5,665
Project Management Specialists	5,079
Business Operations Specialists, All Other	5,024
Computer and Information Research Scientists	4,437
Producers and Directors	4,430
Database Administrators	4,221
Sales Managers	4,206
Graphic Designers	3,020
Financial Managers	2,887
Architects, Except Landscape and Naval	2,846
Human Resources Specialists	2,585
Customer Service Representatives	2,559
Training and Development Specialists	2,528
First-Line Supervisors of Production and Operating Workers	2,328
Retail Salespersons	2,195
Social and Human Service Assistants	2,143
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,957
Public Relations Managers	1,924
Commercial and Industrial Designers	1,783
Teachers and Instructors, All Other	1,765

Following Occupations	Transitions
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	1,588
Industrial Production Managers	1,362
First-Line Supervisors of Mechanics, Installers, and Repairers	1,345
Public Relations Specialists	1,311
Education Administrators, Kindergarten through Secondary	1,223
Tutors	1,219
Natural Sciences Managers	1,204
Social and Community Service Managers	1,185
Executive Secretaries and Executive Administrative Assistants	1,169
Medical and Health Services Managers	1,158
Educational, Guidance, and Career Counselors and Advisors	1,135
Secondary School Teachers, Except Special and Career/Technical Education	1,016
Accountants and Auditors	964
Financial and Investment Analysts	961
Human Resources Managers	960
Transportation, Storage, and Distribution Managers	896
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	864
Inspectors, Testers, Sorters, Samplers, and Weighers	779
Construction Managers	753
Biological Technicians	739
Compliance Officers	636
Registered Nurses	598
Maintenance and Repair Workers, General	584
Editors	565

Following Occupations	Transitions
First-Line Supervisors of Construction Trades and Extraction Workers	558
Physicians, All Other	528
Logisticians	470
Buyers and Purchasing Agents	362
Medical Assistants	277
Occupational Health and Safety Specialists	174

## Graduate Pipeline



### 400 Programs

701 programs can train for this job, while only 400 programs have produced completers in this region.



### 38,705 Completions (2021)

The completions from all regional institutions for all degree types.



### 20,967 Openings (2021)

The average number of openings for an occupation in the region is 585.

Top Programs	Completions (2021)
Business Administration and Ma...	4,121
Biology/Biological Sciences, Gen...	1,859
Marketing/Marketing Managem...	1,550
Computer and Information Scien...	1,473
Political Science and Governmen...	962

Top Schools	Completions (2021)
University of Wisconsin-Madison	10,645
University of Wisconsin-Milwau...	3,134
Marquette University	1,681
University of Wisconsin-Eau Cla...	1,569
University of Wisconsin-Whitew...	1,498

## Appendix A (Occupations)

Code	Description
11-3013	Facilities Managers
11-9041	Architectural and Engineering Managers
15-1211	Computer Systems Analysts
15-1231	Computer Network Support Specialists
15-1241	Computer Network Architects
15-1244	Network and Computer Systems Administrators
15-1251	Computer Programmers
15-1252	Software Developers
15-1254	Web Developers
15-1255	Web and Digital Interface Designers
15-2021	Mathematicians
15-2031	Operations Research Analysts

Code	Description
15-2041	Statisticians
15-2051	Data Scientists
17-1021	Cartographers and Photogrammetrists
17-2011	Aerospace Engineers
17-2021	Agricultural Engineers
17-2031	Bioengineers and Biomedical Engineers
17-2041	Chemical Engineers
17-2051	Civil Engineers
17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer
17-2081	Environmental Engineers

Code	Description
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers
17-2121	Marine Engineers and Naval Architects
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers
17-2161	Nuclear Engineers
17-2171	Petroleum Engineers
17-2199	Engineers, All Other
17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters

Code	Description
17-3019	Drafters, All Other
17-3021	Aerospace Engineering and Operations Technologists and Technicians
17-3022	Civil Engineering Technologists and Technicians
17-3023	Electrical and Electronic Engineering Technologists and Technicians
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians
17-3025	Environmental Engineering Technologists and Technicians
17-3026	Industrial Engineering Technologists and Technicians
17-3027	Mechanical Engineering Technologists and Technicians
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other
17-3031	Surveying and Mapping Technicians
19-1013	Soil and Plant Scientists
19-1021	Biochemists and Biophysicists

Code	Description
19-1022	Microbiologists
19-1023	Zoologists and Wildlife Biologists
19-1029	Biological Scientists, All Other
19-1031	Conservation Scientists
19-1042	Medical Scientists, Except Epidemiologists
19-2011	Astronomers
19-2012	Physicists
19-2021	Atmospheric and Space Scientists
19-2031	Chemists
19-2032	Materials Scientists
19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers

Code	Description
19-2043	Hydrologists
19-3011	Economists
19-3022	Survey Researchers
19-3091	Anthropologists and Archeologists
19-4012	Agricultural Technicians
19-4031	Chemical Technicians
19-4051	Nuclear Technicians
19-4099	Life, Physical, and Social Science Technicians, All Other
27-3042	Technical Writers
27-4012	Broadcast Technicians
27-4014	Sound Engineering Technicians
29-1031	Dietitians and Nutritionists

Code	Description
29-2018	Clinical Laboratory Technologists and Technicians
33-2021	Fire Inspectors and Investigators
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-9031	Sales Engineers
47-2073	Operating Engineers and Other Construction Equipment Operators
47-2111	Electricians
47-4041	Hazardous Materials Removal Workers
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
51-8011	Nuclear Power Reactor Operators

Code	Description
51-8012	Power Distributors and Dispatchers
51-8021	Stationary Engineers and Boiler Operators
51-9081	Dental Laboratory Technicians
51-9083	Ophthalmic Laboratory Technicians
53-2011	Airline Pilots, Copilots, and Flight Engineers
53-4011	Locomotive Engineers
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers
53-5031	Ship Engineers