

Manufacturing Engineering Occupations

Sumner County, TN
45 Minute Drive Time



Gallatin, TN 37066

615-206-6624

www.forwardsumner.org

Contents

What is Emsi Data?	1
Report Parameters	2
Workforce Map	3
Executive Summary	4
Supply (Jobs)	5
Demographic Details	9
Compensation	11
Demand	12
Graduate Pipeline	16
Appendix A (Occupations)	17

What is Emsi Data?

Emsi 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.

Emsi 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

21 Occupations

17-2021	Agricultural Engineers	17-2071	Electrical Engineers
17-2031	Bioengineers and Biomedical Engineers	17-2072	Electronics Engineers, Except Computer
17-2041	Chemical Engineers	17-2081	Environmental Engineers
17-2051	Civil Engineers	17-2111	Health and Safety Engineers, Except Mini.
17-2061	Computer Hardware Engineers	<i>See Appendix A for all 21 Occupations</i>	

8 Counties

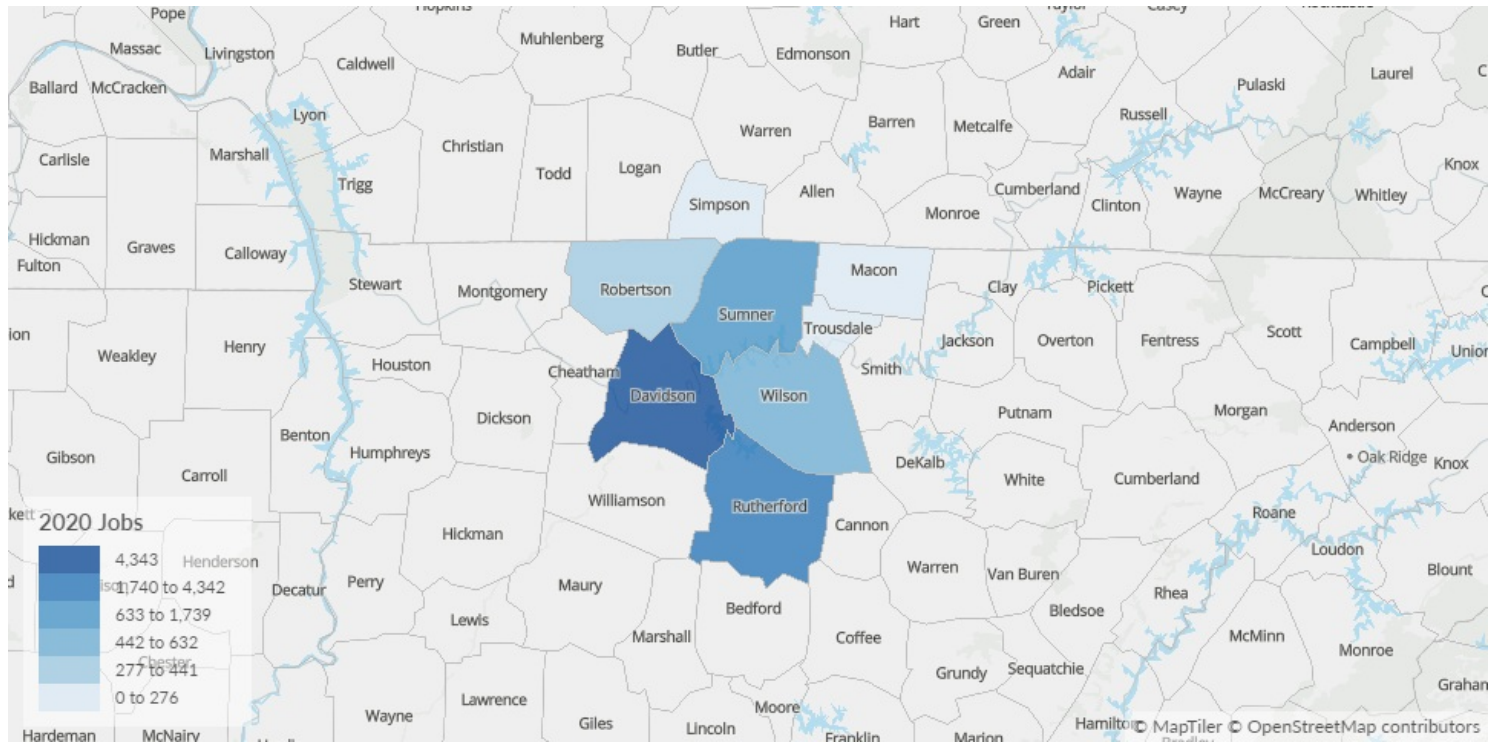
21213	Simpson County, KY	47149	Rutherford County, TN
47037	Davidson County, TN	47165	Sumner County, TN
47111	Macon County, TN	47169	Trousdale County, TN
47147	Robertson County, TN	47189	Wilson County, TN

Class of Worker

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

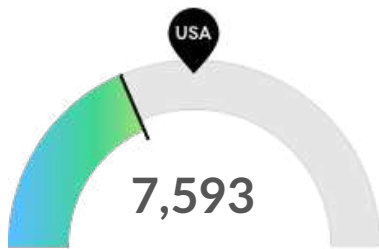
The information in this report pertains to the chosen occupations and geographical areas.

Workforce Map



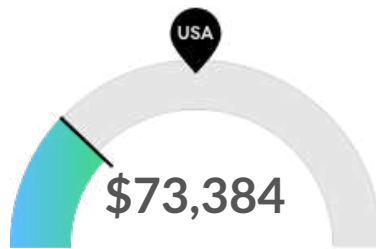
Executive Summary

Light Hiring Competition Over a Thin Supply of Regional Talent



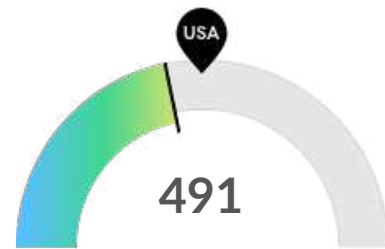
Supply (Jobs)

Your area is not a hotspot for this kind of talent. The national average for an area this size is 11,388* employees, while there are 7,593 here.



Compensation

The cost for talent is low in your area. The national median salary for your occupations is \$85,045, while you'll pay \$73,384 here.



Demand (Job Postings)

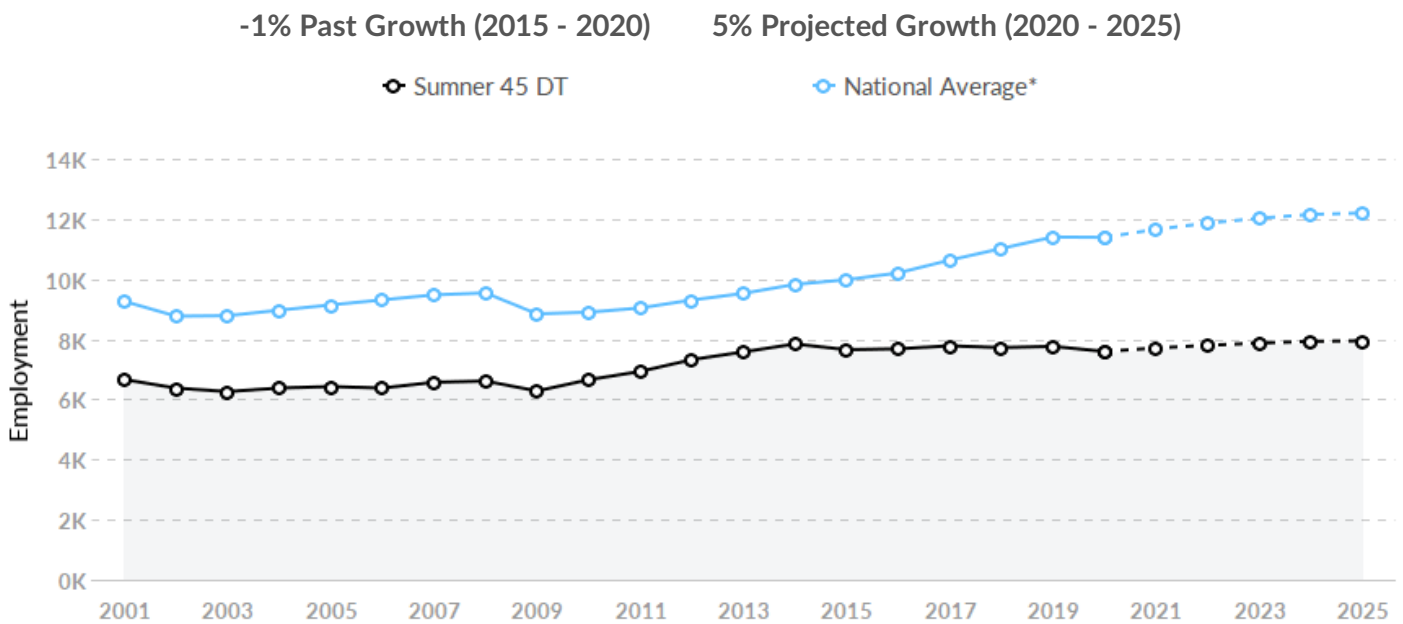
Competition from online job postings is low in your area. The national average for an area this size is 594* job postings/mo, while there are 491 here.

*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 your area. In other words, the values represent the national average adjusted for region size.

Supply (Jobs)

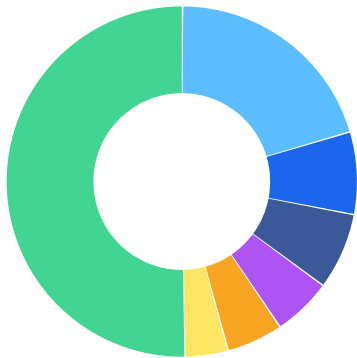
Supply Is Lower Than the National Average

The regional vs. national average employment helps you understand if the supply of your occupations is a strength or weakness for your area, and how it is changing relative to the nation. An average area of this size would have 11,388* employees, while there are 7,593 here. This lower than expected supply may make it more difficult to find candidates. The gap between expected and actual employment is expected to increase 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 your area. In other words, the values represent the national average adjusted for region size.

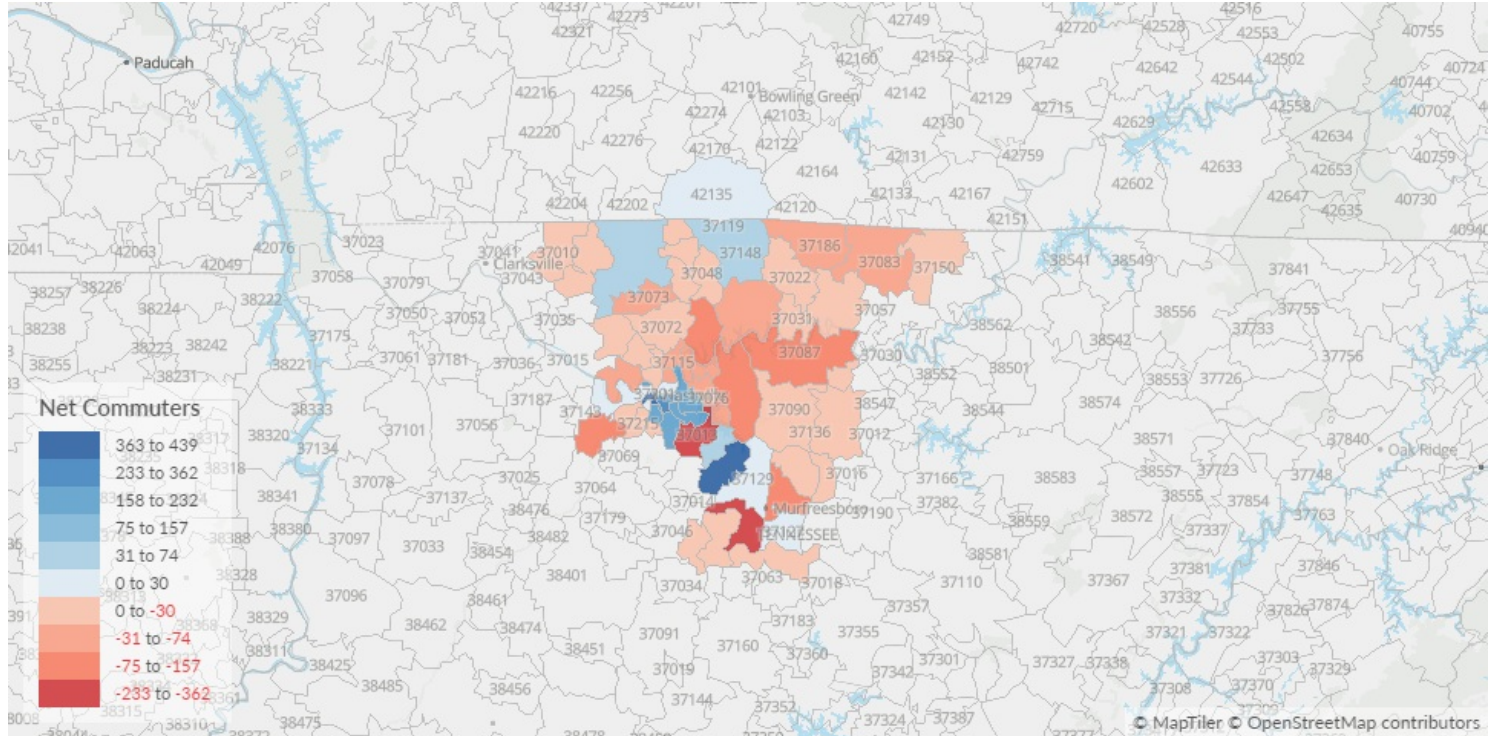
Most Jobs are Found in the Architectural, Engineering, and Related Services Industry Sector



Industry	% of Occupation in Industry (2020)
Architectural, Engineering, and Related Services	20.4%
Federal Government, Civilian	7.6%
Motor Vehicle Manufacturing	7.1%
Motor Vehicle Parts Manufacturing	5.4%
State Government, Excluding Education and Hospitals	5.2%
Management of Companies and Enterprises	4.0%
Other	50.4%

Place of Work vs Place of Residence

Understanding where talent in the region currently works compared to where talent lives can help you optimize site decisions. For example, the #1 ranked ZIP for employment ranks #2 for resident workers. The top ZIP for resident workers is 37013.

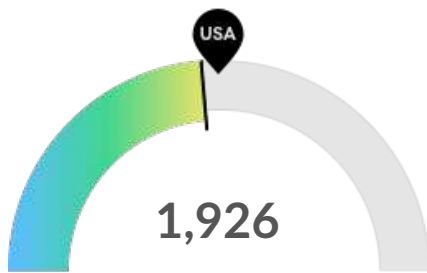


Where Talent Works

Where Talent Lives

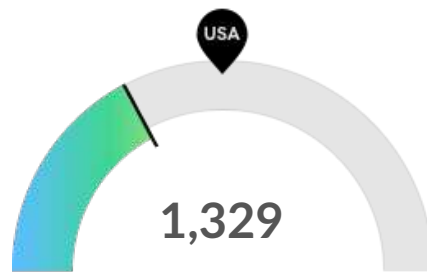
ZIP	Name	2020 Employment	ZIP	Name	2020 Workers
37167	Smyrna, TN (in Rutherford County)	812	37013	Antioch, TN (in Davidson County)	447
37211	Nashville, TN (in Davidson County)	515	37167	Smyrna, TN (in Rutherford County)	373
37203	Nashville, TN (in Davidson County)	474	37211	Nashville, TN (in Davidson County)	337
37214	Nashville, TN (in Davidson County)	362	37075	Hendersonville, TN (in Sumner County)	317
37210	Nashville, TN (in Davidson County)	357	37122	Mount Juliet, TN (in Williamson County)	314

Retirement Risk Is About Average, While Overall Diversity Is Low



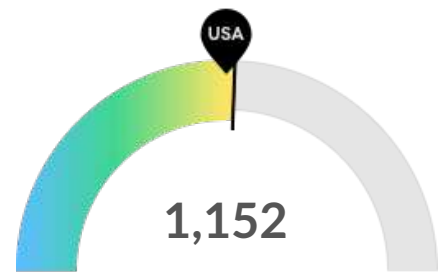
Retiring Soon

Retirement risk is about average in your area. The national average for an area this size is 2,083* employees 55 or older, while there are 1,926 here.



Racial Diversity

Racial diversity is low in your area. The national average for an area this size is 2,182* racially diverse employees, while there are 1,329 here.



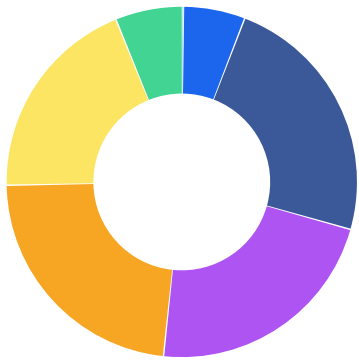
Gender Diversity

Gender diversity is about average in your area. The national average for an area this size is 1,110* female employees, while there are 1,152 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 your area. In other words, the values represent the national average adjusted for region size.

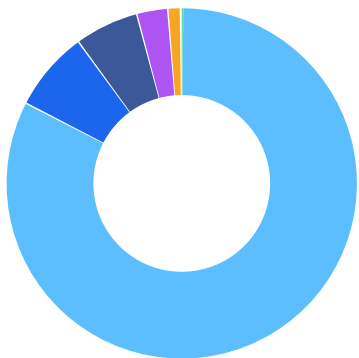
Demographic Details

Occupation Age Breakdown



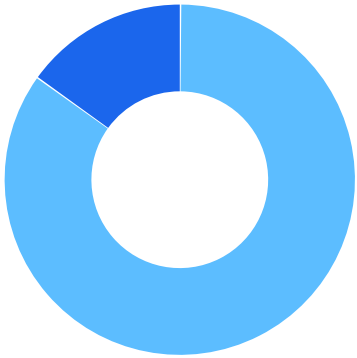
	% of Jobs	Jobs
● 14-18	0.1%	6
● 19-24	5.7%	432
● 25-34	23.5%	1,786
● 35-44	22.3%	1,693
● 45-54	23.0%	1,749
● 55-64	19.2%	1,456
● 65+	6.2%	471



Occupation Race/Ethnicity Breakdown



	% of Jobs	Jobs
● White	82.5%	6,264
● Black or African American	7.4%	562
● Asian	5.9%	447
● Hispanic or Latino	2.9%	217
● Two or More Races	1.2%	88
● American Indian or Alaska Native	0.2%	11
● Native Hawaiian or Other Pacific Islander	0.0%	3

Occupation Gender Breakdown

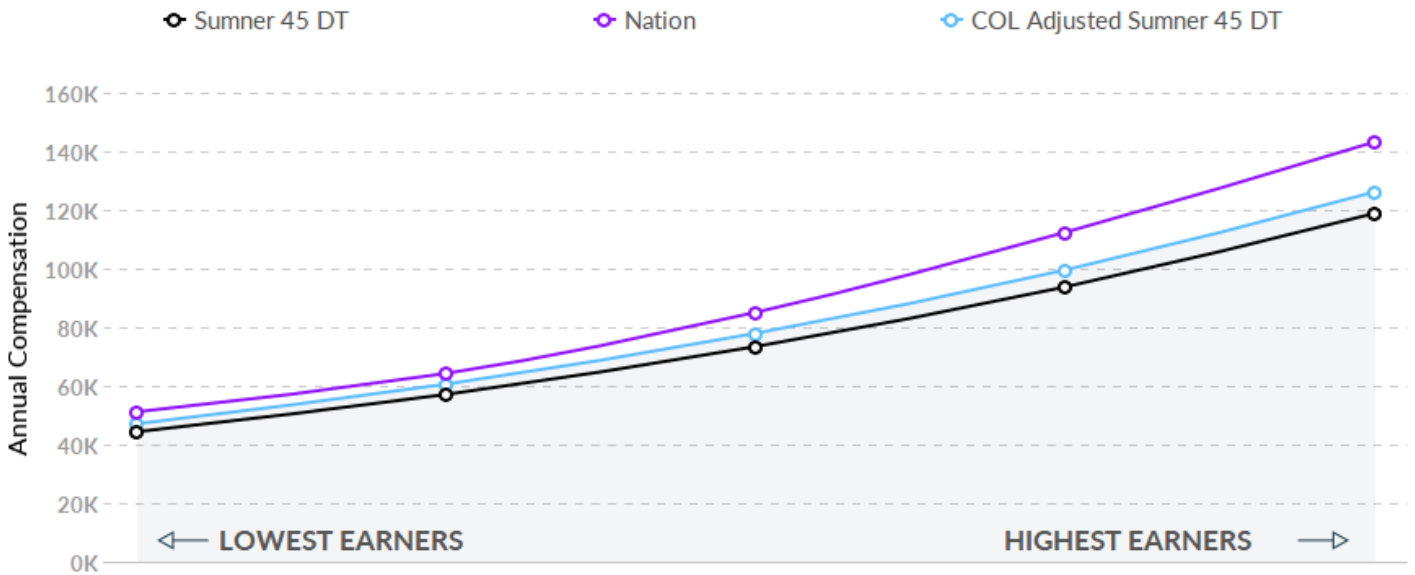


	% of Jobs	Jobs
 Males	84.8%	6,441
 Females	15.2%	1,152

Compensation

Talent Is 14% Cheaper, While the Cost of Living May Make Attraction Difficult

In 2019, the median compensation for your occupations in your area is \$73,384. Based on the national median wage of \$85,045 for this position, this means you will spend about 14% less to employ your occupations here. However, their actual purchasing power will be 8% less than the national median when we adjust for regional cost of living (which is 6% lower than average). This may make it harder to attract talent to the region at this price.



Demand



1,289 Employers Competing

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



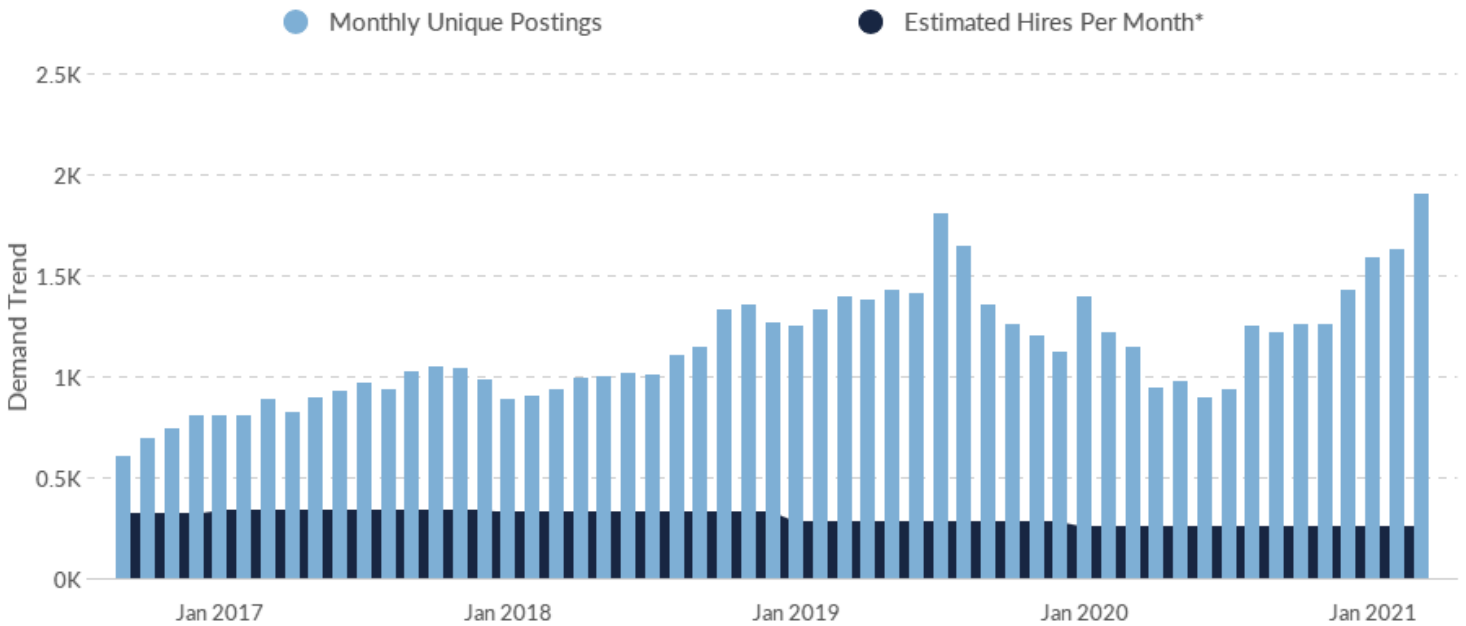
5,886 Unique Job Postings

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



34 Day Median Duration

Posting duration is 1 day longer than what's typical in the region.








Occupation	Avg Monthly Postings (Apr 2020 - Mar 2021)	Avg Monthly Hires (Apr 2020 - Mar 2021)
Industrial Engineers	330	36
Civil Engineers	263	32
Mechanical Engineers	151	24
Electrical Engineers	156	14

*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. Emsi hires are calculated using a combination of Emsi 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 (Apr 2020 - Mar 2021)	Avg Monthly Hires (Apr 2020 - Mar 2021)
Industrial Engineering Technologists and Technicians	60	15
Electrical and Electronic Engineering Technologists and Technicians	55	17
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	60	3
Electronics Engineers, Except Computer	61	12
Environmental Engineers	54	7
Engineers, All Other	22	31
Computer Hardware Engineers	15	5
Mechanical Drafters	9	13
Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other	8	17
Mechanical Engineering Technologists and Technicians	4	7
Chemical Engineers	7	2
Electro-Mechanical and Mechatronics Technologists and Technicians	6	3
Bioengineers and Biomedical Engineers	6	4
Materials Engineers	5	2
Electrical and Electronics Drafters	2	4
Agricultural Engineers	0	0

Top Companies	Unique Postings
Growing People and Companies	213 
Aerotek, Inc.	189 
Amazon.com, Inc.	102 
CyberCoders, Inc.	95 
Electrolux	89 

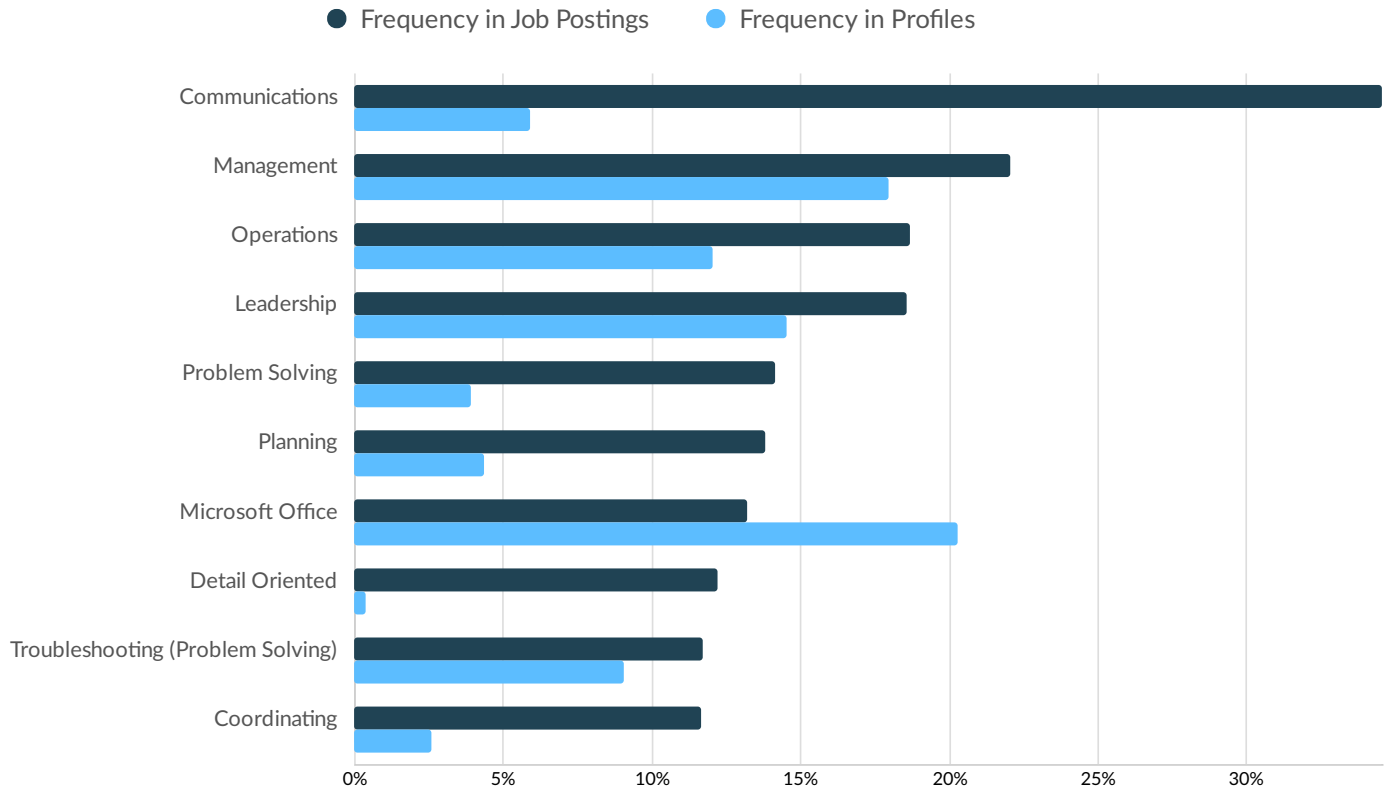
Top Job Titles	Unique Postings
Controls Engineers	165 
Electrical Engineers	148 
Mechanical Engineers	98 
Project Engineers	92 
Quality Engineers	87 

Top Hard Skills

● Frequency in Job Postings
 ● Frequency in Profiles

Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
AutoCAD	174	14%	1,482	14%
Civil Engineering	142	12%	469	4%
Computer-Aided Design	117	10%	755	7%
Electrical Engineering	114	9%	627	6%
Automation	100	8%	621	6%
Project Management	91	8%	812	8%
Auditing	90	7%	432	4%
Quality Control	89	7%	414	4%
Mechanical Engineering	85	7%	836	8%
Project Engineering	84	7%	1,152	11%

Top Common Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Communications	418	35%	634	6%
Management	267	22%	1,921	18%
Operations	226	19%	1,289	12%
Leadership	225	19%	1,555	15%
Problem Solving	171	14%	421	4%
Planning	167	14%	468	4%
Microsoft Office	160	13%	2,164	20%
Detail Oriented	148	12%	40	0%
Troubleshooting (Problem Solving)	142	12%	969	9%
Coordinating	141	12%	280	3%

Graduate Pipeline



31 Programs

89 programs can train for this job, while only 31 programs have produced completers in this region.



857 Completions (2019)

The completions from all regional institutions for all degree types.



546 Openings (2019)

The average number of openings for an occupation in the region is 127.

Top Programs	Completions (2019)
Mechanical Engineering	136
Mechatronics, Robotics, and Au...	79
Bioengineering and Biomedical ...	78
Electrical and Electronics Engin...	71
Engineering Technology, General	69

Top Schools	Completions (2019)
Vanderbilt University	363
Middle Tennessee State Univers...	197
Nashville State Community Coll...	101
Tennessee State University	81
Cumberland University	37

Appendix A (Occupations)

Code	Description
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
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers
17-2131	Materials Engineers

Code	Description
17-2141	Mechanical Engineers
17-2199	Engineers, All Other
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters
17-3019	Drafters, All Other
17-3023	Electrical and Electronic Engineering Technologists and Technicians
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians
17-3026	Industrial Engineering Technologists and Technicians
17-3027	Mechanical Engineering Technologists and Technicians
17-3098	Calibration Technologists and Technicians and Engineering Technologists and Technicians, Except Drafters, All Other