

# Medical Device Manufacturing Production Occupations

Sumner County, TN  
45 Minute Drive Time



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## 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

### 49 Occupations

19-1021	Biochemists and Biophysicists
19-1022	Microbiologists
19-1042	Medical Scientists, Except Epidemiologist
19-1099	Life Scientists, All Other
19-2031	Chemists

19-2032	Materials Scientists
19-4021	Biological Technicians
19-4031	Chemical Technicians
19-4099	Life, Physical, and Social Science Technici.

*See Appendix A for all 49 Occupations*

### 8 Counties

21213	Simpson County, KY
47037	Davidson County, TN
47111	Macon County, TN
47147	Robertson County, TN

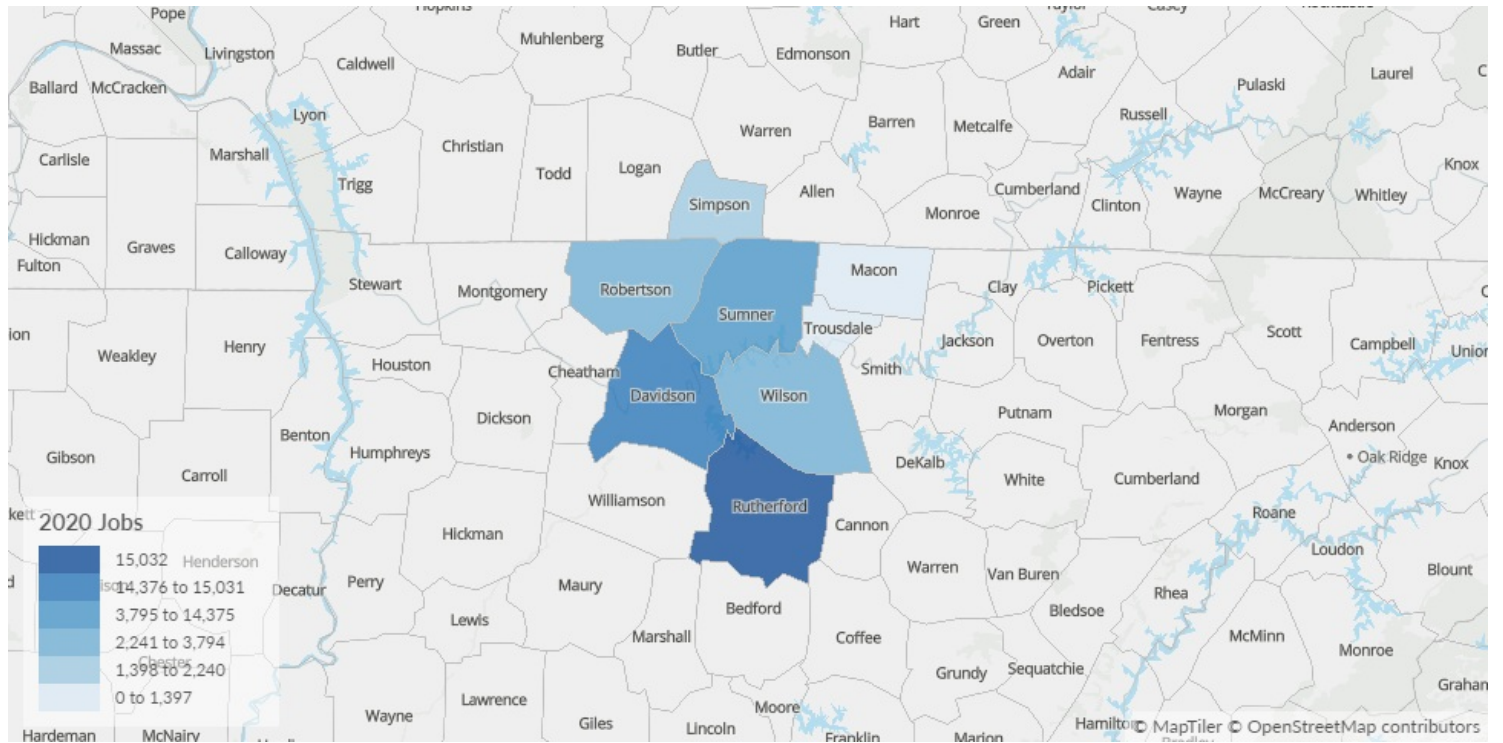
47149	Rutherford County, TN
47165	Sumner County, TN
47169	Trousdale County, TN
47189	Wilson County, TN

### Class of Worker

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

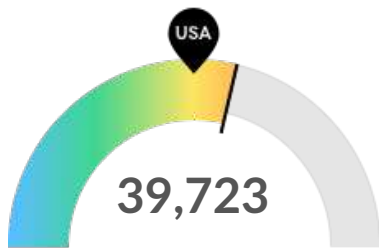
The information in this report pertains to the chosen occupations and geographical areas.

# Workforce Map



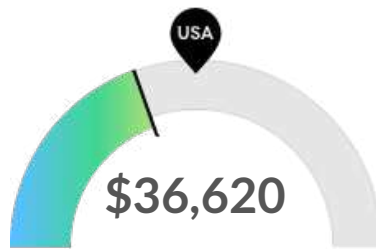
## Executive Summary

### Aggressive Hiring Competition Over a Deep Supply of Regional Talent



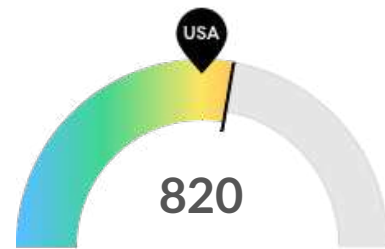
Supply (Jobs)

Your area is a hotspot for this kind of talent. The national average for an area this size is 32,260\* employees, while there are 39,723 here.



Compensation

The cost for talent is low in your area. The national median salary for your occupations is \$38,261, while you'll pay \$36,620 here.



Demand (Job Postings)

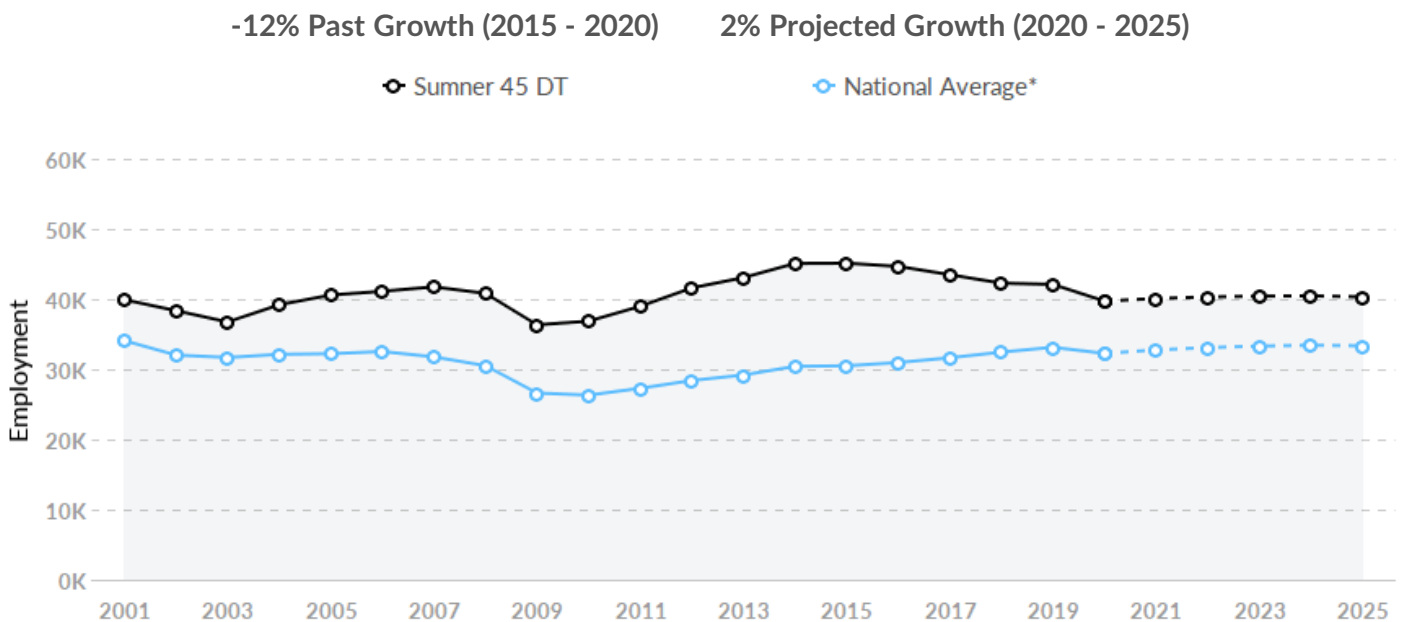
Competition from online job postings is high in your area. The national average for an area this size is 703\* job postings/mo, while there are 820 here.

\*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)

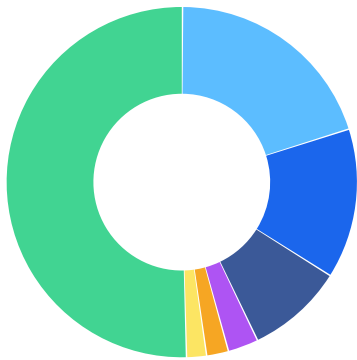
### Supply Is Higher Than the National Average

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 32,260\* employees, while there are 39,723 here. This higher than expected supply may make it easier to find candidates. 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 your area. In other words, the values represent the national average adjusted for region size.

## Most Jobs are Found in the Motor Vehicle Manufacturing Industry Sector

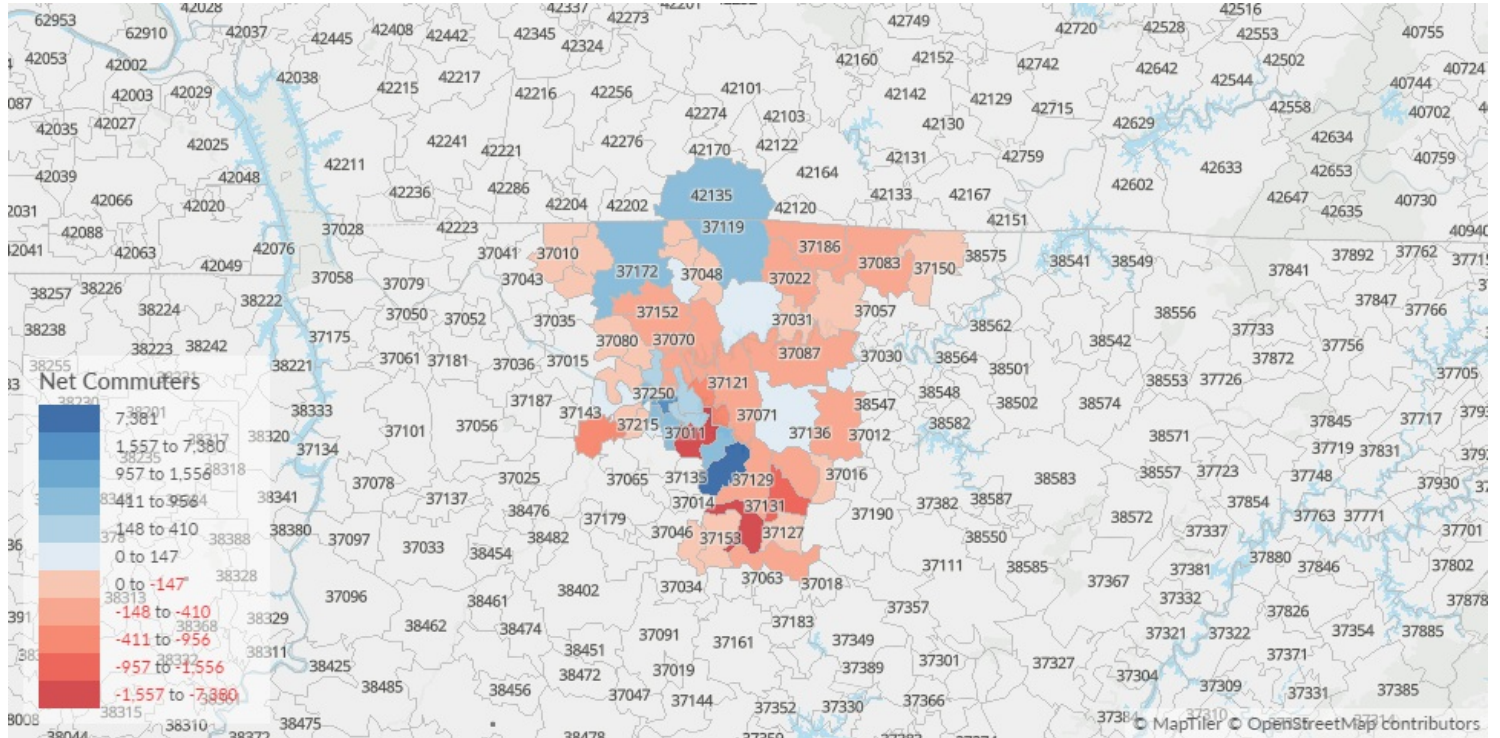


Industry	% of Occupation in Industry (2020)
Motor Vehicle Manufacturing	20.0%
Employment Services	13.8%
Motor Vehicle Parts Manufacturing	8.9%
Plastics Product Manufacturing	2.8%
Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	2.0%
Architectural and Structural Metals Manufacturing	1.8%
Other	50.5%



## 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.



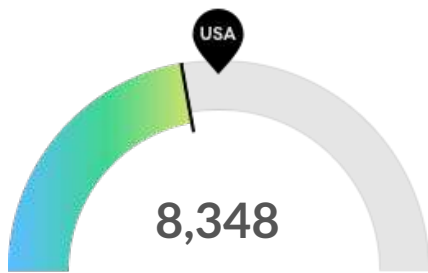
### Where Talent Works

ZIP	Name	2020 Employment
37167	Smyrna, TN (in Rutherford...)	9,794
37211	Nashville, TN (in Davidson...)	1,953
37210	Nashville, TN (in Davidson...)	1,917
37086	La Vergne, TN (in Rutherford...)	1,791
37129	Murfreesboro, TN (in Rutherford...)	1,698

### Where Talent Lives

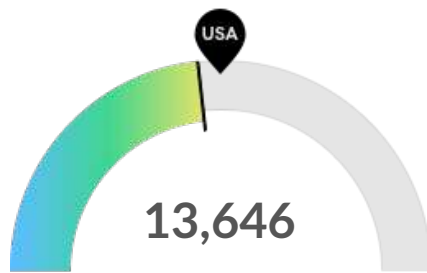
ZIP	Name	2020 Workers
37167	Smyrna, TN (in Rutherford...)	2,412
37013	Antioch, TN (in Davidson...)	1,992
37128	Murfreesboro, TN (in Rutherford...)	1,903
37129	Murfreesboro, TN (in Rutherford...)	1,882
37130	Murfreesboro, TN (in Rutherford...)	1,557

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



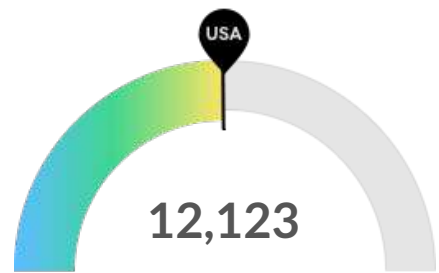
**Retiring Soon**

Retirement risk is low in your area. The national average for an area this size is 9,889\* employees 55 or older, while there are 8,348 here.



**Racial Diversity**

Racial diversity is about average in your area. The national average for an area this size is 15,118\* racially diverse employees, while there are 13,646 here.



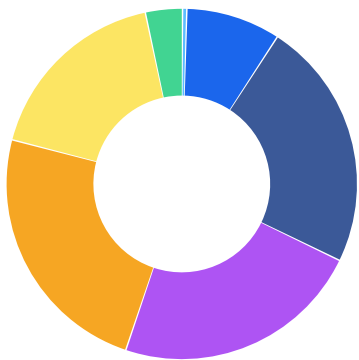
**Gender Diversity**

Gender diversity is about average in your area. The national average for an area this size is 12,219\* female employees, while there are 12,123 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.

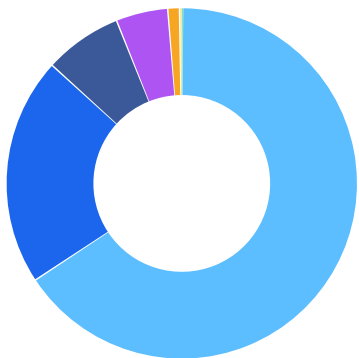
## Demographic Details

### Occupation Age Breakdown



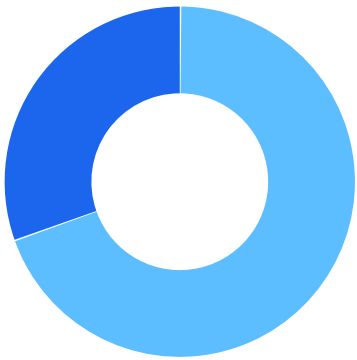
	% of Jobs	Jobs
14-18	0.4%	156
19-24	8.7%	3,460
25-34	23.0%	9,141
35-44	23.0%	9,133
45-54	23.9%	9,485
55-64	17.6%	6,994
65+	3.4%	1,354

### Occupation Race/Ethnicity Breakdown



	% of Jobs	Jobs
White	65.6%	26,077
Black or African American	21.0%	8,359
Hispanic or Latino	7.2%	2,850
Asian	4.8%	1,901
Two or More Races	1.1%	427
American Indian or Alaska Native	0.2%	88
Native Hawaiian or Other Pacific Islander	0.1%	22

## Occupation Gender Breakdown

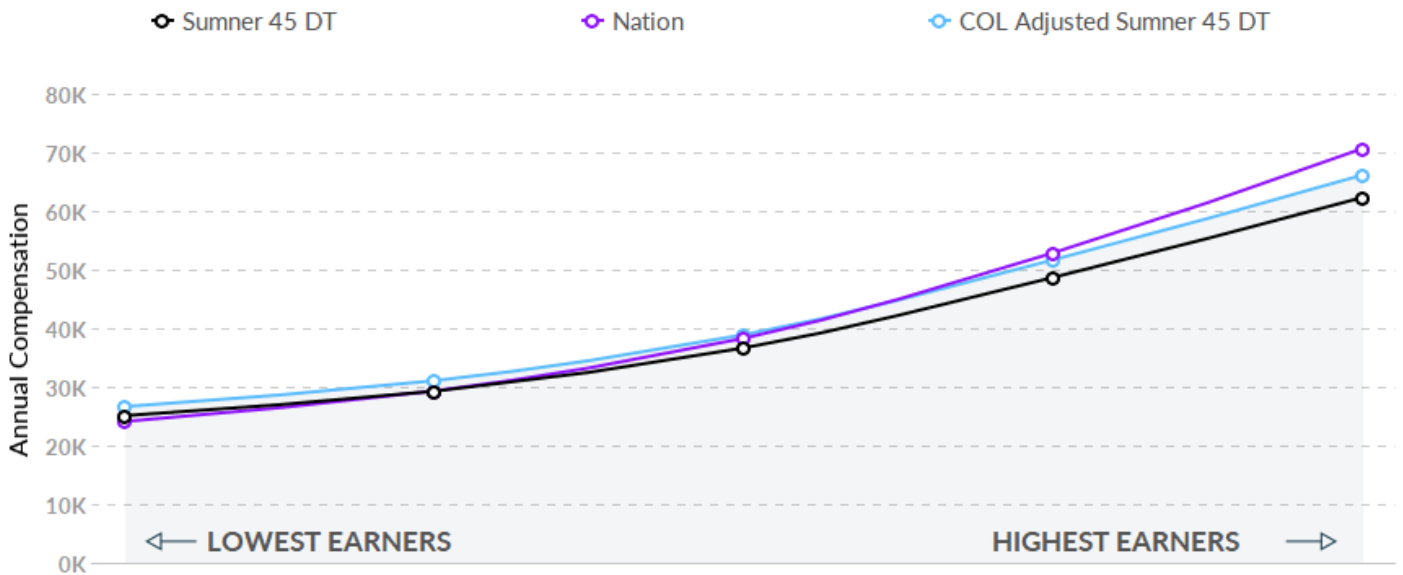


	% of Jobs	Jobs
<span style="color: #00AEEF;">●</span> Males	69.5%	27,600
<span style="color: #0056B3;">●</span> Females	30.5%	12,123

# Compensation

## Talent Is 4% Cheaper

In 2019, the median compensation for your occupations in your area is \$36,620. Based on the national median wage of \$38,261 for this position, this means you will spend about 4% less to employ your occupations here. However, their actual purchasing power will be 2% greater than the national median when we adjust for regional cost of living (which is 6% lower than average).



# Demand



**1,650 Employers Competing**

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



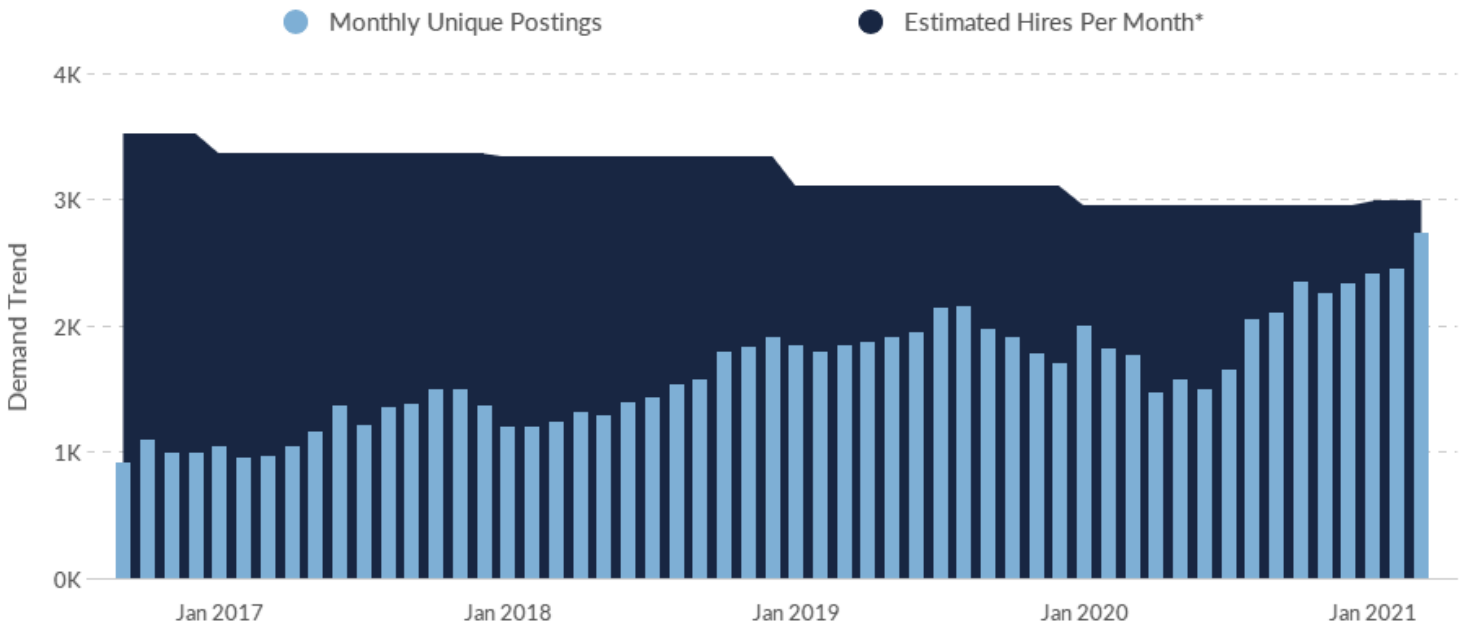
**9,841 Unique Job Postings**

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)
First-Line Supervisors of Production and Operating Workers	555	151
Helpers--Production Workers	238	416
Packaging and Filling Machine Operators and Tenders	236	157

\*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.

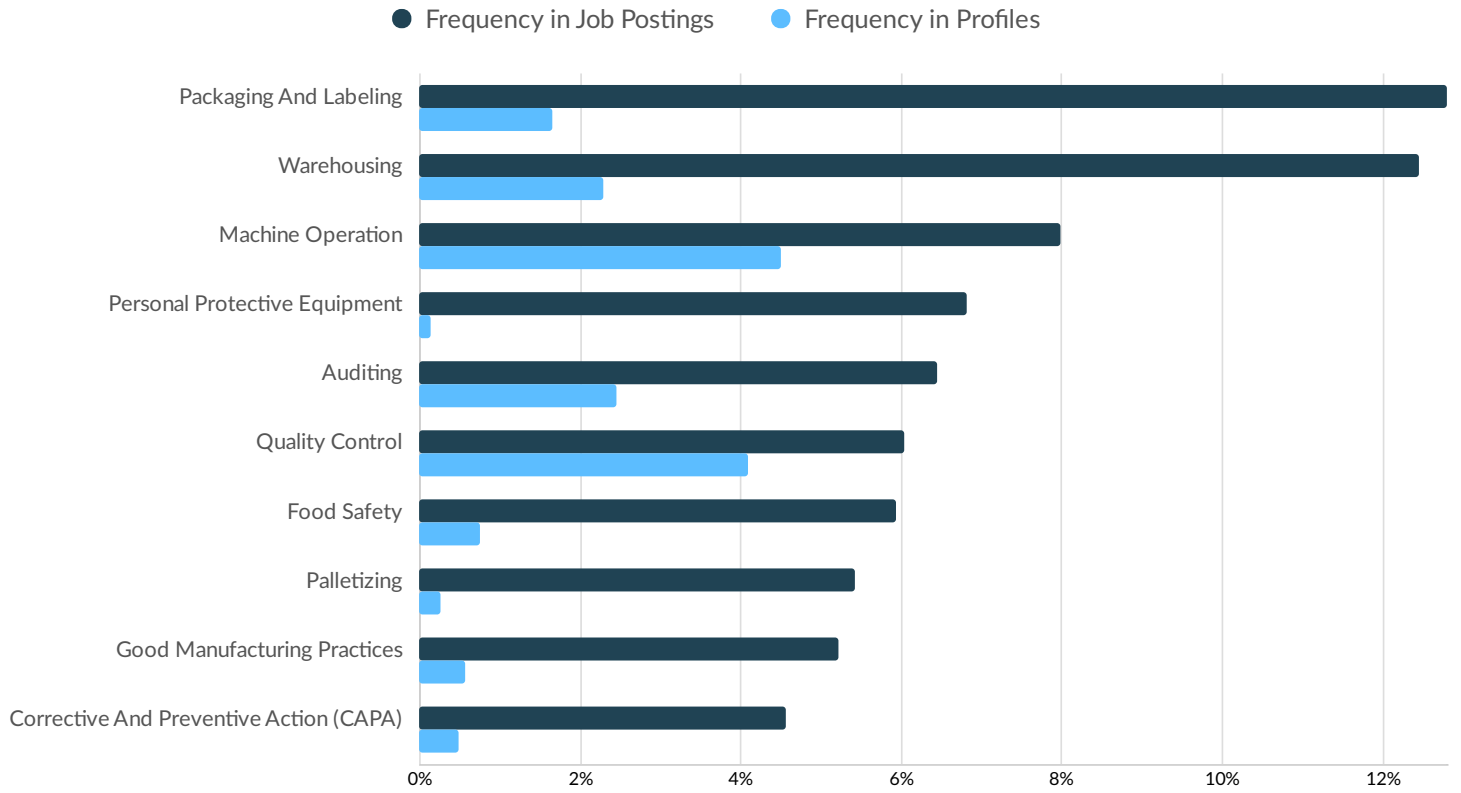
Occupation	Avg Monthly Postings (Apr 2020 - Mar 2021)	Avg Monthly Hires (Apr 2020 - Mar 2021)
Inspectors, Testers, Sorters, Samplers, and Weighers	173	254
Production Workers, All Other	193	596
Miscellaneous Assemblers and Fabricators	158	613
Medical Scientists, Except Epidemiologists	137	21
Biological Technicians	76	28
Occupational Health and Safety Specialists	69	13
Machinists	45	86
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	42	81
Computer Numerically Controlled Tool Operators	23	16
Life, Physical, and Social Science Technicians, All Other	19	17
Tool and Die Makers	6	20
Chemists	11	12
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	9	38
Chemical Technicians	16	15
Computer Numerically Controlled Tool Programmers	9	5
Biochemists and Biophysicists	8	14
Mixing and Blending Machine Setters, Operators, and Tenders	6	27
Dental Laboratory Technicians	7	6
Microbiologists	4	2
Grinding and Polishing Workers, Hand	3	10
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	3	12
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	1	16
Occupational Health and Safety Technicians	4	4
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	4	7

Occupation	Avg Monthly Postings (Apr 2020 - Mar 2021)	Avg Monthly Hires (Apr 2020 - Mar 2021)
Molders, Shapers, and Casters, Except Metal and Plastic	3	10
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0	4
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	3	11
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	1	12
Life Scientists, All Other	1	2
Materials Scientists	2	0
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	0	6
Ophthalmic Laboratory Technicians	5	3
Medical Appliance Technicians	1	7
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0	12
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0	152
Plating Machine Setters, Operators, and Tenders, Metal and Plastic	0	13
Model Makers, Metal and Plastic	0	0
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	1	3
Forging Machine Setters, Operators, and Tenders, Metal and Plastic	0	8
Pourers and Casters, Metal	0	0
Tool Grinders, Filers, and Sharpeners	0	1



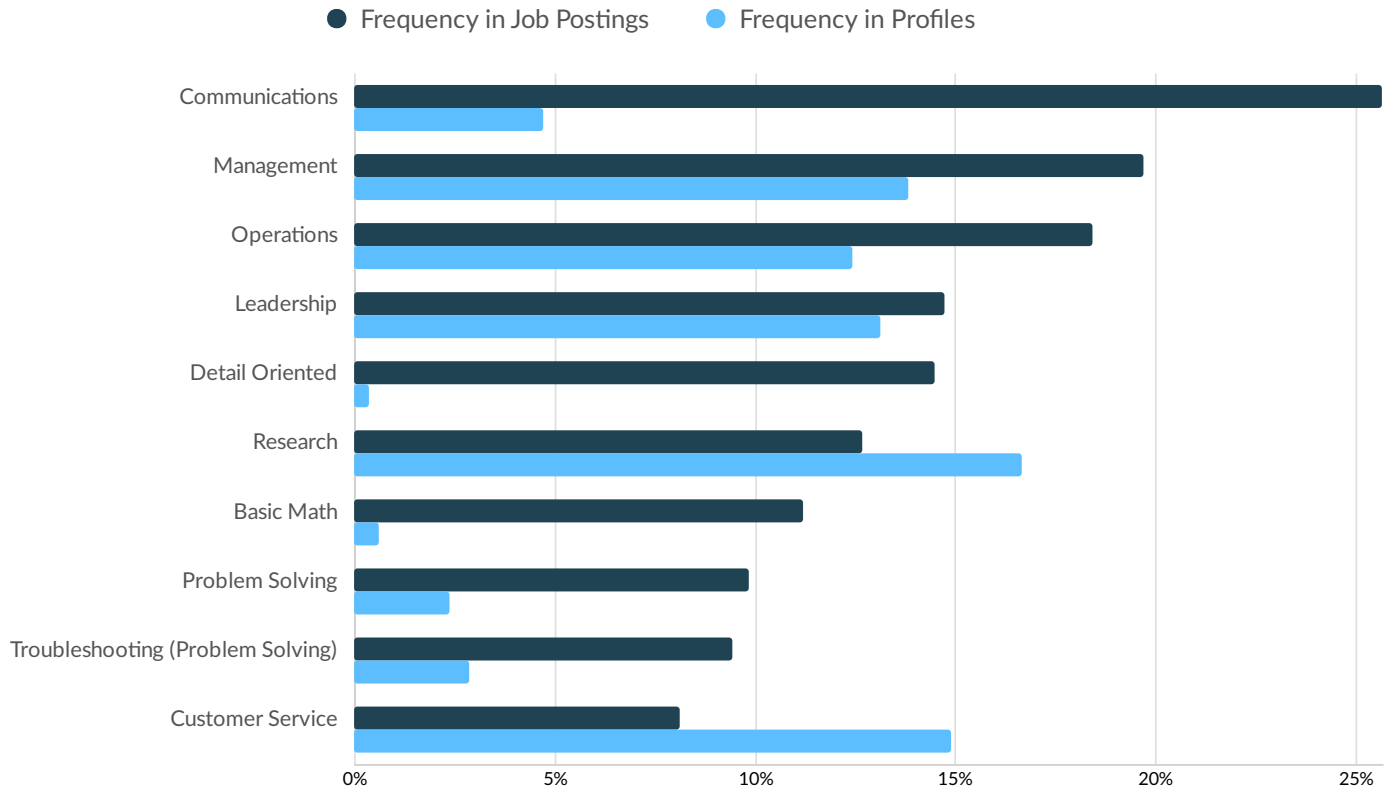
Top Companies	Unique Postings	Top Job Titles	Unique Postings
Randstad N.V.	635 	Machine Operators	440 
Aerotek, Inc.	332 	General Laborers	292 
Vanderbilt University	246 	Assemblers	254 
Express Employment Profession...	212 	Shift Leaders	235 
Staffmark	175 	Production Workers	218 

## Top Hard Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Packaging And Labeling	250	13%	212	2%
Warehousing	243	12%	293	2%
Machine Operation	156	8%	578	5%
Personal Protective Equipment	133	7%	18	0%
Auditing	126	6%	315	2%
Quality Control	118	6%	526	4%
Food Safety	116	6%	98	1%
Palletizing	106	5%	34	0%
Good Manufacturing Practices	102	5%	73	1%
Corrective And Preventive Action (CAPA)	89	5%	62	0%

## Top Common Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Communications	501	26%	604	5%
Management	385	20%	1,771	14%
Operations	360	18%	1,593	12%
Leadership	288	15%	1,685	13%
Detail Oriented	283	14%	49	0%
Research	248	13%	2,134	17%
Basic Math	219	11%	77	1%
Problem Solving	192	10%	305	2%
Troubleshooting (Problem Solving)	184	9%	369	3%
Customer Service	159	8%	1,910	15%

## Graduate Pipeline



### 36 Programs

104 programs can train for this job, while only 36 programs have produced completers in this region.



### 1,183 Completions (2019)

The completions from all regional institutions for all degree types.



### 4,112 Openings (2019)

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

Top Programs	Completions (2019)
Biology/Biological Sciences, Ge...	376
Welding Technology/Welder	201
Chemistry, General	97
Molecular Biology	82
Biological and Biomedical Scien...	76

Top Schools	Completions (2019)
Middle Tennessee State Univers...	309
Vanderbilt University	251
Lincoln College of Technology-N...	109
Lipscomb University	108
Tennessee College of Applied Te...	96

## Appendix A (Occupations)

Code	Description	Code	Description
19-1021	Biochemists and Biophysicists	51-2098	Miscellaneous Assemblers and Fabricators
19-1022	Microbiologists	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
19-1042	Medical Scientists, Except Epidemiologists	51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
19-1099	Life Scientists, All Other	51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
19-2031	Chemists	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
19-2032	Materials Scientists	51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
19-4021	Biological Technicians	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
19-4031	Chemical Technicians	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
19-4099	Life, Physical, and Social Science Technicians, All Other	51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
19-5011	Occupational Health and Safety Specialists	51-4041	Machinists
19-5012	Occupational Health and Safety Technicians	51-4052	Pourers and Casters, Metal
51-1011	First-Line Supervisors of Production and Operating Workers	51-4061	Model Makers, Metal and Plastic

Code	Description	Code	Description
51-4062	Patternmakers, Metal and Plastic	51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-4111	Tool and Die Makers	51-9081	Dental Laboratory Technicians
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	51-9082	Medical Appliance Technicians
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	51-9083	Ophthalmic Laboratory Technicians
51-4192	Layout Workers, Metal and Plastic	51-9111	Packaging and Filling Machine Operators and Tenders
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	51-9161	Computer Numerically Controlled Tool Operators
51-4194	Tool Grinders, Filers, and Sharpeners	51-9162	Computer Numerically Controlled Tool Programmers
51-4199	Metal Workers and Plastic Workers, All Other	51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9022	Grinding and Polishing Workers, Hand	51-9198	Helpers--Production Workers

Code	Description
51-9199	Production Workers, All Other