

# Steel/Metals

*Building the 21st Century Advanced Manufacturing Workforce*

## Our Steel/Metals Cluster

The logo for BRISMET, featuring the word "BRISMET" in a bold, metallic, 3D-style font with a grey and white gradient.

- Our labor shed has seen 12% growth in primary metal manufacturing jobs since 2011
- We have over 150 steel/metals related manufacturers in the labor shed
- Over 4,000 people are employed in fabricated metal product manufacturing in our labor shed
- Bristol Metals (BRISMET), located in Sullivan County, manufactures welded stainless steel pipe and nickel alloy pipe and tube
- Modern Forge, located in Sullivan County, employs 350 people doing metal forging
- Additionally there are a number of contract manufacturers performing everything from heat treating, aluminum extrusion, dipping, and galvanizing.
- An average of 670 people graduate with engineering degrees per year in our labor shed
- Sullivan County is located in a Foreign Trade Zone

## Steel/Metal Companies in Our Labor Shed

We have the following numbers of companies in our labor shed:

- 67 Machine Shops
- 23 Fabricated Structural Metal Manufacturers
- 10 Electroplating, Plating, Polishing, Anodizing
- 9 Sheet Metal Work Manufacturers
- 9 Metal Coating
- 6 Metal Tank Manufacturers
- 4 Foundries

- 4 Metal Heat Treating
- 3 Steel Mills
- 3 Fabricated Wire Product Manufacturers
- 2 Iron and Steel Pipe and Tube Manufacturers
- 2 Fabricated Pipe and Pipe Fitting Manufacturers
- 3 Rolled Steel Shape Manufacturers
- 3 Aluminum Extrusion Manufacturers
- 2 Nonferrous Metal Die-Casting Foundries
- 2 Power Boiler and Heat Exchange Manufacturers
- 1 Aluminum Smelter

## Skilled Labor

- Under 3.5% of employees in Sullivan County are a member of a union
- Tennessee is a Right-To-Work state
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| NAICS Code | Employment by Sector                           | U.S. Average | Sullivan County |
|------------|--|--------------|-----------------|
| 11         | Crop & Animal Production                       | 1.1%         | < 1%            |
| 21         | Mining, Quarrying, & Oil & Gas Extraction      | 0.6%         | < 1%            |
| 22         | Utilities                                      | 0.5%         | < 1%            |
| 23         | Construction                                   | 5.6%         | 7.8%            |
| 31         | Manufacturing                                  | 11.0%        | 16.5%           |
| 42         | Wholesale Trade                                | 5.2%         | 3.2%            |
| 44         | Retail Trade                                   | 13.6%        | 11.8%           |
| 48         | Transportation & Warehousing                   | 3.7%         | 3.4%            |
| 51         | Information                                    | 2.6%         | 2.1%            |
| 52         | Finance & Insurance                            | 5.3%         | 2.7%            |
| 53         | Real Estate & Rental & Leasing                 | 1.8%         | 1%              |
| 54         | Professional, Scientific, & Technical Services | 7.0%         | 2.2%            |
| 55         | Management of Companies & Enterprises          | 1.7%         | 1.6%            |
| 56         | Waste Management & Remediation Services        | 6.7%         | 4.9%            |
| 61         | Educational Services                           | 2.3%         | 1.1%            |
| 62         | Health Care & Social Assistance                | 14.9%        | 16.8%           |
| 71         | Arts, Entertainment, & Recreation              | 1.8%         | < 1%            |
| 72         | Accommodation & Food Services                  | 10.4%        | 8.8%            |
| 81         | Other Services (except Public Administration)  | 4.1%         | 4.0%            |
| 99         | Unclassified                                   | 0.2%         | < 1%            |

We have the following number of employees in our labor shed:

- 5,671 Team Assemblers
- 2,476 Maintenance and Repair Workers, General
- 945 Welders, Cutters, Solderers, and Brazers
- 678 Machinists
- 602 Assemblers and Fabricators, all other
- 464 Cutting, Punching, and Press Machine Operators
- 390 Maintenance Workers, Machinery
- 313 Sheet Metal Workers
- 236 Extruding and Drawing Machine Operators
- 219 Molding, Coremaking, and Casting Machine Operators
- 152 Tool and Die Makers
- 150 Structural Iron and Steel Workers
- 138 Millwrights

- Engineering Talent (Our labor shed is home to the following numbers of engineers):
  - 544 Industrial Engineers
  - 306 Mechanical Engineers
  - 197 Civil Engineers
  - 114 Electrical Engineers
  - 123 Chemical Engineers
  - 71 Materials Engineers
- We currently have over 10,000 people in the labor shed working for temporary labor companies

## Low Cost Electric Power

- We are served by TVA (Tennessee Valley Authority) and AEP (American Electric Power, an S&P 500



Company)

- AEP ranks among the nation's largest generators of electricity, owning nearly 38,000 megawatts of generating capacity in the U.S. AEP also owns the nation's largest electricity transmission system, a nearly 39,000-mile (63,000 km)-network that includes 765 kilovolt ultra-high voltage transmission lines, more than all other U.S. transmission systems combined.
- TVA's power mix as of 2012 is 11 coal-powered plants, 29 hydroelectric dams, three nuclear power plants (with six operating reactors), nine simple cycle natural gas plants, and five combined cycle gas plants. In 2012 coal generation was about 32% of total, nuclear 34%, hydro 9%, and (owned) gas 11%.
- The average industrial rate for electricity in Tennessee is one of the top-10 lowest in the United States
- TVA is one of the largest operators of electric transmission in the US with an approximately 16,000-mile (26,000 km) corridor of transmission (13,000 miles (21,000 km) of which is greater than 161kv).

# Natural Gas Pipelines



- Sullivan County is served by Atmos Energy, additionally each of our industrial parks have natural gas served by Atmos Energy
- Atmos Energy Corporation is one of the country's largest natural-gas-only distributors, serving over three million natural gas distribution customers in over 1,400 communities in eight states.
- Additionally, Spectra Energy (S&P 500 Company) owns and operates the East Tennessee Natural Gas Transmission gas pipeline which runs through Sullivan County. East Tennessee Natural Gas connects with the Texas Eastern Transmission line in Nashville, a major natural gas pipeline also owned by Spectra which brings gas from the Gulf of Mexico all the way to the Northeast United States.
- With 1,515 miles of pipeline, East Tennessee can deliver 1.75 Bcf/d of gas per day. The pipeline interconnects with the following major interstate transmission lines: Transco System, Texas Eastern Transmission, Tennessee Gas Pipeline, Columbia Gulf, Southern Natural Gas, and Midwestern Gas Transmission.
- East Tennessee's liquefied natural gas (LNG) storage facility is located in Sullivan County providing about 11 percent of East Tennessee's peak day requirements.

## Rail

- Sullivan County has Class I rail access via the NS and CSX main rail lines.

[Click here for more on transportation](#)

## Buildings and Sites

## Partnership Park II      Phipps Bend Industrial Park



- 204 Acres
- Norfolk Southern Railroad
- 138 Additional Acres Available
- 550 acres
- Rail served by Norfolk Southern
- 10 inch water line
- 12 inch gas line
- 4 inch sewer

[Click Here for More Information](#)

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## Construction Costs

- According to RSMeans Construction Cost Data, Sullivan County is less expensive than the following:
  - \$22/sq. ft. less than the US average to build a manufacturing facility and \$16/sq. ft. less to build a warehouse
  - \$9/sq. ft. less to build a manufacturing facility than in Nashville and \$6/sq. ft. less to build a warehouse than in Nashville
  - \$11/sq. ft. less to build a manufacturing facility than in Atlanta and \$8/sq. ft. less to build a warehouse than in Atlanta
  - \$13/sq. ft. less to build a manufacturing facility than in Lexington, Kentucky and \$10/sq. ft. less to build a warehouse than in Lexington, Kentucky
  - \$15/sq. ft. less to build a manufacturing facility than in Cincinnati, Ohio, and \$11/sq. ft. less to build a warehouse than in Cincinnati, Ohio

## Support Services

- 184 Electrical Contractors
- 98 Industrial Machinery and Equipment Merchants

- 67 Machine Shops
- 35 Industrial Supply Wholesalers
- 23 Fabricated Structural Metal Manufacturers
- 13 Tool and Die Companies
- 10 Electroplating, Polishing, and Anodizing Manufacturers
- 9 Metal Coating and Engraving Manufacturers
- 9 Sheet Metal Work Manufacturers
- 7 Plate Work Manufacturers
- 5 Hazardous Waste Treatment and Disposal Companies
- 4 Machine Tool Manufacturers
- 3 Cutting Tool and Machine Tool Accessory Manufacturers
- 3 Rolled Steel Shape Manufacturing
- 3 Aluminium Rolling, Drawing, and Extruding

## Low Natural Disaster Risk

- According to usa.com, Sullivan County has a 34.60 Tornado Index which is much lower than the US average of 136.45 and Tennessee's average of 175.35
- According to usa.com, Sullivan County has a 0.16 Earthquake Index compared to a US average of 1.81.

## Additional Information

- Taxes and Business Costs
- Primary and Secondary Education
- Workforce Training
- Incentives