



## Metalcasting Facts and Tidbits Manufacturing Day 2019

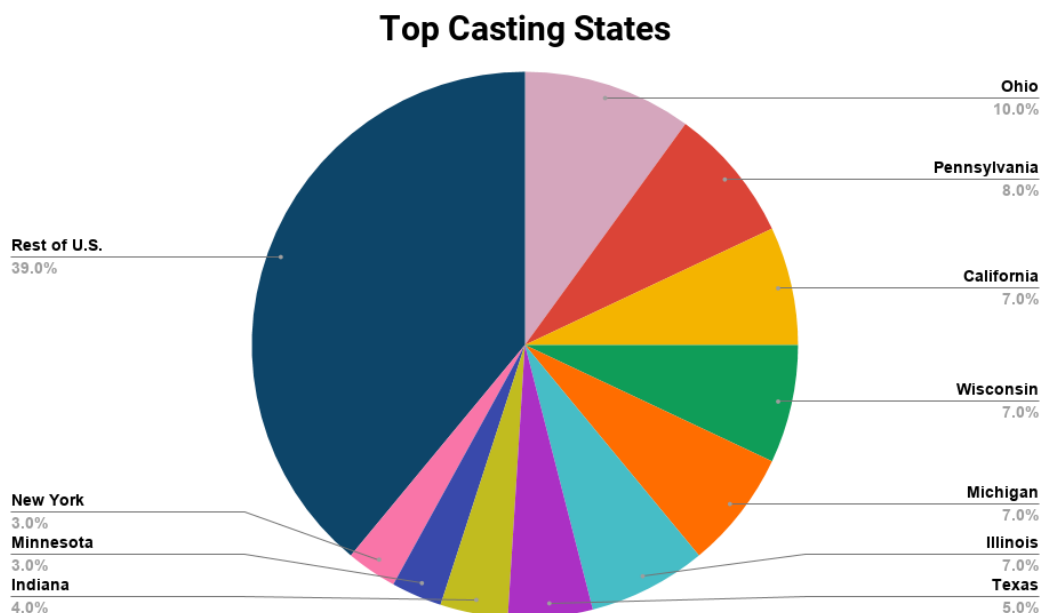
### Making a Difference in the North American Economy

You're almost never more than 10 feet from a casting! Metalcasting creates products we need and manufacturing jobs for tens of thousands of people.

90% of durable goods include castings. Metalcasting is essential to these industries:

- Defense
- Automotive
- Construction
- Agriculture
- Aerospace
- Oil and gas (energy sector)
- Mining
- Railroad
- Municipal/water infrastructure
- Transportation
- Health care

It's a \$33.7 billion industry in direct wages and provides nearly 2000,000 jobs in the U.S. alone, with more in Canada and Mexico. The metalcasting industry is mostly small businesses, with 75% of domestic metalcasters having fewer than 100 employees. Most common college degrees in metalcasting are: materials science and engineering, manufacturing technology, metallurgy. These critical jobs are widely dispersed in every state in the nation, with the highest geographic concentration of metalcasting facilities in Ohio, Pennsylvania, Indiana, Illinois, Michigan, California, Texas, and Wisconsin.





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Metalcasting makes the difference in our lives

- Every dollar spent in manufacturing, including metalcasting, generates \$1.37 in economic activity - more than any other major economic sector!
- Metalcasting supports non-manufacturing jobs up and down the supply chain, from mining to warehousing, as well as engineering, financial, and legal services.
- The U.S. Iron and Steel industry is estimated to have more than \$520 billion in economic output, when you consider the direct, indirect (supplier) and induced impacts.

### A Sustainable Industry

Did you know metalcasters have been recycling metal for over 5,000 years? Foundries, inherent recyclers, have even more of a business case for environmental sustainability than many other industries.

In the United States and Canada, the industry recycles more than 5 million tons of aluminum each year, most of which goes back directly into the North American supply. Because producing recycled aluminum is 92 percent more energy efficient than making new aluminum, the practice is both a business and environmental win for the industry. Nearly 40 percent of the North American aluminum supply is now created through secondary production (recycling processes). A 10 percent increase in aluminum end-of-life recycling rates decreases industry greenhouse gas emissions by 15 percent.

On average, new steel products contain 37% recycled steel from products including cans, cars, appliances and construction materials. Today's steel products will become tomorrow's cars, trains, bridges or buildings. Steel is a permanent material that can be infinitely recycled and is 100% recyclable without loss of quality. Steel is one of the few materials where lower value scrap products can be converted into high value steels by using appropriate processes and metallurgy. The steel industry is working on initiatives to develop breakthrough steelmaking technologies that could cut Co2 emissions by more than 50%.

### Digital resources

- Images: Free Casting Images - <https://www.afsinc.org/castings-where-you-are>
- Video: Careers in Metalcasting - <https://youtu.be/WGaOFcQVLXo>
- Video: The importance of steel - <https://t.co/86lH65kyUq>