

Highlights: An Economic Impact Analysis of the U.S. Biobased Products Industry

A report commissioned by the USDA Rural Development BioPreferred® program, *An Economic Impact Analysis of the U.S. Biobased Products Industry (2019)* demonstrates that the biobased industry is a substantial generator of economic activity and jobs, and that it has a significant positive impact on the environment.

Biobased Industry Sectors

The report findings cover the seven major overarching sectors that represent the U.S. biobased products industry's contribution to the U.S. economy:

- Agriculture and Forestry
- Biorefining
- Biobased Chemicals
- Enzymes
- Bioplastic Bottles and Packaging
- Forest Products
- Textiles

Economic Impact

According to the report, in 2017, the biobased products industry:

- Supported a total of 4.6 million American jobs through direct, indirect, and induced contributions
- Contributed a total of \$470 billion value added to the U.S. economy
- Generated 2.79 jobs in other sectors of the economy for every biobased job

Additionally, 1.65 million jobs directly supported the biobased product industry resulting in 2.96 million spillover jobs — the indirect jobs in related industries and induced jobs produced from the purchase of goods and services generated by the direct and indirect jobs.

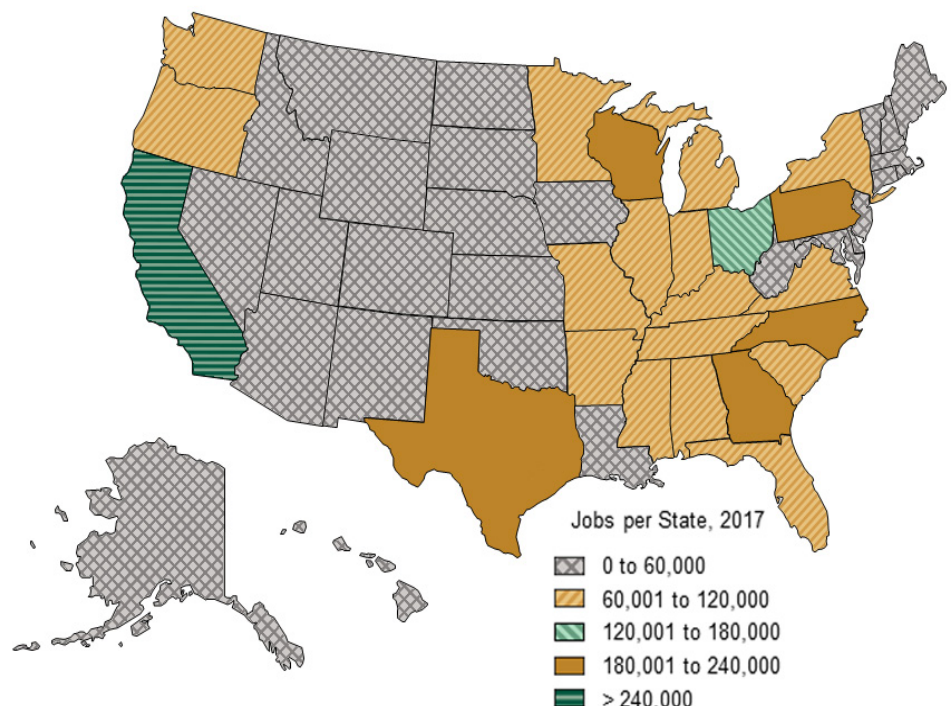
The industry also generated:

- \$162 billion in direct sales
- \$309 billion in spillover sales

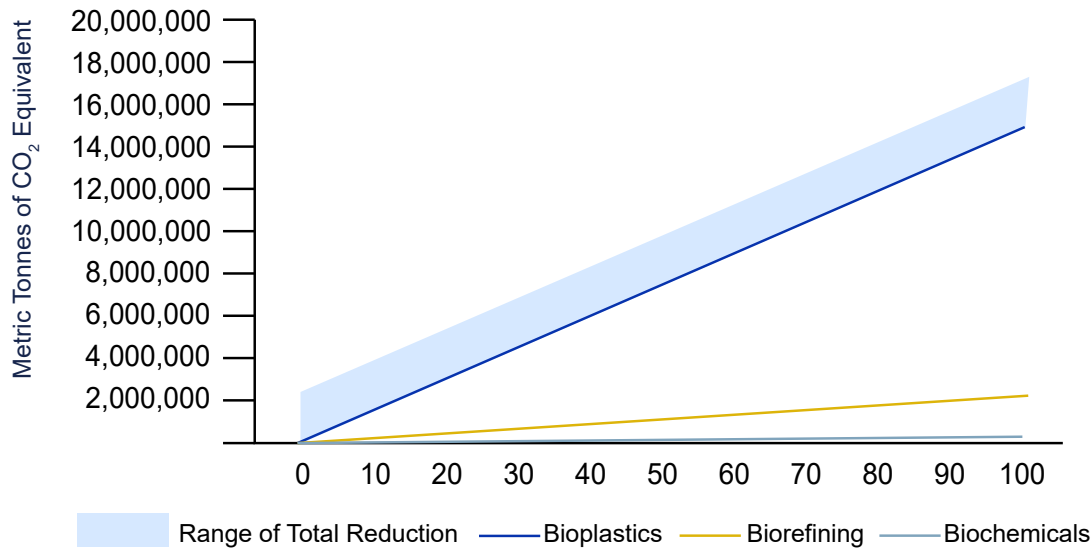
State Impact

The Report also includes data showing the impact of the industry on individual states. Those with the greatest number of jobs in the biobased products industry include: California, North Carolina, Texas, Georgia, Pennsylvania, and Wisconsin (see map).

Jobs Generated by the Biobased Products Industry, by State



Percent Reduction in Greenhouse Gases as Compared to Traditional Products



Environmental Impact

Biobased products also have a substantial environmental impact:

- They displace about 9.4 million barrels of oil a year
- They have the potential to reduce greenhouse gas emissions by an estimated 12.7 million metric tons of CO₂ equivalents per year (see illustration)

About the Report

This report, *An Economic Impact Analysis of the U.S. Biobased Product Industry (2019)*, is a follow-up to the 2015 and 2016 reports mandated by the 2014 Farm Bill. The 2015 report, titled *An Economic Impact Analysis of the U.S. Biobased Products Industry*, was the first Federally-sponsored economic report to examine and quantify the effect of the biobased products industry from an economics and jobs perspective at the national level. The 2016 report examined those metrics at the state level, and was followed by *An Economic Impact Analysis of the U.S. Biobased Products Industry: 2018 Update*.

The 2015 report was preceded by the October 2014 report, *Why Biobased?*, which provided a snapshot of available information on the U.S. bioeconomy and a platform upon which to build future efforts to measure the bioeconomy.

The 2019 report was commissioned by the USDA BioPreferred® Program, which works to increase Federal procurement of biobased products and to create market-pull for biobased products through the USDA Certified Biobased Product voluntary label.

Research and analysis that provided the foundation for the report's key findings were led by its primary authors, Daystar, J., Handfeld, R.B., Pascual-Gonzalez, J., McConnell, E. and J.S. Golden (2020). (*An Economic Impact Analysis of the U.S. Biobased Products Industry: 2019 Update. Volume IV. A Joint Publication of the Supply Chain Resource Cooperative at North Carolina State University and the College of Engineering and Technology at East Carolina University*)

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