



## OUSEA Issue Brief

Office of the Under Secretary for Economic Affairs

Prepared by: Allison Derrick, Economist; William Hawk, Economist

Contact: [OUSEA@doc.gov](mailto:OUSEA@doc.gov)

# 2022: What Is Made in America?

## *Quantitative Measures of Domestic American Production*

### Executive summary

**Complex supply chains make measuring “made in America” challenging.** American manufacturers produce everyday products—like computers, cars, clothing, and furniture—using a global network of supply chains. This means many manufactured products include parts and materials imported from foreign countries before being assembled into final products in the United States. Some products are still made solely in America, from the raw materials sourced to the factories that assemble and package the final goods.

**Changes in the availability and price of many products during the COVID–19 pandemic highlighted the importance of supply chains to American commerce.** To better understand these supply chains, this report measures the extent to which domestic manufacturers rely on foreign inputs. These measures are intended to inform the decision-making processes of businesses, policymakers, and consumers as they face an evolving trade environment.

**In this report, economists in the Office of the Under Secretary for Economic Affairs (OUSEA) provide new estimates for what share of the U.S. manufacturing sector’s output is domestic—that is, made in America.** Data from the U.S. Department of Commerce (DOC) Bureau of Economic Analysis (BEA) help estimate the value of “domestic content,” or gross output minus the value of all foreign-sourced inputs used throughout the supply chains of U.S.-based manufacturers.<sup>1</sup> Gross output is a measure of total economic activity that includes both intermediate inputs and sales to final users.<sup>2</sup>

**We find that 80 percent of the gross output generated by U.S. manufacturers in 2022 came from domestic content.** This share is slightly lower than estimates from a 2015 DOC report, which estimated that 82 percent of U.S. manufacturing gross output came from domestic content.<sup>3</sup>

1. This report does not discuss the value of imported, final goods.
2. This report includes the production of manufactured goods in the United States. This is different than what U.S. consumers, businesses, and governments purchase. For a more detailed explanation of gross output, see the FAQ “[What is gross output by industry and how does it differ from gross domestic product \(or value added\) by industry?](#)” on the BEA website.
3. See Jessica R. Nicholson, 2015: *What is Made in America?*, ESA Issue Brief #01–17 (Washington, DC: Economics and Statistics Administration (ESA), DOC, March 28, 2017). See also the first version of the report, Jessica R. Nicholson and Ryan Noonan, *What is Made in America?*, ESA Issue Brief #04–14 (Washington, DC: ESA, DOC, October 3, 2014).



# 2022: What Is Made in America?

## Quantitative Measures of Domestic American Production

### Different ways to calculate what is made in America

**BEA’s input-output framework serves as a valuable tool for understanding global industry interactions.**<sup>4</sup> Input-output frameworks show the relationships between all the industries in the economy and all the commodities that these industries produce. BEA’s framework, which produces detailed interactions among 71 industry categories, reveal different components of what constitutes made in America.<sup>5</sup> This paper highlights two key measures: value added and domestic content. Both measures provide insights into the global linkages of U.S. manufacturing production, even though they may yield dramatically different estimates.

**Value added and domestic content are two potential measures of what is made in America.** These measures are sub-components of gross manufacturing output, which is the total value of all final and intermediate goods produced by U.S. manufacturers. Gross output is principally measured using industry sales or receipts.

**The first measure, *value added*, is the additional economic contribution made by an individual or group to total output that cannot be accounted for by the value of intermediate inputs.** An individual manufacturer’s *value added* can be measured by subtracting their *intermediate inputs* from their gross output. *Intermediate inputs* might be flour for a cupcake baker, rubber for a tire producer, or tires for an auto manufacturer. *Value added* also represents the contribution of an individual or group to gross domestic product and can alternatively be measured as the sum of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus.

**Second, *domestic content* excludes from gross output the value of all foreign-sourced inputs (i.e., imports) used throughout the supply chains of U.S. manufacturers.** This estimate, developed by BEA, is the most accurate measure of what is made in America by U.S. manufacturers.<sup>6</sup> See table 1 for a summary and examples of these made-in-America measures.

**Table 1. Made-in-America Measures**

Measure	Definition	Example
<b>Value added</b>	The additional economic contribution made by an industry to total output that cannot be accounted for by the value of <i>intermediate inputs</i> ; also equal to the industry’s contribution to overall U.S. gross domestic product.	Inputs used by an auto manufacturer, such as the labor and capital required to assemble the car parts into an automobile; the value of other purchased inputs, such as windshield wipers produced by a different manufacturer, are excluded.
<b>Domestic content</b>	Gross output that excludes the value of all foreign-sourced inputs; or the industry’s <i>value added</i> plus <i>value added</i> created by other domestic industries throughout the industry’s supply chain.	An automobile manufacturer purchases engines from a domestic car parts supplier; the value of the imported pistons in the engine is excluded.

4. See “Input-Output Accounts” on the BEA website.

5. This report does not discuss the “Made in the U.S.A.” label overseen by the Federal Trade Commission (FTC), nor does it discuss domestic content requirement regulations. Available at the [FTC website](#).

6. For a mathematical derivation of the domestic requirements tables see the [BEA website](#).

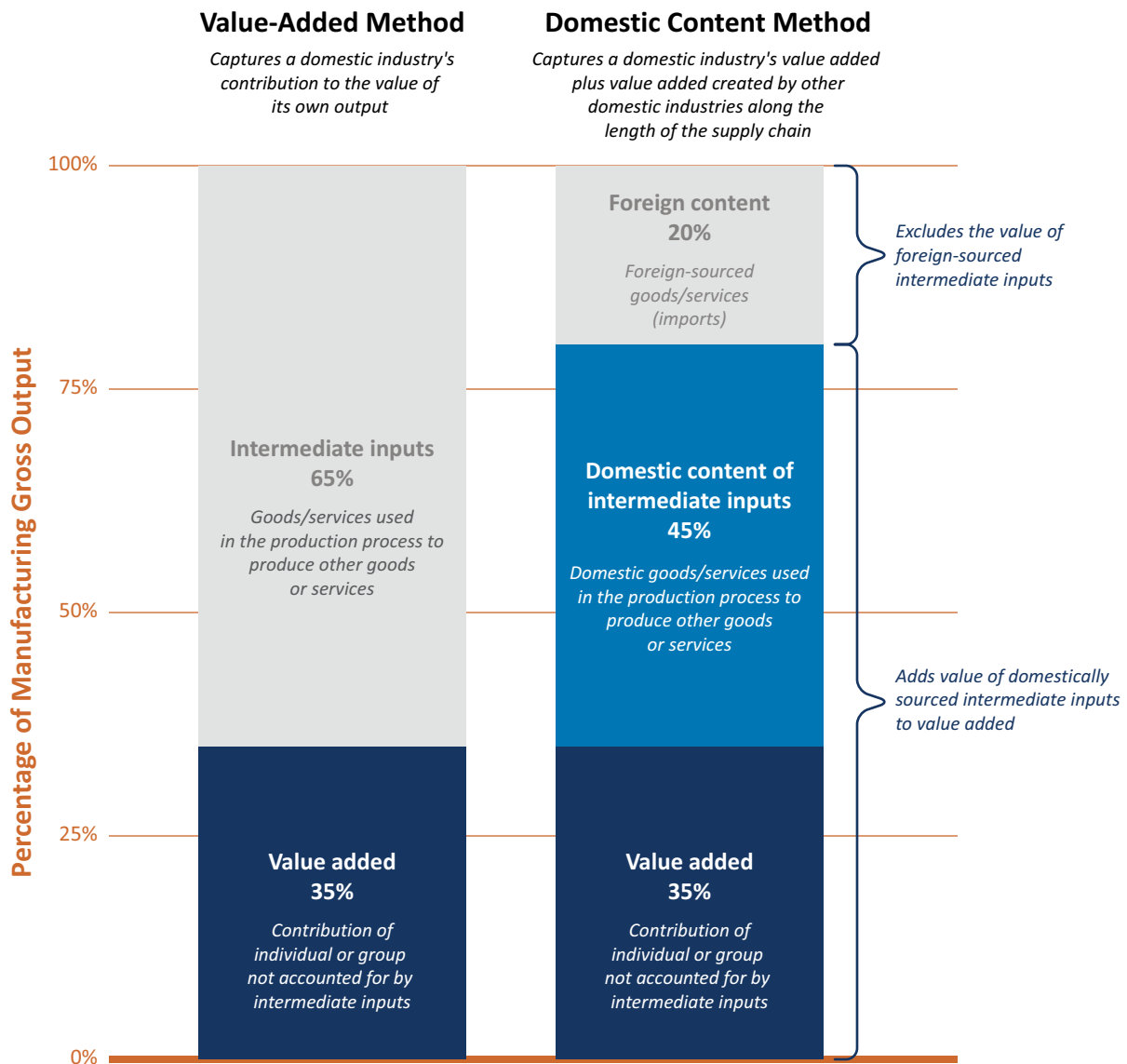


# 2022: What Is Made in America?

## Quantitative Measures of Domestic American Production

The two measures differ depending on which stage of production they target. *Value added* captures a domestic industry's contribution to the value of its own output while *domestic content* captures an industry's *value added* plus *value added* created by other domestic industries along the length of the supply chain. In other words, *domestic content* adds the value of domestically sourced intermediate inputs to *value added* and excludes the value of foreign sourced intermediate inputs. This report emphasizes *domestic content* because this measure includes earlier stages of production.

**Figure 1. Measuring What America Makes: Domestic Content 2022**





# 2022: What Is Made in America?

## *Quantitative Measures of Domestic American Production*

### **In 2022, 80 percent of U.S. gross manufacturing output was comprised of domestic content**

**In 2022, gross output produced by U.S. manufacturers was \$6.9 trillion, with 80 percent of that value consisting of domestic content.** Figure 1 shows the relationship between the different measures. As the figure shows, *value added* accounted for 35 percent of manufacturing gross output, while the *domestic content* of intermediate inputs accounted for an additional 45 percent. The remaining 20 percent of gross output was contributed by imported inputs.

**Focusing on gross output alone underestimates the extent to which U.S. manufacturers rely on access to global markets to operate.** Though U.S. manufacturers source most (69 percent) of their intermediate inputs from domestic suppliers, nearly one-third of intermediate inputs (calculated as 1 minus column (f) in table 2) are imported. As shown in table 2, the domestic content share of intermediate inputs is lower than the domestic content share of gross output. The industries that source the largest share of their intermediate inputs from domestic suppliers are food and beverages and tobacco products and nonmetallic mineral products. The industries most reliant on imported intermediate goods are motor vehicles, petroleum and coal products, and computer and electronic products. Therefore, changes in access to or prices of imported inputs are more likely to affect these industries.

### **Manufacturing sub-industries have different shares of domestic content**

**Table 2 contains made-in-America estimates for each manufacturing sub-industry.** This table is sorted from the largest to the smallest contribution to gross U.S. manufacturing output; the two largest sub-industries are food and beverages and tobacco products, followed by chemical products and petroleum and coal products.

**The domestic content and value-added share differs between sub-industries.** Domestic content share for the manufacturing industry is fairly high overall, at 80 percent, but the share of domestic content ranges from 70 percent to 90 percent for sub-industries. The overall value added share is at 35 percent for U.S. manufacturing, but ranges from a low of 20 percent to a high of 72 percent.

- The domestic content share was relatively high for computer and electronic products (90 percent) and nonmetallic mineral products (90 percent). However, for computers, the high rate of domestic content stems partially from the high share of value added (72 percent), which is not true for nonmetallic mineral products, which had a value added share close to the average (45 percent).
- The domestic content was relatively low for motor vehicles and parts (68 percent) and petroleum and coal products (70 percent). Both of these also had low value added share (20 percent).



# 2022: What Is Made in America?

## Quantitative Measures of Domestic American Production

As shown in table 2, computer and electronic products are an outlier with the highest rate of value added as a percentage of gross output. However, it is important to understand what this calculation implies about the sub-industry in the United States. This calculation implies that most of the value of computers produced in the United States is attributed to the final stage in production. This includes intellectual property as well as employee compensation. However, this calculation does not address the domestic content of computers purchased within the United States, many of which are imported as final products.

**Table 2. Domestic Content by Sub-industry**  
(Billions of dollars)

Industry	Gross Output	Value Added		Domestic Content		
		Total	Share of Gross Output	Total	Share of Gross Output	Share of Intermediate Inputs
	(a)	(b)	(c)	(d)	(e)	(f)
Total manufacturing	\$6,910	\$2,425	35%	\$5,533	80%	69%
Food and beverage and tobacco products	\$1,160	\$307	27%	\$1,012	87%	83%
Chemical products	\$909	\$440	48%	\$756	83%	67%
Petroleum and coal products	\$901	\$185	21%	\$627	70%	62%
Motor vehicles, bodies and trailers, and parts	\$721	\$144	20%	\$494	68%	61%
Machinery	\$424	\$167	39%	\$335	79%	65%
Fabricated metal products	\$418	\$154	37%	\$340	81%	70%
Computer and electronic products	\$340	\$246	72%	\$305	90%	63%
Other transportation equipment	\$324	\$156	48%	\$265	82%	65%
Primary metals	\$322	\$90	28%	\$238	74%	64%
Plastics and rubber products	\$299	\$87	29%	\$238	80%	71%
Paper products	\$202	\$67	33%	\$167	82%	74%
Miscellaneous manufacturing	\$172	\$92	54%	\$151	88%	74%
Wood products	\$171	\$59	35%	\$147	86%	79%
Nonmetallic mineral products	\$153	\$70	45%	\$138	90%	82%
Electrical equipment, appliances, and components	\$150	\$58	39%	\$118	79%	65%
Printing and related support activities	\$92	\$44	49%	\$80	87%	75%
Furniture and related products	\$80	\$30	37%	\$65	81%	70%
Textile mills and textile product mills	\$52	\$17	33%	\$41	80%	69%
Apparel and leather and allied products	\$21	\$10	51%	\$17	85%	64%

Note: Column (c) is calculated as column (b) divided by column (a). Column (e) is calculated as column (d) divided by column (a). Column (f) is calculated as columns (d) - (b) divided by the value of intermediate inputs, or columns (a)-(b).



# 2022: What Is Made in America?

## *Quantitative Measures of Domestic American Production*

### Conclusion: What is Made in America?

In this issue brief, we examined different measurements of what is manufactured in America and found that 80 percent of manufacturing output is comprised of domestic content. This measure is significantly higher than the value-added measure of 35 percent. To some extent, this indicates that value added gives an incomplete measure of the importance of domestic production to U.S. manufacturing. However, some economists may prefer value added because of its direct link to GDP.

This work contributes to a body of research using input-output tables to measure domestic content. For example, over the past decade, whole-world input-output tables have been published. These complex tables contain the linkages between many countries' industries and their intermediate exports to the industries of other countries. Using these types of tables, other measures have been developed that consider relationships that are beyond the scope of this paper. For example, U.S. exports of intermediate goods may return to the U.S. as imported intermediate goods. While these goods are excluded from our measure of domestic content, they could be areas for future work.

### Acknowledgments

The authors would like to thank the following people who provided comments, suggestions, and other contributions to the update of this report:

- Jane Dokko, Chief Economist, U.S. Department of Commerce
- Ben Bolitzer, Deputy Chief Economist, U.S. Department of Commerce
- Thomas Howells, Chief, Industry Economics Division, Bureau of Economic Analysis, U.S. Department of Commerce