



## TARIFFS, TRADE, CHINA, AND THE STATES

Robert McClelland, Richard C. Auxier, Lillian Hunter, Muskan Jha, and Gianna Rodriguez

October 17, 2024 (Corrected October 30, 2024)

### ABSTRACT

Although tariffs currently constitute a very small share of US federal revenue, both President Donald Trump and President Joe Biden increased their use, and Trump now proposes significantly expanding their application. After an overview of current US imports and tariff policies, this chartbook presents state-by-state calculations of imports as a share of state gross domestic product (GDP), current tariff payments as a share of state GDP, and Trump's proposed tariffs as a share of state GDP. Trump's proposal would increase tariff payments as a share of state GDP, on average, by 1.5 percentage points across the 50 states and the District of Columbia. The largest increases would occur in Kentucky (4.1 points), Indiana (3.9 points), Tennessee (3.6 points), Mississippi (3.5 points), and Michigan (2.8 points).

## INTRODUCTION

A tariff is a tax on specified imported goods. A tariff can be placed on products sold directly to consumers (e.g., cars) or materials used in the assembly of products (e.g., steel). A tariff can apply to all nations with exceptions for some countries or apply solely to one specific nation. When the US levies a tariff, the company importing the tariff-eligible good must pay a tax as a share of good's cost or as a fixed amount per item imported. Research shows that the tariffs enacted in 2018 were entirely passed on to consumers and businesses rather than being paid by the exporting nations (Amiti, Redding, and Weinstein 2019, 2020; Fajgelbaum 2020).

Over its history, the US has transitioned from relying heavily on tariffs for revenue to using them sparingly (Council of Economic Advisors 2024). Tariffs provided nearly all federal revenue from the nation's creation to the Civil War, after which they then accounted for closer to half of federal receipts until the US enacted an income tax in 1913. The use of tariffs further declined after the US joined the General Agreement on Tariffs and Trade (GATT) in the 1940s. As a result, annual revenue from tariffs has not exceeded 3 percent of total federal revenue for the past 70 years. In general, since joining the GATT, the US has levied tariffs to support emerging domestic industries, protect US jobs in a specific sector, and enhance national security (Casey 2024).

Currently, the US levies tariffs on products such as aluminum, batteries, electric vehicles, medical products, semiconductors, solar cells, and steel (Hammond and Williams 2020; White House 2024). Tariffs, especially on goods imported from China, were increased during Donald Trump's administration and sustained during Joe Biden's administration (York 2024). In May 2024, President Biden announced additional tariffs on specific Chinese goods, including steel, aluminum, semiconductors, and electric vehicles. The Tax Policy Center estimated that Biden's tariffs, if continued, would raise about \$11 billion in revenue over the next decade (Gleckman 2024).

During the 2024 presidential campaign, Trump proposed levying a 60 percent tariff on all imported goods from China and a 10 percent tariff on imported goods from all other countries. (At other times during the campaign, Trump has mentioned higher levels of tariffs.) A Tax Policy Center analysis found that the 60 percent and 10 percent tariff rate proposal would raise roughly \$3.7 trillion in additional revenue over the next decade, increasing what the US currently collects from tariffs by nearly 500 percent (Gleckman 2024).

US presidents have a wide degree of discretion in setting tariff policy because Congress enacted legislation in 1934, 1962, and 1974 that gives the president the broad power to levy tariffs if a foreign country is engaging in unfair trading practices or is a threat to national security (Chatzky, Siripurapu, and Berman 2024).

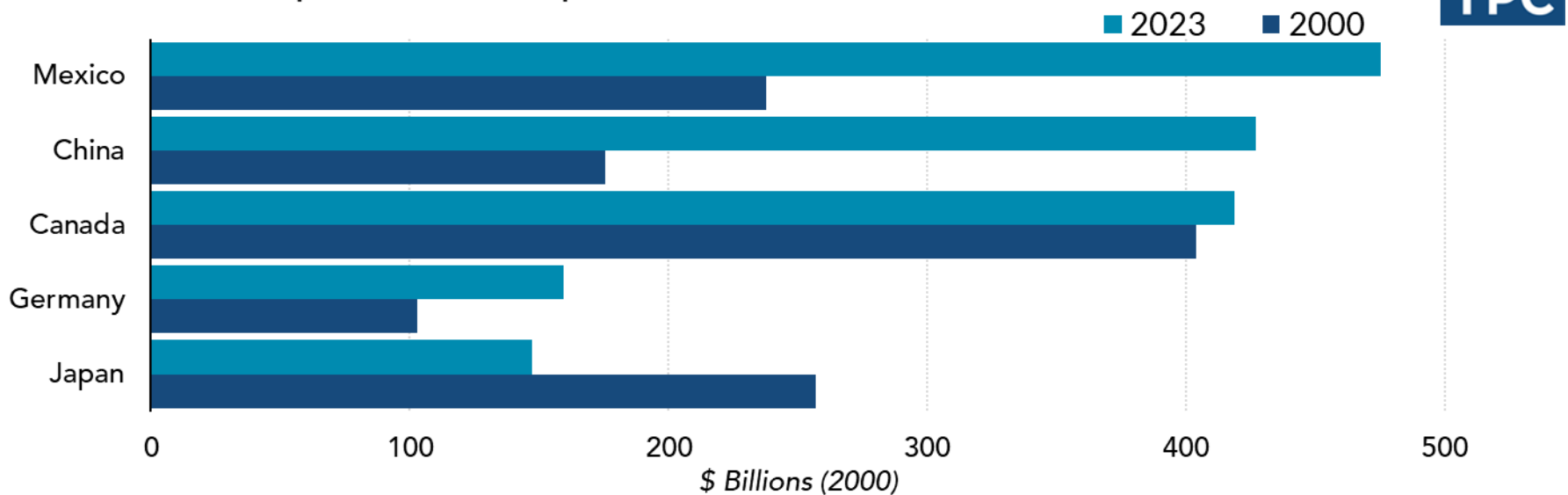
## WHAT COUNTRIES DOES THE UNITED STATES IMPORT THE MOST GOODS FROM?

In 2023, the US imported \$3.1 trillion in goods from other nations. The top five importers to the US were Mexico, China, Canada, Germany, and Japan. Combined, these five countries accounted for roughly half of all goods the US imported that year. The US imported the most goods from Mexico (\$475 billion), followed closely by China (\$427 billion) and Canada (\$419 billion). The sixth through tenth countries in terms of most imported goods were South Korea, Vietnam, Taiwan, India, and Ireland. The US imported at least \$80 billion from each of these nations.

The US-China trade relationship looked different a few decades ago. In 2000, the value of imported goods from China was \$175 billion in inflation-adjusted dollars. That amount lagged imports from Japan and was closer in value to imports from Germany than Canada. Notably, the US normalized trade relations with China in 2000.

FIGURE 1

### Foreign US Imports from Top Five Countries, 2023 and 2000



**Source:** USITC DataWeb Imports for Consumption years 2000 and 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS), BEA Table 2.8.7. Percent Change From Preceding Period in Prices for Personal Consumption Expenditures by Major Type of Product, Monthly; <https://www.bea.gov/data/personal-consumption-expenditures-price-index>.

## WHAT ARE THE MAJOR IMPORTS FROM THESE NATIONS?

In 2023, in terms of value, the top import from China was electronic machinery. This category included both products sold directly to consumers (e.g., smartphones) and materials that businesses use when assembling products (e.g., lithium ion batteries). The next three largest imports were industrial machinery, toys (including video games), and plastic articles (including both products sold directly to consumers and those used by businesses when assembling products).

The top imports in terms of value from the US's other four major trading partners—Canada, Germany, Japan, and Mexico—included automobiles and parts, mineral fuels, oil, and natural gas, and industrial machinery.

Looking across all imports to the US, and not just goods from the top-five nations, the top imports in 2023 in terms of value were, in order, electric machinery, industrial machinery, automobile parts, mineral fuels and oil.

FIGURE 2

### Top Four Imports from Largest Trading Partners, 2023



Country	Import category <sup>a</sup>	Volume (\$ billions)
Canada	Mineral fuels and oil, including natural gas, crude oil, and petrol	123
	Automobiles and parts	56
	Industrial machinery, including automatic data processing machines, and bulldozers	32
	Returns of exports from the United States	17
China	Electronic machinery, including smartphones and lithium ion batteries	124
	Industrial machinery, including automatic data processing machines, and bulldozers	83
	Toys, including puzzles, videogames, and tricycles	32
	Plastic articles	18
Germany	Automobiles and parts	34
	Industrial machinery, including automatic data processing machines, and bulldozers	34
	Pharmaceutical products, including medications	19
	Medical, surgical, and optometrical equipment	13
Japan	Automobiles and parts	50
	Industrial machinery, including automatic data processing machines, and bulldozers	35
	Electronic machinery, including smartphones and lithium ion batteries	19
	Medical, surgical, and optometrical equipment	7
Mexico	Automobiles and parts	129
	Electronic machinery, including smartphones and lithium ion batteries	85
	Industrial machinery, including automatic data processing machines, and bulldozers	81
	Mineral fuels and oil, including natural gas, crude oil, and petrol	24
<b>Addendum: All imports</b>		
World total	Electronic machinery, including smartphones and lithium ion batteries	455
	Industrial machinery, including automatic data processing machines and bulldozers	449
	Automobiles and parts	375
	Mineral fuels and oil, including natural gas, crude oil and petrol	252

Source: USITC DataWeb Imports for Consumption, 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS).

Note: Category descriptions represent breadth of highest-volume imports in each category.

(a) Import category defined by Harmonized Tarrif Schedule 2-digit codes.

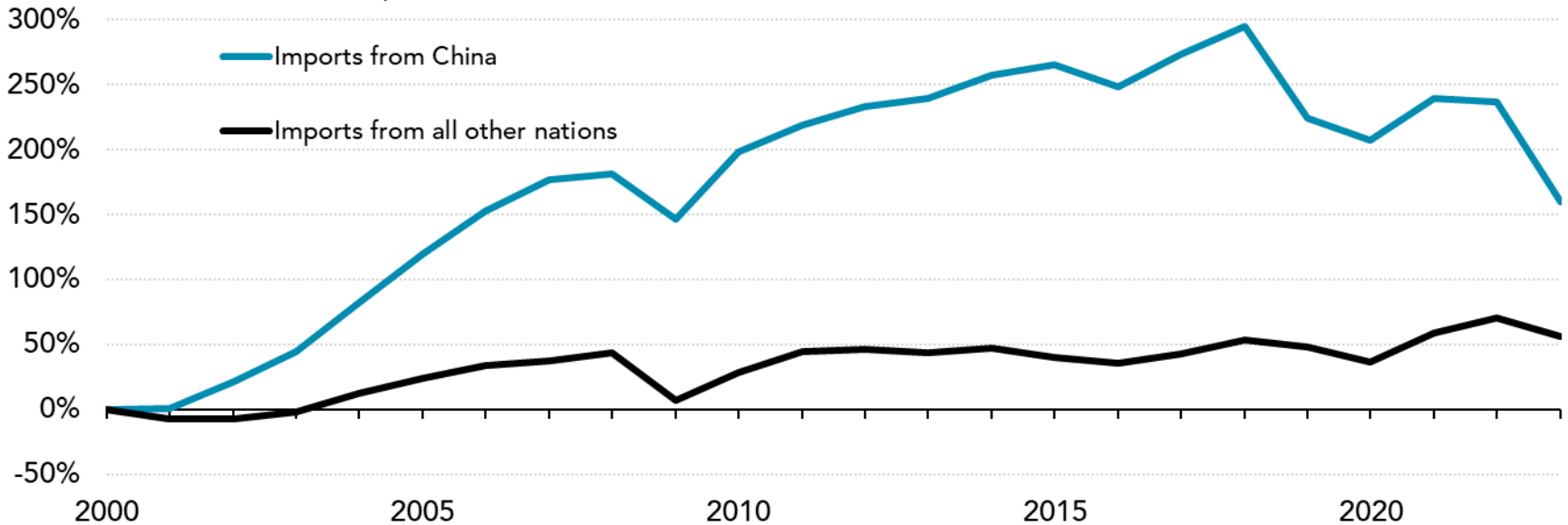
## THE ANNUAL GROWTH OF IMPORTS FROM CHINA SURGED, THEN DECLINED

From 2000 to 2023, annual imports from China grew (in inflation-adjusted dollars) by 159 percent, far exceeding the growth in annual imports from all other nations (56 percent). However, annual imports from China have declined in recent years. Annual imports from China peaked in 2018, when they were nearly 300 percent higher than in 2000. In contrast, annual imports from all other nations have remained largely unchanged since 2018. Increased tariffs on imports from China played a role in these divergent trends.

FIGURE 3

### Chinese Imports Adjusted for Inflation

*Indexed growth in annual imports*



**Source:** USITC DataWeb Imports for Consumption years 2000 through 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS), BEA Table 2.8.7. Percent Change From Preceding Period in Prices for Personal Consumption Expenditures by Major Type of Product, Monthly; <https://www.bea.gov/data/personal-consumption-expenditures-price-index>.

**Notes:** Compares the total value of imports for all the countries except and China in the years 2000 through 2023.

## THE EFFECTIVE TARIFF RATE ON IMPORTS FROM CHINA SPIKED IN 2019 AND HAS REMAINED HIGH

The effective tariff rate on imports from China (i.e., what was paid in tariffs divided by the value of what was imported) spiked after 2018 as the Trump administration levied more and higher tariffs on imports from the country.

The effective tariff rate on Chinese goods increased from roughly 4 percent in 2018 to 9 percent in 2019, and ultimately reached a high of 11 percent in 2021. The effective tariff rate on imports from China has remained above 10 percent during the Biden administration.

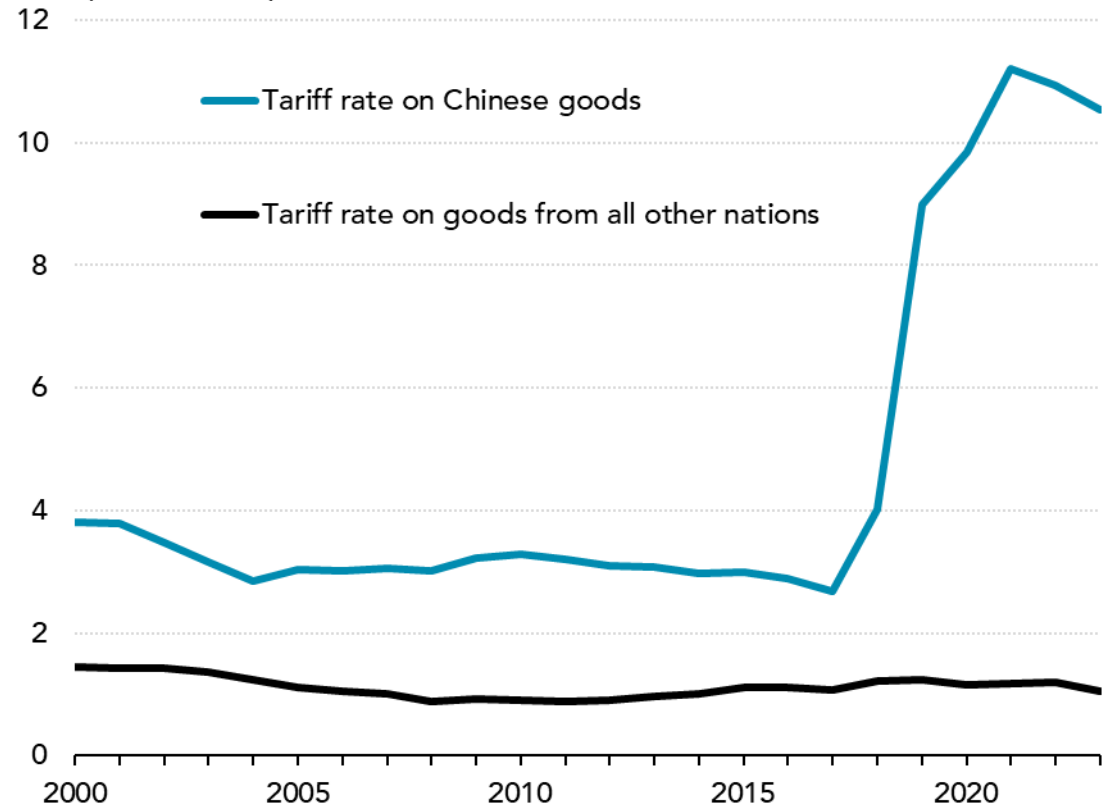
In contrast, the effective tariff rate on imports from all other nations except for China has remained largely unchanged since 2000. The effective tariff rate on these nations' goods never exceeded 2 percent during that period.

The effective tariff rate on goods imported from China has consistently been higher than the aggregated effective tariff rate on imports from all other nations since 2000. But the disparity significantly widened starting in 2019.

FIGURE 4

### Tariff Rates on China, Other Nations, 2000–2023

Rate paid by companies from these nations (%)



Source: USITC DataWeb Imports for Consumption years 2000 through 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS).

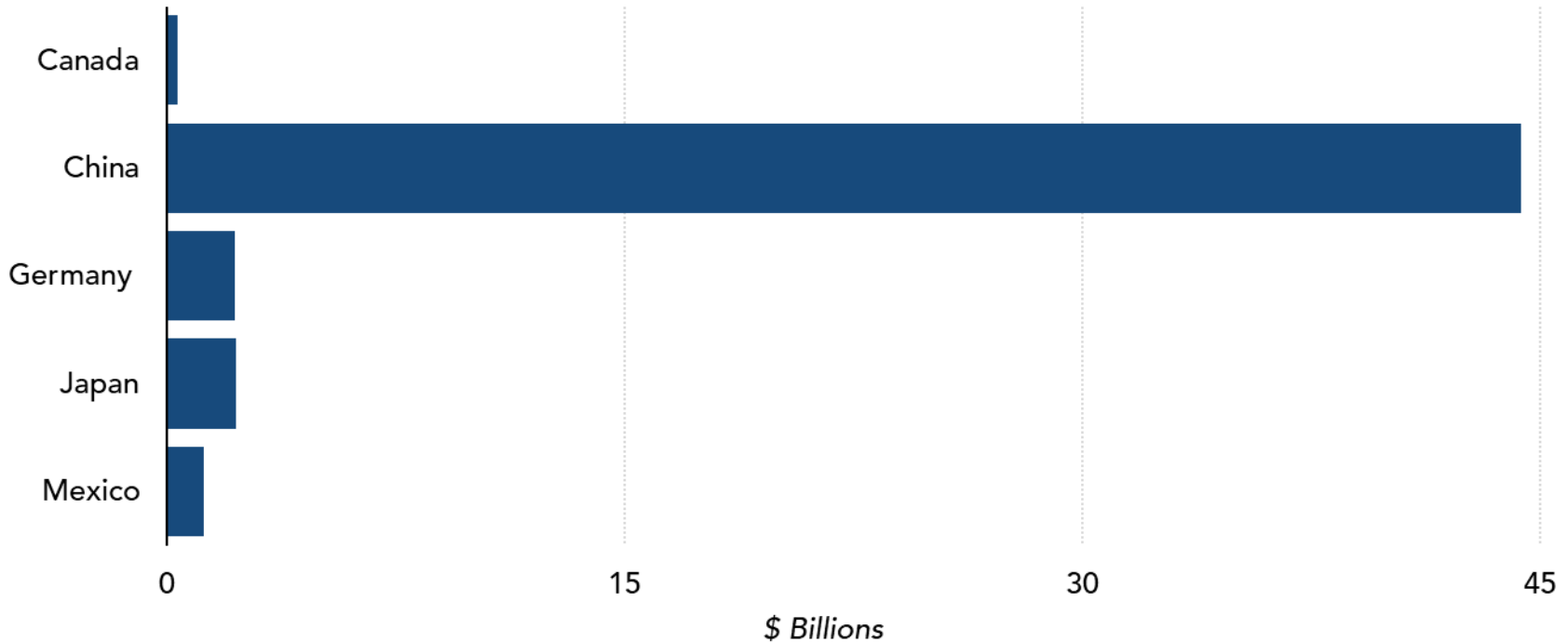
Notes: Tariff rate is calculated using the total amount of tariffs divided by the total amount of imports for all other nations and China in the years 2000–2023.

## COMPANIES IMPORTING GOODS FROM CHINA PAY THE MAJORITY OF CURRENT US TARIFFS

In 2023, US tariffs on goods imported from China produced \$44 billion in revenue, or more than 60 percent of total US tariff collections that year. In comparison, US tariff revenue from goods imported from Japan was roughly \$2 billion and revenue from tariffs on goods from Canada produced less than \$500 million. Broadly speaking, both recently enacted China-specific tariffs and trade agreements (e.g., the United States-Mexico-Canada Agreement) are why tariff revenue from goods imported from China was so much higher than tariff revenue from goods imported from other nations. In all cases, the tariffs were paid by the businesses importing the goods and not by these nations' governments.

FIGURE 5

### Tariffs on Five Largest Trade Partners, 2023



**Source:** USITC DataWeb Imports for Consumption 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS).

**Notes:** The total amount of tariffs is obtained from for the top trading partners with the US in the 2023.

## MANY OF THE STATES MOST DEPENDENT ON TRADE ARE IN THE MIDWEST AND SOUTH

Nationally, imports totaled about 11 percent of US gross domestic product (GDP) in 2023. Among the states, imports as a share of GDP ranged from 2 percent in South Dakota to 27 percent in Kentucky.

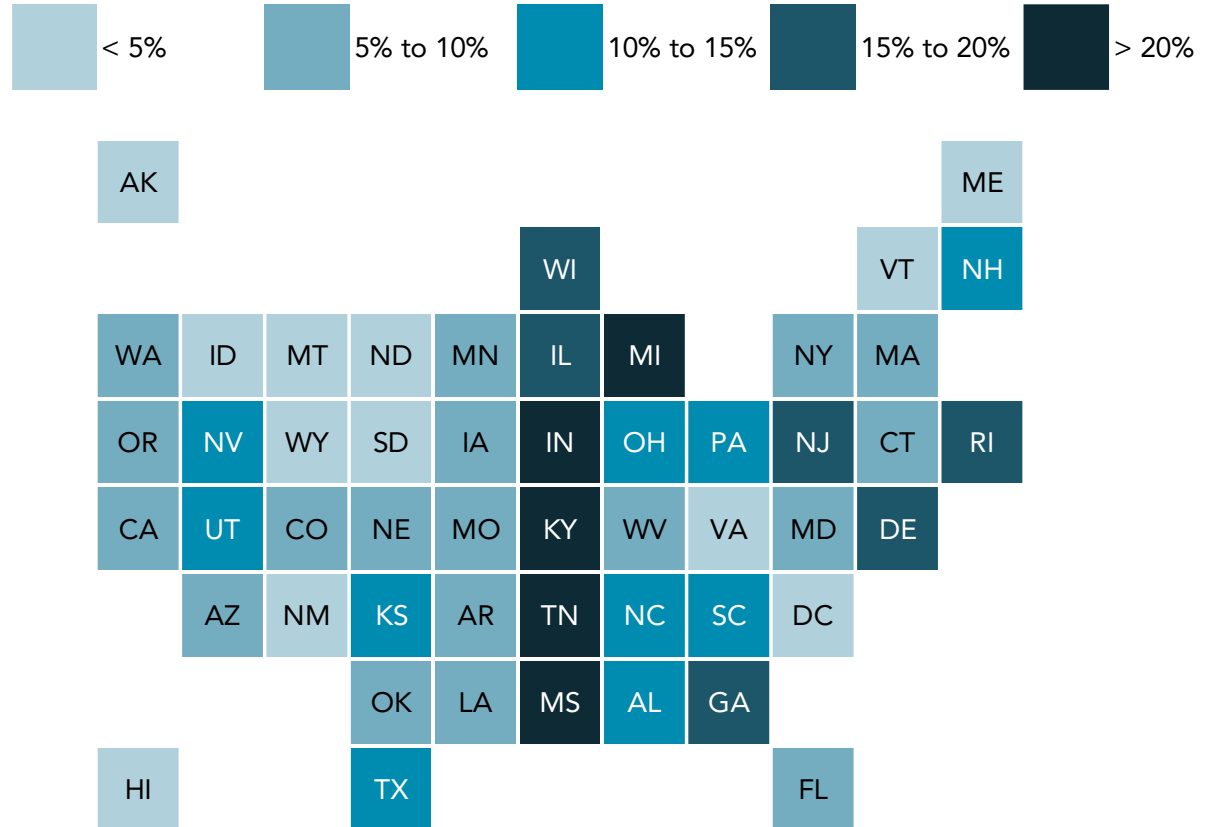
Overall, imports were typically a larger share of GDP in Midwestern and Southern states. In 2023, imports totaled more than 15 percent of GDP in Delaware, Georgia, Kentucky, Illinois, Indiana, Michigan, Mississippi, New Jersey, Rhode Island, Tennessee, and Wisconsin.

Many goods enter the US via states bordering the Atlantic and Pacific Oceans, but those goods are then put on trucks and trains and dispersed throughout the nation to businesses that use and sell those imported goods. Thus, while a port in a coastal state is important to its economy, when examining the ratio of imports to state GDP, the most reliant states are generally in the middle of the nation.

See the appendix for a full description of our methodology.

**FIGURE 6**

Imports as Share of State GDP, 2023



**Source:** Author calculation of US Census Bureau State Export Data; [usatrade.census.gov](https://usatrade.census.gov), USITC DataWeb Imports for Consumption, 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS), Bureau of Transportation Freight Analysis Framework [bts.gov/faf](https://bts.gov/faf), and Bureau of Economic Analysis GDP by State 2023; [bea.gov/data/gdp/gdp-state](https://bea.gov/data/gdp/gdp-state).

**Notes:** See Appendix A for detailed methodology.



# CURRENT TARIFFS GENERALLY AFFECT STATES WITH RELATIVELY HIGH SHARES OF IMPORTS

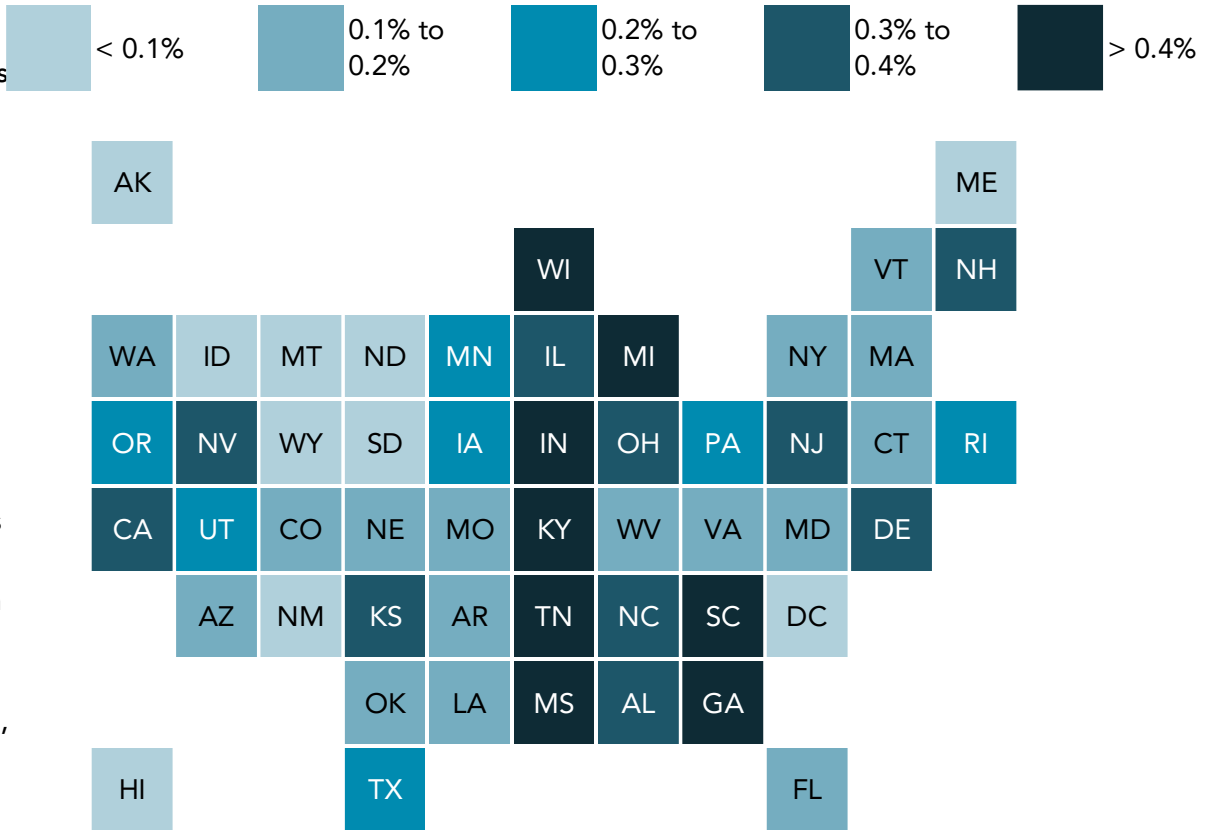
Knowing how much each state imported, how much was paid in tariffs, and where the imported goods were shipped allowed us to compare tariff payments in each state to the state's GDP. The state tariff payment included both tariffs on goods sold directly to consumers and those used by business to assemble goods and provide services. As such, this calculation shows where tariffs have a large effect on the state economy.

We estimate that national tariff payments in 2023 totaled 0.3 percent of US GDP. The national percentage was relatively low because the average effective tariff rate across all imported goods was only 2.4 percent in 2023.

Among the states, estimated tariff payments as a share of state GDP ranged from 0.05 percent in South Dakota to 0.6 percent in Mississippi. In 2023, estimated tariff payments totaled more than 0.4 percent of GDP in Georgia, Indiana, Kentucky, Michigan, Mississippi, South Carolina, Tennessee, and Wisconsin.

As with the import data, these estimates account for where goods were shipped inside the US, and do not solely reflect where the goods arrived.

**FIGURE 7**  
**Current Tariffs**  
*As share of state GDP, 2023*



**Source:** Author calculation of US Census Bureau State Export Data; [usatrade.census.gov](https://usatrade.census.gov), USITC DataWeb Imports for Consumption, 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS), Bureau of Transportation Freight Analysis Framework [bts.gov/faf](https://bts.gov/faf), and Bureau of Economic Analysis GDP by State 2023; [bea.gov/data/gdp/gdp-state](https://bea.gov/data/gdp/gdp-state).

**Notes:** See Appendix A for detailed methodology.

# TRUMP'S TARIFF PROPOSAL WOULD SIGNIFICANTLY INCREASE TARIFF PAYMENTS IN ALL STATES

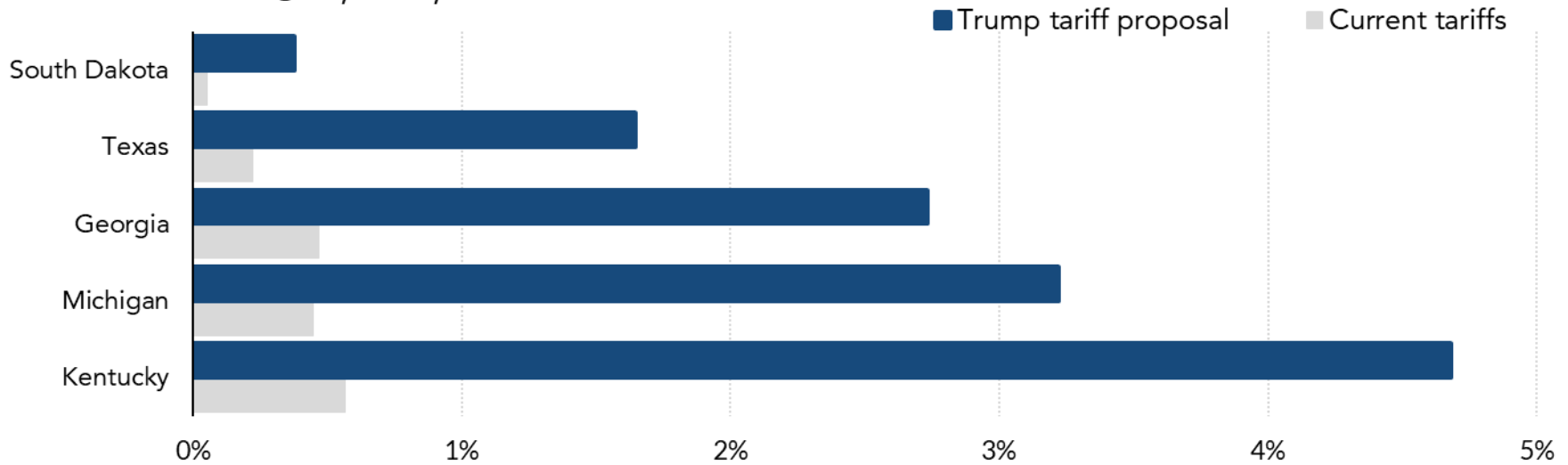
Trump's proposed tariffs of 60 percent on goods from China and 10 percent on goods from all other nations would significantly increase tariffs as a share of GDP in states across the country. Under existing tariff policies in 2023, no state saw tariff payments total more than 1 percent of GDP. Under the tariffs proposed by Trump, tariff payments would total more than 1 percent of GDP in 36 states.

On average, tariff payments as a share of state GDP would increase 1.5 percentage points across all 50 states and the District of Columbia. The largest percentage point increases would occur in Kentucky (4.1 points), Indiana (3.9 points), Tennessee (3.6 points), Mississippi (3.5 points), and Michigan (2.8 points). The smallest increase would occur in South Dakota (0.3 points).

FIGURE 8

## Comparison of Current Tariffs and Trump Proposal

As share of state GDP, 2023, select states



**Source:** Author calculation of US Census Bureau State Export Data; [ustrade.census.gov](https://ustrade.census.gov), USITC DataWeb Imports for Consumption, 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS), Bureau of Transportation Freight Analysis Framework; [bts.gov/faf](https://bts.gov/faf), and Bureau of Economic Analysis GDP by State 2023; [bea.gov/data/gdp/gdp-state](https://bea.gov/data/gdp/gdp-state).

**Notes:** Trump proposal would levy a 60% tariff on goods from China and 10% tariff on goods from all other nations. See Appendix A for detailed methodology.

# THE HEAVIEST BURDEN OF TRUMP'S TARIFF PROPOSAL WOULD FALL ON THE MIDWEST AND SOUTH



Although Trump's elevated tariff levels would increase tariff payments relative to state GDP in states across the nation, as with current tariff payments, the highest tariff payments would occur mostly in states in the Midwest and South.

Overall, under Trump's proposed tariff levels, tariff payments would total more than 2 percent of state GDP in 20 states.

Trump's proposed tariff payments would total more than 3 percent (but not 4 percent) of state GDP in Illinois, Michigan, and Wisconsin.

Trump's proposed tariff payments would total more than 4 percent of state GDP in Kentucky, Indiana, Mississippi, and Tennessee.

Kentucky would see the largest total tariff payment under Trump's proposal, with tariff payments totaling nearly 5 percent of its state GDP.

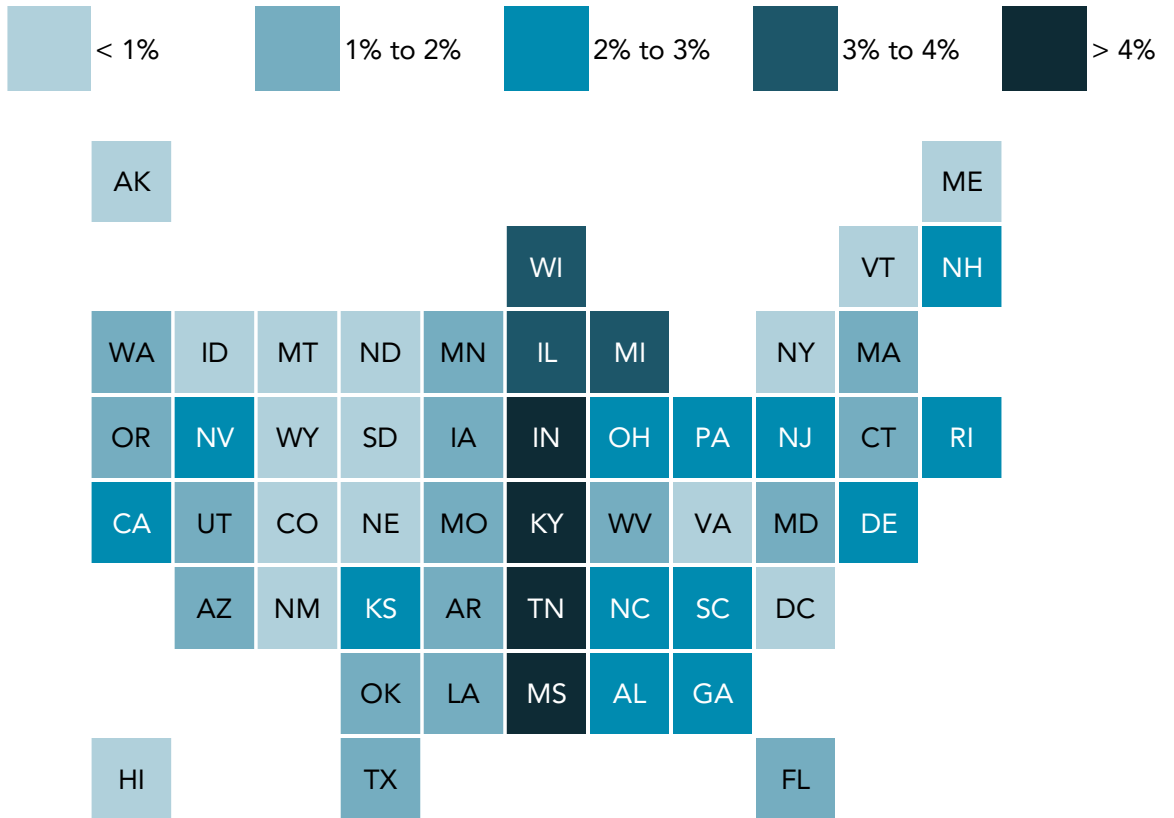
See the appendix for a full description of our methodology.

**FIGURE 9**

## Tariffs Proposed by President Trump

60 percent on Chinese imports, 10 percent on all others

*As share of state GDP, 2023*



**Source:** Author calculation of US Census Bureau State Export Data; [usatrade.census.gov](https://usatrade.census.gov), USITC DataWeb Imports for Consumption, 2023; [dataweb.usitc.gov/trade/search/Import/HTS](https://dataweb.usitc.gov/trade/search/Import/HTS), Bureau of Transportation Freight Analysis Framework [bts.gov/faf](https://bts.gov/faf), and Bureau of Economic Analysis GDP by State 2023; [bea.gov/data/gdp/gdp-state](https://bea.gov/data/gdp/gdp-state).

**Notes:** See Appendix A for detailed methodology.

## CONCLUSION

The US has not collected a significant amount of revenue from tariffs since it enacted an income tax in the early 20th century. However, the president retains broad power to levy tariffs without Congress enacting legislation. In recent years, the Trump administration levied higher tariffs on imports from China and the Biden administration largely maintained those elevated tariffs.

Currently, existing tariffs are most consequential to the economies of states in the Midwest and South because those are the states where imports total the largest share of GDP. While many goods enter the US via states bordering the Atlantic and Pacific Oceans, trucks and trains then distribute these imports to businesses that use and sell them, and the imports are largely sent to states in the middle of the nation.

As a presidential candidate, Donald Trump has proposed significantly increasing tariffs. This chartbook examined his proposal to levy a 60 percent tariff on goods imported from China and a 10 percent tariff on goods from all other states, but Trump has cited higher tariff levels at other times during the campaign.

If Trump levied the 60 percent and 10 percent tariffs, it would significantly increase tariff payments relative to state GDP in states across the nation. In 2023, no state saw tariff payments total more than 1 percent of its GDP. Under the Trump proposal, tariff payments would total more than 1 percent of GDP in 36 states, and in seven states tariff payments would total more than 3 percent. And, as with existing tariffs, the states that would see the largest economic consequences from the proposed higher tariffs are mostly those in the Midwest and South. The largest percentage point increases would occur in Kentucky, Indiana, Tennessee, Mississippi, and Michigan.

Levying a tariff on a good increases its cost for businesses and consumers. Past arguments for accepting these higher costs have included prompting nascent industries in the US, protecting jobs in important sectors, and national security reasons. Trump's expanded tariffs would create a new policy tradeoff calculation, and the costs of that policy would not be spread equally across the 50 states.

## APPENDIX A: METHODOLOGY

All figures in this chartbook presenting data from states (Figures 6, 7, 8, and 9) used import data from the US Census Bureau (<https://usatrade.census.gov/>) and the US International Trade Commission (<https://dataweb.usitc.gov/>). These data were then adjusted using Freight Analysis Framework data ([https://faf.ornl.gov/faf5/dtt\\_import.aspx](https://faf.ornl.gov/faf5/dtt_import.aspx)) produced by the US Bureau of Transportation Statistics with support from the Federal Highway Administration. Our method is similar to that of Feenstra and Hong (2024), although they separately examine imports from eight foreign regions and 42 national industries.

Data from three collections of countries (all countries, all countries except China, and exclusively China) were downloaded for each state and the District of Columbia for each good (as defined by the Harmonized Trade System at the 4-digit level, known as HTS-4) for the year 2023. There are over 1,200 HTS-4 goods, and we included all except for a small number that are duty-free.

Freight Analysis Framework data for imports were then used to calculate both the share of goods imported to a state that remained in the state and the share that were shipped to the state but then transferred to each of the other 49 states and the District of Columbia. This approach applied the same shares to all HTS-4 goods from every country. Imports by a state of an HTS-4 good were calculated as the imports that remained in the state plus the amount shipped into the state from another state. Total imports into a state were the sum of imports across all HTS-4 goods.

Existing tariffs for each state were calculated by first calculating the effective tariff rate for each HTS-4 and country group. Each effective tariff rate was calculated as the ratio of total tariffs to total imports, using data from the US International Trade Commission. This created effective tariff rates separately for each HTS-4 good from all countries except China plus each HTS-4 good from China. Tariffs paid by each state for each HTS-4 good and country group were then calculated as the product of imports by the state for the HTS-4 good and country group and its effective tariff rate.

For Trump's tariff proposal, we calculated 10 percent for each HTS-4 good imported from all countries except China and 60 percent for each HTS-4 good imported from China. For both existing and proposed tariffs, the Freight Analysis Framework was then applied to tariffs by each state for each HTS-4 good and country group. Total existing tariffs in a state were the sum of tariffs across all HTS-4 goods from all countries. Total proposed tariffs in a state were the sum of tariffs across all HTS-4 goods from all countries except China plus the sum of tariffs across all HTS-4 goods from China.

Alaska and Hawaii were included in the analysis but were not cited as examples in the text given the relatively large amount of goods transferred out of these states.

The authors thank Lydia Cox for her assistance in these calculations. Specifically, Cox provided a method for using the Freight Analysis Framework data.

## REFERENCES

- Amiti, Mary, Stephen J. Redding, and David E. Weinstein. 2019. "The Impact of the 2018 Tariffs on Prices and Welfare." *The Journal of Economic Perspectives* 33 (4): 187-210, <https://www.jstor.org/stable/26796842>
- Amiti, Mary, Stephen J. Redding, and David E. Weinstein. 2020. "Who's Paying for the US Tariffs? A Longer-Term Perspective." *AEA Papers and Proceedings* (110): 541-546, <https://swh.princeton.edu/~reddings/pubpapers/ARW-May-2020.pdf>
- Casey, Christopher A. 2024. "U.S. Tariff Policy: Overview." Washington DC: Congressional Research Service. <https://crsreports.congress.gov/product/pdf/IF/IF11030>
- Chatzky, Andrew, Anshu Siripurapu, and Noah Berman. 2024. "What Are Tariffs?" Washington, D.C.: Council on Foreign Relations. <https://www.cfr.org/backgrounder/what-are-tariffs>
- Council of Economic Advisors. 2024. "Economic Report of the President, together with the Annual Report of the Council of Economic Advisors." Washington, DC: US Government Printing Office. [https://trumpwhitehouse.archives.gov/wp-content/uploads/2018/02/ERP\\_2018\\_Final-FINAL.pdf](https://trumpwhitehouse.archives.gov/wp-content/uploads/2018/02/ERP_2018_Final-FINAL.pdf).
- Fajgelbaum, Pablo D, Pinelopi K Goldberg, Patrick J Kennedy, Amit K Khandelwal. 2020. "The Return of Protectionism." *The Quarterly Journal of Economics* 135 (1): 1-55. <https://academic.oup.com/qje/article/135/1/1/5626442>.
- Feenstra, Robert C., Chang Hong. 2024. "Estimating the Regional Welfare Impact of Tariff Changes: Application to the United States." NBER Working paper 33007. <https://www.nber.org/papers/w33007>
- Gleckman, Howard. 2024. "TPC: Trump Tariffs Would Raise Household Taxes And Slow Imports" Tax Policy Center, <https://taxpolicycenter.org/taxvox/tpc-trump-tariffs-would-raise-household-taxes-and-slow-imports>.
- Hammond, Keigh E. and Brock R. Williams. 2020. "Escalating U.S. Tariff: Timeline." Congressional Research Service, <https://crsreports.congress.gov/product/pdf/IN/IN10943>.
- The White House. 2024. "Fact Sheet: President Biden Takes Action to Protect American Workers and Businesses from China's Unfair Trade Practices." Washington, D.C.: U.S. Government Printing Office. <https://www.whitehouse.gov/briefing-room/statements-releases/2024/05/14/fact-sheet-president-biden-takes-action-to-protect-american-workers-and-businesses-from-chinas-unfair-trade-practices/>.
- York, Erica. 2024. "Tariff Tracker: Tracking the Economic Impact of the Trump-Biden Tariffs." Washington, DC: Tax Foundation. <https://taxfoundation.org/research/all/federal/trump-tariffs-biden-tariffs/>.

## ABOUT THE AUTHORS

**Robert McClelland** is a senior fellow in the Urban-Brookings Tax Policy Center. Previously, he worked in the tax analysis division of the Congressional Budget Office (CBO), where he examined the impact of federal tax policy on charitable giving and bequests, the realization of capital gains, labor supply, and small businesses. He worked for the CBO from 1999 to 2005 and from 2011 to 2016, and in between, he directed the division of price and index number research at the Bureau of Labor Statistics. He is a member of the Conference on Research in Income and Wealth. He received a BA in economics and environmental studies from the University of Santa Cruz and a PhD in economics from the University of California, Davis.

**Richard C. Auxier** is a principal policy associate in the Urban-Brookings Tax Policy Center. His work focuses on state and local tax policy, budgets, and other finance issues. He also serves as an advisor to the DC Policy Center's Alice M. Rivlin Initiative for Economic Policy & Competitiveness. Before joining Urban, Auxier was on the staff of the DC Tax Revision Commission and helped write the commission's final report on recommendations for improving the District's tax system. He also was previously a researcher and editor at the Pew Research Center. Auxier attended the University of Maryland for his undergraduate degree and his master's degree in public policy.

**Lillian Hunter** is a research analyst in the Urban-Brookings Tax Policy Center. She graduated magna cum laude from Bryn Mawr College with an AB in economics and public health policy.

**Muskan Jha** is a research assistant in the Urban-Brookings Tax Policy Center. She graduated from Reed College and holds a BA in economics.

**Gianna Rodriguez** was the 2024 Peter G. Peterson Foundation Fiscal Intern at the Tax Policy Center. Gianna is currently a public policy and economics major at The Ohio State University.

## ERRATTA

This chartbook was corrected October 30, 2024. Bureau of Economic Analysis state gross domestic product data was added to the source notes for figures 6, 7, 8, and 9.

This report was funded by an anonymous foundation. We are grateful to them and all our funders who make it possible for the Urban-Brookings Tax Policy Center to advance its mission.

The authors would also like to thank Nikhita Airi, Lydia Cox, Joseph Rosenberg, and Tracy Gordon for their invaluable assistance and feedback, and Alex Dallman for copyediting. The views expressed are those of the authors and should not be attributed to the Urban-Brookings Tax Policy Center, the Urban Institute, the Brookings Institution, their trustees, or their funders. Funders do not determine research findings or the insights and recommendations of our experts. Further information on Urban's funding principles is available at <http://www.urban.org/aboutus/our-funding/funding-principles>; further information on Brookings' donor guidelines is available at <http://www.brookings.edu/support-brookings/donor-guidelines>.



The Tax Policy Center is a joint venture of the  
Urban Institute and Brookings Institution.



BROOKINGS

For more information, visit [taxpolicycenter.org](http://taxpolicycenter.org)  
or email [info@taxpolicycenter.org](mailto:info@taxpolicycenter.org)