THIRD WAY

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Smarter Procurement: Federal Construction Spending is a Huge Opportunity to Advance National Goals

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Key Takeaways

As part of President Biden's landmark Executive Order on *Tackling the Climate Crisis at Home and Abroad*, the White House will consider additional regulatory steps to limit carbon emissions from federal contractors. To understand the magnitude of this action and the impact it could have on curbing emissions, it helps to understand the vast scale of federal procurement, particularly of materials with sizable carbon footprints. Detailed and timely information on such materials is frustratingly hard to find. Fortunately, we now have a report that catalogues the most recent data available in one place and offers insight on the federal government's purchasing power in some key areas of the economy. Ultimately, this is the

kind of information we'll need to set smart guidelines and standards that get more bang for the taxpayer buck and help the country achieve major policy goals.

Making the government a savvy customer

The federal government invests hundreds of billions of dollars in goods and services each year. These investments are a good thing--they create jobs and have lasting economic benefits. But they could have an even greater impact if steered towards suppliers that advance national priorities like supporting domestic industries and workers and reducing greenhouse gas emissions (GHGs) to fight climate change. With Congress preparing a massive, multi-year transportation bill and the very real possibility of an infrastructure-focused stimulus package on the horizon, the federal government is poised to make major construction investments. That means its already large purchasing power is likely to get even bigger.

But if it's going to be a savvy customer, the federal government is going to need better data on how and where this money is being spent. That's why Third Way commissioned a report from Ali Hasanbeigi at Global Efficiency Intelligence (GEI) analyzing the size and scope of government procurement spending on construction, with a focus on carbon intensive materials like concrete, cement, steel, aluminum, and glass. The fact that we had to go all the way back to 2012 to get verified data on material-specific procurement should tell you something about the federal government's current capacity for shrewd shopping. We can do better.

Once we improve our data collection, federal agencies can begin to implement contracting standards, such as a national Buy Clean standard, that benefit domestic manufacturers, protect American jobs, and contribute to our climate goals by limiting the purchases of materials with high carbon footprints. Here are a few key findings from the GEI report and why we think they're important:

Purchasing power in construction is already huge

In 2012, the federal government directly spent $23.8 billion on construction and spent another $51.6 billion "indirectly" via grants to state and local governments. [1] Of that $75.4 billion total, an estimated **$32.4 billion** (43%) went toward procurement of goods and services. Let's drive that point home: the federal government spends more on construction goods and services than most states spend on...everything. [2] It's enormous.

Given the amount of money the government spends each year, it can make demands of its suppliers beyond just cost. The large warehouse retailer, Costco, buys and sells in bulk, allowing it to command lower prices from its suppliers. But it also lets Costco be picky about its purchases. For instance, the company asked its suppliers to refine its salmon filets to make them more consumer

friendly. Suppliers initially balked, claiming such requests would be cost prohibitive. However, Costco increased sales ten-fold within five years, and suppliers made more money despite their lower margins. [3]

Costco used its buying power to benefit its customers and its bottom line. So what goals should the federal government be trying to advance with its billions in construction spending?

Smarter procurement of construction materials is a major opportunity to reduce emissions and support domestic manufacturing

Beyond just lowering costs, the government can demand suppliers address their climate impact. **55% of GHG emissions** attributed to public institutions in the United States are a result of government-purchased goods and products. We can limit these emissions by raising the production standards of materials commonly used in construction, namely cement, concrete, steel, aluminum, and glass.

Manufacturers of these materials are important to the American economy. They directly employ 476,360 workers in the U.S. and account for roughly $150 billion in annual revenue according to available data. [4] They are also huge sources of embodied carbon. Embodied carbon is the sum of all the greenhouse gas emissions (mostly carbon dioxide) resulting from the mining, harvesting, processing, manufacturing, transportation and installation of building materials. [5] The manufacture of building materials makes up 11% of total global greenhouse gas emissions, according to the latest data from the United Nations Environment Programme. [6] However, the U.S. and other advanced countries often import these materials from developing countries, undercounting their emissions footprint in the process. An estimated 25% of all global greenhouse gas emissions are caused by the manufacture of products destined for export, referred to as the "carbon loophole." [7]

The government spends a small fortune on these five commodities alone. In 2012, the federal government spent $804 million directly and another $1.8 billion indirectly through grants to state and local governments, for their procurement. [8] Concrete accounted for **$2.3 billion**, or nearly 90% of total federal government procurement spending among these commodities. Steel is the second largest material in this category at $190 million.

To put this into context, government spending (including federal, state, and local) accounted for 42% of total (public and private) U.S. procurement spending on concrete for construction. It's a large customer, to say the least, and likely getting larger.

Based on GEI estimations of construction industry growth, the federal government spent **$5.2 billion** on concrete in 2018. While growth rates for each commodity differ, we can infer that these figures for steel, aluminum, and glass procurement have grown since 2012 as well. Additionally, we

can expect commodity procurement to increase further as a consequence of large scale stimulus investments in infrastructure currently under consideration in Congress.

Given the government's outsized position in the marketplace, it can affect how commodity producers do business.

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If we're spending a lot of money, let's steer it towards companies working to limit their carbon footprint. This will help us reach our climate goals while supporting domestic manufacturers that are already ahead of international competitors in addressing their emissions. As U.S. and international emissions standards continue to strengthen, American manufacturers can be better positioned to compete in the domestic and global marketplace if the government incentivizes them to adopt cleaner practices, and provides additional support to get it done cost-effectively. But the first step in that process is making sure the government has the information necessary to implement useful incentive policies.

Good procurement practices require good data

Given the lack of recent data on procurement materials, the GEI report relies on 2012 data assembled by the Bureau of Economic Analysis. While helpful in providing a retrospective overview of the size and scope of construction procurement activities, we need enhanced, timely data collection moving forward in order to implement actionable contracting standards that allow the federal government to be a smart shopper.

Good data collection on emissions is essential for efforts to efficiently and fairly encourage the use of lower carbon materials through procurement. The government has a number of data collection programs on life cycle analyses and the carbon footprint of materials (e.g., Federal LCA Commons Database, the Greenhouse Gas Reporting Program at the Environmental Protect Agency), but the data they collect needs to be expanded and harmonized in order to create a tool for better contracting decisions.

Eventually, we could use that data to create standards for the government to use in making informed materials purchases. Along with other policy supports, these standards can strengthen the competitiveness of domestic manufacturers, who are already cleaner than their global counterparts in many instances, and are well positioned to adopt additional low-carbon techniques. Data collection is important for taking advantage of purchasing power and helping to reward companies seeking to limit their emissions.

Conclusion

As the public and private sector explore new avenues to address climate change, we must leverage every tool at our disposal. In fact, according to recent polling, an overwhelming majority of Americans want the Biden Administration to prioritize using federal procurement to support domestic manufacturing jobs and produce more sustainable products. [9] Grasping the broad scale of government procurement is the first step in deploying federal resources to advance our climate goals. Congress should support enhanced federal data collection and transparency measures to build the framework for Buy Clean policies.

ENDNOTES

1. Due to unavailability of latest year procurement data, the report relies heavily on input-output (IO) analysis carried out by using the detailed-level Use table reported by BEA for the year 2012.

2. Total State Expenditures (in millions). Timeframe: SFY 2018. Kaiser Family Foundation. https://www.kff.org/other/state-indicator/total-state-spending/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Total%20State%20Expenditures%20(in%20millions)%22,%22sort%22:%22desc%22%7D. Accessed 29 Jan 21.

3. Daniel Ferry. "How Does This Retailer Keep Prices So Low?" *The Motley Fool,* 26 Feb 13, https://www.fool.com/investing/general/2013/02/26/how-does-this-retailer-keep-prices-so-low.aspx. Accessed 29 Jan 21.

4. As of 2016. https://www.bls.gov/oes/2016/may/oessrci.htm; See also, as of 2021: https://www.ibisworld.com/industry-statistics/market-size/cement-manufacturing-united-states/#:~:text=The%20market%20size%2C%20measured%20by,is%20%247.5bn%20in%202021. https://www.ibisworld.com/industry-statistics/market-size/iron-steel-manufacturing-united-states/#:~:text=The%20market%20size%2C%20measured%20by,is%20%2480.3bn%20in%202021. https://www.ibisworld.com/industry-statistics/market-size/aluminum-manufacturing-united-states/#:~:text=The%20market%20size%2C%20measured%20by,is%20%2435.0bn%20in%202021. https://www.ibisworld.com/industry-statistics/market-size/glass-product-manufacturing-united-states/#:~:text=What%20is%20the%20market%20size,is%20%2426.2bn%20in%202021.

5. Henry Siegel and Larry Strain. "Embodied Carbon: What you Can Do Right Now." AIA California, 5 Mar 20, https://aiacalifornia.org/embodied-carbon-definitions-and-facts/#:~:text=Embodied%20carbon%20is%20the%20sum,and%20installation%20of%20building%20materials. Accessed 29 Jan 21.

6. Paula Melton. "The Urgency of Embodied Carbon and What You Can Do about It." BuildingGreen, 10 Sep 18, https://www.buildinggreen.com/feature/urgency-embodied-carbon-and-what-you-can-do-about-it. Accessed 29 Jan 21.

7. Ali Hasanbeigi, Cecilia Springer, Daniel Moran. "The Carbon Loophole in Climate Policy." Buy Clean, Sep 18, https://buyclean.org/media/2016/12/buyclean-execsummary-082718.pdf. Accessed 29 Jan 21.

8. Due to unavailability of latest year procurement data, the report relies heavily on input-output (IO) analysis carried out by using the detailed-level Use table reported by BEA for the year 2012.

9. Sen. Elizabeth Warren. "Here's how Biden can leverage U.S. purchasing power to take on climate change." Data for Progress, 14 Jan 21, https://www.dataforprogress.org/blog/2021/1/13/elizabeth-warren-procurement-climate-change. Accessed 29 Jan 21.