

THEN AND NOW:

U.S. MANUFACTURING UNDER THE TRUMP AND BIDEN-HARRIS ADMINISTRATIONS

The U.S. middle class was built by the manufacturing sector. In decades past, a job in manufacturing meant high wages and job security. Unfortunately, offshoring, bad trade agreements, a massive effort by employers to break unions and thwart union organizing, and poor industrial policy led to a decline in U.S. manufacturing from which the nation is still recovering.

Numerous studies have found that the decline in U.S. manufacturing has exacerbated income inequality. Laid-off manufacturing workers have been forced to compete for lower-paying service sector jobs, putting downward pressure on middle-class wages across the economy. And, this decline has contributed to racial inequality, as workers of color have endured some of the biggest manufacturing job losses. Black manufacturing employment has fallen more than 30% since the late 1990s. If we grow clean manufacturing in an equitable way-like the manufacturing investments in the Inflation Reduction Act signed into law by the Biden-Harris administration—it can help to

reverse these trends as part of a strategy to build a more just economy.

Thankfully, due to shifts in the nation's industrial policy, we have been seeing signs of life in the last few years. We are making things in the United States again. As of May 2024, there are nearly 13 million manufacturing workers in the United States. Additionally, wages in the manufacturing sector are relatively high, with average hourly earnings in the sector at \$33.83 as of May 2024. In addition, the vast majority of manufacturing workers—91%—were eligible for health insurance.

Investment in the manufacturing sector isn't just vital to revive the middle class, it's a critical component to the nation's efforts to drive down pollution. The industrial sector represents a large and growing share of pollution with far less progress made than in many other sectors, specifically in greenhouse gas (GHG) emissions reduction. Industrial sector emissions now account for nearly one-third of GHG emissions in the United States and industry is on

a path to becoming the highest emitting sector in the United States by the early 2030s. Under current policy, industrial emissions are projected to increase by 12% from current levels by 2035. Addressing this situation requires simultaneous investment in clean tech manufacturing and in innovations to drive down industrial emissions from manufacturing facilities. Yet, policy measures and investments to meaningfully reduce industrial emissions and produce more of the nuts and bolts of the clean economy were sparse, until recently.

Taking a critical look at the industrial policies of the current Biden-Harris administration and the former Trump administration, we see a dramatic shift. On several points—including job creation, investment in manufacturing, investment in cleaning up industrial emissions, and domestic momentum in growing industries—we see that the Biden-Harris administration outperformed the Trump administration.

Manufacturing Job Creation

Under the Biden-Harris
Administration More Than
775,000 Manufacturing Jobs Have
Already Been Created—With
More to Come Where They're
Needed Most.

Since Biden and Harris took office in January 2021, more than 775,000 manufacturing jobs have been added to the economy, not simply recovering from, but exceeding the manufacturing jobs lost during the COVID-19 pandemic. (See Figure 2)

But basic job numbers only tell part of the story. Thanks to the investments in the Inflation Reduction Act, Bipartisan Infrastructure Law, and CHIPS and Science Act, the United States will add <u>336,000</u> manufacturing jobs per year throughout the lifetime of the programs and investments in those laws according to an analysis conducted by the Political Economy Research Institute (PERI) at the University of Massachusetts Amherst.

While the policies and investments are just starting to roll out, we already see signs of future growth. Looking at manufacturing construction trends over the last two presidential terms, we see a significant increase throughout the current administration. That means new manufacturing facilities and new jobs in communities across the nation. (See Figure 1)

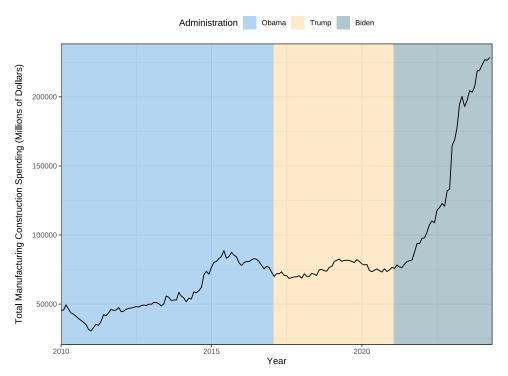
We've also seen that thanks to thoughtful prioritization, these jobs are being created in the places that need them most. The Biden-Harris administration has adopted Justice40—which requires at least 40% of the benefits of federal programs go to disadvantaged or historically marginalized communities. The administration's strategies for achieving this are varied, but we can see it at work in the projects they have prioritized for grants in historically marginalized communities in grants, and from the bonus tax credits for locating projects in those communities. (See Figure 4)

Trump Cost the United States
More than 200,000 Manufacturing
Jobs, and His Plans Will Cost Us
More.

In Trump's single term, more than 200,000 manufacturing jobs were lost. Even before the COVID-19 pandemic, manufacturing job growth had all but plateaued under the former administration.

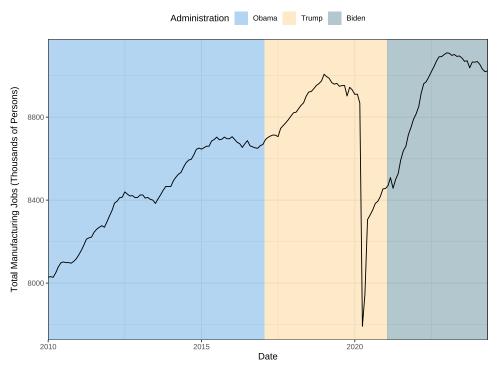
Trump's public statements about what he would do if elected again suggest that many of the programs creating manufacturing jobs under the current administration would be on the chopping block, endangering the manufacturing jobs Biden and Harris' policies are projected to create.

FIGURE 1: Construction Spending on Manufacturing Facilities 2010-2024



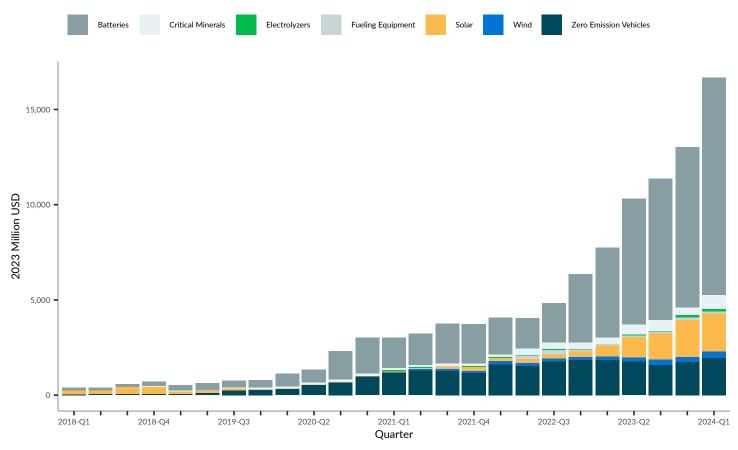
Source: U.S. Census Bureau, Total Construction Spending: Manufacturing in the United States [TLMFGCONS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TLMFGCONS, June 26, 2024.

FIGURE 2: Total Manufacturing Jobs (in Thousands) 2010-2024



Source: U.S. Bureau of Labor Statistics, Production and Nonsupervisory Employees, Manufacturing [CES300000006], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CES3000000006, June 28, 2024.

FIGURE 3: Private Investments in Clean Tech Manufacturing



Source: Adapted from the Clean Investment Monitor

Biden-Harris Administration Prioritized Energy Communities.

The Biden-Harris administration has also made efforts to prioritize investments in energy transition communities—like those communities where coal mines or power plants have closed. For example, the Qualifying Advanced Energy Project Credit (48C) was expanded by the Inflation Reduction Act and allocates \$4 billion to projects in designated energy communities.

Likewise, the Bipartisan Infrastructure Law created the Advanced Energy Manufacturing and Recycling Grant Program, which provides grants to small- and medium-sized manufacturers to build or retrofit manufacturing and industrial facilities in communities where coal mines or coal power plants have closed.

Trump Failed Coal Communities.

Despite making <u>frequent promises</u> to bring jobs back to communities in "coal country," a look at former President Trump's record shows no successful action to create jobs—in the coal industry or otherwise—or revitalize local economies around coal mines or plants. Coal jobs were in rapid decline <u>even prior to the COVID-19 pandemic</u> under the Trump administration.

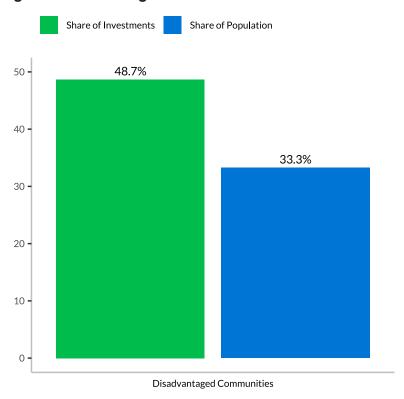


Figure 4: Disadvantaged Communities Share of Investments

Source: BlueGreen Alliance analysis of Clean Investment Monitor data

Investments in Manufacturing and Industrial Decarbonization

Biden-Harris Administration Made Historic Investments in Domestic Manufacturing and Industrial Decarbonization. The Biden-Harris administration's Inflation Reduction Act includes historic levels of funding to support the U.S. industrial sector. The law includes more than \$40 billion in tax credits to expand clean technology manufacturing, such as the \$10 billion for the 48C tax credit, which will support the establishment, re-tooling, or expansion of manufacturing facilities to produce solar, wind, battery, electric vehicle (EV), energy efficiency, and other clean energy technologies. The law also establishes a new manufacturing production tax credit worth more than \$30 billion to support the expansion of solar, wind, and battery manufacturing and the production of critical materials like aluminum.

Recognizing that manufacturing is vital to the growth of the clean economy while also acknowledging that industrial emissions are a major driver of climate change and a source of pollution, the Inflation Reduction Act and the Bipartisan Infrastructure Law also make significant investments in efforts to drive down emissions from the industrial sector. For example, the Inflation Reduction Act launches a new, nearly \$6 billion program to help manufacturers carry out emissions-reducing upgrades at steel, aluminum, cement, and other energy-intensive industrial facilities. Additionally, the Bipartisan Infrastructure Law includes \$550 million to

the U.S. Department of Energy (DOE) to provide technical assistance and grants for energy efficiency and emissions reduction at small and medium-sized industrial firms. These smaller firms often lack the funding and technical expertise necessary to improve their facilities and processes and can struggle to keep up.

Investing in reducing emissions from industrial facilities is also particularly important to keep the United States globally competitive. Other countries are investing in cleaner, advanced production methods. Failing to do so in the United States would set us behind, risking jobs and further polluting our air.

Trump Neglected Manufacturing Investments.

A look back at the Trump administration reveals no known programs to invest in domestic manufacturing or industrial decarbonization outside of those already in place from the Obama administration's American Recovery and Reinvestment Act.

Trump promised growth and investment from his tax law that permanently slashed corporate tax rates and provided a huge tax benefit to the wealthiest Americans. That did not come to fruition—especially not in manufacturing.

Biden-Harris Policies Support Domestic Supply Chains.

The Biden-Harris administration has also made strides in ensuring the growth of a domestic supply chain for the parts and materials needed to advance the nation's climate and infrastructure goals. For example: the Inflation Reduction Act includes new investments to support the administration's Buy Clean initiative. Buy Clean uses the U.S. government's vast purchasing power to drive demand for cleaner materials and incentivize or reward U.S. manufacturers for producing some of the cleanest products in the world.

The Bipartisan Infrastructure Law also includes provisions to support domestic supply chains. Buy America policies are preferences for U.S.-made products and materials for infrastructure projects that receive federal aid—giving domestic producers and workers the first shot at supplying a project. The "Build America, Buy America" (BABA) Act, passed as part of the Bipartisan Infrastructure Law, expands, harmonizes, and modernizes these longstanding Buy America policies to more infrastructure programs and projects.

The Biden-Harris administration has also made significant investments in boosting domestic manufacturing of the nuts and bolts needed to meet the growing demand for clean energy and EVs.

This dedication extends beyond industries like onshore wind and solar, which are well established in the United States, and into more emerging sectors like offshore wind. In September 2023, the Biden-Harris administration secured a memorandum of understanding between nine East coast states and four federal agencies dedicated to "strengthen regional collaboration on offshore wind supply chain development." The MOU will help expand manufacturing facilities, port capabilities, workforce development, and other key supply chain elements in a coordinated and sustainable way."

Trump Plans to Halt Growth in Supply Chain.

Former President Trump not only failed to invest in these critical domestic supply chains during his term in office, but he has also been outspoken in his intention to halt growth if reelected. For example, <u>he has stated</u> that he will "end" offshore wind projects on "day one."

Biden-Harris Administration is Fostering Growth in Emerging Industries like Electric Vehicles.

Biden-Harris' support for U.S. manufacturing extends into several burgeoning industries. For example, the Biden-Harris administration's CHIPS and Science Act will support domestic production of semiconductors, and investments in the Inflation Reduction Act are already supporting growth in the EV industry in the United States, creating long-term jobs across the country. Through investments to retool factories at risk of closure to build EVs and efforts to incentivize U.S. production of EVs, the policies of the Biden-Harris administration are tailored to position the nation to lead in this rapidly growing global market.

Trump Wants to Let Other Nations Lead.

Former President Trump has made his thoughts clear on EVs. In June 2024, Trump told House Republicans that he would undo <u>Biden-Harris'</u> <u>EV policies</u> if reelected. Contrary to <u>the growing proof that shows</u> that the Biden-Harris administration's EV policies are creating jobs, Trump has frequently stated that the shift to EVs would "kill" the auto industry.

Counter to that rhetoric is the fact that research has found that the transition to EVs has the potential to be a major boon for U.S. auto workers. Research from <u>Carnegie Mellon</u> finds that the number of worker hours needed to build an EV powertrain ranges from slightly greater than, to nearly double, those required to build the powertrain of a conventional gas car. If automakers continue to invest in developing a domestic battery supply chain to support their EVs, it could mean thousands of manufacturing jobs across the United States.

FOCUS ON:

Project 2025

Project 2025, a policy framework developed by the Heritage Foundation—a think tank funded by Conservative megadonors and staffed by many former Trump administration officials—lays out a plan to restructure the U.S. government to fit a conservative agenda.

Project 2025 would mean huge job losses. A report from Energy Innovation found that if Project 2025 was implemented it would lead to 1.7 million lost jobs in 2030. The report said, "The Project 2025 scenario reduces deployment of clean energy technologies and expansion of clean energy industries, significantly reducing job growth."

The framework includes several passages that shed light on what manufacturing policy may look like under a second Trump term:

Little Value for Manufacturing Workers: The document suggests that as long as manufacturing productivity continues to increase, there is little need to sustain or create manufacturing jobs. This, of course, leaves out the human component—the workers manufacturing our future.

"American manufacturing is buoyant because each manufacturing worker's productivity is also at an all-time high. The key to prosperity is doing more with less. The next President should ignore special interests and populist ideologues who want government to do the opposite through industrial policy, trade protectionism, and other failed progressive policies. It takes surprisingly few people to achieve America's record-high manufacturing output—currently about 13 million people out of a workforce of more than 160 million, compared to the 1979 peak of 19.5 million people out of a workforce of 104 million. Productivity growth has freed the time and talents of millions of people for other, additional uses."

Slashing Programs and Offices Dedicated to
Manufacturing Growth: The document suggests
eliminating several programs and offices that support
manufacturing growth and industrial decarbonization:

"The DOE Office of Clean Energy Demonstrations (OCED); Office of State and Community Energy Programs; ARPA-E; Office of Grid Deployment (OGD); and DOE Loan Program should be eliminated or reformed."

Supporting Outsourcing Manufacturing to Central and South America: The document calls for supporting manufacturing and supply chain growth not in the United States, but in Central and South America:

"First, the United States must do everything possible, with both resources and messaging, to shift global manufacturing and industry from more distant points around the globe (especially from the increasingly hostile and human rights-abusing PRC) to Central and South American countries. 'Re-hemisphering' manufacturing and industry closer to home will not only eliminate some of the more recent supply-chain issues that damaged the U.S. economy but will also represent a significant economic improvement for parts of the Americas in need of growth and stabilization."



FOCUS ON:

Promises Made, Promises Kept or Not Kept

Throughout their terms in office and on the campaign trail President Biden, Vice President Harris, and former President Trump frequently spoke directly to manufacturing communities, making promises of prosperity to come. But have those promises been kept?

Promise Made:

Shortly after winning the 2016 election, former President Trump announced that he had struck a deal with Carrier to keep its Indiana plant open, reversing a prior decision to outsource its manufacturing to Mexico. "Companies are not going to leave the United States anymore without consequences. It's not going to happen," Trump told cheering Carrier employees when he visited the plant. "We're not going to have it anymore."

Promise Not Kept:

By January 2018, Carrier had followed through with <u>cutting hundreds of jobs</u> regardless of the deal it had struck with Trump, and conditions at the plant for remaining workers were reported to be "relentless."

Promise Made:

President Biden <u>made history</u> during the United Auto Workers' (UAW) historic Stand Up Strike, as the first sitting president to join a picket line. Throughout the strike, the president was vocal about his support for UAW and their demands, which included fighting to stop plant closings, such as the Stellantis Belvidere assembly plant, which was closed in February 2023.

Promise Kept:

In November 2023, President Biden joined UAW President Shawn Fain in Belvidere to celebrate the reopening of the plant, which is currently producing batteries for electric vehicles.

Conclusion

Looking both at the past and at forward-looking statements, a clear contrast exists between the manufacturing record of the Biden-Harris administration and former President Trump. President Biden and Vice President Harris have supported U.S. manufacturing from day one, and studies estimate massive jobs gains due to this history of investment, incentivization, and carefully

crafted policies. We are already seeing significant increases in manufacturing employment and with many new facilities under construction or announced, more jobs are on the horizon.

Looking to former President Trump's record, and statements on the campaign trail, we see a stark contrast. The former president failed to spur any significant growth in U.S. manufacturing, even before the COVID-19 pandemic, and the promises he made to voters in manufacturing communities on the campaign trail in 2016 were not kept. Trump has vowed to undo many of the successful policies of the current administration that are already creating manufacturing jobs, risking continued growth in the sector.



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