

Can Industrial Policy Still Do Big Things?

A year after he left office, President Biden’s industrial policy is widely considered a failure. But the tools his administration developed are still in play and have defied a long-standing consensus about what is possible.

Almost as soon as he took office, President Biden issued Executive Order 14005, which aimed to bolster American manufacturing by giving domestic producers priority in public procurement—particularly the procurement of “iron, steel, and manufactured goods.” His administration spent the next two years advancing industrial policy, and by the 2022 midterm elections, the Infrastructure Investment and Jobs Act (IIJA), the CHIPS and Science Act, and the Inflation Reduction Act (IRA) had initiated the investment of many hundreds of billions of dollars in US manufacturing, bringing the full weight of federal authority to bear in an effort to reindustrialize the country. How are we to make sense of the most aggressive and self-conscious effort to promote American industry in decades—perhaps since the Second World War?

Many observers now consider it a failure. The manufacturing share of the US labor force fell throughout Biden’s presidency, and his vice president and would-be successor, Kamala Harris, not only lost the 2024 election but seemingly reaped few rewards from his initiatives. Even though she was endorsed by the major industrial unions, most blue-collar workers voted for her opponent, Donald Trump.

Today, critics of “Bidenomics” include not only free market conservatives, but also Democrats, whose internal

disagreements have been described as a “civil war.” So-called abundance liberals trace the party’s defeats to a failure to deliver on its promises. On their account, the problem lies in a lack of “state capacity” due to the influence of special interest groups, and the solution lies in deregulation. This would allow government not just to think big but to follow through, they contend, by jumpstarting the construction of housing, infrastructure, hospitals, and the like. By contrast, populists or social democrats say the problem is “corporate power.” Their agenda harkens back to the New Deal and involves taxation, redistribution, and regulation.

All these perspectives tend to assume that the production of goods is the realm of the market and questions of how to distribute the gains fall to government. But is this true? And, more pointedly, did Biden’s industrial policy really fail? To answer these questions, we must understand Biden’s industrial policies on their own terms. Just what was he trying to do with his signature legislation, and why?

One camp has characterized Biden’s efforts as a “Green New Deal in disguise.” The Inflation Reduction Act, in particular, offers an array of incentives designed to minimize the consumption of fossil fuels and stimulate the production and purchase of clean energy. Another narrative places Biden’s policy in the context of a “new Cold War” with China.

Semiconductors are indispensable to military power, after all, and the CHIPS Act was explicitly designed to “reduce our dependence on critical technologies from China” by reshoring and reconstituting the US chip industry. And there are also skeptics who maintain that Biden’s primary motivation was political, given that an outsized share of the investment generated by his initiatives flowed to battleground states in the South and Midwest, with the implication that his industrial policy was little more than a cynical effort to recruit and retain blue-collar voters who’ve been defecting from the Democratic Party for years. Insofar as Biden tried to achieve many goals with a few discrete pieces of legislation, moreover, he has been accused of violating the so-called Tinbergen rule, which holds that “each independent policy goal requires an independent policy instrument.”

The underlying coherence to the Biden administration’s initiatives lies in their commitment to what has been described as the *predistribution* of income and opportunity. The concept of predistribution emerged from the literature on social policy, where it is invariably juxtaposed with *redistribution*, or taxes and transfers that take from some and give to others. Predistribution, in the words of Jacob Hacker, the political scientist who is widely credited with coining the term, concerns “the way in which the market distributes its rewards in the first place.” Rather than being shaped by the redistributive safety net, predistribution involves laws that govern property, contracts, labor and the employment relationship, and the like. Well-known examples include minimum wages, civil rights protections, antitrust regulations, and collective bargaining agreements. Biden’s commitment to predistribution reflected a shift in the Democratic Party, which had been associated with policies that favored redistribution via taxation and welfare since the 1930s. Recent social research suggests that although redistributive policies remain popular among educated Democrats, predistributive policies are more popular among less educated workers.

Proponents of industrial policy have traditionally avoided questions of distribution or predistribution. Instead, their goal has been to build industrial prosperity, often by protecting and promoting “national champions,” like Volkswagen, Samsung, and Toyota. The interests of individuals and groups (e.g., the working class, farmers, women, small businesses, racial minorities) are subordinated to the national interest, which is believed to be coterminous with the interests of large industrial corporations. General Motors CEO Charlie Wilson’s alleged declaration to the effect of “what’s good for America is good for GM and vice versa” was a perfect expression of this philosophy. Traditional supporters of industrial policy either ignored distributional concerns entirely or hoped to deal with them through ex post taxes and transfers.

The problems with this approach are by now well known. Efforts to protect national champions have frequently been associated with vicious circles of inefficiency, influence-peddling, and cronyism. Protectionist measures like tariffs allow firms to survive despite high-cost, low-quality production. Protected firms are tempted to invest their profits in political rent-seeking rather than efficiency enhancement. And the feedback loop that results has the potential to enrich the winners, including the owners of protected firms, while impoverishing the losers, including workers and consumers—and this vicious cycle makes taxes and transfers both more necessary and less likely, particularly as they provoke resistance from the very investors and firms that have been emboldened by industrial policy.

Predistributive industrial policy

From his first week in office, Biden explained his industrial policies in broadly predistributive terms. He declared that he wanted to ensure not only that the future would be “made in America,” but that it would be made “by all of America’s workers”; that “small- and medium-sized companies” would get their share of the pie; and—not least of all—that the products involved would be of “satisfactory quality,” so that consumers wouldn’t be forced to pay the price of the gains accruing to workers and business. The policies he championed pursued these goals by challenging national champions, limiting protectionism, and embracing a broader array of industrial policy instruments designed to address inequality upstream, before taxes and transfers are necessary.

Consider, for example, the administration’s approach to antitrust enforcement. Since antitrust enforcement tends to protect consumers and small firms, it has commonly been considered incompatible with industrial policy, which tends to prioritize large firms and national champions. On this account, governments are said to have to choose between antitrust and industrial policy, and can’t pursue—or at least prioritize—both simultaneously. But the Biden administration viewed industrial policy as “more than just throwing money at national champions or favored industries,” in the words of Tim Wu, formerly at the White House National Economic Council. Fulfilling the promise of a dynamic and inclusive economy required trustbusting as a way to decentralize economic power. Upon taking office, Biden appointed a notably aggressive antitrust team in an effort not only to protect consumers and small firms, but to prevent, in Wu’s words, “any class or region of the country from becoming dominant over the rest, in such a manner as to threaten democracy and lead to unrest.” Biden’s goal was not to abandon industrial policy, but to reorient it toward a broader array of interests with the help of antitrust authorities.

Lina Khan, who led the Federal Trade Commission under Biden, made a case for this way of applying the law when she pointed out that “antitrust lawsuits against IBM and AT&T

ended up fostering waves of innovation” in the late twentieth century; meanwhile the national champions that Europe and Japan protected and promoted have fallen behind or vanished. To build on this legacy, and to protect consumers as well as the national interest, the administration tried to promote competition in the semiconductor industry to keep the innovation pipeline open in the run-up to the passage of the CHIPS Act. “Fixing our supply chain crisis necessarily means fixing our concentration crisis,” wrote one observer at the time. Through this lens, attacks on monopoly power were complements, rather than threats, to Biden’s industrial policy.

Another illustration of the administration’s use of antitrust as a tool for predistributive industrial policy can be found in the National Electric Vehicle Infrastructure (NEVI) program established by the IIJA, which Republicans would go on to deride as a boondoggle in the 2024 presidential campaign. Before the passage of the infrastructure law, Tesla boasted the country’s second-largest network of charging stations and a proprietary standard that was inaccessible to owners of rival vehicles. While Tesla vehicles operated on the company’s North American Charging Standard (NACS), rival electric vehicle (EV) makers were using the Combined Charging

chargers at highway exits,” explains journalist David Ferris, “his administration did lay the groundwork for the EV revolution of tomorrow—even if he won’t get credit for it.” It’s worth remembering that in the nineteenth century, the standardization of railroad gauges required the cataclysmic politics and motive force of the Civil War.

EV standardization, in this light, came at a relatively low cost. The relative ease of this transition suggests that these policies weren’t, as some have argued, a “self-contradictory” mishmash of industrial policy and antitrust enforcement—they were a self-conscious effort to use a variety of tools to make industrial policy deliver on a set of predistributive goals. Interestingly, even the administration’s critics recognize that the antitrust campaign was indispensable to Biden’s industrial policy; they simply disagree with his “big is bad” philosophy.

But antitrust is simply one aspect of Biden’s predistributive approach to industrial policymaking. Let’s consider three more: the performance standards imposed on producer subsidies; the means-tests attached to consumer subsidies; and place-based approaches, which channeled resources to low-income communities.

Biden’s commitment to predistribution reflected a shift in the Democratic Party, which had been associated with policies that favored redistribution via taxation and welfare since the 1930s.

Standard. The administration thus faced a dilemma: Allow the country’s “artisanal EV charging system” to persist, to the detriment of EV market development and industry growth; or embrace NACS and tolerate “monopolization in the EV industry before it could get going.”

Khan saw the dilemma as a chance to find a solution that would not only “promote competition rather than consolidation,” but encourage firms to share their efficiency gains with consumers. Accordingly, via NEVI, the administration prohibited states from receiving program funds for deploying EV charging infrastructure using proprietary technologies—essentially locking Tesla out. In exchange for the right to tap NEVI funds for charging station development, Tesla agreed to make its charging stations available to non-Tesla owners, and in so doing turned NACS into the universal charger standard for North America. Ford, GM, and other automakers are beginning to add NACS ports to their vehicles, allowing their workers to keep their jobs and their customers to pull up to a Tesla Supercharger and plug in without adaptors. NEVI’s role in product standardization made a bigger impact than most people realize. While Biden “didn’t get to campaign on the success of shiny new

Performance standards

The best-known components of Bidenomics are the tax credits and subsidies found in the CHIPS Act and the IRA. Unlike tariffs, which have traditionally been a blunt instrument, subsidies can be targeted toward specific firms, individuals, or communities with relative ease. And the credits and subsidies in CHIPS and the IRA were designed to promote the production and consumption of American-made semiconductors, electric vehicles, and clean energy technologies more generally.

In the absence of what the late economist Alice Amsden described as monitorable performance standards, however, subsidies run the risk of becoming mere giveaways. As a result, the existing literature tends to prefer conditional subsidies—which are linked to performance standards—over those that are unconditional. But the literature pays less attention to the content of the performance standards themselves. Just what behavior is being monitored and, thereby, encouraged? Amid the so-called Asian miracle, according to Amsden, industrial policymakers focused on exports because they were easy to monitor and served as a useful proxy for good-faith efforts to translate subsidies into

productivity gains. Producers who could export their products were in all likelihood making good use of their subsidies, officials believed, and therefore deserved continued support—whereas producers who couldn't or wouldn't export their products were believed to be squandering government largesse and cut off. This thinking roughly aligns with the idea that what is good for the large company is good for the country.

Biden's administration made extensive use of conditional subsidies, but focused less on exports or productivity gains than welfare considerations. Examples include efforts to channel resources and contracts to small firms owned by women and people of color, among others; the imposition of prevailing wage rules that forced subsidy recipients to offer their workers fair and reasonable pay; and the CHIPS Act's childcare requirements, which forced subsidy recipients to offer their workers affordable, high-quality childcare. Critics dismissed these standards as costly distractions and performative politics that turned industry into "indentured servants of progressive social policy," as the *Wall Street Journal* editorial board put it. But these policies were intentionally designed to break the mold of industrial-policy-as-usual as a response to the apparent futility of the last quarter century's experience with post hoc redistribution. If the goal was to fight inequality, predistribution would be necessary.

For all the skepticism and doubt about their appeal to industry, the subsidies in CHIPS were popular. By May 2023, US commerce secretary Gina Raimondo said the program was already "vastly oversubscribed," with more than 200 companies applying for grants. And with the transition to the Trump administration, the program has not only survived but expanded. Trump's One Big Beautiful Bill Act raised the law's key tax credit from 25% to 35% in an effort to bolster domestic chip manufacturing. Others have asked him to extend subsidies to grid components, steel, servers, and data farms.

Means testing

Biden's industrial policies subsidized consumers as well as producers. Consider, for example, the different components of the IRA. The clean vehicle tax credit fortified the electric vehicle industry in the United States by lowering the costs of American-made EVs and plug-in hybrids. The enhanced home energy tax credits supported the US appliance and building material industries by encouraging the conduct of home energy audits, the pursuit of energy-efficient renovations, and the installation of renewable energy systems and appliances that met their preferred Energy Star standard. And the domestic content bonus credit not only subsidized renewable energy projects that used US-made inputs, but made the credits available to previously sidelined Indian tribes, rural cooperatives, and nonprofits—and, in so doing, contributed to broader tax equity.

In the absence of income limits, however, these subsidies would have augmented inequality. Lower-income families

wouldn't be able to afford a new EV even with a \$7,500 subsidy, while those with higher incomes might well have purchased one without government support. To make consumer subsidies more effective and equitable, therefore, they were subject to strict income limits, with the exception of the credit for renewable energy systems. Recipients of the energy-efficiency credits couldn't make more than 150% of the median income in their community, for instance, and new vehicle credits were limited to single taxpayers making \$150,000 or less, heads of household making \$225,000 or less, and households filing jointly making \$300,000 or less.

Whether these specific income limits were appropriate or not remains an open question. A so-called horseshoe coalition of progressives and conservatives argued that they're actually too high: The progressives worried that the subsidies would do little for workers and communities that couldn't afford the up-front costs of home improvements and EVs or hybrids; and conservatives argued that few would be able to take advantage of the subsidies and described the project as little more than "green welfare to high-income households." But the EV share of new vehicle sales more than doubled in the first year of the IRA, and expanded further with the adoption of point-of-sale provisions designed to make the incentives available to low- and moderate-income buyers up front, and the "adoption potential" of energy-efficiency retrofits more than doubled for low-to-moderate-income households when compared to the pre-IRA baseline.

Place-based industrial policies

In addition to subsidizing producers and consumers, Biden's policies also targeted *places*. Policy analyst Mark Muro and his colleagues at the Brookings Institution have identified no fewer than 18 distinct place-based policies in the CHIPS Act and the IJA that seek to "promote industrial transformation" by taking advantage of local "talent, clusters, or networks." They included investment incentives, demonstration projects, and workforce development programs. The IRA also included place-based components, such as tax credits for clean energy projects in brownfield, extractive, or low-income communities and IRA-related investments in low-income communities, particularly in the EV and battery industries. Targeting impoverished areas such as Appalachia, the Mississippi Delta, and the urban rustbelt, these efforts were predistributive by design, and applications for the programs were oversubscribed.

The day before he left office, Biden tried to entrench—or at least affirm—these efforts by issuing an executive order calling for further efforts to help "left-behind communities make a comeback." He noted that every piece of legislation he had adopted had devoted energy and resources "to local leaders, workers, and businesses, enabling communities to turn setback into comeback." Within a year of taking office, however, Trump had abandoned place-based initiatives, including many that had been intended to benefit his blue-collar base. For instance,

the *Detroit News* reports that more than \$20 billion worth of EV and battery manufacturing projects have been canceled since the start of the year, and more than 75% of the abandoned projects—and their 30,000 prospective jobs—were located in Republican congressional districts. This forces us to ask why Biden located them there in the first place.

In hindsight, conservatives have criticized Biden's subsidies as little more than a costly and unsuccessful effort to buy votes in battleground states like Arizona and Ohio. Progressives have also condemned the failure to translate place-based industrial policy into electoral success. The Democrats poured millions of dollars into cities like Texarkana, which straddles the Texas-Arkansas border, and, in the words of *New York Times* columnist Thomas Edsall, in the end it "didn't matter one bit."

Politics were certainly central to the Biden initiatives. The place-based aspects of these policies were intended not merely to win votes, but to ensure the policies' survival if the electoral gambit failed. It's harder to rescind policies that benefit your own constituents, after all, and Democrats tried to insulate their initiatives from Republican opposition by dispersing their benefits to red and purple states. Their forerunners had done the same thing, often quite successfully, with funding for NASA, the National Science Foundation, and the National Institutes of Health, particularly through programs supporting small businesses.

When place-based initiatives lure investment to left-behind places, however, their political and substantive rationales are complementary rather than at odds with each other. The states that received a disproportionate share of the administration's attention and investment were home to poor voters as well as to red voters, many of whom had been falling behind for decades. "For far too many regions across the country, research and technology advances didn't take root and blossom into economic growth," argued Arati Prabhakar, then director of the White House Office of Science and Technology Policy. "To tackle the great challenges of our times, we have to be able to tap talent to spur growth more broadly."

Lessons and legacies

A year after he left office, Biden's industrial policies are widely described as a failure by critics across the political spectrum, and many of the initiatives have been defunded. But the fact that they are not gone—by any stretch of the imagination—offers important lessons for the future. After condemning the CHIPS Act in his campaign, Trump expanded it in his Big Beautiful Bill. He announced the end of NEVI but wound up funding it. And he tried to eliminate Energy Star, the efficiency standard imposed in the IRA, but backed down when confronted by a broad coalition of environmentalists, unions, builders, and

appliance manufacturers, who, a year earlier, had lobbied the Environmental Protection Agency to expedite the standard-setting process "so that consumers may take advantage of rebates available under the Inflation Reduction Act."

In fact, Trump has taken many aspects of Biden's industrial policy and remade them in his own image. He has claimed credit for infrastructure projects funded by the IIJA. He has reclassified coking coal as a critical mineral, which makes it eligible for IRA tax credits. And he has not only retained the CHIPS Act, but used money allocated by the program to buy an equity stake in Intel, one of the world's largest chip makers, and signaled that more such deals will be forthcoming. These equity stakes have moved US policy toward a form of "state capitalism," some legal scholars contend, but one that is regressive rather than redistributive. For instance, the Intel deal discharged the company of the other obligations imposed by the CHIPS Act, including Biden's performance standards. In other words, Trump is building his own industrial policies with the ruins, rather than on the ruins, of policies that the Biden administration pioneered—but using them in pursuit of radically different ends.

For the better part of the past half century, there was a consensus that there is no alternative to laissez-faire economics. According to this view, industrial policies might be possible in theory, or perhaps in more centralized, less democratic polities like China and Japan; but they were hard to adopt and bound to fail in a liberal democracy marked by federalism and the separation of powers. Therefore, Americans should leave production to the private sector and let politicians debate—but never dictate—distribution. The question for policymakers was less whether to empower big business and the banks than whether, and to what degree, to tax and transfer their profits *ex post facto*. Policies and platforms were thus aligned on a more or less unidimensional continuum that ran from "radical redistribution" to "regulatory rollbacks."

In pursuing distinct ends, the Biden and Trump administrations have effectively ended this consensus. While Biden treated redistributive industrial policy as a strategy to build resilience and opportunity, Trump has promised to "Make America Great Again" by putting "industrial policy on steroids." The result is a dramatically expanded industrial policy toolkit that includes not only performance standards, means tests, and place-based elements, but also standard-setting, antitrust, and public ownership. Add to these Trump's innovations with Operation Warp Speed from his first term, and whatever else may emerge in his second term, and there is no going back to "there is no alternative." We're now living in a multidimensional world. The question is what lies ahead, and the answer will be determined less by the structure of the American state than by the dynamics of political struggle.

Andrew Schrank is the Olive C. Watson Professor of Sociology and International and Public Affairs at Brown University.