There’s a reason the Great Lakes region is considered the industrial heartland of our nation. Working people here of all races and backgrounds forge the steel, build the cars and maintain the supply chains that keep America running. Manufacturing became a cultural symbol of Midwestern work ethic, grit in the face of adversity and pride in the quality of goods produced. The 2016 election turned on the results of four states in this region: Pennsylvania, Ohio, Michigan and Wisconsin. For too long, big, multinational corporations pushed some of our elected leaders to embrace harmful trade liberalization polices like most favored nation status with China and the North American Free Trade Agreement. These policy choices helped cause Pennsylvania, Ohio, Michigan and Wisconsin to shed nearly 800,000 manufacturing jobs from 1990 to the end of 2007. That deindustrialization was so severe it shrunk once-thriving Midwestern cities.1 These states lost another 500,000 manufacturing jobs during the Great Recession from 2008 to the beginning of 2010, before making a partial recovery of 340,000 jobs. There were 2,373,800 manufacturing jobs in these states by February 2020, on the eve of the COVID-19 recession. While manufacturing jobs still pay more than other work in the Great Lakes, the wage premium too has shrunk, from $3.72 in 2000 to $2.74 in 2019 and eroded for both men and women between 2016 and 2019 (in real 2019 dollars).

Despite promises of creative destruction, where manufacturing jobs would be replaced by a new generation of well-paid service work in a knowledge economy, corporate offshoring and closures destroyed jobs that were never replaced with new ones of comparable quality, and it turns out proximity to the production work is a vital ingredient in innovation.2 Growing recognition of these losses has brought calls to re-shore and regrow good-paying manufacturing jobs. The last four years have brought significant federal government activity on issues affecting manufacturing, especially as it comes to tax and trade policies. Yet, even before the COVID-19 crisis, these federal actions and promises to bring manufacturing jobs back to the Midwest had not yielded results. The U.S. manufacturing sector entered into a recession in the summer of 2019, according to Moodys.com Chief Economist Mark Zandi.3
Throughout 2019 and into early 2020, manufacturing job growth in the heartland had already stalled. Manufacturing firms in these four Great Lakes states cut jobs by 0.5% in 2019 while the rest of the nation grew 0.7%. Now the COVID-19 recession has forced factories to fire or furlough 381,000 more manufacturing workers in the four Great Lakes states from March to April. With summer gains, net employment was still down 140,000 as of the end of July. The COVID-19 crisis was worsened by lack of federal leadership, including on the health crisis, which President Trump made light of, and the response to the recession, when Congress allowed the $600-per-week federal unemployment payment to expire and failed to renew fiscal stimulus money to state and local governments after CARES Act funds were rapidly spent down. Before the pandemic, failings in federal manufacturing policy likewise thwarted the momentum and potential for further acceleration of the Midwest manufacturing jobs recovery, which had been adding jobs at a 2.4% annual rate as the nation recovered from the near collapse of the auto industry during the Great Recession — 294,000 jobs returned in the six years between 2010 and 2016.

This report outlines how decisions around trade, tax, investment and labor policy have limited Midwesterners’ access to family-supporting factory jobs. We outline this trend both through data and case studies of three specific manufacturing operations in the region. Racine Wisconsin’s Foxconn project underscores the problem with tax giveaways as economic development strategy: It failed to deliver on jobs promises despite a record $4 billion subsidy. General Motors’ Lordstown assembly plant, which the company shuttered in favor of lower-wage Mexican production, shows how trade policy continues to facilitate the transfer of quality jobs to low-wage suppliers and does too little to protect workers on either side of the border. And at Fuyao glassworks, the company’s successful effort to crush workers’ recent attempt to form a union demonstrates the need and failure to enforce existing labor protections.

Policy failures have facilitated firms’ efforts to reduce Midwest manufacturing jobs through offshoring and domestic outsourcing, and push down the wages workers earn in the sector. These trends coincided with growing trade deficits in all the region’s top 10 export industries. While the Trump administration promised to reverse these trends, strategic mismanagement in an escalating trade war with China resulted in retaliatory tariffs and alienated allies. The drawn out trade war with China had negative impacts on U.S. manufacturers and the overall economy, and ended with a Phase One deal too weak to change China’s non-market practices, and which made no effort to address China’s persecution of its own people, including forcing some 80,000 Uyghur minorities into forced labor camps.

Rebuilding an innovative, inclusive and sustainable manufacturing sector requires a multi-pronged strategy. Policymakers should balance the tax code so it directs enough public resources toward building and fixing the nation’s public infrastructure, which would increase demand for manufacturing. In addition, to keep up with aggres-
sive public investments in manufacturing by competing nations like China and Germany, the U.S. must expand policies that provide access to capital, a diverse, skilled and well-paid workforce and technological innovation. Yet, the administration’s signature achievement was the 2017 Tax Bill that included a massive corporate tax cut for U.S.-based multinationals that manufacture overseas. The administration has overseen a radical anti-labor turn at the National Labor Relations Board, undermining the ability of manufacturing workers to bargain collectively for better working standards. The collective impact of these negative policies has so far outweighed the real progress the labor movement has made on key fair trade demands over the last four years. Such advances include actions against unfair trading practices in key manufactured goods like steel, aluminum and washing machines, and strong Mexican labor reforms and new domestic content standards for autos enacted as part of the U.S.-Mexico-Canada Agreement (USMCA). The ability of U.S. trade and manufacturing policy to once again create the jobs that power Great Lakes economies that generate broadly shared prosperity must be the standard to which we hold our policy makers accountable.

Good wages and more opportunity

Manufacturing still pays better than other jobs for Midwesterners with a high school diploma, but the wage advantage is under attack. By outsourcing more of their production process to smaller firms that face intense competition (both domestically and overseas), lead companies are shedding workforce, squeezing their suppliers, and keeping more of the profits. Fierce resistance from firms has shrunken union density that once helped manufacturing workers bargain effectively for their share. Despite these major changes in the industry, the manufacturing wage premium has remained positive over time. Manufacturing remains more unionized than most sectors. The sector also provides opportunities to for non-degreed workers to attain specialized skills in credentialed trades like welding and mechanics, as well as supporting many professional jobs including accountants, attorneys and engineers.
While the data fluctuate between time periods, the evidence here (and from numerous other studies) is that the wage advantage for manufacturing jobs compared to others has decreased among non-supervisory workers. Today, manufacturing companies still pay better compared with other industries, but the advantage is smaller than in the past. The manufacturing wage premium for Great Lakes states is 26.5% lower than in 2000, as the wage premium has shrunk from $3.72 in 2000 to $2.74 in 2019. While the data fluctuate, manufacturing wages appear to have dropped in comparison to other industries between 2016 and 2019, despite strong economic growth overall. The wage premium eroded for both men and women between 2016 and 2019 and dropped for both white and Black workers in these four states. Only Hispanic workers saw an increase.

The wage premium for manufacturing cuts across categories of race and gender. Women or men, Black, white or brown, manufacturing workers consistently earned higher wages than their counterparts in other industries. This wage premium is a prime reason for the political importance of manufacturing in the Great Lakes. Chart 1 shows how women in manufacturing earned from $.88 more (2019) to $2.94 more (2016), while men earned $1.81 (2019) to $3.17 more (2000). Table 1 gives the wage premium as a percentage over average pay for these workers in other industries.

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>16.8%</td>
<td>16.2%</td>
</tr>
<tr>
<td>2008</td>
<td>10.8%</td>
<td>15.2%</td>
</tr>
<tr>
<td>2016</td>
<td>10.8%</td>
<td>19.5%</td>
</tr>
<tr>
<td>2019</td>
<td>8.4%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

From: Policy Matters Ohio analysis of CPS, CEPR ORG extract.
Wages for Black workers have declined at the median (across all jobs) in all of these states from 1979 to 2019, with losses ranging from $1.49 in Wisconsin to $4.89 in Michigan. Loss of manufacturing is likely a significant factor. Chart 2 and Table 2 show the dollar and percentage manufacturing wage premium for workers based on race.

### Chart 2

**Manufacturing wage premium by race for Great Lakes residents with HS Diploma or less, real 2019$**

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>18.8%</td>
<td>21.3%</td>
<td>8.8%</td>
</tr>
<tr>
<td>2008</td>
<td>16.2%</td>
<td>11.6%</td>
<td>7.2%</td>
</tr>
<tr>
<td>2016</td>
<td>15.8%</td>
<td>22.9%</td>
<td>1.7%</td>
</tr>
<tr>
<td>2019</td>
<td>12.7%</td>
<td>8.1%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

*From: Policy Matters Ohio analysis of CPS, CEPR ORG extract*
The long-term decline in the wage advantage for manufacturing workers, especially Black workers, has a lot to do with corporate attacks on unionization in the Midwest. But there is more at work. Changes to production processes and locations probably also played a role. Manufacturing supply chains are becoming less integrated as lead firms outsource less profitable portions of their operations - domestically and overseas - to smaller companies that face more intense competition. Firms do this as an intentional strategy to shed responsibility for their workforce. Sectoral segregation within the supply chain, along with geographic relocation of operations away from cities, means that not only have Black workers lost manufacturing jobs, but they are likely getting steered into lower-quality jobs within the industry. Black workers were disproportionately harmed by criminal justice policies including the War on Drugs, and are more likely to have a criminal conviction that bars them from getting an occupational license or excludes them from a job. Clearly a robust manufacturing sector can be an equalizing force for both less-educated workers and workers of color, but to make it so, more work is needed than simply to promote manufacturing with no concern for labor rights. Policies must support strong wages and intentional strategies to overcome specific harm from structural racism.
Union manufacturing jobs forged the secure middle class the Great Lakes region was long known for. Though these states have gained jobs since the Great Recession (prior to COVID-19), they never recovered the jobs they lost in the early 2000’s recession. Chart 3 shows how manufacturing jobs for the four states fell from 1990 to 1994, made a partial rebound as the overall economy and the auto industry boomed in the late 1990s, and then fell again dramatically from 2000 all the way through the end of the Great Recession in 2010. Ten years later, regional manufacturing jobs had yet to reach 2007 levels. As of February 2020, the four Great Lakes states had a combined 2,378,800 manufacturing jobs: 173,200 fewer than thirteen years prior in February 2007, and more than a million jobs fewer than in 2001. Then COVID-19 struck in spring 2020, sending another 381,000 manufacturing workers home from March to April. Despite regaining a preliminary 240,000 of those jobs by July, total manufacturing jobs in the region – 2,223,000 – remain at a level not seen since April 2013, wiping out eight years of progress since the Great Recession.

Even before COVID-19 collapsed large segments of the economy, the manufacturing sector had entered a recession. The downturn began in 2018 or 2019, depending on the state. Over a five-year lookback, manufacturing jobs in Ohio peaked in December 2018 (706,600), Michigan in January 2019 (636,100), Pennsylvania in June 2019 (579,700) and Wisconsin in August 2019 (490,600). The escalation of the trade war with China occurred at the end of 2018, and the region’s manufacturing employment slowed after that. Though not conclusive, there is evidence that trade war impacts on specific industries and the overall global manufacturing economy contributed to these outcomes. Jobs in the already slowing sector dropped dramatically from March to April 2020 in response to COVID-related business closures. Michigan took the largest hit, with 174,700 jobs displaced, bringing Michigan to the number of manufacturing jobs in Wisconsin. All four states rebounded substantially by June, but preliminary numbers for July were trending down again in two. Chart 4 gives these details.

**Chart 4**

State and Area Employment, Hours, and Earnings (Thousands of jobs)

Chart 5 compares annualized manufacturing employment change in key Great Lakes states before and during the Trump administration. The steep decline in manufacturing jobs accelerated from 2007-2010 as a result of the global financial crisis and the collapse of the U.S. auto industry. Here, federal policy mattered, as the auto recovery package helped spur a turnaround in manufacturing in these Great Lakes states. Manufacturing jobs grew faster from 2010-2016 than they did during the first two years of the Trump administration and only Pennsylvania did measurably better from 2016 to 2018 than it had from 2010-2016. Gains in those early years were buoyed by economy-wide recovery from the Great Recession, but federal policies like the plan to rescue the U.S. auto industry also played a role. The rest of the country's manufacturing sector fared better than these Great Lakes states from 2017-2018, a trend that continued through the end of 2019. These four pivotal states, deeply exposed to global industrial and economic swings, were hit by factory job losses while the rest of the country's manufacturers were able to keep growing, albeit more slowly than in 2017 and 2018. Manufacturing jobs in the Great Lakes states fell by 0.5% in 2019 while the rest of the nation grew by 0.7%. Sectors more prevalent outside the Great Lakes, like food manufacturing and chemicals, weathered this period better than transportation equipment and metal manufacturing. The changed composition of manufacturing jobs also matters, as transportation jobs are among the best-paying in the industry.
In 2008, 2016, and 2019 – i.e., the ends of the Bush and Obama administrations, and the most recent year – the Great Lakes region imported more of its top 10 export goods than it sent out. All top 10 export goods were in manufacturing. These state-specific trade deficits reflect the amount of manufactured goods exported from the region, minus the amount imported from other countries to the region. Table 3 shows exports along with net exports (that is, exports minus imports) for the region’s top 10 industries ranked by exports. While the largest export industry in the Great Lakes (transportation equipment, including cars and trucks) has had flat exports of around $50 billion per year, exports of machinery fell from $25.5 billion in 2008 to $18.5 billion in 2019.

<table>
<thead>
<tr>
<th>Industry code</th>
<th>Importance to region</th>
<th>Exports</th>
<th>Net Exports</th>
<th>Exports</th>
<th>Net Exports</th>
<th>Change in deficit 2016-2008</th>
<th>Change in deficit 2019-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation equipment manufacturing</td>
<td>336</td>
<td>1</td>
<td>52</td>
<td>-27.5</td>
<td>50.6</td>
<td>-63.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Chemical manufacturing</td>
<td>325</td>
<td>2</td>
<td>18.7</td>
<td>-9.1</td>
<td>21.3</td>
<td>-15.2</td>
<td>0.66</td>
</tr>
<tr>
<td>Machinery manufacturing</td>
<td>333</td>
<td>3</td>
<td>25.5</td>
<td>1.8</td>
<td>19.7</td>
<td>-5</td>
<td>3.85</td>
</tr>
<tr>
<td>Computer and electronic product manufacturing</td>
<td>334</td>
<td>4</td>
<td>13</td>
<td>-5.4</td>
<td>12.8</td>
<td>-13.8</td>
<td>1.56</td>
</tr>
<tr>
<td>Electrical equipment and appliance manufacturing</td>
<td>335</td>
<td>5</td>
<td>6.6</td>
<td>-5</td>
<td>8.9</td>
<td>-5.7</td>
<td>0.14</td>
</tr>
<tr>
<td>Primary metal manufacturing</td>
<td>331</td>
<td>6</td>
<td>11.5</td>
<td>-10.8</td>
<td>8.2</td>
<td>-4.2</td>
<td>0.61</td>
</tr>
<tr>
<td>Fabricated metal products</td>
<td>332</td>
<td>7</td>
<td>7.7</td>
<td>-1.7</td>
<td>8.1</td>
<td>-2.1</td>
<td>0.28</td>
</tr>
<tr>
<td>Plastics and rubber products manufacturing</td>
<td>326</td>
<td>8</td>
<td>4.6</td>
<td>-1.3</td>
<td>6.6</td>
<td>-0.9</td>
<td>0.35</td>
</tr>
<tr>
<td>Food manufacturing</td>
<td>311</td>
<td>9</td>
<td>4.6</td>
<td>-1</td>
<td>6.3</td>
<td>-0.2</td>
<td>0.82</td>
</tr>
<tr>
<td>Miscellaneous manufacturing</td>
<td>339</td>
<td>10</td>
<td>3.6</td>
<td>-3.6</td>
<td>4.1</td>
<td>-2.9</td>
<td>0.19</td>
</tr>
</tbody>
</table>

From: Trade USA
The trade deficit grew in eight key export industries from 2008 to 2016, as the growth in imports outpaced the modest recovery in exports, including big increases in imports of transportation equipment and its parts. This deficit can grow if the states reduce their exports, or if they increase imports. Machinery manufacturing stands out as having a large decrease, falling $5.8 billion from 2008 to 2016, and a further loss of $1.2 billion by 2019. This reduction is not offset by increased imports (not shown), so it indicates either a reduction in goods produced, or domestic outsourcing of production to other parts of the U.S. When it comes to net exports of these 10 goods, there’s been no change in the downward trend during the Trump administration. The trade deficit grew for eight out of the 10 major exporting industries—and in all 10, the states continued to run a deficit.

The ongoing trade war failed to yield results for Great Lakes communities that want a fair shake for their factories. The persistent trade deficits highlighted above have spurred a set of major policy actions since 2016. The threat posed by China in particular is real. Government subsidies to its domestic industries drive prices of some products below global market rates, violating the terms of its admission into the World Trade Organization with most favored nation trading status. According to the Economic Policy Institute, these violations fueled a $420 billion trade deficit by the end of 2018, which cost the U.S. 3.7 million jobs (75 percent of which were in manufacturing). The next section describes trade actions undertaken by the Trump administration with the stated goal of bringing back manufacturing jobs but that too often have missed the mark. **Strategic tariffs are good policy, but implementation matters.**

Early in his administration, President Trump agreed to strategic tariffs long advocated by progressive champions like U.S. Senator Sherrod Brown, the American Alliance for Manufacturing and unions, to address unfair trade practices and safeguard capacity to produce infrastructure vital to national security including steel, aluminum and solar, as well as some durable consumer goods like washing machines. In the cases of these specific goods, China, Korea and other nations had been selling products below...
their fair market value in the U.S. market, and putting national security at risk. Even though the legal basis of the steel tariffs was national security, the Trump administration targeted allies like the E.U. and Canada as well as China. This has made it harder to form a coordinated multinational response to oversupply of steel by China and other nations through international efforts like the Global Steel Forum. In part because of these failings, the tariffs did not spark the kind of international agreement on oversupply called for by companies across the world to stabilize the sector. Oversupply has continued and U.S. steelmakers like U.S. Steel’s Great Lakes Works in River Rouge, Michigan (1,500 jobs) have closed.18

The trade war with China damaged Great Lakes jobs

Added problems began in July of 2018 when the administration launched a “trade war” targeting China. The trade war was punctuated by broad-based tariffs19 that rose from a 10 percent duty in September 2018, to 25 percent by May 2019.20 The tariffs imposed on $360 billion in Chinese imported goods triggered $110 billion in retaliatory tariffs on agriculture and industrial subsectors like plastics manufacturing.21

These retaliatory tariffs target goods-producing industries — manufacturing and agriculture — that heartland states rely on. While the goods-producing economy can absorb retaliatory tariffs related to limited sets of strategic goods important to industrial policy, the broad-based tariffs did noticeable damage. Impacts include 2 percent lower growth among exporting sectors exposed to Chinese tariffs, and a statistically significant negative impact on jobs from 2017 to 2019 in those communities most exposed to them.22 Overall, a widely cited Moody’s economic analysis found that the trade war had cost 300,000 U.S. jobs by 2019, across manufacturing, wholesale, retail and other sectors.23 Average monthly job growth in U.S. manufacturing plummeted from 23,000 per month in the 12 months before the escalation of the trade war in September 2018 to 9,000 per month in the 12-month period afterward.24 The harmful consequences of the trade war come in part from the nature of U.S. manufacturing today, much of which will continue to be embedded in global supply chains even if reshoring efforts are successful. The trade war caused the share of U.S. components incorporated into Chinese goods to reach a 27 year low after the escalation of tariffs.25

Agreement pausing the trade war produced few long-term gains

As the administration approaches the end of its four-year term, there is little to show in real results for American workers after the dramatic trade war that was a cornerstone of economic policy. The phase one deal that paused the trade war in January only includes modest improvements from China, in exchange for a partial rollback of tariffs.26 Commitments like buying a minimum amount of U.S. products and curbing technology transfers
The wrong route to reshoring

Throwing billions at Foxconn in Wisconsin

are the kind of promises that China has reneged on before. The deal lacked tough agreements on subsidies to strategic industries and China’s oversupply of steel, aluminum and more. Moreover, China has been slow to follow through on the agricultural purchases that were at the heart of the deal, causing President Trump recently to threaten to re-escalate the trade war.

The experience of Foxconn in Racine County Wisconsin represents a microcosm of failed efforts to reshore jobs from East Asia. Decades of outsourcing of electronics production to East Asia has decimated the American consumer electronics sector, making it unable to compete in the production of panel displays, and the iconic American designed product, the iPhone. Numerous efforts have been made to recruit the iPhone’s leading manufacturer, Taiwanese behemoth Foxconn, to the U.S. In a White House ceremony with Wisconsin Gov. Scott Walker on July 26, 2017, President Trump celebrated Foxconn’s announcement to build a gargantuan display panel factory in Mount Pleasant, Wisconsin, near the city of Racine, stating, “If I didn’t get elected he definitely would not be spending $10 billion,” and declaring the facility the eighth wonder of the world at its groundbreaking in 2018. Demonstrating a too-common idea of what it means for government to support manufacturing, the state of Wisconsin promised Foxconn a record $4 billion package of taxpayer subsidies to build the plant.

While the original deal promised 2,080 jobs to in-state employees by the end of 2019, the company barely met the minimum 520 jobs it needed to create to receive any subsidy at all. Moreover, the current administration of Gov. Tony Evers has asserted that Foxconn shouldn’t qualify for any subsidies because they reneged on their promise to build a Generation 10.5 LCD production facility. Many of the jobs actually brought to Wisconsin are in research and development, and the planned production jobs at the centerpiece will be for smaller screen panels or other manufactured items. There will be scant good jobs for working-class residents of the city of Racine (which is 23 percent African-American and 23 percent Hispanic), following a pattern of previous Foxconn U.S. forays in Indiana and Texas that favored H-1B visa holders for engineering positions and low-wage temp jobs for the assembly line.

The failure of Foxconn is a poster child for a failed approach to bringing back manufacturing jobs from East Asia — all about big business giveaways and headlines, not follow-through. Even the office space leased by Foxconn in multiple Wisconsin cities to create advanced manufacturing innovation centers remains vacant. The deal and the plan have been unpopular from the start. It is time for a reimagined approach to development. As described in a detailed policy vision developed by Citizen Action of Wisconsin, a sustainable and inclusive way forward requires elected leaders to direct
public resources toward climate-crisis responsive innovation that can build on Wisconsin’s competitive advantages in fields like metalworking and water infrastructure. The billions of public dollars funneled to Foxconn could have been better spent on infrastructure, education and other public goods needed to lift up manufacturing and the entire economy, instead of empty deals. **USMCA contains too weak improvements over NAFTA**

In 2016, voters were promised a full rewrite of the NAFTA agreement that would end the outsourcing of manufacturing jobs to Mexico. But the replacement passed by Congress, the U.S.-Mexico-Canada Agreement, upheld the status quo for multinational manufacturers. For example, the new USMCA does not mention climate change in the text and does nothing to stop U.S. polluters from using Mexico as a dumping ground. Instead it preserves the special investor-state dispute resolution process for oil and gas companies looking to use trade protections to evade local environmental rules. The administration heralded new rules that required 45 percent of the content of automobiles within USMCA be produced by workers earning $16 per hour. Since U.S. and Canadian autoworkers typically make more than $16-per-hour already (while Mexican auto workers make only a fraction of that), the measure may not deliver wage gains. It likely will cause automakers to shift some production to the U.S. to meet the new 45 percent requirement; Mexican-produced autos sold in the U.S. currently have 38 percent American content.

The AFL-CIO fought for robust labor rights protections for U.S. and Mexican workers in the final deal — absent from the initial administration agreement. This was among the most potent changes in the text of a final deal that did represent improvement over NAFTA, but still left much more to do. Raising Mexican workers’ pay is the only way to ever fulfill NAFTA’s promise of lifting workers in the now deeply integrated North American economy. With only 45% of auto jobs falling under the $16 minimum, and a lack of comparable wage standards for workers producing other traded goods, the USMCA falls short on this commitment. Including a minimum wage threshold is a positive step, but more is needed to both lift Mexican workers and preserve manufacturing job quality in the U.S.

**Administration tax policies put big corporations first, not American workers**

The administration’s signature accomplishment was the 2017 Tax Cuts and Jobs Act. To be attractive for 21st century manufacturers, heartland communities need the federal government to allocate public funds for critical public goods like education, training and investments in infrastructure. Instead, the administration and its congressional allies focused on cutting revenues for public goods by $1.5 trillion over 10 years to deliver tax cuts to wealthy Americans and corporations. While the Tax Cuts and Jobs Act forced modest taxation of corporate profits, it ultimately made the situation worse. As explained by Institute on Taxa-
PROMISES UNFULFILLED

A taxes the offshore profits of American corporations at a rate of zero percent or, sometimes, at half the rate imposed on domestic profits...This can also encourage corporations to transfer real investments and jobs offshore, exactly what American public policy should not do.42

General Motors closed the Lordstown Chevy Cruze plant in Ohio’s Steel Valley in March 2019 after 52 years of operation. The closure came when GM was less than halfway through the 30-year commitment it made in 2008 to stay in Ohio in exchange for up to $82 million in state money to retool the Lordstown plant to start production on the Cruze.43 The company received just over $60 million for job creation and retention.44 Instead of dedicating a new vehicle to Lordstown, GM deliberately shifted production to Mexico, where U.S. trade policy enables the company to hire workers at $3- to $5-an-hour wages. The company ended all North American production of the Cruze, but while Lordstown went unallocated, the GM Ramos Arizpe complex in Mexico will produce the new Blazer.

Following GM’s closure of Lordstown, eliminating some 4,500 Ohio jobs, the Ohio Development Services Agency proposed to claw back more than $60 million of tax incentives given to GM since 2008 in exchange for the commitment it has reneged on to retain the plant for at least 30 years. GM has asked to keep the money, and Ohio Gov. Mike DeWine is seeking to negotiate a deal with the company.

The Lordstown saga underscores why elected officials should support trade agreements only if those agreements allow workers to organize freely and raise wages — as is needed in Mexico — and also guard against tax policies that subsidize outsourcing. Since NAFTA took effect in 1994, the North American automotive manufacturing industry — the most important manufacturing industry in the Great Lakes states — has become fully integrated across the U.S., Mexico and Canada, but the high-wage partners are also losing assembly plants, home to some of the best production jobs in the industry. GM is now the largest auto
manufacturer in Mexico. It went there seeking low wages in a country with low minimum wages and weak labor laws, shuttering productive U.S. facilities as it left, and foregoing opportunities to innovate by letting go both production staff and highly skilled power train engineers.

**Weakening education and training**

When it comes to labor rights, the Trump administration has enacted several policies that undercut workers’ voice on the job. The U.S. has a world-class system of job training opportunities. Registered apprenticeship programs are its cornerstone. These programs, which provide both civil rights and labor protections, ensure trainees have high-quality skills and high-wage jobs. Administration policies preference lightly regulated “industry recognized apprenticeships,” that would outsource accreditation of apprenticeships to industry associations — the same method used by for-profit colleges who offer substandard education but still receive federal government funds, often at a substantially higher tuition cost than public community colleges and universities. This change can undermine the role apprenticeships have played in upholding wage standards and affirmative action rules within skilled trades in manufacturing (and construction).

**No high-wage future in manufacturing without strong labor rights**

The balance of power has tilted dramatically to employers in recent years, making it harder for workers in manufacturing and other sectors to get good-paying jobs. U.S. employers were charged with illegal union-busting practices in 41.5% of union election campaigns from 2016 to 2017, including firing one or more workers in a fifth of all cases. In other cases, employers have found legal cover to fire workers who are engaged in pro-union activity, for example by discharging them for violating rules around civility in the workplace when a conflict about treatment at work leads to heated discussions. Moreover, the NLRB repealed the joint-employment precedent set in the Browning-Ferris decision, making it much harder for sub-contracted workers, who are very prevalent in manufacturing, to secure their labor rights.

The commitment to upholding labor and human rights must extend beyond the U.S. to America’s trading partners as well. The USMCA has made some progress toward supporting genuine labor organizing in Mexico, to replace commonplace factory unions which do not represent workers. More work is needed to hold the Great Lakes’ other top trading partner to account. The Chinese government has forced some 1 million of its persecuted Uyghur minority population into concentration camps while some 80,000 have been transported across the country to be assigned to factories in the textile and other industries. The United Nations’ International Labor
When Chinese billionaire Cao Dewang opened the Ohio Fuyao automotive glass making operation in the former General Motors truck plant near Dayton, community leaders celebrated the move as an economic development win that would restore local jobs. Fuyao has enjoyed around $10 million in tax incentives through JobsOhio, the private entity that now runs much of the state’s economic development functions. The documentary film “American Factory” chronicles a union-busting campaign at Fuyao, which spent $1 million in a successful bid to defeat a 2017 unionizing campaign. Wages for Fuyao workers at Moraine started at $12 per hour but rose to $14.50 during the union campaign, still a fraction of wages in the former GM truck operation located in the plant. The company has paid settlements and been fined for union-busting activity and OSHA violations at Moraine and another U.S. plant. Its actions to stop the UAW organizing drive at Moraine are now under investigation by the NLRB.

“American Factory” is a study in contrast between U.S. and Chinese working conditions, even in the same firm, and a demonstration of how reshoring jobs alone won’t restore good jobs without strong labor standards. In Fuyao’s Fujian Province plant in China, workers muster like military regiments to start shifts that include sifting through heaps of broken glass recycling without protective gear. They get just one or two days off each month. Furnace engineer Wong proudly shows off the scars from burns he received reaching into the furnace to pull out defective parts, and the Twinkies that comprise his daily lunch, since he gets little time to eat. When an American visitor to Fujian Province jokes that they should put duct tape over Ohio workers’ mouths to improve their productivity, the Chinese supervisor asks seriously, “Can you do that there?” At Moraine, Fuyao employed a number of Chinese workers transferred from its domestic operations to help set a tone of self-sacrifice to intense productivity levels and successfully pressured Chinese workers to reject the union bid through intimidation and appeals to nationalism. Fuyao’s Chinese transferees would spend two years at the plant away from their families.

The Economic Policy Institute has found that loss of bargaining power vis-à-vis more powerful employers is the leading reason that employers have been able to hold down U.S. workers’ wages despite their record productivity. Today, while only 11.7% of U.S. workers belong to a union, more than four times that number, from 48% to 54.2%, say they would join one if they could: a clear indication that heavy-handed practices like what Fuyao did are widespread. JobsOhio earned criticism from Sen. Sherrod Brown for being anti-union after it posted a press release celebrating Fuyao’s defeat of the UAW effort. Under criticism, JobsOhio later said the statement was a “draft” not intended for release, but nonetheless revealed its anti-union bias.

Public officials have sought to reshore U.S. manufacturing in part through enticing foreign direct investment such as was made in the Fuyao plant. But to ensure that the jobs created are high quality, officials must enforce labor rights including workers’ right to form a union.
Conclusion: Policies to repave the high road to a manufacturing recovery

Organization — to which the U.S. and China both belong — adopted prohibitions against forced labor among its member countries in 1995, and reaffirmed them in 2010. The administration has made no effort to curb human rights abuses that contribute to Chinese firms’ ability to underprice global competitors. Strong trade and tax policies can go a long way to ensuring American workers’ and factories’ success, by creating balance in a world where multinational corporations are seeking to extract maximum profits by producing in the cheapest locations, and with minimal environmental oversight. Besides those efforts, there is a growing, bipartisan understanding that we need a new industrial policy to match up to efforts like Made in China 2025, China’s strategic plan to grow its manufacturing sector. The recently released Endless Frontier Act authored by Democratic Senator Chuck Schumer and Republican Todd Young would mobilize the National Science Foundation toward the development and production of key advanced manufacturing technologies in the U.S.’s strongest manufacturing communities. A high road manufacturing policy strategy would entail a partnership between government, workers and communities to develop manufacturing that meets national economic needs and fosters competitive, advanced manufacturing; takes full advantage of technology and the ingenuity of the American workforce and delivers good wages. Under this administration, we have yet to see those policies. Those failures contribute to the sluggish growth in manufacturing jobs and wages.

A large-scale investment in infrastructure with strong Buy America provisions would support vital Midwest sectors like steel and heavy equipment. Such investments can help address climate change, as modeled by California’s Buy Clean policies, which benefit U.S. factories that can produce environmentally responsible construction material. Using tools like the U.S. Employment Plan, public infrastructure spending can bring more manufacturing of subways, buses and other key parts of clean infrastructure to the U.S. while intentionally expanding job opportunities for workers of color. So far the administration and House Republicans have opposed the inclusion of badly needed climate change investments in infrastructure plans and blocked progress despite clear evidence that Buy Clean policies can benefit U.S. producers and improve sustainability.

While the administration’s focus on national
security has led to useful expansions of industrial policy initiatives like the National Network of Manufacturing Innovation (also called Manufacturing USA) and the Defense Manufacturing Communities Support program, it has undercut others. The administration’s budgets have repeatedly zeroed out the successful Manufacturing Extension Partnership that delivers job-saving productivity assistance to small and medium manufacturers, as well as renewable energy innovation programs like ARPA-E that bring lessons learned from public investments in R&D for national defense to the field of climate security.\textsuperscript{57}

The Great Lakes states of Michigan, Ohio, Pennsylvania and Wisconsin have been devastated by decades of policies that allowed corporations to skirt labor laws and environmental protections in search of cheaper labor markets. Despite big promises and headline-grabbing trade actions, the manufacturing recovery in the Great Lakes stalled even before the pandemic and has only been worse since then. The administration’s policies continue to favor the rights of multinational

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Appendix: Manufacturing jobs by county

From 1990 until 2019, all four Great Lakes states lost manufacturing jobs. On the following pages, heat maps of each featured state show steep losses in a majority of counties, even as populations for these states grew from 7.3% in Michigan to 15.8% in Wisconsin. These maps are color-coded by percentage change. That feature highlights the relative impact of manufacturing job losses on each county.

Also noteworthy is the geographic relocation of these jobs: In general, the counties that lost jobs were more urbanized communities with substantial numbers of manufacturing jobs. Those that gained were more likely to be rural communities or exurbs. The sheer number of jobs lost across each state far exceeds the number gained. And the jobs that remained or were created tended to locate further from urban cores.

Interactive versions of these maps can be accessed on the web: https://www.policymattersohio.org/research-policy/data-visualizations
Map 1

Michigan Change in Manufacturing Jobs 1990-2019

[Access interactive map]

Map 2
Ohio Change in Manufacturing Jobs 1990-2019

Map 3

Pennsylvania Change in Manufacturing Jobs 1990-2019

[Access interactive map]

Map 4

Wisconsin Change in Manufacturing Jobs 1990-2019

% Change in manufacturing...

-73.4%  275.9%


[Access interactive map]

2 In economics, the concept of creative destruction is the notion that production processes undergo dynamic renewal in which new and more effective processes displace existing ones. See Joseph Schumpeter, Capitalism, Socialism, and Democracy. New York: Harper & Bros, 1942.


7 Heidi Shierholz, “Working people have been thwarted in their efforts to bargain for better wages by attacks on unions,” Economic Policy Institute, August 27, 2019, https://files.epi.org/pdf/173263.pdf


9 We measure mean wages in real 2019 dollars for workers with up to a high school diploma in manufacturing and non-manufacturing industries.


11 Heidi Shierholz, “Working people have been thwarted in their efforts to bargain for better wages by attacks on unions,” Economic Policy Institute, August 27, 2019, https://files.epi.org/pdf/173263.pdf


The tariffs imposed escalated from a limited set of goods in early 2018 such as machinery, electronics and metal products for which there was a strong specific case of unfair trade practices, as described by the U.S. International Trade Commission, “Notice of Determination and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation,” April 2018 at https://ustr.gov/sites/default/files/Press/Releases/301FRN.pdf


American Alliance for Manufacturing, “Phase One Trade Deal,” January 13, 2020 provided by email to the author.


California Public Contract Code § 3500-3505, Amended by Stats. 2018, Ch. 92, Sec. 172 https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=2.&chapter=3.&part=1.&lawCode=PCC&article=5
