Good morning Chairman Walden and ranking member Schakowsky. First let me commend the committee for holding this hearing on the state of U.S. manufacturing. Over the past year, the Century Foundation and its Bernard L. Schwartz Rediscovering Government Initiative sponsored the High Wage America Project—researching and touring the Industrial Midwest to understand the future of manufacturing as a provider of good jobs and economic growth. Representative Schakowsky, several of the community leaders involved in the tour had a chance to meet you two weeks ago today when they came to Washington to present our findings, which I have submitted for the record.1 While no one has such rose colored glasses as to believe manufacturing will ever provide 30 percent of jobs like it did in the Midwest thirty years ago, the message was loud and clear. Manufacturing matters to communities, their diverse economies and to shared prosperity.

The sector is critical to competitiveness as Manufacturers contribute 68 percent of all U.S. private research and development spending. Our ability to be a global leader in the clean economy depends on a robust manufacturing sector to create the next generation of green products. Growing manufacturing is the only way to cut the trade deficit, which reduces national income by $566 billion each year. And, our national security is compromised by reliance on foreign suppliers at a time when governments have shown a willingness to engage in cyber and economic warfare.²

But perhaps most importantly, Americans look to manufacturing as a source of family supporting jobs. Our research finds that in small towns in the industrial states from Michigan to Mississippi, manufacturing still accounts for 1 in 4 private sector jobs. Manufacturing brings high tech jobs to small towns like Phillips, Wisconsin, where Phillips Medisize has developed from a manufacturer of action figures to a worldwide provider of advanced molding and engineering services. Manufacturing is especially important to Americans without college degrees who earn $150 more per week than they do in other industries.³

The time is right for Congress to take action build a proactive national manufacturing strategy. Resilient manufacturers have added back 1.26 million (driven by 345,000 from auto manufacturing) of the 5.7 million jobs it lost from 2000 to 2010. There are serious concerns,

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however. Excluding the computer and electronics industry, manufacturing real output growth has only been 63 percent of the rest of the private sector from 2000 to 2016.\textsuperscript{4} The loss of production capacity has kneecapped our ability to innovate, as America has ceded its edge in high tech manufacturing to advanced East Asian nations and Germany. And, while manufacturing jobs still pay 10 percent more than other jobs, the wage advantage has eroded. Low-paid temporary workers represent 11 percent of the manufacturing workforce, up from 2.3 percent in the 1989.\textsuperscript{5}

A national manufacturing strategy must go beyond the international trade and tax issues that dominate discussion of manufacturing in Washington. Rather, federal policies should focus on investments that create the conditions for manufacturers to compete and thrive in a global marketplace, and for the manufacturing workforce to prosper. The manufacturing communities we have worked with over the past year are looking for the federal government to support public–private partnerships that spur high tech manufacturing; reinvest in workers; retain and reshore good jobs; and mobilize capital.\textsuperscript{6}

**Spurring innovation:** The future of U.S. manufacturing relies on being the most high tech, not the lowest cost. In Cleveland, we visited the ArcelorMittal steel mill, the first in the world to


\textsuperscript{5} Lawrence Mishel, "Yes, manufacturing still provides a pay advantage, but staffing firm outsourcing is eroding it," Economic Policy Institute, March, 2018, \url{https://www.epi.org/publication/manufacturing-still-provides-a-pay-advantage-but-outsourcing-is-eroding-it/}.

\textsuperscript{6} Joel Yudken, Tom Croft and Andrew Stettner, "Revitalizing America’s Manufacturing Communities," October 2017, \url{https://tcf.org/content/report/revitalizing-americas-manufacturing-communities/?agreed=1}. 
create a ton of steel with a single hour of labor, which sees a strategic advantage in environmental regulations that increase demand for high grade lightweight steel. Our competitors understand this. The Made in China 2025 campaign is a multi-billion-dollar effort to take China from a commodity producer to a leader in major advanced manufacturing exports from aerospace and alternative energy to railway equipment.

The new Manufacturing USA program is our response. There are fourteen applied research institutes targeting technologies like 3D printing, in Youngstown; robotics, in Pittsburgh; and super strong lightweight metals, in Detroit. Each brings together world class researchers with companies to solve technological problems and bring them to market, but the program is not a big enough to enable US manufacturing to truly compete. We have to step up Manufacturing USA into its full plan of forty-five institutes and provide permanent federal funding (emphasizing job creation) matched by the private sector.

**Reinvesting in workers:** Manufacturing can only grow if it has a workforce for the the future. In Chicago, our research found there were twice as many jobs open as workers being hired. One problem is that the programs on which manufacturers rely to create a pipeline of new workers—apprenticeship and vocational education—have been allowed to wither. And a generation who experienced industrial decline are telling their children to shun factory jobs.

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Congress can help by devoting resources that incentivize employers to double the number of manufacturing apprenticeships in five years. There needs to be new focused resources at the K–12 level, to expose young people to manufacturing with programs where they earn industry-recognized credentials and gain work experience. These efforts need to reach those in greatest need of opportunities, giving programs resources for the kind of mentoring and services needed to help women and people of color break into the trades. That’s the approach of Manufacturing Renaissance in Chicago, which has helped young people in some of the most violence-prone neighborhoods in the nation get the skills they need for high-paying production and engineering jobs. And, surely, manufacturers will have more success recruiting when they pay decent wages, respect collective bargaining, and provide safe workplaces.

**Retain and reshore industries:** Communities are developing innovative ways to work with local manufacturers to save and grow jobs, relying on smarter, more sustainable approaches than simply offering big tax giveaways. Pennsylvania’s Strategic Early Warning Network has saved thousands of jobs by providing targeted business turnaround assistance to small- and medium-sized companies at risk of closure.⁸ Chicago translated its need to replace aging subway cars into a new rail car manufacturing plant that will serve as an anchor for the distressed South Side neighborhood.⁹ Federal policy should give communities stronger tools to build these partnerships, by strengthening bedrock programs like the Manufacturing Extension Partnership, newer initiatives like the layoff aversion policies in the Workforce Innovation and Opportunity

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⁸ [https://www.steelvalley.org/sewn](https://www.steelvalley.org/sewn).
Act, and the recently authorized Defense Manufacturing Community Partnerships Support Program. Indeed, the time has come for Congress to support a Race to the Top for the new advanced manufacturing technologies of tomorrow, and cut off the race to the bottom of tax cuts competing for the factories of today.

**Mobilize capital:** Most of the country’s venture capital is invested in software companies (57.4 percent).\(^{10}\) When it comes to hard technologies that require manufacturing, the pattern is now “invent here and manufacture there.” The federal government should incentive further private investment in manufacturing through an industrial bank focused on national needs and a clearinghouse that mobilizes impact investors to bring sustainable manufacturing jobs back into distressed communities.

In conclusion, manufacturing is regaining its footing but there is much more to be done. Communities have counted on manufacturing for a source of middle class jobs. After years of decline, there’s potential for manufacturing to reclaim that critical role and support our world economic leadership. But, that will only happen through a coordinated agenda of investments that improve our competitiveness and sustain our world class manufacturing workforce. I urge the committee to continue it focus on boosting the manufacturing sector, and I would welcome the opportunity to work with you on this urgent priority for our nation.

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Summary of Testimony

- Over the past year, the Century Foundation and its Bernard L. Schwartz Rediscovering Government Initiative sponsored the High Wage America Project—researching and touring the Industrial Midwest to understand the future of manufacturing.

- Manufacturing is as a source of family supporting jobs, especially in small towns in industrial states where it still accounts for 1 in 4 private sector jobs. For workers without high school degrees, manufacturing pays $150 more per week.

- Congress should take action build a national manufacturing strategy. Manufacturers have added back 1.26 million jobs, but there are lingering problems with manufacturing production, our ability to compete internationally and to sustain a well-paid workforce.

- Manufacturing communities are looking for the federal government to support public–private partnerships that spur high tech manufacturing; reinvest in workers; retain and reshore good jobs; and mobilize capital.¹¹

- These investments represent a race to the top for the world leadership in advanced manufacturing, and are a critical to the U.S. becoming a world leader in environmental sustainability.

- For example, the Manufacturing USA initiative is too small to allow us to compete with China and should be expanded to its full vision. Furthermore, federal investments are needed to rebuild apprenticeships and vocational education programs that recruit the manufacturing workforce of tomorrow.

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