BUILT IN AMERICA: JOBS AND GROWTH IN THE MANUFACTURING SECTOR

HEARING

BEFORE THE

SUBCOMMITTEE ON DIGITAL COMMERCE AND CONSUMER PROTECTION

OF THE

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SUBMITTED MATERIAL

BUILT IN AMERICA: JOBS AND GROWTH IN THE MANUFACTURING SECTOR

WEDNESDAY, SEPTEMBER 26, 2018

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON DIGITAL COMMERCE AND CONSUMER PROTECTION,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2123 Rayburn House Office Building, Hon. Robert Latta (chairman of the subcommittee) presiding.

Members present: Representatives Latta, Kinzinger, Burgess, Lance, Guthrie, McKinley, Bilirakis, Bucshon, Mullin, Costello, Duncan, Walden (ex officio), Schakowsky, Cárdenas, Welch, Kennedy, Green, and Pallone (ex officio).

Staff present: Melissa Froelich, Chief Counsel, Digital Commerce and Consumer Protection; Ali Fulling, Legislative Clerk, Oversight and Investigations, Digital Commerce and Consumer Protection; Elena Hernandez, Press Secretary; Paul Jackson, Professional Staff, Digital Commerce and Consumer Protection; Bijan Koohmaraie, Counsel, Digital Commerce and Consumer Protection; Tim Kurth, Senior Professional Staff, Communications and Technology; Austin Stonebraker, Press Assistant; Madeline Vey, Policy Coordinator, Digital Commerce and Consumer Protection; Greg Zerzan, Counsel, Digital Commerce and Consumer Protection; Michelle Ash, Minority Chief Counsel, Digital Commerce and Consumer Protection; Lisa Goldman, Minority Counsel; Tiffany Guarascio, Minority Deputy Staff Director and Chief Health Advisor; Carolyn Hann, Minority FTC Detailee; Caroline Paris-Behr, Minority Policy Analyst; Andrew Souvall, Minority Director of Communications, Outreach and Member Services; and C.J. Young, Minority Press Secretary.

OPENING STATEMENT OF HON. ROBERT E. LATTA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. LATTA [presiding]. Good morning. I would like to call the Subcommittee on Digital Commerce and Consumer Protection to order this morning.

At this time I recognize myself for 5 minutes for an opening statement.

Good morning again. I would like to welcome everyone to today's Digital Commerce and Consumer Protection Subcommittee examination of the state of manufacturing in America.

Thanks to policies designed to spur manufacturing in our country, we are seeing a revival of the Made in America brand. Factories are expanding, workers are being hired and rehired, and wages are rising. A recent survey of small business owners found optimism at an all-time high.

Small businesses are responsible for creating two out of three new jobs. So, when they are raising wages, growing their businesses, and investing in equipment, it is helpful to the entire economy.

In my own congressional district, the 5th District of Ohio, we are definitely seeing a resurgence of optimism. My district stretches from densely populated urban centers like downtown Toledo to small villages on the state line of Indiana, and we probably have over 60,000 manufacturing jobs. In the over 900-plus district meetings I have had since August of 2012, overregulation is one of the most mentioned issues. I never hear that regulation isn't necessary, but I always hear people ask for regulations they can live with and comply with. It is burdensome for businesses to navigate regulatory regimes when they are busy improving operations and products for customers or working to grow to reach more people.

Through policies this Congress and the administration advanced, we are witnessing the rebirth of a healthy, strong, and growing manufacturing sector. This includes one of our witnesses today who comes to us representing Jerl Machine, Inc., from Perrysburg. Welcome.

And again, we thank you all for being with us today. I look forward to the hearing and hearing from you all.

According to the Congressional Research Service, the U.S. is the world's second largest manufacturing nation, having been overtaken by China in 2010. But the competition to regain the crown is very much alive. In recent years, American manufacturing output has risen steadily, this year reaching its highest level in nearly 10 years.

Growing production also means growing jobs. Since 2017, over 350,000 manufacturing jobs have been created in America. This is a sharp reversal over the previous 2 years when the Bureau of Labor Statistics was regularly reporting job losses.

The increasing demand for workers is creating new opportunities across our country. Importantly, for the first time in a long time, prosperity and opportunity are reaching into rural areas that have long been left out of the recovery. As a recent report by Brookings Institute notes, the growth of the employment rate in small and rural communities has outpaced that of large cities and other larger metropolitan areas. A large part of the success is due to the return of manufacturing jobs.

Restoring America's manufacturing sector has been a priority of this Congress. Tax reform focused on lowering the burdens for employers which they face in order to spur production and job creation has helped fuel the manufacturing boom. Perhaps that is why the National Association of Manufacturers' Outlook Survey reports an all-time high in manufacturer optimism for the second quarter of this year. They also reported record or near-record highs when it came to their expectations about hiring workers, raising wages, and making investments. Our manufacturers know that opportunity is greater now than it has been in many years.

Again, I look forward to hearing more about these trends from our witnesses, as well as any ideas you have for how policymakers can help remove barriers and further promote manufacturing in America. We are grateful for the time that you are here with us today, and we appreciate your testimony.

At this time, I would like to recognize the vice chairman of the subcommittee, the gentleman from Illinois.

Mr. KINZINGER. Thank you, Mr. Chairman, for yielding.

And I thank all of you for being here today. I especially want to welcome Mr. Anderberg. He is my constituent. He is the vice president and co-owner of Dial Machine, which is a great American manufacturing company located in Rockford, Illinois. Mr. Anderberg helps run this family-owned business that has been around for more than a half a century. He has a wealth of experience in the industry and is a student of the history of manufacturing and trade. It is not his first rodeo, either. He was here back in 2003 in front of the Small Business Committee talking about the state of manufacturing then.

Mr. Anderberg, thank you for making the trip to Washington to give us all your unique perspective on the manufacturing sector. It is definitely an honor to represent you in Congress.

With that, Mr. Chairman, I yield back.

[The prepared statement of Mr. Latta follows:]

PREPARED STATEMENT OF HON. ROBERT E. LATTA

Good morning, I'd like to welcome everyone to the Digital Commerce and Consumer Protection Subcommittee's examination of the State of Manufacturing in America.

Thanks to policies designed to spur manufacturing in our country we are seeing a revival of the Made in America brand. Factories are expanding, workers are being re-hired and wages are rising. A recent survey of small business owners found optimism at an all-time high. Small businesses are responsible for creating 2 out of every 3 new jobs so when they are raising wages, growing their businesses, and investing in equipment, it's helpful to the entire economy [1].

In my own congressional district, the 5th District of Ohio, we are definitely seeing a resurgence of optimism. My district stretches from densely populated urban centers like downtown Toledo to small villages on the state-line of Indiana and we proudly have over 60,000 manufacturing jobs. In the over 900 district meetings I've had since August 2012, overregulation is the most mentioned issue. I never hear that regulation isn't necessary, but I always hear people ask for soft- touch, minimal regulation. It is burdensome for businesses to navigate regulatory regimes when they are busy improving operations and products for customers or working to grow to reach more people. Through policies this Congress and Administration have advanced, we are witnessing the rebirth of a healthy, strong and growing manufacturing sector. This includes one of our witnesses today, who comes to us representing Jerl Marchine Inc. from Perrysburg. Welcome Ms. Moyers, and thank you very much for joining us today, I look forward to hearing from you and our other witnesses today.

According to the Congressional Research Service, the U.S. is the world's second-largest manufacturing nation, having been over-taken by China in 2010. But the competition to regain the crown is very much alive. In recent years American manufacturing output has risen steadily, this year reaching its highest level in nearly 10 years.

Growing production also means growing jobs. Since January 2017, over 350,000 manufacturing jobs have been created in America; this is a sharp reversal over the

[1] https://www.cnbc.com/2018/09/11/small-business-optimism-surges-to-highest-ever.html

previous two years, when the Bureau of Labor Statistics was regularly reporting job losses.

The increasing demand for workers is creating new opportunities across our country. Importantly, for the first time in a long time prosperity and opportunity are reaching into rural areas that have long been left-out of recovery.

As a recent report by the Brookings Institute notes, the growth of the employment rate in small and rural communities has outpaced that of big cities and other larger metro areas. A large part of this success is due to the return of manufacturing jobs.

Restoring America's manufacturing sector has been a priority of this Congress. Tax reform, focused on lowering the burdens employers face in order to spur production and job creation, has helped fuel the manufacturing boom.

Perhaps that's why the National Association of Manufacturer's Outlook Survey reported an all-time high in manufacturer optimism for the second quarter of this year. They also reported record or near record highs when it came to their expectations about hiring workers, raising wages and making investments.

Our manufacturers know that opportunity is greater now than it has been in many years.

I look forward to hearing more about these trends from our witnesses, as well as any ideas you have for how policymakers can remove barriers and further promote manufacturing in America. We are grateful for your time today and appreciate your testimony.

Mr. LATTA. Thank you very much. The gentleman yields back.

And I will yield back the balance of my time, and at this time I will recognize the gentleman from New Jersey for an opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman.

A strong manufacturing sector is vital to our identity as a nation, is the source of countless scientific and technological breakthroughs, and it is essential to maintaining our national defense capabilities. Manufacturing serves as an important building block for a strong and stable middle class in this country. Manufacturing jobs have historically paid more on average than jobs in other sectors, and they tend to bring with them strong spillover effects for local and regional economies.

In my home State of New Jersey, we have nearly 10,000 manufacturers from large pharmaceutical firms to small machine shops, and these manufacturers employ almost 250,000 people and contribute more than $30.1 billion to New Jersey's economy.

And I am pleased we are holding a hearing on the state of U.S. manufacturing. Our communities are stronger when we can develop well-paying and stable jobs. But the Republican majority for two years now has repeatedly prioritized the needs of large corporate interests and the wealthiest few. The American people have not been fooled by Republicans' claims about their giant tax scam. The American people know that the benefits of the tax law overwhelmingly go to the wealthiest few. And congressional Republicans also continue to push harmful regulatory rollbacks that undermine innovation and job growth.

Despite all the evidence to the contrary, Republicans are likely to tout the successes of their tax scam today. Yet, repeatedly, we have seen that most companies have not and do not intend to use the money for capital investment. In fact, we remember all too well watching President Trump's former lead economic advisor Gary

Cohn's distress when a group of CEOs were asked if they intended to increase their investments when the tax cuts become law, and almost none of them raised their hands. Gary Cohn sent shockwaves asking, and I quote, "Why aren't the other hands up?" Their hands did not go up because they intended for most profits from the tax cuts to go to shareholders, and that is exactly what has happened.

Contrary to the majority's claims, deregulation has also caused substantial uncertainty and angst for manufacturers. For example, eight years ago the CAFE standards were put into place to increase fuel economy for cars and light-duty trucks by model year 2025. U.S. manufacturers and their suppliers innovated and invested in advanced technologies. CAFE provided certainty to these firms, allowing them to invest in a pipeline of jobs for the long term. And all of that investment and innovation was upended in August when the Trump administration announced a proposal to roll back CAFE. This announcement threw into disarray well-laid plans for innovation and job growth.

The Trump administration's efforts to dismantle the Clean Power Act have also created even more uncertainty for the manufacturing sector. And this administration's efforts to abuse emergency authorities to subsidize the coal and nuclear industries threaten to hurt national gas-fired electricity producers and the renewables industry while raising costs for U.S. manufacturers at the same time.

So, what American manufacturers need is for the federal government to prepare and implement a coordinated long-term strategy for manufacturing success and job growth. Our key competitors have figured this out already. Since 2015, the Chinese government has invested billions of dollars into the Made in China 2025 campaign, which is their 10-year plan for transforming their economy from commodities to advanced manufacturing.

And the Obama administration recognized this need and established the National Network for Manufacturing Innovation, now known as Manufacturing USA. This is a network of industry, academic, and government partners working to increase U.S. manufacturing competitiveness and spur innovation. To date, this network has 14 institutes specializing in a variety of advanced manufacturing sectors such as advanced robotics and lightweight metals. The plan was to open three times as many institutes, and I encourage the current administration to follow through with this initiative.

It's time to stop making manufacturing policy on a whim and, instead, to think strategically about the future needs of this country. Mr. Chairman, American manufacturing also needs companies to step up and invest, and not just in their plants, but in their workers as well. Too often, good manufacturing jobs become part-time jobs without benefits, and workers are increasing losing their power to negotiate for better conditions and higher wages. So, the federal government needs the industry to be a partner in creating a vibrant manufacturing economy. And I hope this hearing can explore that partnership.

So, I yield back. Thank you, Mr. Chairman.

Mr. LATTA. Thank you very much. The gentleman yields back.

And the Chair now will recognize the chairman of the full Committee of Energy and Commerce, the gentleman from Oregon, for 5 minutes.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. WALDEN. Thank you very much, Mr. Chairman. I appreciate your leadership on this issue and the hearing that we are having today.

As our witnesses will know, we have got a couple of these going on today. So, some of us will have to bounce back and forth.

I would just say at the beginning, I am glad to stack the Trump economy up against the Obama economy any day of the week. We actually have provided, as a result of Republican majorities, the biggest tax relief since Ronald Reagan. We have had significant regulatory relief, taking the dead hand of overexcessive government regulation off the throats of America's entrepreneurs, and they have responded at record pace to create jobs in America, and to give us the best economy nearly anybody in the working world has seen in their time. And so, optimism is up. Jobs are up. There are more openings than there are people to fill them, and we are moving forward with a robust economy.

And this notion from the last President that we should get used to a 1.5 or 2 percent GDP, and that is the new normal, the best America could do, is just garbage. And so, we are seeing it move forward at 4.2 percent GDP growth, and a very, very strong economy, and it is because of the Republican policies we have passed out of this committee and others, and down to the President for signature.

But today we are going to hear about manufacturing. It is essential and it is coming back in America. From car parts to industrial equipment, to semiconductors, America's manufacturing sector keeps us on the cutting edge of technology and world leadership.

Thanks to historic achievements in tax and regulatory reform, our country is undergoing a manufacturing revival unlike we have seen in a very long time. The latest manufacturing index from the Institute for Supply Management has reached its highest level in 14 years. This number translates into surging growth and increased production of goods made in America.

With the resurgence comes the return of manufacturing jobs. And in fact, The Washington Post recently reported, and I quote, "Jobs in goods-producing industries, mining, construction, and manufacturing, grew 3.3 percent in the year preceding July, the best rate since 1984."

And with this increase in manufacturing jobs has come rising wages. According to the August Bureau of Labor Statistics quarterly release, compensation for workers has risen to a nearly 10-year high. These are the facts.

The latest GDP report shows that our economy has grown at a rate of 4.2 percent, and we anticipate this week's GDP report will show similarly strong results. Further, earlier this month, the National Federation of Independent Business—and my wife and I were small business owners for 21 years—it reported that its small business optimism index has surged to 108.8 percent, the highest level ever recorded in the survey's 45-year history. These are the facts.

Of course, all these numbers can seem abstract, but what they represent is not. Our economy is strong and growing. This surge of American manufacturing has come from business, both large and small. Jobs are being created. New products, technologies, and medicines are being invented. And consumers have more money in their pockets to spend, to put away for their children's education, or save toward retirement. Workers are once again able to find solid, dependable jobs with good pay.

And it is all the result of this Congress, the Republican Congress, investing in America by reducing the burdens and taxes and unnecessary regulations imposed on job creators. You know America has always been a nation of doers and makers. It has always been a place where anyone with dedication and ambition can start their own enterprise and take the future into their own hands. By any measure, we are witnessing a reinvigoration of that great and proud tradition as Americans.

So, I am proud of this committee's work. Most of it has actually been bipartisan. And we are getting pro-growth, pro-innovation policies and we are helping our entrepreneurs do what they do best.

That includes we really appreciate our witnesses here today. Thank you all for the help you are doing to grow jobs in America. We know there is a lot more work to be done. We know there are unsettled parts and challenges in the economy. But we are here to be your partner, to help American workers succeed and American businesses grow, and manufacturing get even stronger.

So, with that, Mr. Chairman, I yield back the balance of my time.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

Good morning and thank you to our witnesses for appearing before us today to discuss the state of a quintessential American industry: manufacturing. From car parts, to industrial equipment, to semiconductors, America's manufacturing sector keeps us on the cutting edge of technology and world leadership.

Thanks to historic achievements in tax and regulatory reform, our country is undergoing a manufacturing revival unlike any we've seen in a long time. The latest manufacturing index from the Institute for Supply Management has reached its highest level in 14 years. This number translates to surging growth and increased production of goods made in America.

With this resurgence comes the return of manufacturing jobs. The Washington Post recently reported, "Jobs in goods-producing industries—mining, construction and manufacturing—grew 3.3 percent in the year preceding July, the best rate since 1984. . ."[1]

And with this increase in manufacturing jobs has come rising wages. According to the August Bureau of Labor Statistics quarterly release, compensation for workers has risen to a nearly 10-year high.

The latest U.S. GDP report shows that our economy has grown at a rate of 4.2 percent, and we anticipate this week's GDP report will show similarly strong results.

And further, earlier this month, the National Federation of Independent Business reported that its "Small Business Optimism Index" had surged to 108.8 percent, the highest level ever recorded in the survey's 45-year history.

[1] "Under Trump, the jobs boom has finally reached blue-collar workers. Will it last?" (September 9, 2018)https://www.washingtonpost.com/business/2018/09/09/under-trump-jobs-boom-has-finally-reached-blue-collar-workers-will-it-last/?noredirect=on&utm—term=.9c7b28e2a87f

Of course, all these numbers can seem abstract, but what they represent is not. Oureconomy is strong and growing. This surge of American manufacturing has come from businesses both large and small. Jobs are being created. New products, technologies, and medicines are being invented. Consumers have more money in their pockets to spend, to put away for their children's education, or save towards retirement. Workers are once again able to find solid, dependable jobs with good pay.

And it is all the result of this Congress investing in America by reducing the burdens that taxes and unnecessary regulations impose on job creators.

America has always been a nation of doers and makers. It has always been a place where anyone with dedication and ambition can start their own enterprise and take the future into their own hands. By any measure we are witnessing a reinvigoration of that proud tradition.

I am proud that this committee's dedication to pro-growth, pro-innovation policies has contributed to this moment. I am even more proud of America's workers and business leaders.

That includes our witnesses for today's hearing. Thank you for all you do to help create jobs and keep America a place where we make things that improve lives and change the world. Please let us know what we in Congress should do to continue supporting American manufacturing and the remarkable economic growth we see today. It's our job to make it easier for you to succeed.

Thank you and I yield back the balance of my time.

Mr. LATTA. Thank you very much. The gentleman yields back the balance of his time.

The Chair now recognizes the ranking member of the subcommittee, the gentlelady from Illinois, for 5 minutes.

OPENING STATEMENT OF HON. JANICE D. SCHAKOWSKY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Ms. SCHAKOWSKY. Thank you, Mr. Chairman, and I apologize to you, to our witnesses, and my colleagues for being late.

I want to thank you, and Mr. Stettner, Mr. Paradowski, Ms. Moyers, and Mr. Anderberg for being here today.

Manufacturing helped build the American middle class. Strong wages helped build products that Americans were proud of. And unfortunately, too many misguided policies over the last 30 years have allowed our manufacturing sector to slowly whither away.

I am pleased to see that my colleagues invited as witnesses executives from businesses that used the most recent Republican tax cut to invest in their businesses by increasing wages and better training for their workers. However, closer examination of macro-level data, a very different story than the one that we will be told today can be heard.

I would like to submit for the record this blog by Josh Bivens from the Economic Policy Institute for the record. I ask unanimous consent.

Mr. LATTA. Without objection.

[The information appears at the conclusion of the hearing.]

Ms. SCHAKOWSKY. What this will show is that, despite the Republican rhetoric, we haven't seen anything close to an explosion in investment. Examination of the Census Bureau's Manufacturers' Shipments, Inventory, and Orders Data from 1992 until today shows current investment levels far below that of even 2009.

We shouldn't be surprised. At the end of the last year, Republicans' political consultants connected business with public relations firms before the tax bill was even signed into law. They touted one-time bonuses as evidence that the tax bill would lead to higher wages in the long term for workers. Today is the next step in that well-orchestrated public relations campaign, and I don't mean in any way to denigrate our great witnesses that are here today.

So, where have the $2 trillion gone? Since the tax bill passed, we have seen an explosion of stock buybacks. When companies invest in buybacks, they juice their stock prices in the short term, creating what Senator Warren described as a sugar high, that leads companies to neglect investment in equipment, wages, and worker training.

According to a recent report by the Roosevelt Institute and the National Employment Law Center, in the 3 years prior to the enactment of the tax law, public companies across the American economy spent roughly three-fifths of their profits on buybacks. So, what happens when Congress and the Trump administration give corporate Americans more cash? Examining the first half of this year, it is clear corporate America likes to spend on buybacks. Share repurchases surged 43 percent in the first half of this year versus a far less inspiring increase of 27 percent for capital expenditures.

Consider Walmart, the Nation's largest employer. Walmart supported the tax bill and claimed it would help workers, but it is not clear how much of that $2.2 billion in annual tax cuts actually helped its more than 1.4 million Americans. Shortly after enactment, the Walmart board authorizes $20 billion in stock buybacks. The Roosevelt Institute released a separate report estimating that, if Walmart had directed half of that toward wages, hours worked compensation could have been increased by more than $5 per hour, which would transform the lives of many of those workers and help provide a living wage.

As Members of Congress, wI am looking at the time—as Members of Congress, we are approached by employers all the time who say they can't find qualified workers, that there is a skills gap. I would argue that America's skills gap is really more of a wage gap. The declines in union density and a focus on core competence and executive salaries, instead of training and capital investment, have dried up the private sector's role in workforce development.

So, I am going to skip to the end and submit the whole thing for the record.

I just want to say that what my Republican friends won't tell you is how the administration's deregulatory agenda, again, makes the wallets of the wealthy fatter while risking health and safety of the middle class and working poor.

I hope that we will hear some of the good news today and that what we are going to hear from all of you is that we can do better in this country.

Thank you very much, and I yield back.

Mr. LATTA. Thank you very much. The gentlelady yields back.

And that will conclude with our members' opening statements.

The Chair would like to remind members that, pursuant to committee rules, all members' opening statements will be made part of the record.

And as the gentleman from Oregon stated, the chairman of the full committee, we do have two subcommittees running simultaneously today. So, members will be coming back and forth during each committee hearing.

Once again, I want to thank our witnesses for being with us today. We greatly appreciate your taking the time to testify before our subcommittee today. And today's witnesses will have the opportunity to give a 5-minute opening statement, followed by a round of questions from our members.

Our witness panel for today's hearing will include Ms. Nikki Moyers, who is Vice President of Operations at Jerl Machine in Perrysburg, Ohio, right up the road from where I live; Mr. Edward Paradowski, the President of Apache Stainless Equipment Corporation in Beaver Dam, Wisconsin; Mr. Andrew Stettner, the Senior Fellow at the Century Foundation, and Mr. Eric Anderberg, the Vice President of Dial Machine in Rockford, Illinois.

Again, we want to thank you all for being with us today. And if you would, pull that microphone up close and just press the button. You will see the little red light go on there.

And you are recognized, Ms. Moyers, for your opening 5-minute statement. Thank you very much for being with us.

STATEMENTS OF NIKKI MOYERS, VICE PRESIDENT, OPERATIONS, JERL MACHINE, INC.; EDWARD PARADOWSKI, PRESIDENT, APACHE STAINLESS EQUIPMENT CORPORATION; ANDREW STETTNER, SENIOR FELLOW, CENTURY FOUNDATION; AND ERIC ANDERBERG, VICE PRESIDENT, DIAL MACHINE, INC.

STATEMENT OF NIKKI MOYERS

Ms. MOYERS. Thank you. Good morning. Thank you, Chairman Latta, and subcommittee members, for inviting me here on behalf of my company.

My name is Nikki Moyers. I am Vice President of Operations at Jerl Machine, Inc., in Perrysburg, Ohio. The company was started by my grandfather, Bob Brossia, out of his garage in 1973. Today, Jerl boasts 67 employees and caters a variety of industries. The state of American manufacturing is, obviously, near and dear to us because it is our jobs, but also because it is our family legacy.

In the past year, Jerl has seen a production resurgence unprecedented in its 45-year history. Our core customers are sending in more purchase orders than ever. We are hearing from companies that haven't done work with us for over a decade, and more and more new opportunities are surfacing.

Our suppliers are just as busy, proving that our good fortune is not unique in this industry. And I attribute much of the upswing to the passing of the tax cuts and JOBS Act late last year, specifically its provision to cut corporate taxes.

We are on the right track to have our highest sales and highest profit of year on record for 2018. Jerl has been able to give much-deserved wage raises to our employees, has already paid out two separate bonuses to all of our employees, and has another plan for late November. We have also added three machines to our shop floor to keep up with our orders.

But our growth is hindered. We are currently running at 60 percent capacity, despite the fact that our phones are ringing more than ever. We are forced to turn away work because we do not have the skilled labor to meet our deadlines. We cannot fill our open positions, and the looming retirement of 15 percent of our workforce will only worsen this problem. I am confident that the current manufacturing boom is not a fluke, but unless strides are made to fill the skilled manufacturing jobs that nearly every company like ours has, we cannot sustain the growth.

It is no coincidence that I am here today as the lone female up here representing my field. In my time at Jerl, we have employed a single female machinist. Our workforce is over 90 percent Caucasian. Not only are we lacking in skilled workers, we are suffering from a lack of diversity in manufacturing.

And I think the answer lies in our schools. It is time to fund the industrial arts and practical life skills as part of a core curriculum. Fine arts education can't be allowed to cease either, as so much of what we do requires the craft of an artist's eye. Trade and technical schools must be touted by counselors, teachers, and parents as options equal to traditional 4-year colleges. Students need to know our field and that we offer high-paying careers.

We are on the right track. The current administration has shown that it values the manufacturing field and it recognizes its impact on our country as a whole. As long as it continues to facilitate open discussions such as this hearing, manufacturing will endure with continued hard work. We have never feared hard work. Bring on the future.

Thank you.

[The prepared statement of Ms. Moyers follows:]

Built in America: Jobs and Growth in the Manufacturing Sector

Nikki Moyers, Vice President of Operations
Jerl Machine Inc.
Perrysburg, OH

Summary

- Jerl Machine, Inc. was built by Robert Brossia forty-five years ago and remains a family business catering to a variety of industrial concerns
- Jerl's core competencies include tight tolerance machining, CNC mill and lathe operations, major machine sub-assemblies, bending, and welding
- During and after the Great Recession, Jerl was forced to scale back production by shutting down its third shift and laying off employees in response to lack of work from our core customers
- The past year has seen a production resurgence, much of which Jerl attributes to the Tax Cuts and Jobs Act
- To date, 2018 has seen Jerl's highest sales growth and highest profit margin on record, allowing us to reinvest in our employees, new machinery, and training
- Jerl's growth is hindered by a lack of skilled labor employees to fill current open positions, and the situation will only be exacerbated by the looming retiring workforce
- Renewed funding in schools for students to experience and learn about the trades is a necessity for the survival of manufacturing

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Built in America: Jobs and Growth in the Manufacturing Sector

Robert "Bob" Brossia started Jerl Machine, Inc out of his garage in 1973 with a healthy knowledge of machine repair and inner workings, some hand tools, and a single drill press. Bob had worked for several machine shops, conquering every task from cleaning and sweeping to shop supervisor, but nothing felt quite right. He watched his bosses make the same decisions while expecting different results and knew he could do better. Bob wanted to make his own rules, and create a legacy to provide for his wife, four children, and inevitable grandchildren like me.

Jerl Machine was incorporated in 1975 with Bob at the helm, his wife Eileen at his side and two daughters running the office. Today, Bob is still CEO, his daughter Carol is company President, and several other family members, myself included, round out the workforce. Jerl is known for quality precision metal working and tool making for a diverse group of industrial and manufacturing customers. The company core competencies include tight tolerance machining, major component sub-assemblies, CNC turning and milling, bending, and welding. Jerl prides itself on its highly skilled workforce of tool makers and engineers, and strives to treat each of its sixty-seven employees like family by offering competitive wages and generous benefits including health and life insurance, paid vacation and holidays, profit sharing and matching 401k contributions.

Bob has never been afraid of technology, change, or expansion; he embraced testing the latest machinery and researched relentlessly to allow Jerl to break into new industries. If he didn't have the knowledge to dive into an innovative venture, he found someone who did. He experimented with machining processes until they were successful and profitable. Jerl was thriving by the year 2000, and instead of quietly collecting his profits and maintaining the status quo, Bob sought out and purchased an 80,000 square foot facility, nearly triple the size of his current one. "You'll never fill it," his own sales staff and plant foreman said. Over a decade later, we're running out of space. Bob's forward thinking and vision built a solid foundation for a sustainable manufacturing business, no matter what the changing world's needs would require.

Jerl has seen economic boom and economic crisis in its forty-three year tenure in Northwest Ohio. Thanks to an ever-changing network of customers, and more importantly, diverse industry reach, Jerl was able to remain in business while other companies floundered and failed through 2008 and 2009's disastrous fiscal downturn. We were hit late by the recession, and boasted a nearly record sales year in 2009. New industries sought us out and customers we hadn't heard from in years started sending fresh orders. The employee count bloomed to ninety plus. But the upswing was short lived, and soon we were receiving nothing but cancellations. Our customers pulled promised work with apologies that did nothing to cover our payroll. The third shift was disbanded with no work to keep it running. I had my first experience with sitting down an employee and to break the news that he was to be laid off, with no guarantee of when - or if - we could call him back. Bob, and several family members in management, took substantial pay cuts to avoid further layoffs.

Today, and specifically in the past year, the scene is much brighter. I believe the passing of the Tax Cuts and Jobs Act, specifically the provision lowing the maximum corporate taxes, has had much to do with the change. Less taxes for us, our customers, and their customers mean more cash to put towards industry, wages, and technology. Our core customers are requesting more orders than ever, and new customers are surfacing every week. Jerl has resumed its third shift, which was cut at the end of 2015 due to low work. We have purchased three new machines this year. Company sales through mid-September are nearly topping our total for 2017's year end. After several years of single digit profit margins, the company is boasting a nearly nineteen percent profit for 2018 to date. We are, in short, on track to have our highest sales and highest profit year on record.

Jerl's increased profit and high sales does not mean a fat paycheck for rich owners. In fact, Bob has yet to fully reinstate his pre-recession salary. Instead, Jerl has given two separate bonuses so far this year to its employees, with another planned for late November. Profit sharing will be paid at a planned ten to twelve percent. Despite ever higher insurance premiums, Jerl did not increase any contribution costs for employees this year. And we will continue to invest in new equipment and, hopefully, more skilled employees.

The remarkable truth is that we could be doing even better. With the huge influx of purchase orders and new customers, Jerl is turning down work due to lack of skilled labor. Machines sit idle on the shop floor with no one qualified to run them. Our third shift, though efficient, is a skeleton crew that could be expanded to triple its size. Ideally, Jerl could add thirty to fifty percent more employees. Our shop is running at approximately sixty percent of its full capacity. The demand for our brand of manufacturing is extremely high, and we are unable to deliver with our current staff.

The skilled trades are not, as some people continue to believe, a dirty job for young men who couldn't make it in a traditional four year college. A life in manufacturing requires intelligent problem solving from scientific and artistic minds. We need engineers and mathematicians and craftsmen. Right now, Jerl's skilled staff carries an average age of forty-seven years old. Fifteen percent of our staff will retire in the next three years, and we have no one to replace those men. Our current staff is over ninety percent Caucasian. In my time at Jerl, we have employed a single female machinist. Not only are we suffering from a lack of skilled labor, we are suffering from a lack of diversity. Manufacturing needs new viewpoints and fresh eyes. The jobs are here, and they are high-paying and sustainable. Jerl, and other shops like us, are desperate for people to fill them.

The economic future of my company is looking bright, so long as we can fill the voids left by our retiring workforce and meet the ever increasing demands of our customers. We can sustain our growth with more of the same – more tax breaks for businesses and more deregulation that makes it simpler to buy and sell American goods. Some argue that business tax breaks do nothing but line the pockets of businessmen and hurt the American public. But those businessmen are providing the public's jobs, and putting their money back into their employees and companies. Others push for higher minimum wages, but the only outcome of increasing the minimum wage is inflation. Higher pay does not make an employee more capable; it devalues skilled jobs. When an entry level position is paid the same as a skilled worker, there is no incentive for any potential workers entering the job field to further educate themselves by learning trades and specialized skills.

We need a renewed effort to assure the public that manufacturing is not a dying breed. Instead, it is thriving. However, we are in desperate need of fresh blood to add to the strong foundation that people like my grandfather Bob has built. We are fortunate to have local trade and technical schools, like Penta Career Center of Perrysburg, Ohio in our community to keep skilled job opportunities as part of high school curriculum. It's not enough. All schools need mandatory practical instruction in industrial arts, fine arts, and practical life skills such as financial management and job preparedness, in addition to their core curriculum. Educational funding should be allocated to high schools to reestablish their trade programs or add machinery to enrich existing programs. Without access in schools to the trades, students may not know manufacturing careers are available to them. Parents and teachers should be educated in the options for their children and students as they prepare to leave high school. The soaring cost of college tuition, combined with the uncertainly to acquire a job in your field after graduation and the often overwhelming burden of student loans should be considerations for all young adults. In short, the continued renewal of manufacturing must start with the next generation to ensure the hard work of our predecessors will not be wasted.

I, my family, and Jerl Machine as a whole, are confident that we are on the right track. As long as the administration continues to care about the future of manufacturing and recognize how it affects the country as a whole, the industry will not be allowed to perish. There is still work to be done, but we have never feared hard work. Bring on the future.

Mr. LATTA. Thank you very much for your opening statement.
And, Mr. Paradowski, you are recognized for 5 minutes.

STATEMENT OF EDWARD PARADOWSKI

Mr. PARADOWSKI. Good morning. Thank you, Chairman Latta, Ranking Member Schakowsky, members of the subcommittee, for the opportunity to testify before you today.

My name is Ed Paradowski. I am President of Apache Stainless Equipment Corporation in Beaver Dam, Wisconsin. Apache Stainless Equipment is a manufacturer of capital equipment from high alloys, primarily stainless steel, with annual revenues of approximately $43 million and 171 employees, most of which are skilled trades people.

I also have responsibility for a second business, which is a company called Dalton Ag in Lenox, Iowa. We are a manufacturer of agricultural equipment; annual revenues of about $9 million and 43 employees. Both businesses rely heavily on the skilled trades, and that is the pacing item for both of our businesses to grow.

Both Apache Stainless and Dalton Ag are part of a holding company, Dexter Apache Holdings, which we have six companies within our holding company, five of which are manufacturing located in Wisconsin and Iowa. The five manufacturing businesses operate in unrelated business segments. We are a 100 percent S corp ESOP. On a daily basis, as an S corp ESOP, we are fulfilling the American dream for our current 897 employee/owners. That number would be higher if we could find more skilled trades people.

My testimony today will reflect my personal perspective on the effects of current economic policy on the health of the U.S. economy with a specific focus on the manufacturing sector. To provide some backdrop for the testimony, I will give a little bit of my personal background.

First, I would like to recognize Mr. Walden for acknowledging entrepreneurs and opportunity.

I was born on the south side of Milwaukee, raised the youngest of six kids, and I started a manufacturing company at the age of 28 with no money and no real business experience. So, I love the opportunity that this country provides. And the root of my perspective is really based on the experience I have had since then.

In the last 10 years, I have really focused heavily on advocacy activities. I work very closely with local and state government, national politicians, events such as this today. We host politicians and anybody who is willing to come visit our facility to educate them on what manufacturing is all about.

Our state chamber of commerce, Wisconsin Manufacturers & Commerce, I work closely with them. They are an ally/partner to our business. To work, government needs to be an ally/partner to manufacturing and commerce in general. And they are a great leader in the State of Wisconsin.

Most of you, I would suspect, are familiar with the MEP Network nationwide. In the state of Wisconsin, our governing overarching body for the MEP Network is the WCMP, Wisconsin Center for Manufacturing & Productivity. I sit on that board and, actually, I'm chairman of that board. So, the public-private partnerships that the MEP Network provides, I am familiar with that as well.

We all talk about education, education reform, and the skills gap. The skills gap is definitely not a wage gap. We could speak later to that.

Our Wisconsin Department of Public Instruction, which are the K–12, they are the core of how our children are educated. I have been a member at the very ground level of what we call the Regional Career Pathways Project in the State of Wisconsin. Actually, I was asked by our state superintendent to present for the State of Wisconsin in the grant competition three years ago, which the State of Wisconsin won a $2 million grant for education reform. So, I am deeply involved in education reform. It is one thing to talk about the problem; it is another thing to get in there and to also help solve it.

And then, the National Association of Manufacturers was mentioned. Actually, I am out here today for a board meeting, which, unless I say something completely wrong, I will be elected to their board tomorrow.

In summary, my perspectives are not just of a manufacturer, but a manufacturer that works closely with other manufacturers, with government, and with education. As I am running out of time here, I will hit just a couple of the high points, and really maybe just one philosophical perspective.

I use this as an analogy quite often, the role of government in manufacturing. In a manufacturing business, we make our money on the shop floor. We add value to raw materials and we make goods and services. And myself and others in my office, we are corporate overhead. Our corporate overhead needs to do two fundamental things. We need to make our shop floor more productive, maximize output/efficiency, and there are also some compliance issues, safety and things of that nature. And the second thing is there has to be a sustainable economic balance between the cost of corporate overhead and how much activity is going on on the shop floor.

In a soft year where manufacturing might soften a little bit, I don't just put more burden on my shop floor in terms of dollars; I actually have to downsize my corporate overhead. And that is the role of government to the private sector, not just manufacturing.

The private sector is really four fundamental things. You mine it; you grow it; you make it; you invent it. And government needs to be an allied partner to that process, so that the private sector can grow. And tax reform is a piece of that, as are tariffs, and there has to be a sustainable economic balance between the cost of government and the size of the private sector.

I will make one statement, as I am running out of time here, very quickly. There was a comment that was made—oh, where did it go?—there was a comment that was made regarding Mr. Walden said that the government—no, I'm sorry, I already acknowledged Mr. Walden. There was a statement that was made by Mr. Pallone, actually, that industry needs to be a partner to government. And that exactly is the problem; government needs to be a partner to industry. I think we have got this a little bit reversed.

Thank you.

[The prepared statement of Mr. Paradowski follows:]

Testimony of

Mr. Edward F. Paradowski
President
Apache Stainless Equipment Corporation

Before the
Subcommittee on Digital Commerce and Consumer Protection
Committee on Energy & Commerce
U.S. House of Representatives

"Built in America: Jobs and Growth in the Manufacturing Sector"
September 26, 2018

Introduction

Thank you, Chairman Latta, and members of the Subcommittee, for the opportunity to testify before you today. My name is Ed Paradowski and I am President of Apache Stainless Equipment Corporation, which is in Beaver Dam, WI. Apache Stainless Equipment is a manufacturer of capital equipment from high alloys, primarily stainless steel, with annual revenues of approximately $43MM and 171 employees.

I also have responsibility for a second manufacturing company, which is Dalton Ag, in Lenox, IA. Dalton Ag is a manufacturer of agricultural equipment, with annual revenues of approximately $9MM and 43 employees.

Both Apache Stainless Equipment and Dalton Ag are part of a holding company, Dexter-Apache Holdings, Inc. Dexter-Apache Holdings is a 100% S-Corp ESOP with 6 businesses in Wisconsin and Iowa. 5 of our businesses are manufacturing companies, all of which do business in unrelated market segments. Dexter-Apache Holdings is an extremely successful organization, and as a 100% employee-owned business, we are fulfilling the American Dream for 897 employee-owners.

Overview

My testimony today will reflect my personal perspective on the effects of current economic policy on the health of the U.S. economy, with a specific focus on the manufacturing sector. To provide a backdrop for the testimony I will provide, I would like to give an overview of my personal background.

I have worked in manufacturing essentially my entire career, which began in 1984. In the last decade I have had a targeted focus on advocacy activities, such as:

- Regularly working directly with local, state and national politicians to discuss policy and the impact on the economy, which includes hosting our local politicians at our place of business, as well as lobbying events on Capitol Hill.
- Working very closely with the WMC **(Wisconsin Manufacturers and Commerce)**, our state chamber of commerce, on issues that are impactful to manufacturing.
- Serving as Chairman of the Board of the WCMP **(Wisconsin Center for Manufacturing and Productivity)**, which is the Wisconsin MEP (manufacturing extension partnership) organization. As I am sure each of you know, the MEP is a public-private partnership to assist small and midsize manufacturing companies maintain their competitive edge.

- Working closely with the Wisconsin Department of Public Instruction as a "CEO Champion" to help evolve the educational process in Wisconsin thru the **Wisconsin Regional Career Pathways Project**.
- Working closely with the NAM **(National Association of Manufacturers)**, to improve the competitive landscape for manufacturing on a national level. I will be elected to the NAM board of directors this week.

In summary, my perspectives are not just that of a manufacturer, but instead a manufacturer that works closely with other manufacturers, government, and education. My opinions are based more in actual experience than they are in academic theory.

The Role of Government in the Economy

I use a manufacturing company as a parallel example for how I believe government should function within the economy.

In manufacturing we make our money on the production floor. The role of "general administration" within the business is to create an optimal environment on the production floor for top efficiency and maximum output. There are also rules put in place that need to be complied with for the sustainability of the business. This general administration is "corporate overhead", and the 2 fundamental rules that exist are the following:

1) General administration must optimize efficiency, output and compliance on the production floor

2) There must be an economic ratio of cost between general administration and production for the overall business to maintain sustainable economic competitiveness in the markets in which it competes.

Using this analogy as a parallel to government, government is "corporate overhead" to the private sector.

1) The role of government is to optimize efficiency, output and compliance in the private sector, which is the pacing item to economic growth.
2) There must be an economic ratio of cost between government and the private sector for the U.S. economy to maintain sustainable economic competitiveness in the global economy.

This is the fundamental perspective that I apply to the specific topics that follow.

Tariffs and Trade Deals

Free markets set prices and wages, and over the course of time (all else being equal), efficiency is requisite to be sustainable. The "all else being equal" qualifier does not apply when unfair trade deals work against U.S. companies. As it pertains to China specifically, free market competitiveness cannot exist when U.S. companies compete against state-owned and state-subsidized companies in China. It also cannot exist when U.S. Intellectual Property is not protected, or when tariffs are applied in an imbalanced manner.

In any relationship where there is an inequity over time, one side ultimately wants to opt out. When opting out is not a realistic option, ideally both sides would negotiate in good faith to arrive at a more equitable arrangement. When one side refuses to negotiate in good faith, all options must be considered.

While enacting tariffs on China to force a revised trade agreement is not the ideal option, it may be the only option to reaching a deal that is equitable and sustainable. Many U.S. companies are feeling price and cost pressure through this process, so time is of the essence to getting this done.

Tax Reform

Forced cost structures that are imposed on one business that are not imposed on another, hinder the ability of the negatively affected companies to compete sustainably in a global economy. The recent changes to corporate tax rates were necessary to narrow the gap in cost competitiveness for U.S. based companies against our foreign competition.

Economic Policy Overall

I will close with a repeat of two points I made previously:

1) The role of government is to optimize efficiency, output and compliance in the private sector, which is the pacing item to economic growth.

2) There must be an economic ratio of cost between government and the private sector for the U.S. economy to maintain sustainable economic competitiveness in the global economy.

Over-regulation, tax rates that are not globally competitive, and the excessive cost burden of big-government hurts all U.S. citizens. Government that is lean and an ally partner to the private sector will aid the U.S. economy.

As it pertains to the policies of the current administration, it is my strong opinion that these policies are directly attributable to the current economic environment of low unemployment, strong stock market performance, and outstanding GDP growth.

Mr. LATTA. Thank you very much for your testimony.

Mr. Stettner, you are recognized for 5 minutes.

STATEMENT OF ANDREW STETTNER

Mr. STETTNER. Good morning, Chairman Latta and Ranking Member Schakowsky. First, let me commend the committee for holding this hearing.

Over the past year, the Century Foundation and its Bernard L. Schwartz Rediscovering Government Initiative sponsored the High Wage American 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 2 weeks ago today when they came to Washington to present our findings, which I have submitted for the record.

While no one in the Midwest has such rose-colored glass as to believe manufacturing will ever provide 30 percent of the jobs, like it used to, the message was loud and clear. Manufacturing matters to communities. Our research finds that in small towns in industrial states from Michigan to Mississippi, manufacturing still accounts for one in four private sector jobs. Manufacturing brings high-tech jobs to these firms into 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.

The time is right for Congress to take action to build a proactive national manufacturing strategy. Resilient manufacturers have added back 1.26 million of the 5.7 million jobs lost from 2000 to 2010. But there are serious concerns. Our diminished production capacity has kneecapped our ability to innovate, as America had ceded its edge in high-tech manufacturing to advanced East Asian nations and Germany. And while manufacturing still pays 10 percent more than other jobs, that wage advantage has eroded. Low-paid, temporary help workers represent 11 percent of the manufacturing workforce today, up from just 2.3 percent in 1989.

But a national manufacturing strategy must go beyond international trade and tax issues. Rather, Federal policies should focus on investments to create the conditions for manufacturers to compete and thrive in a global marketplace and for the manufacturing workforce to prosper.

Communities are taking action. The Federal Government can help by helping them build public-private partnerships and spur high-tech manufacturing, reinvest in the workforce, retain and restore good jobs, and mobilize capital.

The future of U.S. manufacturing lies in being the most high-tech, not the lowest cost. In Cleveland, we visited the ArcelorMittal steel mill, the first in the world to 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. Indeed, 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.

Look at our competitors. The Made in China 2025 campaign is a multibillion dollar effort to take China from a commodity producer to a leader in major advanced manufacturing exports from alternative energy to rail equipment.

Manufacturing USA is our response. There are 14 applied research institutes targeting technologies like 3D printing in Youngstown, robotics in Pittsburgh, and super-strong, lightweight metals in Detroit. But, to truly compete, we have to step up Manufacturing USA into its full plan of 45 institutes and provide permanent Federal funding matched by the private sector.

Now manufacturing can only grow if it has a workforce for the future. In Chicago, our research found there are nearly twice as many jobs open as workers hired. But manufacturing workforce pipelines, apprenticeship, and vocational education have withered. And a generation who experienced industrial decline tell their children to shun factory jobs.

Congress can help by devoting resources that incentivize employers to double the number of apprenticeships in manufacturing in 5 years and provide new, focused resources at the K–12 level. These programs need resources for mentoring and support services to help women and people of color to break into the trades.

That is the approach of Manufacturing Renaissance in Chicago to help some of the young people in some of the most violence-prone neighborhoods in the Nation to get industry-recognized credentials they need for high-paying jobs. And surely manufacturers will have more success recruiting when they pay decent wages, respect collective bargaining, and provide safe workplaces.

Communities are developing innovative ways to work with local manufacturers to save and grow jobs, relying on smart, more sustainable approaches than simply offering tax giveaways. Pennsylvania Strategic Early Warning Network saves thousands of jobs by providing targeted business turnaround assistance to small and medium-sized companies at risk of closure.

Federal policies should give these communities stronger tools by strengthening bedrock programs like the MEP, new initiatives like layoff aversion in WIOA, and the recently-authorized Defense Manufacturing Community Partnership Support Program.

Lastly, the Federal Government should incentivize 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. I urge the committee to continue its focus on boosting the manufacturing sector, and I welcome the opportunity to work with you in the future.

[The prepared statement of Mr. Stettner follows:]

THE CENTURY FOUNDATION | Bernard L. Schwartz REDISCOVERING GOVERNMENT Initiative

Testimony of Andrew Stettner

Senior Fellow, The Century Foundation Bernard L. Schwartz Rediscovering Government Initiative

Subcommittee on Digital Commerce and Consumer

"Built in America:

Jobs and Growth in the Manufacturing Sector."

Wednesday, September 26, 2018

Good morning Chairman Latta 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.

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[1] Andrew Stettner and Joel Yudken, "A Federal Agenda for Revitalizing America's Manufacturing Communities," The Century Founation, September 24, 2018, https://tcf.org/content/report/federal-agenda-revitalizing-americas-manufacturing-communities/.

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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[2] Joel Yudken, "Manufacturing Insecurity: America's Manufacturing Crisis and the Erosion of the U.S. Defense Industrial Base," AFL-CIO, 2010
https://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1122&context=laborunions
[3] Andrew Stettner, "Why Manufacturing Jobs are Worth Saving," The Century Foundation, June 13, 2017, https://tcf.org/content/report/manufacturing-jobs-worth-saving/.

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.[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.[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.[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

[4] Susan Houseman, "Understanding the Decline of U.S. Manufacturing Employment," W.E. Upjohn Institute Working Paper, 2018 https://research.upjohn.org/cgi/viewcontent.cgi?article=1305&context=up_workingpapers.

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

[6] Joel Yudken, Tom Croft and Andrew Stettner, "Revitalizing America's Manufacturing Communities," October 2017, 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.[7] 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.

[7] Teresa Cordova, Andrew Stettner, and Matt Wilson, "Revitalizing Manufacturing and Expanding Opportunities for Chicago's Black and Latino Communities," The Century Foundation and the University of Illinois-Chicago, Great Cities Institute, June, 2018, https://tcf.org/content/report/revitalizing-manufacturing-expanding-opportunities-chicagos-black-latino-communities/.

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.

[9] Corilyn Shropshire, "First step to new CTA rail cars: Build the factory in Chicago," *Chicago Tribune*, March 16, 2017, http://www.chicagotribune.com/business/ct-cta-new-railcar-plant-0316-biz-20170315-story.html.

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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[10] Sridhar Kota and Thomas C. Mahoney, "Manufacturing Prosperity: A Bold Strategy for National Wealth and Security," Mforesight, June, 2018, https://medium.com/@MForesight/manufacturing-prosperity-a-bold-strategy-for-national-wealth-and-security-65d2a97d6d0e.

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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[11] Joel Yudken, Tom Croft and Andrew Stettner, "Revitalizing America's Manufacturing Communities," October 2017, https://tcf.org/content/report/revitalizing-americas-manufacturing-communities/?agreed=1.

Mr. LATTA. Thank you, Mr. Stettner, for your testimony.

Mr. Anderberg, you are recognized for 5 minutes for your opening statement.

STATEMENT OF ERIC ANDERBERG

Mr. ANDERBERG. Thank you, Mr. Chairman, and thank you, Ranking Member Schakowsky, and thank you, Congressman Kinzinger, for allowing me the opportunity to be here today.

Dial Machine, we are family-owned for 52 years, a precision contract manufacturer. We make parts for various industries, mining, oil and gas, a lot of fossil fuel. We do work for the government, defense, the national laboratories.

And I can tell you today, I don't want to sound like a broken record, but our backlogs are way out and the work is tremendous today. In my 25 years, I have never seen such optimism. My father has been in this industry for 61 years and never seen the optimism and the rate at which we are growing here today.

Currently, to give you an idea, our sales, as of the third week of September, we are 30 percent over all of last year, over 50 percent over all of 2016. So, things are on the right track.

I think three things have happened in Washington that have helped the manufacturing sector. That is the tax, the regulatory, and the trade policy changes that have been coming forward.

Tax, the C corp and the last tax legislation, the C corps got an income tax reduction to 21 percent. That has created incentive for the large corporations to bring work back. And I can tell you personally it has happened; we are benefiting from it. I have been told from companies like Caterpillar that more is coming. Large corporations are also investing in their plant and equipment with that money.

S corps, such as ourselves, we didn't get the tax cut that the C corps got. Hopefully, that could be changed. But that extra cash and capital is being put to use. We are putting it to use.

And also, along with that is the increase in the expensing in the 179. And, then, increasing the accelerated depreciation back to 100 percent has been a big boost, and it is an extremely useful and important tool for manufacturers such as ourselves to be able to afford to invest in capital equipment.

Because of all the increased activity, there is a scarcity of labor. And because of tax—I credit the tax policy—the wages have increased. We have been increasing the wages of our people, in part, because it is a defensive mechanism to keep other people from stealing our people. And also, we are offering higher wages for people to start as applicants at our place.

The regulatory environment. Rolling back regulations that were hurting the fossil fuel industry, I will give you an example, coal. We do a lot of work for Caterpillar, and all the large mining bulldozers, we have parts in each machine. Starting in 2013, we went from 2011–2012 we were making about six to eight sets of bulldozers a day. In 2013, one model dropped from 400 a year to 56 per year, and by 2016, we were down to about a half bulldozer shipping a day. We are back to five or six, but we are constrained because of capacity or people.

So, the regulatory pushback has been terrific. My family, we also farm. And so, you cannot have a regulatory environment out here that is suggesting we are going to regulate puddles of water on your farm or we are going to tax every head of cattle for flatulence. That sends a terrible message to industry, farming, and ranchers; we are not going to invest. You can't do it.

And then, trade. This is probably the most important part and probably the most significant change in 40 to 50 years. It is the first time an administration has acknowledge the problem we have with trade, international subsidized work coming into this country or subsidized product. The Chinese steel industry, the Chinese have been huge offenders, and we just cannot compete. That change and the talk of subsidy, if you come to Rockford, for example, I can point out many industries we have lost over the past several decades. When people talk about we are starting a trade war, well, I am here to tell you we have been in a trade war in this country for over 40 years, and it is the first time it has been acknowledged. It is the first time we are doing something about it. And this has created a level of confidence, too, that has helped to invest in your plant and equipment.

The most significant challenge that manufacturing has, you have already heard it, people. We can't get them. We need 10 to 15 more skilled individuals on our floor right now. And I am here to tell you that we are turning work away. If I had the capability, I could double the size of my plant if I had the capacity of people, and we just can't get them.

Fingers can be pointed every direction. I think industry didn't do a good enough job marketing ourselves to the students, to parents, to educators, and the vo-tech schools closed years ago, but they are reopening again, and that is promising.

Apprenticeship programs. The small guys are training; the large companies are not. And I think we need to enlarge the pool of labor that everybody can work from, and we need to do something to incentivize the large corporations to do so again, because they just won't because it doesn't look good on quarterly numbers, quite frankly. So, anything that could be done with that would be tremendous.

There is just too much to talk about to do it in 5 minutes. I hope I get some good questions, that we have good conversation today.

Thank you.

[The prepared statement of Mr. Anderberg follows:]

Written Testimony of Eric Anderberg
Vice President of Dial Machine, Inc., Rockford, Illinois
Before the House Energy and Commerce Committee
Subcommittee on Digital Commerce and Consumer Protection
"The State of American Manufacturing"
September 26, 2018

I would first like to thank Chairman Latta, Ranking Member Schakowsky, my Congressman Adam Kinzinger and the Members of the Subcommittee on Digital Commerce and Consumer Protection for inviting me to testify to today as a small Midwestern manufacturer and to attest to the current condition of American Manufacturing.

My name is Eric Anderberg and I am the Vice President and co-owner of Dial Machine, Inc., which is a 52-year-old family owned contract manufacturer of high precision medium to large components and assemblies located in Rockford, Illinois. We employ currently about 60 people of whom about 45 of them are skilled tradesman, machinists and assemblers. We have a need currently for at least another 10 to 15 skilled workers that we just cannot seem to fill. We manufacture for various industries, including government defense and national laboratories. Our primary customers are large industrial companies that serve the mining, construction, oil & gas, power generation and nuclear science industries.

The current state of American manufacturing right now is outstanding. Our backlogs have improved dramatically compared to over the past five years and the optimism in my 25 years has never been this high. My father, who has been in this industry for over 61 years, has never seen such a run up in demand and the outlook from customers and vendors be so great. Our sales for the year at this point, after the third week of September are already almost 30% over our total sales for all of 2017 and are over 50% greater than all of 2016 and we have three months yet to go in our calendar year.

One thing that I find unique in this manufacturing environment right now is that it seems almost every sector is in this position. Over the years, through our contacts and associations, generally you would find that maybe certain industries like ones tied to oil & gas may be up while maybe automotive may be down as the price of energy was up and perhaps other industries would not be as busy as the industries we serve. In conversing with other small manufacturing owners that serve other industries other than the ones we serve, I have found that almost all the manufacturing sectors are busy, at least I have not heard of any one industry or manufacturing business that is not busy. The consensus is that this upturn and period of manufacturing growth has legs and will persist for the foreseeable future if there are no detrimental changes to the economy.

I am sure those in Washington would like to know why industry is doing so well at this point? The answer is really simple, confidence. One thing you hear a lot about is the confidence that customers and their suppliers have today. Everyone in industry right now has confidence in a bright future that is conducive to installing and deploying capital, making investments in your operations and your people.

I think there are three main components related to our government and the current policies that explain why there is confidence and why the manufacturing sector is running on all cylinders right now. Those three items are the changes in the tax code, the reduction in burdensome regulations and a focus on improving the conditions of trade or leveling the playing field for American manufacturers.

TAX

This confidence that we see for one has been spurred by changes in tax policy in Washington. First and foremost, we have an income tax cut. The reduction in C Corporation taxes to the low 20's as a percentage has helped larger corporations to be incentivized to move production and investment back to the United States. We have experienced this first hand as we have seen work that has been sent offshore by our larger customers in the past, now starting to come back. Also, work that had the potential of being sent offshore seems to now have more of a long term plan to stay here. The larger corporations are also investing heavily in capital equipment and upgrades in their plants right now.

For the S Corporations for companies such as ourselves or pass-throughs, the tax cut we received is not as great and hopefully that could be adjusted in the Tax 2.0 rewrite. Since the majority of small businesses are incorporated as pass-through and since over 70% of all new jobs are created by small businesses it only makes sense to help us keep more of our capital and use it toward growth and investing in our companies and creating more jobs, after all private industry can better deploy that capital for economic growth than any government agency or program. I can personally say that the tax cut that we have received is helping us invest and improve our operation.

Another important part of the Tax Bill was increasing the 179 Expensing and increasing the Accelerated Depreciation back to 100%. These have been critical for small manufacturers such as ourselves in helping us to be able to afford to invest in new capital equipment that helps to make us more competitive and helps to automate some of our operations. This year alone so far, we have added two new machines with a capital cost of over $1.5 million and the 179 and Accelerated depreciation play a big part in helping to make the decision to outlay that much for our operation at once. Several of my counterparts that I have talked to have also invested in new capital equipment this year, I actually do not know of anyone in our industrial circle that has not. It is not complicated, when the incentive is there, business will use it and the economy will grow.

By leaving more capital in the hands of business and job creators this is spurring all of this investment and creating the job growth, low unemployment and wage increases that we are currently witnessing. A good example is when a farmer or a mining operation take advantage of the extra income, 179 or Accelerated depreciation, it trickles down to small manufacturers like us as their increased investment in equipment, increases our investment in equipment and our facility to meet the demand of our customers that make that equipment for the farmer or the miner.

Wages have also increased because of the activity from the tax cuts. In our small operation alone, we have increased wages for our employees and we are offering higher than usual wages for applicants to start. We have to, if you want to attract and retain the best you have to offer and be the best. We have done some of the wage increases, number one because our people deserve it, they've earned it and I will also admit it is also a defensive mechanism to prevent having another business steal away your employees. There is a severe scarcity of skilled labor so the wages must rise and I can attest personally that they are. As you all have heard by now, there is a severe shortage of skilled and willing workers today to do the work that is being demanded. This is our biggest challenge at the moment.

REGULATION

Another item that has instilled confidence and investment in American manufacturing has been the Administration's policy and that of the Congress to reign in and roll back excessive regulation that thwarts economic growth. As I mentioned earlier, a good part of our business is tied to the fossil fuel industry as there are many industries and jobs that are tied to fossil fuel energy. For one, the past policy of "necessarily bankrupting" a coal fired power plant was harmful and not conducive to investment in fossil fuel exploration and extraction equipment, namely the mining industry. I would argue that after the 2012 election the regulation pedal was pushed to the floor on these industries. The government's decision to pick winners and losers for our energy supply hurt mining and oil extraction. Those industries contracted and many coal mines went out of business. Our largest customer, Caterpillar, produces a large portfolio of equipment for coal mining and mining in the oil sands in Canada. Caterpillar suffered for the first time in their 100+ year history a 4+ year slump in sales of equipment, especially mining equipment. It affected us greatly, we also experienced over a 4-year slump heading into 2013 up until mid 2017, and many in our industry didn't make it. To give you an idea, Caterpillar built in 2012 over 400 of their largest mining bulldozers, the D11T, the following year in 2013 they built 56. At Dial Machine we have components that we make for all of the large mining bulldozers, we went from shipping 6 to 8 large bulldozer sets a day in 2012 to as few as ½ of a bulldozer a day in 2016.

Today, after the change in policy we are now back to 5 to 6 large mining bulldozer sets a day for shipment, and if we could ship more, Caterpillar would take them. The regulatory roll back and the eradication of the uncertainty caused by onerous government regulation has been a huge boost to industry confidence.

As my family and I also farm, I was aware of the Clean Waters Act and its potential overreach. According to associations like the Farm Bureau their legal analysis stated that if the Waters of the U.S. Rule expanding EPA's reach were to take effect throughout the country, then government could regulate even a puddle of water on your farm, in addition to a contained man-made cooling pond on a manufacturing site. This type of overreaching government policy is not conducive to a healthy atmosphere for investing in your farm or ranch, or even your manufacturing business. The outcomes of those types of policies were clear to manufacturers the past four and a half years. Again, when you have an agency that wants to exert so much control over the private sector that it proposes taxing every single head of cattle for flatulence, it creates a terrible message to the private sector as well it should. That type of an attempt of government control destroys confidence, creates uncertainty and hurts economic growth. We are thankful for the one hundred and eighty degree turn to a common-sense approach with these regulatory agencies.

For many years it has puzzled me, why agencies such as the EPA and OSHA have to be so adversarial to business. We all want a clean and safe environment; we all want a safe place to work. Perhaps instead of the operation and policies of these agencies being so threatening and adversarial, these agencies could be more of a partner and work with those businesses and industries to improve areas that need to be changed for the better, not just fee takers and legal bill escalators for a gotcha moment. It is refreshing and encouraging to see the changes that are taking place in these agencies today because of the actions that this Congress and Administration have taken to reinforce this common-sense change.

TRADE

A third change from Washington has come from the Administration and the policy of ending unfair trade deals and practices of our foreign trading partners. This is probably the most significant change to come out of Washington in the past 40 to 50 years for American manufacturers. It is finally the acknowledgment from an Administration that our industries have been preyed upon by unfair trading practices from foreign governments. It also has created the signal that we finally have someone in Washington that understands how detrimental our lopsided trade imbalance has been and the effect in the long term this has on our nation's wealth. Our wealth generating capability is vital to maintain the U.S. economy and our standard of living. As a former congressman once told me, "If you can't make it, mine it or grow it, you are not generating wealth and you will become a third world nation".

The unfair trade practices have been the most damaging to our industry in this country for many decades. The term may be over used but foreign governments have definitely "weaponized" their industries in the form of subsidy and have used that to attack free market, independent industry. There are so many examples to give. Yes, the steel industry is one. China is by far the biggest violator and as an American manufacturer who needs to buy steel, I fully support the decision to go after China's aggression in trade. The Chinese have become the world's leading steel producer in less than 20 years, ever since being allowed to enter the WTO. Back then the world steel making capacity of China was in the higher single digits as a percentage, today it is around 50% and their steel output has increased by a factor of eight-fold. Did China attain that percentage because they are more efficient, productive or have a cheaper operating cost than other countries? Or was it because it was a strategic policy decision and dictated by the premiere and the national government? Granted, they have increased their capacity to help build their country's infrastructure and development, but for the past 10 years their exports of steel have been growing rapidly, from 2009 to 2017 their steel exports grew over 420%! When you are a communist command and control economy you can control world outcomes, if your trading partners are asleep.

Of note, we serve some companies that make steel mill equipment who sell to the Chinese and they have told us that the Chinese have taken their trade surpluses and invested heavily into building the latest, state of the art steel mills, with equipment mainly from Western Europe. We have also been told that although China is now the largest steel producing country, they have installed capacity to make much more. So, in the end, if China were left to continue on their course unchecked, what would happen to the free market production of steel and other free market industries? Last year China produced over 800 million tons of steel, the United States produced just over 80 million tons.

The companies that I mentioned who produce equipment for steel mills are now extremely busy and gearing up for the upgrades that are taking place in American steel mills. We have done work for Arcelor Mittal and U.S. Steel; both companies are undergoing investment and upgrades that haven't been seen in this scale since the 50's. The reason again, is confidence because our government is finally acting to correct the unfair trading practices and to put an end to China's subsidies of its steel industry.

To help validate the Administration's stand on unfair trade, I will give you a couple examples direct from Rockford and its past. Rockford at one time was the machine tool capital of the world. A machine tool is a machine that cuts or forms metal to make parts for other machines precisely, in essence a "mother machine". Everything we possess physically has in one form or another been made by a machine tool. If you go back to the late 70's and the 80's the big offender of trade was Japan. The Japanese identified and subsidized their industries to get market share and to subdue foreign competition. One industry was the American Machine Tool industry. Japanese visitors to the International Manufacturing and Technology Show (IMTS) that is held once every two years in McCormick Place in Chicago could be seen taking photos of American made machines, even getting on the ground and taking pictures of the underneath of the machine tools so they could be copied and improved in Japan back then. Over the years, what you have seen since the late 70's and the 80's has been the death of the American machine tool industry, there are few companies left. And if you had visited the IMTS show last week at McCormick Place, you would have seen that there are very few American machine tool companies at the show any more, but the largest majority are now Japanese.

Case in point, in 1985 my father wanted to buy a new machining center and he wanted to buy one made from Cincinnati Milacron in Cincinnati Ohio, the cost was over $500,000 for that American made machine. The dealer that represented the Cincinnati machine came to my father and introduced another brand, that was new to the U.S, it was Japanese, it was made just as well as the Cincinnati but its price was $300,000. My father had no choice. How could the Japanese build and sell a machine for less than 60% of the cost of a machine made just a seven hour drive away from Rockford? Were the Japanese more efficient and productive; were their costs that much lower? No, it was subsidy and while the American Machine tool industry died a painful slow death over three decades, our government looked the other way and companies that were once global leaders like Cincinnati Milacron are now gone. Still today, I have talked to American machine tool leaders, such as Tino Oldani, President/CEO of Ingersoll

Machine Tools in Rockford and they have all told me that this game is still being played but now the countries that subsidize and dump are Taiwan and Korea. If we are to preserve a crucial part of what is left for our manufacturing base and national defense, we must, you must address this.

Another example is the fastener industry. It was always a standing joke that Rockford was the "screw capital" of the world. For decades, if you needed a fastener the greatest chance is that it came from Rockford. But, starting in the early 80's things changed and again the biggest offender to start at that time was Japan. I have talked with and know people who used to work and manage at places like Rockford Products and Elco, all were major fastener manufacturers back then. Starting in the late 70's, early 80's, fasteners started showing up from places like Japan and later Taiwan that were subsidized. Rockford Products and Elco could not compete when finished fasteners were allowed to be sold in our country for less than the cost it took for Rockford manufacturers to buy the raw material. Rockford Products and Elco are now both gone along with numerous others. There are too many Rockford Products and Elco stories in this country that have succumbed to subsidized, unfair trade.

There are other nations that do not get the press that China does that are cheating today as well. Another good example is Brazil. Brazil has a policy of "content requirement", so if you are an American manufacturer and you want to sell your line of tractors in Brazil, you may be required to build a plant and produce some of that equipment there and not just for Brazil but also for worldwide export. I know of two current examples of where this is happening but I am reluctant to write in the record their names. The Brazilian government also will subsidize the manufacture of say that tractor. For example, for each tractor that is built in that plant the company will get a subsidy check. In the one instance that I know of, the American plant is cheaper in cost to produce the machine versus the Brazilian plant, but the Brazilian government writes that subsidy check to make up the difference, plus. There are also instances of components that were once made in U.S. plants now being subsidized at the Brazilian plant, to be shipped back for finish assembly in the U.S.

Our country has truly been ripped off over the past several decades by foreign owned and subsidized industry. The examples past and present are too many and our actions against that practice have been nil until now. The examples I have given could have been and can still be prevented. The practices of subsidy and cheating have clearly cost us high paying manufacturing jobs and hurt our industrial economy.. I fully applaud what the Administration is doing to stop this. It has been happening for many decades. True, in the case against China we may see some increased costs in steel, although those cheap steel prices were artificial, and we may lose some business because of this but we need to place our stake in the ground. In fact, the scope of the steel tariffs against China and other foreign subsidized sources should be broadened to any other steel components or finished products to make sure that finished product made from subsidized steel doesn't come in and avoids the steel tariff. This subsidy and cheating has to stop or if left unchecked any industry could be next.

It is laughable when I hear people say that the President is getting us into a trade war when the fact is we (American industry) have been in a trade war for many decades and losing it badly and no one ever really paid attention to us until now. My hope is that every foreign partner that we trade with has their trade policies examined and our trade policies can be reciprocal. None of the manufacturers that I know want a hand out or special favor or subsidy, we are not afraid to compete with the world, just so long as those that we compete with are playing on the same terms and the same field. If this were to be accomplished, American manufacturing will win the day and will make a tremendous comeback.

I mentioned earlier that our company does work for the national laboratories, which fall under the Department of Energy and are under this House committee. According to the Buy American, Hire American Presidential Order, Federal agencies are to procure from American business whenever possible when spending U.S. taxpayer dollars. What we have found and experienced is that currently for bidding work to the national labs that only a 12% penalty is being assessed to foreign bids because of the Presidential Order. As demonstrated by some of my subsidy examples, this is ridiculously low and this is definitely an issue that this Committee could and should address. Perhaps some of these tax, trade, federal procurement and regulatory issues that face American manufacturers speak to something that I think Congress could do as well, that most other industrialized nations have done and that is to finally create a national manufacturing policy.

THE BIGGEST CHALLENGE FOR MANUFACTURERS TODAY

I mentioned in the beginning of the inability to find skilled labor, or any labor that wants to show up for work every day on time a serious challenge. We need another 10 to 15 skilled people right now in our company. The workload and demand right now is so great that we have been turning away work because we cannot get the labor to do the work. We could easily double the size of our operation and have full order books if we could only get the people. This is not only a problem for manufacturers but for all employers today, we are experiencing a high level of demand that there are not enough workers for and we are also experiencing societal issues that are crippling business.

This issue of trying to hire younger people into a trade is not just a problem in the United States, it is a global problem and there is no easy answer. We have a vendor that is a German machine tool manufacturer and periodically we have some of their service technicians at our facility and we have come to know them well. On the past two recent visits we have had discussions about this problem. They have told us as they travel to state of the art manufacturing plants all over Europe, Russia, China and India that no matter where they go, there are no "younger" people in the manufacturing plants. They have been told in India and even China that the younger generation does not want to do this type of work even though it pays well above the average wage. They are experiencing in Germany and Europe the same phenomena of not being able to hire and keep younger workers in this trade just as we are here. I do not see any silver bullet to fix this situation; it is a serious uphill climb. We have been trying to hire people, and we have had some success but like every other business we are falling well short of our needs. There has definitely been a societal shift with the younger generations and it is challenging to figure out what it takes to get them into a trade. This is something we have been trying to figure out and I have no answers for this yet.

If one is to point fingers at why this phenomenon has happened, I would first point fingers at us, industry. We have not done a good enough of a job of showcasing manufacturing today and exposing students and educators to what we do. We are not dungeons or dirty places to work; we are in fact state of the art, clean, highly technical environments and the pay is well above the average. The growing numbers of operations like ours are increasing the technology every year and automation and the skills required are not just manual but also highly technical and require high level math, programming and computer knowledge. In Rockford we do have a Manufacturing Day and we have job shadowing where students come into our factories and learn about what the reality of a manufacturing facility is and what a career can be, it is helping but we have a long way to go.

I do believe that our educational system has to share some of the blame as well. Over 30 years ago all vocational programs in our area were shut down in the high schools and everything became college prep. This created a significant generational gap and in the schools a stigma was created about working in a manufacturing facility. In Rockford it also contributed to a higher dropout rate, as kids that didn't want to go to college saw no purpose in finishing high school. However, today that has changed, at Rockford Jefferson High School we have a new vocational program that started back up about 5 years ago and focuses on manufacturing and is doing a great job, another Rockford high school is also starting its vocational program again. I have talked to the administrator of the Jefferson program and they plan to start a curriculum where students work half the day at a company and do class work the other half of the day. We are making inroads but it is still a tough uphill climb to get past the stigma we have been fighting for over a generation with our youth.

We also have a successful apprenticeship program in Rockford for the metalworking industry. I am on the board of the Rock River Valley Tooling and Machining Association, we are a chapter of the National Tooling and Machining Association and we have a volunteer board with two paid employees. Our main purpose is to administer our apprenticeship program through the local community college. The RRVTMA has run this program for over 60 years. Our program is a four year, Department of Labor accredited program that offers several different disciplines for the metalworking trades. Each graduate of the program receives a diploma from the College, a certificate from the RRVTMA and a Journeyman certificate from the Department of Labor.

Back in 2003 we had only 8 apprentices in our program, today we have over 120. The majority of which are employed by small manufacturing businesses. Our program is a great success today and has grown with the return of a vibrant manufacturing sector. The greatest majority of the apprentices are employed and sponsored and their education paid for by their employers. I want to make note of this because today the large corporations, specifically the publicly traded ones, no longer train, they shut down their apprenticeship programs 30 years ago as well. We need to enlarge the pool of skilled labor and the American manufacturing industry needs everyone to participate in training. The reality for the larger companies is that an apprenticeship program has become an expense on the income statement and in an era of where you have to please stockholders quarterly, an apprenticeship program doesn't directly seem to create a payoff for the investment in the short term. After all, it takes at a minimum of 4 to 5 years to create a proficient skilled metalworking tradesman.

Last week at our RRVTMA Board meeting I brought up the fact that I was going to be here today testifying, I asked for comments that maybe I could share. The very first one was that we do not want or need another taxpayer funded government program and we all agreed unanimously. Rockford for example in the past has had taxpayer funded programs for manufacturing that at the start seem to be the right thing to do but never seem to follow through. As I discussed earlier and as we discussed last week in our Board meeting which was comprised of eight small manufacturing business owners, let us do the training and if you want to do something, help us keep some of our capital to do so. In turn, to incentivize the large companies again just like you did with lowering the C Corp. rate, incentivize everyone to train or start an apprenticeship program, what about a tax deduction or credit? Perhaps a change in tax law could allow a company to write off or get a deduction on their tax bill for the wages of an employee/s that are in for instance a Department of Labor accredited four year apprenticeship program. It is just an idea, but we need to do something to create a bigger pool of skilled labor and everyone has to participate to achieve that for all of us to be successful.

The fact is we are running on borrowed time right now. As of 2016, 75% of all Tool and Die makers were over 45 years of age and in the next three to five years according to one industry study two out of five skilled metalworking tradesmen will be retiring and it will be impossible to replace them with the labor pool that we have now, we need to start now to keep the momentum that we have for American manufacturing moving.

Mr. LATTA. Thank you very much for your testimony and what you say about can't find workers and other folks. I have heard across my district it is the No. 1 issue out there.

This is going to conclude our opening statements from our witnesses. And again, we appreciate you all being with us today. We will start the questions from our members, and I will start with my questions for 5 minutes.

Ms. Moyers, if I could start with you, Jerl Machine provides precision metalworking products and services in Perrysburg, Ohio. Could you tell the subcommittee what trends you have seen in the marketplace for your products and services, and how that has changed over the last couple of years?

Ms. MOYERS. Yes. Thank you very much.

Up is what we are seeing. In the last 2 years, we have been steadily growing. We actually had, in 2016, one of our lower sales, lower profit margins. It was a little bit, I think, of a trend from the recession. We had gone up a little bit, and then, it went back down. But, since the end of 2017, we have seen nothing but up. We have grown our sales. We have grown our profits. Our profits are nearly 20 percent so far for this year, when we were seeing only single digits back into 2014. And we have also increased our staff as much as we can. Of course, we need to increase it more. But we have our phones ringing off the hook and we are turning down work.

Mr. LATTA. One of the things I know that has been mentioned already—and I just brought up again—as I have seen across my district, people just can't find folks to work. That is a big issue out there, and it is a very competitive job market out there.

What has been your experience with the wage competition in the last couple of years?

Ms. MOYERS. Well, I think there are two issues. We can't find people to work and we can't find people that are skilled. What we are finding are unskilled who don't necessarily want to come to work every day, who don't want to work as hard as we need them to work.

And the other issue is our skilled workers, there are so few workers for the jobs that we need to fill that our competitors, and also our manufacturing that we are friendly with, are stealing our workers, or attempting to. We have had, I believe, three or four in the past year that have said they have gotten offers from companies that we are actually friendly with and do business back and forth, because no one can find the workers. So, they have had to resort to poaching them from other manufacturers.

We have raised wages because we have to. So, talk that corporations are not using the tax cuts and the money to raise wages is just simply not true, because we have to. If we don't, someone else is going to and we will lose our workers.

Mr. LATTA. You bring up the point about finding folks that are skilled out there and bringing them in. I know in some companies they have said, look, if you are willing to work, we will train you. With the legislation that was recently passed on career and technical education here, do you see that is going to be a help? I know in our area, and across Ohio with our high school career centers, and also working with our 2-year institutions out there—are you seeing something we should be doing or do you see something that is bright on the horizon?

Ms. MOYERS. It is a start. I think that investing in the vocational schools and the trade schools, we are very fortunate to have one in our backyard in Perrysburg, Penta Community College, and they cater to kids for everything from manufacturing to veterinary programs and culinary arts. They do a little bit of everything and it is wonderful, and we get a lot of our young employees from Penta. But it is a single facility and they can only cater to so many people, and we need more.

We also need the vocational skills and trade skills exposed to students in regular K-through-12 schools. I think that we need to divert funding to bring back the industrial arts, to keep up fine arts. Even practical life skills, job interviews, balancing budgets, financial things, they need this. We have students who come in to job shadow and some of them we have hired. And our young employees don't know how to fill out forms for health insurance, don't know how to fill out the tax forms. These are vital life skills that they need to have and we need to be teaching them.

Mr. LATTA. Also, you reference in your testimony the innovation. What is the climate out there and the regulatory changes that could help drive innovations for companies like yours?

Ms. MOYERS. My grandfather has taught me a lot of things. And one of the things that he told me in the past couple of years, when we were scaling back some of those overhead costs that my colleague here was talking here, one thing he told me we are never able to cut is going to trade shows, going to machine shows, to learn about what they are doing, to see what the new technology is, because that is what is going to keep us in business. He has never been afraid to do that.

He started his business with some hand tools and a drill press, and now we are mostly CNC machining. We are breaking into new industries all the time, and I think that is so important. And that is the way that manufacturing is going to survive. We can't be stuck in our old ways. We can't be stuck with old technology. That is why we need new, young blood into the manufacturing, to encourage it.

Mr. LATTA. Thank you very much.

My time has expired. At this time, I will recognize the gentlelady from Illinois, the ranking member of the subcommittee, for 5 minutes.

Ms. SCHAKOWSKY. Thank you. Thank you very much.

So, how many employees do you have, Mr. Anderberg?

Mr. ANDERBERG. We have about 60 right now.

Ms. SCHAKOWSKY. So, the three of you are small businesses. And so, I think this is a problem, some of the issues of the failure to close the wage gap or to invest in employees. It is probably different, and I think that you referred to that, that the private sector, large businesses, could do more to get involved in training, in being a public-private partnership.

And you said, Mr. Paradowski, that your effort was to go to the government and say that there had to be improvements in education, and that it is really about government helping businesses rather than the other way around. I would suggest that your going and saying more tax dollars should be spent in some ways is a cop-out in what industry ought to do in order to help. Like we have in Germany, there are programs, public-private partnerships with business to invest in the training of workers. I am not really asking a question here. That is my take and you can answer that. You can talk about that later.

But I wanted to ask Mr. Stettner on the research that has been done. We have heard promises that the Trump tax cut would lead to increased worker pay and investment in manufacturing. However, we know that in the vast majority of cases—and I think this refers mostly to the larger corporations—that did not happen. In fact, economists analyzing the effect of the tax cuts found no significant sign of boosting investment or increasing wages.

So, Mr. Stettner, was there a boom in manufacturing investment after the tax cut went into effect?

Mr. STETTNER. Manufacturing has been on a rebound, I would say a consistent rebound for the last 6 or 7 years. And the challenge going forward is to increase those investments and for companies to look at the workers as partners.

I think a great example that comes to mind is at the ArcelorMittal steel mill they have authorized a strike because the company is doing very well and workers are just asking for their fair share of those profits in terms of wages and healthcare benefits. And so, the move is going to have to be to make sure that workers are treated as partners, so we keep our skilled manufacturing workforce.

Ms. SCHAKOWSKY. So, is there some way that the tax breaks could have been drafted in a way that would incentivize investment and what might that look like?

Mr. STETTNER. I am not going to say that I am a tax expert. So, I don't want to get into the details. I do think there are ways in which, in fact, the tax bill made it cheaper for companies to outsource jobs overseas, and we need to really close those gaps, so it is not cheaper to put production and corporate headquarters overseas.

Ms. SCHAKOWSKY. Thank you.

I just want to go back to Mr. Paradowski. Other countries have invested in long-term strategies for their manufacturers. China has been mentioned, the Made in China 2025 campaign. But Germany has what is called the Fraunhofer Society. And both of these countries have retained more production and more jobs than we have. The German plan is a public-private effort.

And I am just wondering what you think the private sector could do, the manufacturing sector? Because everyone is talking about we can't find the skilled workers. And if you want to comment on this, and there is time, Ms. Moyers, I would be happy to hear that.

Mr. PARADOWSKI. I would love to comment. The way I look at education, and I have stated this many times within the State of Wisconsin, education is the supply chain, the commerce. I don't know of anybody who goes to school to get an accreditation just to have it hang on their wall. They are doing it to ideally get a job.

So, within the K–12 space in Wisconsin, I think there is a variety of things that need to happen. Awareness, nobody aspires to——

Ms. SCHAKOWSKY. Yes, but I am not asking about what the State of Wisconsin can do. I am asking what the employers can do.

Mr. PARADOWSKI. The employers can certainly provide the data as to what jobs are out there, what the makeup of commerce is. There are a lot of kids going through school to get accreditations where there is not a job, and there are a lot of jobs where we don't have workers. Thus, we call that the "skills gap".

I don't refer to what we offer at Apache Stainless Equipment as jobs. I refer to them as careers. We want people to come in, and it is market-based wages. We will take unskilled people who we offer what we call the welding bootcamp. If you have never welded in your life, if you can come in and meet some basic requirements, passing a drug test, have some work ethic, we will teach you how to weld and we will pay you a market-based wage, which is far north of the minimum wage. We have a hard time finding people to do that.

Ms. SCHAKOWSKY. OK. Do you mind if I continue for a while?

Mr. LATTA. Go ahead.

Ms. SCHAKOWSKY. Thank you.

Before I go to Ms. Moyers, I wanted to ask Mr. Anderberg, you mentioned that large corporations could be doing more. What did you have in mind?

Mr. ANDERBERG. Well, I think there is a lot of short-term thinking. And unfortunately for them, I think it is catching up to them; they are realizing it.

I go back in the past. Thirty years ago, a lot of large corporations and large manufacturers shuttered their credential programs. They got rid of them. And now, a lot of those people are retiring that went through those programs and there is a big gap. And shame on them, I think.

Today, for example, in Rockford, we are fortunate; we have the Rock Valley College, and we have an apprenticeship program through our local Tooling and Machining Association that I am on the board of. We have a very successful apprenticeship program. It wasn't so some years back, but now we have over 120 apprentices for skilled machinists, tool and die trade in the program just in Rockford today.

And we are the only ones training. The small manufacturers are really the only ones training. And I think at some point the larger manufacturers will have to train again. It might take some time. But I think if there is something that could be incentivized for them to start apprenticeship programs again—I don't know if it is a tax credit. We talked about this. Actually, I talked about this last week, and we had a board meeting of our Tooling and Machining Association. Maybe a tax credit or something like that.

I don't think we need to have taxpayer dollars going to the benefit of companies, but maybe let them keep some of their capital in the form of a tax credit, or something like that, if they have an apprenticeship that is an accredited program. Our apprenticeship program, it is accredited by the Department of Labor. Everyone gets a Department of Labor certificate at the end of their training. And so, maybe something like that could be done, but I just think the only way you are going to get them off the porch now is to incentivize them some way or another.

Ms. SCHAKOWSKY. If I could? There is hardly anyone here today. So, I wonder if Ms. Moyers could just say a few words?

Mr. LATTA. Yes.

Ms. SCHAKOWSKY. Thank you.

Ms. MOYERS. Thank you.

To speak to your question to Mr. Paradowski, I think that what corporations can do is we need to make ourselves seen. One of the things that we are doing at our corporation is, with part of our charitable contributions, we donate to a place called Imagination Station in Toledo, Ohio, which is a science-based museum and activity center that is geared toward children. We have done several activities with them. We have donated for the past 5 years, and we have also been a part of their outreach programs. They do a great STEM for girls program, and we have done that.

I was lucky enough to be a participant one year. And so many girls—and I think the ages were 8 to 13—so many girls came up and said, "I didn't realize a girl could be a scientist. I didn't know I could do this. I didn't know that there were these jobs." And that is one of the important things, is we need to just get ourselves out in front of people, so that they can see us and see what we do.

Ms. SCHAKOWSKY. Thank you.

I yield back.

Mr. LATTA. The gentlelady's time has expired.

And just to follow up on Mr. Paradowski, what you said about welders, that is the No. 1 job out in my district, that if you have got that skill coming out of high school, you are hired immediately.

The Chair now recognizes the gentleman, the vice chairman of the subcommittee, from Illinois, for 5 minutes.

Mr. KINZINGER. Thank you, Mr. Chairman.

Again, thank you all for being here today.

Mr. Anderberg, should the government mandate wages that you pay?

Mr. ANDERBERG. No. No.

Mr. KINZINGER. Give me, if you can, like generally, what is kind of the average, if you kind of put all your employees together, what is kind of an average hourly wage?

Mr. ANDERBERG. I would say the average hourly wage is up into the mid-twenties.

Mr. KINZINGER. And has that, you said that is——

Mr. ANDERBERG. Not including benefits. Not including benefits.

Mr. KINZINGER. And you said that has increased over the last few years?

Mr. ANDERBERG. It is increasing, yes.

Mr. KINZINGER. And that is because of?

Mr. ANDERBERG. Scarcity.

Mr. KINZINGER. What would have happened if, say, 3 years ago, Washington would have mandated the wage you are paying now back when the economy was hurting?

Mr. ANDERBERG. Well, I will tell you, Congressman, as a small manufacturer, we made the decision in the 4-year slump we had between 2013 and 2017 to hold onto our people. We had built enough cash reserves up that we held onto them, gave them 40-hour weeks. And we made it; we ate up all our cash reserves in those years. If we would have come out of that or had that come down, I would have laid off more people. It is just you can't do that.

Mr. KINZINGER. And can you think of——

Mr. ANDERBERG. Go ahead. Go ahead.

Mr. KINZINGER. Oh, no, please.

Mr. ANDERBERG. We talked about Germany. I have been in German machine tool plants. I have been in German manufacturing companies, and I don't want any mandates from the government. One thing the Germans have done is they have mandated that, if you are a manufacturing company, you have to have 10 percent of your workforce in an apprenticeship program. That is pretty good, but I think that is incumbent upon the manufacturer to make that decision, not government.

Mr. KINZINGER. Yes, and I think there are some things to learn from the German system. I like, in fact, they introduce kids in high school, put them on different tracks, career tracks, past opportunities, show them options. And I think that is something, frankly, we can learn from. Germany has actually been criticized significantly in the EU for what they call keeping wages low. And so, I think to kind of look at the German system and say that is the answer, I don't think it is, even though, again, there are some things we can learn from them. They are very obviously technologically advanced and everything else.

But I do think it is important that, since the enactment of the tax cut and the repealing of a lot of the regulations that you talked about that have been stifling, 1.7 million jobs have been created. Wages are up 2.7 percent. More than $4 billion has been paid to employees in terms of bonuses.

Just 2 short years ago, three-quarters of manufacturers were saying that the biggest business challenges were our tax and regulatory environment. But, as of June this year, less than 20 percent say that that is a top concern.

You look at it, and we should have these good arguments in D.C. That is the point of this place. But, if you look at it and you say, who are we asking, when you ask the people that are actually making the jobs, that are manufacturing, what is it you need and what is it you have seen, and they are telling us I think, by and large, that we are creating a better environment, and you look at the economic numbers, it becomes pretty obvious that it is working. Unemployment is at an 18-year low. It is not perfect. We still have a lot of work to do. We have a lot of issues with training.

You said you employ about 60 people, 45 of whom are skilled tradesmen, machinists, and assemblers, but you have a need for another 10 or 15, and you can't fill it. You also mentioned that this is a pervasive problem, not only in the manufacturing sector, but everywhere. Can you give us a couple of examples of other industries? And also, do you attribute the shortfalls to the same factors that have led to the shortfalls in manufacturing?

Mr. ANDERBERG. Yes, I could talk about the construction industry. I know people who are building contractors, excavators; their people are retiring, too, in the next couple of years. I talked to one owner, Northern Illinois Service in Rockford. They can't get anybody. He is really concerned about his business.

There are other service industries, everybody, everybody you talk to is having a problem getting people, specifically young people. And this is something I want to speak to. I touched on it a little bit in my writeup. This is a societal issue we are facing. We just can't seem to get young people into the trades.

And what I have also found, it is a global issue. Just recently, we had a serviceman over from Germany to work on one of our machines. We have gotten to know these people pretty well. And we had another gentleman in earlier this year. We get into this conversation, and they say—ythese guys fly all over the world. They are in plants in Russia, China, India, everywhere. And they have told me, both of them, that you go to a plant in China or India, they tell us the same thing; they can't get young people into this trade, into this type of work. You walk into the plants; they are all older people.

So, it is a unique situation. It is a unique challenge. I don't know if it is because manufacturing is not seen as a technological industry. It is. And maybe it is more of a marketing effort toward, like I said, the students, the parents, the educators.

If you were at the IMTS show last week, there was a display where they showed voice-activated commands for making machine tools move. It is fascinating. My father and I were there, and we happened to see a lot of students there that day, and they had lounge couches there; you could sit and watch. It was the only booth that I saw where students sat and were extremely attentive to watching the demonstration. Maybe that is part of the answer. Maybe it is increasing the technology, making it more work like an app on your iPhone or your iPad. I think that has something to do with it.

But I don't know. It is strange. I think everybody is experiencing the same thing. You can't get young people in. They last maybe a day and they don't come back.

Mr. KINZINGER. Thank you. I have a thousand more questions, but I will just leave it by saying I think this is an area where, frankly, there can be a lot of bipartisan cooperation. We have these deep debates, but, ultimately, how can the government restructure our programs that exist, not new programs, but restructure them to make sure we are turning people onto these opportunities?

So, thank you again for being here, all four of you.

And I yield back.

Mr. LATTA. Thank you very much.

The Chair now recognizes the gentleman from Texas for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman. Thank you and the ranking member for having this hearing.

And I want to welcome our witnesses.

Manufacturing—I come from the Houston area, the industrial part—my companies that are hiring are refiners, chemical plants, service industry, and the oil industry. What we have seen, and I have worked for a number of years because the way I got into college was I also was an apprentice at a newspaper. I learned to print a newspaper in the 1960s. And I asked the owner of the newspaper, I said, "You hired me as an apprentice. Why didn't you go to the high school we had in the Houston area that had a printing vocational program?" And he said, "Their technology is so far behind, we couldn't do it."

So, over the last decades, we have taken vocational ed out of high schools. And our community colleges have been the one that should be taking it up. I have had a really good community college in my area where we have refineries, chemical plants, essentially, in a college who actually partners with the human resources of these, Shell, LyondellBasell, you name it, and say, what do we need to teach and get these students to have also a 2-year degree? But, then, they can walk onto your plant and work.

That has been really successful, and I have been trying to get our other urban areas in Houston, community colleges, to talk with the people who hire the folks. And I have been to the locations and seen the training, and with these manufacturers who are doing that. Is that commonplace, that community colleges have taken over most of the vocational public?

The apprenticeship I went through just was not a public one. It was a union, but I ended up being able to manage that newspaper after I got my apprenticeship because I had also gotten my undergraduate degree in business. I was just lucky to be able to have that kind of situation; whereas, so many of our young people coming out of high school, they may want to go to college because that is where everybody says they should, but they don't know how they can afford to get there. And that is why an apprentice program in a community college, where you can earn a living and you can also still go back and get you a 4-year degree in whatever you want to do.

Each of you stated you don't have enough younger employees to replace older employees who plan to retire. I have heard that for a number of years. As you said, even nationally, internationally, it is a problem.

How can individuals enter the manufacturing industry right now if they don't have access to the educational programs like a community college or Manufacturing USA, or in my case just because the company wanted to hire me, and lightning strikes? What kind of program could do it? And I am real familiar with the German program. I have been to BMW and seen that. I don't know if that structure would fit in our country, but I do know we need to have an apprentice program that is viable, so employers could count on the skills that they are learning there, that they can come on the job and work.

Mr. Paradowski?

Mr. PARADOWSKI. I would say that it is the awareness. There is certainly a stigma around manufacturing. I know when I was in high school in the early eighties, I went through a technical high school, market trade and technical high school, learned the trade. In school, we were all being told that, if you don't have a 4-year degree, at some point soon you are not going to have a job. So, I think maybe kids have been brainwashed into thinking that they have to go to a 4-year institution.

It is the awareness of what manufacturing is about. Our facilities have become very technology-driven. It is not dark, dirty, and dangerous like maybe some people believe.

Every single school teacher at the Beaver Dam High School in our community has been through our facility, and most of them have never been through a manufacturing facility prior to coming through. That is our role as the private sector, is we need to really drive the awareness that these careers; they are not just jobs. It is very technology-driven. It is the future. There will always be a sizable place in the economy for manufacturing. It is not going away in its entirety. Anybody who believes that is somewhat naive, I believe, and no disrespect to anybody who might believe that.

But we certainly have a role to work as partners with education and K–12 and the tech college system, and any of the institutions out there that are educating our kids. Wisconsin Tech College System is one of the best tech college systems in the country. The average age of a tech college student in Wisconsin is 27 years of age, which would lead me to believe that they were out figuring out other things first before they realized maybe I want to go down the path of a tech school. I would rather that the average age be 18 or 19. That means that the supply chain speeds to the workforce.

Mr. GREEN. Any other response? I thought I had 4 seconds.

Mr. STETTNER. I just wanted to, when we talked about existing programs, what it made me think of is community colleges don't have an incentive to do technical training. A lot of the Federal student aid programs will not pay for that training, and the companies have to cover all the tuition. So, we have to kind of level that playing field. I think it is one kind of thing that we could do and I certainly support.

Mr. GREEN. Thank you, Mr. Chairman. I know because my first two terms I was on Education and the Workforce, and that committee has prime jurisdiction. But I would sure like to see programs in our Department of Labor that would actually look for those skills training that they can go out and walk onto that job. So, thank you, Mr. Chairman.

Mr. LATTA. Thank you very much. The gentleman's time has expired.

And the Chair now recognizes the gentleman from West Virginia for 5 minutes.

Mr. MCKINLEY. Yes, thank you, Mr. Chairman.

And you on the panel, you saw an opportunity or you saw earlier today in this hearing why Congress is considered to be so dysfunctional when you saw the attacks that went underway over the tax cut. When we are talking about manufacturing, people want to go back on the other side and talk about the tax cuts and that they haven't been productive. And the fact that one person referenced the fact that they were all used for buybacks, and I am sure there were some. I am sure there were some. But just keep in mind that, according to Fortune magazine, of the Fortune 500, the top S&P 500, they only represent 17—and I shouldn't say "only"—but they represent just 17 percent of the workforce, the publicly-traded companies.

So, we are dealing with 117 million jobs that are in these small and medium-sized companies. They are not doing buybacks. It is just a distraction of what this fight is about.

Because we have seen in West Virginia, as a result of the tax cut, what it has done is strengthened our manufacturing. We have had manufacturers that make truck parts, truck bodies, are now going to triple the size of their operation in West Virginia. Toyota that makes engine blocks is going to put $120 million more into it, thanks to the tax cuts, down in Buffalo, West Virginia. ATK was bought by Northrop Grumman, and they are going to expand their operation in manufacturing in West Virginia. Boeing just bought Aurora Space Flight, making aerospace parts, as a result of the tax cuts.

So, I am seeing some positive. It is larger companies, but also I just had an opportunity this last weekend to talk with a small manufacturing company, Panhandle, with Bob Contraguerro, out of Wheeling. He didn't use it for buybacks or increased dividends. He hired more people. He has expanded his operation. He is buying more trucks. He is doing all the things he can, but he is facing the same problem that you all have talked about; he can't find qualified people for that.

So, my question has to do with the workforce. I think across the country we have gone away from vocational education. We are not making the incentives anymore for apprenticeship programs in our trades.

I am chairman of the Building Trades Caucus, and we know desperately we need plumbers, pipefitters, carpenters, and electricians to be able to that. We have got to be able to get that base back again.

So, I am curious to see, from your incentives or what you are seeing, how would you suggest that we renew our interest in vocational training and apprenticeship programs? What can we do from Congress to make sure that we have a workforce? What would you suggest, please? Any of you?

Mr. ANDERBERG. I think, for example, in Rockford, I think every district or every area that has manufacturing recognizes that shutting down the vo-tech schools was a big mistake. In Rockford alone, we have had one high school, Jefferson High School, start up their vo-tech training programs; it has been over 5 years ago now. And it has been very successful. There is another high school in Rockford that is starting their vo-tech program again. Across the border in Beloit, Wisconsin, in fact——

Mr. MCKINLEY. We have to overcome a stigma.

Mr. ANDERBERG. Right.

Mr. MCKINLEY. Someplace back in the seventies or eighties, there was a stigma about, well, they are in a shop; they are autobodies. How do we get that back and remove that stigma with that?

Mr. ANDERBERG. I think we have to show that, if you are going—I went to college and I have a master's degree—but I think you have to show, if you go to a 4-year school and you come out with a bachelor's degree, you are in debt, and that the wages you are going to make aren't as much as somebody that comes out of high school with math and an aptitude and goes to work in a manufacturing operation, the amount of money they are going to make.

The wages that we have in our manufacturing companies today just in Rockford are tremendous. And then, because of the scarcity, they have risen, and it is an attractive wage and it is more than a living wage. The people that work in manufacturing make more than the majority of the middle-class, working individuals.

I can't put it all on manufacturing. You can point fingers at everybody. We have to do a better job of marketing and educating the public of what manufacturing is today. I don't know how; maybe that is something Congress can step in and do.

Mr. MCKINLEY. I am sensitive to it because my first job was in manufacturing. I was on an assembly line in an ice plant, in a neighborhood ice plant. So, I understand that we worked seven days a week.

But, nevertheless, I appreciate your effort with it. I am sorry that some people got distracted in trying to make this an issue over the tax cut program. But, you see, there is a reason they are doing that, and I am sorry.

And I yield back.

Mr. LATTA. Thank you very much. The gentleman yields back.

And the Chair now recognizes the gentleman from Kentucky for 5 minutes.

Mr. GUTHRIE. Thank you very much. It is nice to be here. Sorry, there are a couple of other hearings going on, so I have been in and out. I apologize.

But this first question is for Mr. Anderberg and Ms. Moyers. As nearly everyone has mentioned this morning, the workforce challenges you are facing are significant. This issue is important to all of us and our districts.

Mr. Anderberg, one issue, in particular, you mentioned was the need for increasing apprenticeship opportunities. And some may not be focused on that. I recently started the Congressional Apprenticeship Caucus with my colleague, Susan Davis of California, and we introduced legislation to expand awareness of apprenticeship opportunities by providing funds for the states and the Department of Labor to get the word out about opportunities.

There are a lot of challenges, but could you tell us what are some of the biggest challenges that are specific to your apprenticeships or earn-and-learn opportunities?

Mr. ANDERBERG. I think for us, and what we have experienced, what I know my fellow colleagues back in Rockford have experienced, it is simply finding a young individual that wants to come to work every day, wants to do the work. And in our instance, when we have someone come to the door that is interested in a manufacturing job, what we do is we put them into our apprenticeship program. And if they exhibit good attendance, an aptitude, they are a good worker, if we ask them, "Do you want to become a machinist? Do you want to make a career here?" If they say yes, we pay for their apprenticeship 100 percent. We pay for all their books, all their costs.

And even if they are on a night shift, for instance, while they are at school, because there is some night school and night classes, we pay their wage while they are at school. I don't want to penalize them. So, we bend over backwards to get somebody into our apprenticeship program. The problem is finding individuals to come in that want to do it. That is the biggest problem.

Mr. GUTHRIE. Ms. Moyers, do you have any followup?

Ms. MOYERS. Yes. We actually at Jerl also offer an apprenticeship through the State of Ohio. We have not completed an apprentice since 2014. We have had a lot of people enrolled. We have put people through programs. And like Mr. Anderberg has said, the young people are either not focused enough to want to continue it—it is a 4-year program with us. And after a year, they drop off, they start missing classes, failing classes.

The other issue, I think, that is hindering people from offering apprenticeship programs is no one wants to train an employee that another company is going to poach. So, because the workforce, we have this skilled wage gap, it is really hard to commit to putting the investment into those employees if you are fearful they are going to jump ship and go somewhere else, because, then, you have no return on your investment.

Mr. GUTHRIE. Right.

Ms. MOYERS. I don't know what the solution is to that, unfortunately.

Mr. GUTHRIE. Well, thanks. And, we are looking at other things and other bills and other issues about getting people into the workforce, and so forth. My argument is that these people are wanted, they are needed, and what you just said, wanted. In particular the farm bill we are debating that. And I really believe this. If somebody is on some kind of benefit and they don't get back into the workforce, then 5 years from now they are going to be in the exact same spot.

But what you just described is what my experience is. I am from a manufacturing background. If somebody will come to work and show up every day and do their job, they are going to move up and improve. And I will tell you the difference. If somebody doesn't get back into the workforce, they are going to be in the exact same shape 5 years from now. If they just show up for work with even low skills or no skills, they are going to be where you are talking about 5 years from now through an apprenticeship or some kind of program, and be better off.

But I want to get to one other thing. I am changing the subject. So, Mr. Anderberg, this is for you. My colleague Doris Matsui and I are looking to drop a bill to direct the Department of Commerce to establish a working group of Federal and private stakeholders to define blockchain. That is one thing, until we can even deal with policy, get the definition of blockchain and study some of the implications for spectrum policy in potential applications. We have a lot to learn and hope this is a good first step in kicking off significant conversations across the Federal Government.

Do you believe innovations in blockchain could be important to your company and the manufacturing sector generally?

Mr. ANDERBERG. Yes. I think anytime Washington wants to talk about manufacturing, it is a benefit. I remember coming out here in the late '90s when it was discussed talking about PNTR and some of the trade agreements. And I came out in small manufacturing groups. They didn't want to hear us. They didn't want to hear what we had to say of what was going to happen. And I think the reality has become reality.

Anytime Washington has talked about manufacturing, I think that is important. And we have talked here on the panel before we started. You know, the is the Digital Commerce and Consumer Protection Subcommittee. Yet, we have a USDA. I am not opining for another bureaucracy. But how important manufacturing is to our national defense, our economy. Shouldn't there be some type of subcommittee or committee on manufacturing to keep watch on some of these things? Maybe that is something. But I fully appreciate anytime Washington wants to discuss, to talk about manufacturing, because it is extremely important to our country.

Mr. GUTHRIE. Thank you. I appreciate that.

My time is expired and I yield back.

Mr. LATTA. Thank you very much. The gentleman's time has expired and he yields back.

And the Chair now recognizes the gentleman from California for 5 minutes.

Mr. CÁRDENAS. Thank you very much.

I appreciate the opportunity to talk to some of the practitioners out there in the real world. So, thank you very much for being here.

Ms. Moyers, thank you for pointing out in your opening statement about the lack of diversity, even in your own company. And it is good to hear that it sounds like you would love to welcome more diversity.

Is diversity good for business, for your business, for your bottom line?

Ms. MOYERS. Absolutely. It is good for every business. I can't tell you how many times just myself, as a family member, completely accepted in my business, walking in and I can present an idea that I can tell no one at the table has thought of before. And I don't know if it is because I am a woman. I don't know if it is because I didn't stay in my industry; I didn't start there. I have previous experience in other industries.

But any time you get someone who is different, they offer a unique perspective. If they have grown up in a different place, if they have experienced different prejudices, experienced different benefits from their race, their religion, their sexual orientation, their gender, it is important because we cannot continue—we have talked about manufacturing as needing to be innovative and needing to progress, and we can't progress if we have the same people making the decisions and deciding to—excuse me; I lost my train of thought—making the same decisions.

Mr. CÁRDENAS. Well, Ms. Moyers, you just mentioned something very interesting. That is, you mentioned a whole breadth of different communities. Your product, is it consumed—or who participates in that product? Is it across the board or it is only one kind of community?

Ms. MOYERS. No, we have a——

Mr. CÁRDENAS. The ones that you just described?

Ms. MOYERS. Our business is metalworking. Basically, we are not an end product. We provide for other companies that produce other things.

Mr. CÁRDENAS. So, all communities that you just described benefit from your product in some way or another?

Ms. MOYERS. Absolutely. Absolutely. We work in multiple industries, food packaging, automotive, elevator, energy. It is nationwide.

Mr. CÁRDENAS. There is another form of diversity——

Ms. MOYERS. Right.

Mr. CÁRDENAS [continuing]. Diversity of consumers, right?

Ms. MOYERS. Yes.

Mr. CÁRDENAS. OK. In some of the testimony, some of you were talking about how young folks, it is hard to attract them and get them involved in manufacturing, or what have you. My office, my district office, we participate in manufacturing day. We really make it a manufacturing week.

And one of the things that I came up with, and we are still trying to tackle this issue—I happen to represent part of Los Angeles. So, it is not uncommon to see an A-list star walking down the street or somewhere in town, and you are like, whoa, that is so-and-so. On that point, I think it is important for everybody, whether it is you, the practitioners, us as policymakers, or what have you, we have got to try to get really cool spokespeople to encourage that manufacturing is cool.

Another thing as well that I think is important, I think that, on balance, manufacturing actually pays more on quasi-entry-level skill set jobs than does other quasi-entry-level, not-so-much-skill required jobs, like, say, working at a fast food restaurant, or what have you, where many of our young people end up, if they are determined to actually work, and say, well, that is the only thing I have got. So, I have got to put on this funny, little hat and I have got to punch that cash register.

I think it is really important that your industry pay attention to that. I think that you have a higher likelihood of attracting a young person who already went out in the workforce and got tired of working for minimum wage and tired working for a job that requires almost no skills other than showing up for work. I think that you have a higher likelihood that they will actually be more attracted to trying to apply themselves for one of your businesses and in manufacturing in general. That is my take.

Since I was 13, I had one, two, three jobs at a time, or what have you. That was my immigrant parent inculcation into my life. So, I think I was a little lucky. So, by the time I got out of high school, I was like it is just natural; I have one, two, or three jobs at any given time. Today's younger folk, they don't seem to have that kind of want for that kind of effort.

So, I am just saying that I think that it is important, especially for you practitioners, to just pay attention to what is going on out there in the community. And instead of, unfortunately, seeing them be not attracted for you, maybe after they have already been in the workforce and realize that you do have a better paying, better opportunity, career type of opportunity for them, then maybe you will have a little bit more stick to it from some of these younger folk.

I am looking at the clock; I am running out of time—but one thing I definitely want to ask Mr. Stettner is, how can manufacturers better attract and retain their next generations of diverse employees and leaders?

Mr. STETTNER. One thing I would say in interviewing workforce practitioners who place people in manufacturing, many of the programs only focus on getting the person the first day of the job. They need more resources to help with concrete things like child care and transportation, but also just mentoring and coaching, especially if you have a first Latino kid or the first Black kid going into an all-white workforce.

And it is also an educational piece on the manufacturers to learn how are we going to make that person comfortable, how are things people are saying on the floor making that person uncomfortable, how do we change our culture to be more welcoming to women and people of color? And what I have seen is manufacturers are listening and they are working, and look at those programs as a way to learn how to do that a little bit better.

Mr. CÁRDENAS. Thank you. I yield back.

Mr. LATTA. Thank you very much. The gentleman's time has expired.

And the Chair now recognizes the gentleman from Pennsylvania for 5 minutes.

Mr. COSTELLO. Thank you, Mr. Chair.

I would like to point to an example in my home district, in Berks County, in fact, that highlights the success resulting from many of the pro-growth policies such as the tax cuts and JOBS Act. Carpenter Technologies, founded in Redding in 1889, employing 2,000 people at its Berks County facility, produces special alloy-based materials for aerospace, energy, transportation, defense, and consumer electronics markets. Carpenter Technologies recently announced a $100 million investment in its mill in Redding because of the tax savings they recently have found themselves having as a result of the tax bill.

Capital investment is a strong signal of entrepreneurs' confidence about the future. We need to focus on marrying those free-market policies with workforce development, training to help minimize the skills gap through apprenticeships, on-the-job training for job seekers, and emphasizing curriculum in schools that can be translated to the 21st century economy.

Can all of you talk about some of the training options your potential employees need to be certified and if there are any barriers for them to receive the proper training? The second question, how can the Federal Government be a better partner in fostering more workforce development opportunities to get folks off the sidelines and into good-paying jobs in the manufacturing sector?

Ms. MOYERS. I think that, with my company specifically, we are offering quite a bit. We offer tuition assistance for anyone that is continuing education. Our apprenticeship is fully paid. And basically, if you are willing to come to work and work hard, we will invest in you and we will make sure that you move up. Just like it has already been said, if you can find someone who is unskilled who will show up to work every day, we are going to train you and we are going to move you up in our fields.

I am sorry, what was the second part?

Mr. COSTELLO. Federal Government partnering.

Ms. MOYERS. Yes.

Mr. COSTELLO. How do they? How might they do it better?

Ms. MOYERS. I think we have already covered it a little bit.

Mr. COSTELLO. I think so, but——

Ms. MOYERS. I think education funding into vocational schools and trade skills and life skills is vital. I think that is the way that the government can help us.

Mr. COSTELLO. That second part, maybe add where you may be working with your local or regional workforce development organization and how the Federal Government's role is or is not involved in that, for the next folks. And we can go back to it in a second.

Mr. PARADOWSKI. I think the role of government, the K–12 space, we put too much incentive on SAT scores and truancy. I have got four daughters, three in college, one in high school. The mindset is, if you do well on the ACT, there is the center lane that, if you are in it, you are a winner and everything else is kind of a fallback. So, if you find yourself in a skilled trade, it is because you couldn't make it on the main lane. I think that is a challenge where it creates the stigma.

I think the things that will help is the awareness of what is out there. I said it earlier; nobody aspires to be that which they don't know exists. So, data in the K–12 space, here are the opportunities that lay out there in the workforce. And they are all equal valued. So that kids aren't conditioned to think I have got to go to a 4-year school and take on that debt, just to find out that what I got trained in isn't something that either (a) has any market demand or (b) is anything I enjoy doing.

Getting people off the sidelines is a tricky thing. I have some data. It is a little bit dated. In the State of Wisconsin—this was late last year actually—are unemployment rate at the time was a little bit over 3 percent, which equated to 109,000 people. Right now, the unemployment rate is below 3 percent. At that same point in time—and as everybody would know, unemployment is those out of work looking for work—at that same point in time, there was 1.4 million people in the state of Wisconsin that were out of work not looking for work. Some of those, in all fairness, might be people who don't need to work. But I think it would be naive for us to think that that is all of them.

There are a lot of people who are able-bodied that could be additive to the workforce that aren't. Some of that might be a fact that the K–12 system. Current gradation rate of Milwaukee public schools is about 60 percent. So, four out of ten kids, where are they going? I am a graduate of Milwaukee public schools.

So, those things concern me deeply because, if they are not going into the workforce, how do we get them into the workforce? Maybe if there are more pathways equal valued, that a 4-year degree is great; trade is great; military is great. They are all equally great. Maybe less people opt out at an early age. There is, obviously, a lot of other complicated parts with opioid addictions and things of that nature. But that is our opportunity to me, the people that are on the sidelines. We have got to find a way to keep them in the game, keep them on a pathway to be added up to the economy.

Mr. STETTNER. There is obviously formula funding for career technical programs, but they kind of fund the same programs year after year. In the same way some of the programs like the TAACCCT grants incentivize some really innovative activities that led to the current boom in apprenticeship, I think we need a focused program that would spur school districts to do something innovative about the trades, not a big program, but something, a competitive grant program that really got the juices going and kind of show the Nation we can do more.

Mr. ANDERBERG. As far as barriers to training, again, I think it has to do with an educational effort of the educators, the parents, the students, and, obviously, opening the vo-tech schools, which we are seeing in Rockford. In one instance, I have talked to the program administrator in Rockford, and they are looking at, for juniors and seniors that are going through the program. This used to happen years ago, where you have a half-day at a workplace and half-day in class. And so, then, when they are ready to graduate from high school, they are in. And then, from there on, there could be training.

As far as what can the Federal Government do, I guess maybe helping create awareness. I don't want to repeat what they said, but it is just helping the community colleges. If there are vo-tech programs—I will step back. Years ago, I was told that part of the problem with Congress is, of the 435 districts, only 35 districts have manufacturing in them of any significance. I think that has been an issue over the years. That is why things have fallen through.

So, the recognition here today, having us here today and talking about this is a start, but I think there has to be more awareness. If funding for some of the tech schools or for some of the community colleges, like we have in Rockford, could help, that would be terrific.

Mr. COSTELLO. Thank you all very much. I yield back.

Mr. LATTA. Thank you very much. The gentleman's time has expired.

And the Chair recognizes the gentleman from Florida for 5 minutes.

Mr. BILIRAKIS. Thank you, Mr. Chairman. I appreciate it.

For Mr. Anderberg, Mr. Paradowski, and Ms. Moyers, I heard from my local manufacturers, the stakeholders in Tampa and the Tampa Bay area, that workforce development is one of the biggest problems in this sector. I know many of my colleagues have already highlighted this. And we have the vocational training, the schools there. We have career academies, which I worked on in the legislature. So, in other words, if there's an area of need in the community, we focus on that particular area of need through the career academies and the high schools. And, of course, we have AMSKILLS. We have P–TECH, and we have Marchman, and all the community colleges. They do an outstanding job, but we need more. This is everywhere I go I hear this.

But can you tell me about some of the other impediments, because we did cover this, to growth in the manufacturing sector? So, this is for Mr. Anderberg; you can go first, please.

Mr. ANDERBERG. You said impediments to growth in the manufacturing sector?

Mr. BILIRAKIS. Yes, yes. Well, besides the workforce.

Mr. ANDERBERG. Well, that is our biggest impediment at the moment.

Mr. BILIRAKIS. Yes.

Mr. ANDERBERG. But I think right now it is tough to say there are impediments because of what is taking place the last year and a half, quite frankly, the change in tax policy, the change in regulatory, the trade situation. We are going full blast right now, and I don't see where there is an impediment for manufacturing now solely, except for the lack of people.

Mr. BILIRAKIS. Good. So, you recommend we focus on the workforce issue?

Mr. ANDERBERG. I think the workforce is probably the most important thing that Congress could work on to help us. Again, allowing us to keep our capital, the money we earn—I don't wake up in the morning and think how I am going to spend my money on a boat or something else. I think about how I am going to improve my operation, what I am going to do to help my people, grow my business. That is what we do with our money.

And I just want to thank you, thank Congress and this administration for allowing that to happen. Everyone is investing again. It is incredible.

Mr. BILIRAKIS. Very good.

Mr. Paradowski, any more besides the workforce issue? Any other impediments?

Mr. PARADOWSKI. Absolutely. I often give my four legs of the stool that drive private sector growth speech. So, maybe I will inject it right now. Logistics, energy, workforce, although I wasn't supposed to say that word, and commerce-friendly government. So, it is really the economic, how friendly an environment as far as the government.

So, I will use a real-life, real-time example, Foxconn making its investment in the southeastern part of Wisconsin. Their focal points were those three things: logistics, being in proximity to Milwaukee and Chicago, two international airports; energy; workforce is certainly a thing, but the economic environment that the government created in the State of Wisconsin specifically for them to come there and compete.

Really, the argument, or maybe the fundamental difference in a lot of the folks in this room is, the sun rises in the East and free markets do what they do. If you can't compete—I will cite something that Mr. Stettner said—highest tech, not the lowest cost. Maybe there are some markets where you can be that, but I know that if I wanted to go into the 4K LED TV market, if I can't find a way to make one for $350 for a 50-inch, I don't have a product. Markets do what markets do.

And as a global economy and the U.S. role in that, we have to compete on a cost and performance basis or else we go out of business. Companies go out of business every day. And those are the four key things.

The impact of tax reform is a real impact. Look at GDP growth. Anybody who says that tax reform didn't have an impact is denying a key factor of GDP growth.

But one of the things that is a parachute on the car right now is certainly workforce, but you asked me not to talk about that. The regulatory environment, government needs to be an allied partner. If government is really focused on helping the private sector, changing the educational system in K–12, so that many pathways are equally valued, that will go a long way. I don't want to go down this rabbit hole, but legalized immigration I think is a big piece. Half of our workforce is in the last trimester of their career, between 50 and 65. And we need to add bodies. GDP is a function of output and efficiency, GDP growth, and we need to add workforce. We need to add efficiency.

Mr. BILIRAKIS. Very good.

Ms. Moyers?

Ms. MOYERS. I think I am going to sound like a broken record, but I think that the bottom line is just that the workforce is our biggest issue. Of course, personally, in our company we have had cash flow issues in the past. We are not having them right now because of the current climate, because of the tax reform, because of deregulation. And I think more of that is going to be helpful.

I guess the only thing that I can think of is making it cheaper for businesses to run and do the things they do, so anything that is cost saving to us. One of the biggest expenses we have had in the past few years has been healthcare costs. We cover healthcare for our employees. They pay a very small percentage, and we don't want to make them pay more. And we have no intention of taking it away, no matter what it costs us, because we feel it is very value-added to our employees and it is part of the reason they stay with us. So, that is one of the things, that that rising cost is a big burden for small business owners.

Mr. BILIRAKIS. All right. Thank you.

I have a couple more questions, but I will yield back. But thank you very much for that information. Thank you.

Mr. LATTA. Thank you very much. The gentleman yields back.

And looking down the dias here, there are no other members wishing to ask questions.

First of all, I want to thank all of the witnesses for being with us today, for giving your testimony, taking your time away from your businesses to be with us. And it is great to know that it is not just an issue in northwest Ohio or Ohio; that the No. 1 issue out there is employees. And all the work that you all are trying to do, from benefits to making sure that you are investing in people out there for 2 to 3 months to get them out there. So, I really appreciate you all being here.

Before we do conclude, I want to make sure that the following documents are submitted for the record by unanimous consent: the report by Mr. Stettner; also, the earlier document that the gentlelady from Illinois submitted that was accepted.

[The information appears at the conclusion of the hearing.]

Mr. LATTA. And pursuant to committee rules, I remind members that they have 10 business days to submit additional questions for the record. And I ask that witnesses submit those responses within 10 business days from the receipt of the questions.

And so, without objection——

Ms. SCHAKOWSKY. Mr. Chairman, if I could say just something?

Mr. LATTA. Oh, the gentlelady.

Ms. SCHAKOWSKY. So, Mr. Stettner, in your written statement you talked about apprenticeship and vocational training and how that has dwindled a bit. But you also said—and I think this came up—that there is a generation who experienced industrial decline, who are telling their children to shun factory work. And I agree that, in part, it is a marketing approach to young people.

Mr. Paradowski, you talked about careers, that these really are careers. And I also think that we need to encourage women to understand that this is a great opportunity for women to participate and get more money; that more diversity in every way is important. And so, I think that we need to help with the marketing.

And maybe, Mr. Stettner, this is part of a manufacturing strategy, that the Federal Government, along with the private sector, can participate in, to make sure. I think some people of a generation ago think about dirty factory floors and kind of nasty work, and we have to help change that image, so people see this as a lifelong career choice.

So, I just wanted to add that.

Mr. LATTA. And again, as we have been hearing from all the members here on the committee and from our witnesses, manufacturing has changed out there. And I know that I was in a plant not too long ago and asked a gentleman running a CNC machine how long it took him to learn it. He said, "I'm still learning it." He had been there a year. A lot of folks don't realize how much computerization is in plants today, and it is. It is looking at everything from guidance counselors to principals——

Ms. SCHAKOWSKY. Right.

Mr. LATTA [coninuing]. To making sure that economic development directors, going right down the entire line, right down to the student, getting them out there to see what is there and making that investment.

So, again, we really appreciate you all being here today because this is really important to this economy. It is vital to this nation. So, we appreciate you being here today, and thank you for your testimony.

And with that, this subcommittee will stand adjourned.

[Whereupon, at 11:45 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Posted August 3, 2018 at 1:23 pm by **Josh Bivens**

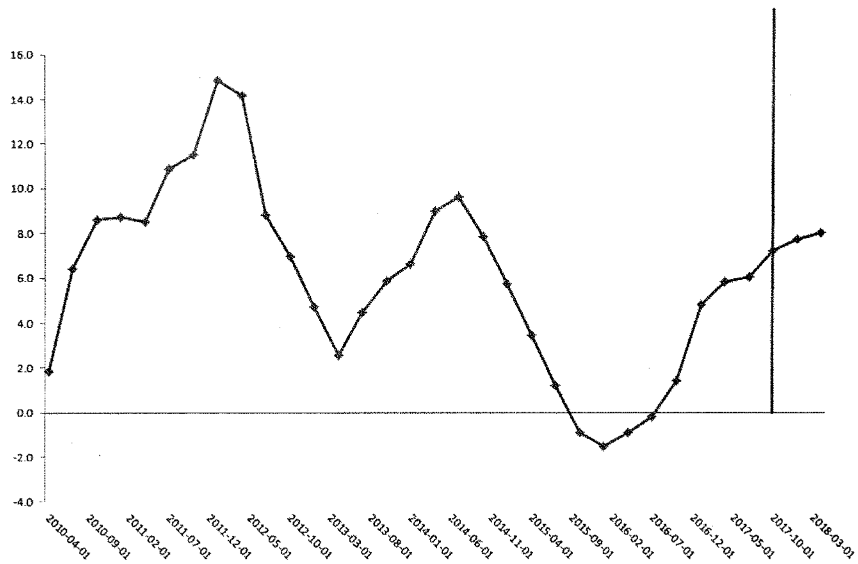
How do we know the tax cut isn't working to boost wages? Investment, investment, investment

Earlier this week, my colleague Hunter Blair **noted** that economic data released over the past six months contained no real signs that any of the promised benefits of the Republican tax cut passed at the end of last year were showing up for workers. These benefits are *certainly* showing up for corporations and the wealthy households that own them—which makes sense, as the tax cut was overwhelmingly a tax cut for corporations. But the tax cut's boosters promised that money corporations saved on taxes would quickly show up as higher wages for workers. In fact, they claimed this was happening so quickly that the tax cut was responsible for bonuses at the end of 2017 that were granted or announced before the tax cut *actually became law*.

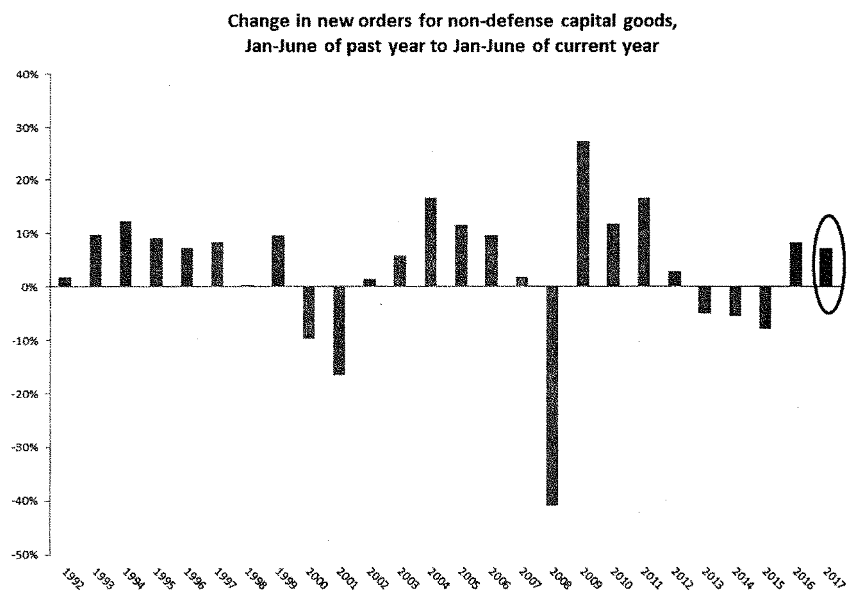
As silly as those arguments were, a case that corporate tax cuts will lead to wage increases **does exist** in economics textbooks. The most crucial link in the chain leading from cutting corporations' taxes to workers seeing higher paychecks runs through increased business investment in plants, equipment, and research. Essentially, lower corporate taxes are supposed to incentivize businesses to undertake more investment in productivity-enhancing plants, equipment, and research, and induce extra spending to finance these increased investments. This extra investment is supposed to lead to higher productivity, and hence to higher wages for workers. I should note that **most of the links** in this chain are broken, but for now, let's just focus on the first—the effect of the tax cut in spurring business investment. If that fails, the whole case for tax cuts boosting wages fails.

The figure below shows the percent change in business investment relative to the same quarter in the previous year, with the vertical line showing when the tax cut was passed. The data is from the Bureau of Economic Analysis (BEA), National Income and Product Accounts (NIPA) Table 1.1.3. It is awfully hard to see a real regime change here in investment behavior.

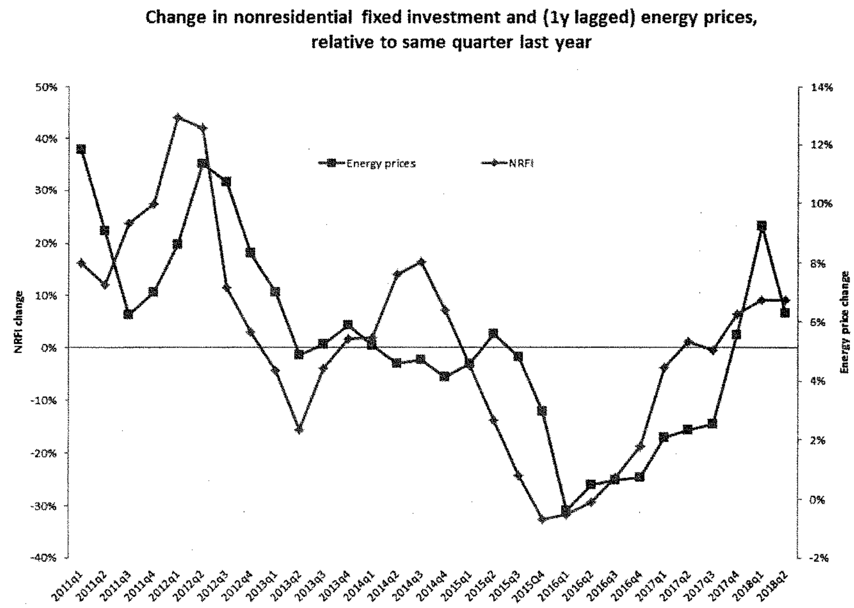
Percentage change in nonresidential fixed investment, same quarter last year



Occasionally, tax cut defenders will urge some patience, arguing that it takes some time for new investment to be order and installed. This is fair enough (but what about those bonuses paid before the tax cut became law and yet claimed as its vindication?), but orders of new capital goods (i.e., investment plans) can be made as soon as the law takes effect. If locking in lower tax rates is supposed to make firms want to invest more, six months should be enough time to see this in data tracking capital goods orders. The figure below shows capital goods orders for the first six months of each year since 1992. The data is from the Census Bureau's Manufacturing, Shipments, Inventories and Orders **data**. The 2018 bar (the last one on the right, circled) is entirely in the period of time when the effect of the tax cuts took hold. This certainly does not make the tax cut look like an investment game-changer.

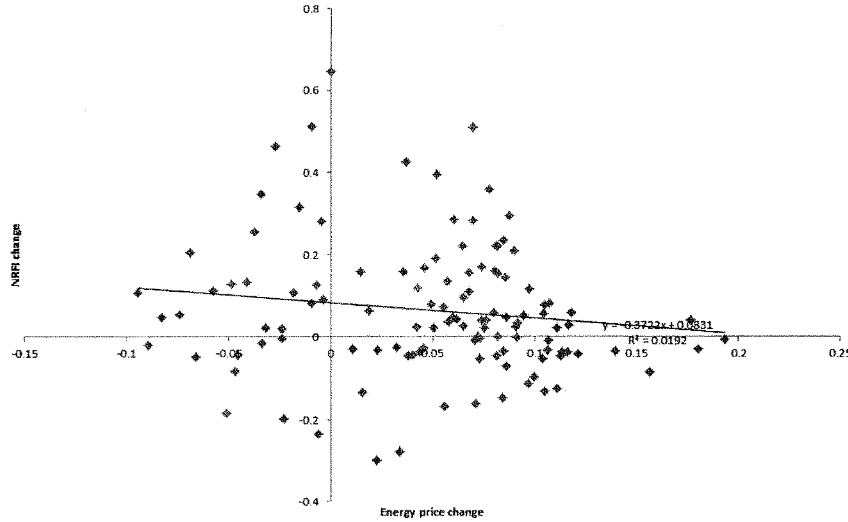


Finally, it is true that both of these graphs show pronounced investment weakness starting in 2014 and running through 2016. Investment clearly began improving in early 2016. None of this lines up well with the tax cut's effect, but it's worth looking at why investment was doing ok in the early part of the recovery from the Great Recession but then faltered. The answer seems clearly to be that American business investment has become largely driven by investment in energy extraction, and since 2007 it has risen and fallen in response to rises and falls in energy prices. The next figure shows the year-over-year change in business investment since 2011 lined up with the year-over-year change in energy prices, but lagged one year. The investment data is the same as in the first figure, and energy prices are from the BEA NIPA table 2.3.4 (gasoline and energy price deflator). The fit is very tight, with a correlation of 0.73.



This correlation is a very new development. Here's a scatterplot of these same series for the period from 1979–2007. There is essentially no relationship.

Change in NRFI and (lagged) energy prices relative to same quarter last year, 1979-2007



Where does this analysis of investment trends leave us? First, the tax cut shows no sign of boosting investment, and, this is a necessary (not sufficient, but necessary) condition for it to boost wages. In the end, we all know that this is just one more tax cut for corporations and the rich that will not trickle down at all to American workers. Second, non-energy investment in the United States is extremely sluggish, and we should work hard to boost it. The most direct way to boost it is by undertaking public investment (infrastructure would be a good start). We should also try to make sure labor markets are as tight as possible, to goad employers who have become complacent about economizing on labor costs because workers have been so cheap in recent years. Faster wage growth **could well kickstart** some business investment.

A Federal Agenda for Revitalizing America's Manufacturing Communities

Andrew Stettner and Joel. S. Yudken

Dek: The U.S. has underinvested in its manufacturing base. Here's a $2 billion plan to accelerate the development of good paying manufacturing jobs for communities that need them.

WYSK:

- This report is in partnership with The Great Cities Institute and The Century Foundation's Bernard L. Schwartz Rediscovering Government Initiative. This work was supported by a grant from The Joyce Foundation.
- The High Wage America project researched and toured Pittsburgh, Cleveland and Chicago, and developed a $2 billion, 12 point action plan to revitalize good paying manufacturing jobs and Industrial heartland communities.
- Manufacturers are hiring again (in Chicago there were two openings in manufacturing for every person hired) but are struggling to fill positions with candidates from diverse backgrounds.
- Rejecting the "Rust Belt" label, leaders from the industrial heartland are looking for federal investments in high-tech, highly innovative manufacturing.

The United States has now entered a record-long period of job growth, driving the unemployment rate to its lowest level in nearly two decades. Yet for millions of workers across the country, the U.S. economy continues to fail to provide enough high-wage, family-sustaining jobs. While this problem has been decades in the making, it has become increasingly acute. Over the past year, for example, real wages of workers actually declined, while pay for corporate executives has soared.

There is perhaps no region where the impact of stagnant wages is felt more strongly than in the industrial heartland. The region is still recovering from years of deindustrialization and disinvestment that has led to limited job opportunities and put downward pressure on wages. From 2000 to 2010, the states of Indiana, Illinois, Michigan, Ohio, Pennsylvania, and Wisconsin lost a combined 1.8 million manufacturing jobs. In the twentieth century, these jobs—and the union pay and benefits they often brought—drew millions of Americans to the Midwest and helped build the country's middle class. Conversely, the industrial decline of the twenty-first century has dealt a blow to the vitality of the entire region, leading to population loss and hurting communities that relied on manufacturing both directly and indirectly.

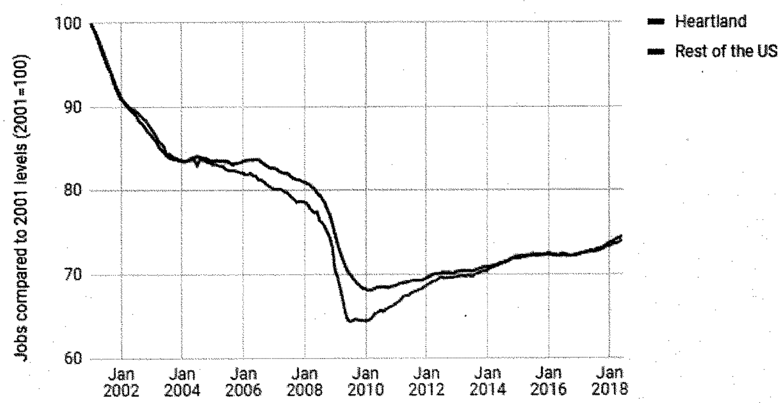
Neither the phenomenon of low wages, nor America's manufacturing struggles, is the sole result of economic forces of nature. Rather, they are the result of conscious policy choices made by our elected leaders. Trade policy accelerated the offshoring of millions of manufacturing jobs. The loss of production capacity has kneecapped our ability to innovate, as America has ceded its edge in research and development to East Asian nations. And as our country has disinvested in manufacturing, nations such as Germany—where manufacturing represents 20.6 percent of GDP, compared to just 11.6 percent here—have steadily increased their investment in modernizing manufacturing.[1]

Still, American manufacturing has remained resilient. In the darkest days for the industrial heartland, communities refused to accept the notion that manufacturing was a lost cause. Local and state leaders came up with innovative models to save jobs, retain industry, and shore up regional economies. These efforts have led to a promising, if nascent, manufacturing recovery. The six states cited above have brought back nearly a half-million manufacturing jobs since 2010, recovering a greater share of industrial losses than have the rest of the country. This turnaround has led to a newfound optimism that future economic development can build on the region's history and its strategic advantages in manufacturing.

This growing momentum behind, and renewed commitment to, manufacturing is starting to rise to the national level, too. The United States today is still a manufacturing powerhouse—the world's second-largest manufacturing nation—and the sector's future is critical to the country's overall economic health and global competitiveness. Manufacturing represents 68 percent of all U.S. private research and development spending, and is key to cutting the trade deficit, which reduces national income by $566 billion per year. Moreover, a robust manufacturing sector is vital if America wants to be a leader in environmental sustainability (climate change innovation requires a new generation of products), as well as to our national security (which is compromised by reliance on foreign suppliers). As Figure 1 demonstrates, manufacturing is on the rise again, in the industrial heartland and throughout the country.

[1] "Manufacturing, value added (% of GDP)," World Bank, https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=DE-US accessed on August 31, 2018.

Change in Manufacturing Employment since 2001, Heartland v. Rest of the US



Source: Bureau of Labor Statistics and authors' calculations. Heartland includes Indiana, Illinois, Michigan, Ohio, Pennsylvania and Wisconsin.

The last two presidential elections demonstrated the surprising political relevance of manufacturing, leading commentators to declare that U.S. manufacturing is "having a moment." The problem, however, is that campaign rhetoric does not move from political photo-ops on factory floors into a long-term, sustainable commitment to manufacturing. The debates today in Washington, D.C. are largely limited to the topics of trade and tariffs, and neglect to focus on strategies to support and scale efforts to bolster the competitiveness of manufacturing clusters and resilience of manufacturing communities.

For the last year, the Century Foundation's High Wage America (HWA) Project and key partners have worked to develop an inclusive policy agenda to revitalize manufacturing communities, with regional and federal governments working hand-in-hand.[2] An

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[2] The Century Foundation would like to thank the High Wage America advisory committee for the support of the project and for helpful comments on this report, especially the institutional leadership from Tom Croft and the Heartland Capital Strategies/Steel Valley Authority as well as Brad Markell and the Industrial Union Council of the AFL-CIO. Additionally, the committee consists of Steve Herzenberg (Keystone Research Center, PA), Jack Mills (Insight Center, MA), Steve Sleigh (Sleigh Strategies, DC), Teresa Cordova (Great Cities Institute, IL), Bishara Addison (Towards Employment, OH), Christy Veeder (Jobs to Move America, NY), Joel Yudken (High Road Strategies), David Robinson and Dan Swinney (Manufacturing Renaissance), Riley Ohlson and Brian Lombardozzi (American

initiative of the Bernard L. Schwartz Rediscovering Government Initiative at The Century Foundation, HWA kicked off at an event in Washington, D.C. in June 2017, followed by the publication of "Revitalizing America's Manufacturing Communities," which highlighted state and regional best practices in manufacturing and produced a broad framework of four major drivers to accelerate the growth of manufacturing and the redevelopment of communities that depend on them.[3]

We then spent the past year hosting summits to hear from more than 500 leaders in the industrial heartland: Pittsburgh, in October, 2017; Cleveland, in March, 2018; and Chicago, in June, 2018. HWA experts listened to and learned from political, academic, business, labor, and community leaders at the forefront of efforts to build a high wage regional economy. In each location, we partnered with local groups to research the state of manufacturing in that region today, as well as its continuing impact on workers and communities. This research and events fleshed out the critical areas for action, testing our framework, and surfacing new ideas, models and priorities. Most importantly, we left each stop on the tour better informed and more attuned to the growing, diverse array of promising initiatives that are taking hold in manufacturing communities across the nation, as well as the need for federal action and national coordination. Communities are not satisfied with manufacturing recovery for its own sake, but rather as a driver toward a more inclusive and sustainable economy. This view prioritizes labor and community as stakeholders in economic and policy decision-making, and measures success in terms of wage growth and sustainability, not just profits.

This report is the culmination of that tour. It combines insights gleaned from our earlier reports and summits in the Midwest, with the best of national research and expertise from over the past year to build a concrete policy agenda to bolster regional manufacturing initiatives and grow good-paying manufacturing jobs. And while it is directed at federal policymakers, it is grounded in the experiences of communities in the heartland. The High Wage America tour and research surfaced five priorities for action: increasing the pipeline of qualified workers; preventing and mitigating the displacement of manufacturing; fostering high-tech manufacturing; enhancing manufacturing partnerships; and unlocking new sources of capital. Regional communities have relied

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Alliance for Manufacturing), Michael Goff (Northeast Midwest Institute, DC), Katy Stanton (Urban Manufacturing Alliance, WI), Harriet Applegate (Cleveland AFL-CIO, OH), Lee Geisse (Blue Green Alliance, OH), Lisa Jordan (United Steelworkers, PA), Bob Bower (Massachusetts AFL-CIO, MA), and Ted Chandler (AFL-CIO Housing Investment Trust). The authors would also like to thank Amanda Novello and Jeff Madrick very helpful comments and research support.

[3] Joel Yudken, Andrew Stettner and The four drivers are spurring innovation; reinvesting in workers; mobilizing responsible capital; retaining, restoring and growing sustainable industries.

on federal support to drive their efforts forward, and the recommendations below will allow them to continue to accelerate their efforts.

Priority 1: Communities and Employers Must Increase the Pipeline of Qualified Workers

Even though jobs are coming back, communities and employers must work harder to ensure a pipeline of qualified employees for unfilled positions, while ensuring that manufacturing provides workers in distressed communities, including communities of color, opportunities to obtain these jobs. After bearing the brunt of the largest drop in manufacturing in U.S. history from 2000–2010, manufacturers in the heartland are coming back—so much so that their growth is outstripping their ability to find labor for all the new positions. Our research found that over the past year there were two manufacturing job openings for every person hired in the Chicago region.[4] Even in an economically diversified metropolis such as Chicago, manufacturing offered more job openings than all but three sectors—including 15,000 unfilled frontline production jobs that rarely require a college degree.[5] With a rapidly aging workforce (one in three manufacturing workers are over the age of fifty-five in Chicago), companies and government need to invest in the manufacturing workforce of the future. It's a major endeavor: the elements of the education and workforce system that addressed the industrial workforce in the past—including vocational high schools and apprenticeships—have been allowed to wither for decades. For example, the most recently available data, from 2013, shows that in that year Chicago Public Schools had only trained 118 young people to industry-recognized credentials in manufacturing, in part because educational systems had turned away from manufacturing to focus more exclusively on other high-growth occupations.[6]

The good news is that communities are taking the first steps to rebuild these systems in line with the opportunities that exist today. Companies, training providers, unions, and schools have worked together to set up new pilot programs, such as the AFL-CIO's multi-city Industrial Maintenance Technician apprenticeships and Cleveland's Steelworker for the Future, to create a new educational pipeline to manufacturing jobs. These diverse pilots have a consistent approach—on-the-job training, training students up to industry recognized credentials and pre- and post-job placement support—but they are just that: pilots and model programs. They need a timely infusion of public support to go to a greater scale and to reach even deeper into communities with high levels of joblessness.

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[4] Teresa Cordova, Andrew Stettner, and Matt Wilson, "Revitalizing Manufacturing and Expanding Opportunities for Chicago's Black and Latino Communities," The Century Foundation and the University of Illinois-Chicago, Great Cities Institute, June, 2018, https://tcf.org/content/report/revitalizing-manufacturing-expanding-opportunities-chicagos-black-latino-communities/.

[5] Teresa Cordova, Andrew Stettner, and Matt Wilson, "Revitalizing Manufacturing and Expanding Opportunities for Chicago's Black and Latino Communities," The Century Foundation and the University of Illinois-Chicago, Great Cities Institute, June, 2018, https://tcf.org/content/report/revitalizing-manufacturing-expanding-opportunities-chicagos-black-latino-communities/.

[6] Rebecca Harris, "Ticket to a Job," *Catalyst In Depth*, Community Renewal Society, Winter, 2014, http://www.chicagoreporter.com/wp-content/uploads/assets/20140206/catalystindepth-winter2014f.pdf.

Manufacturing still stands out as a field that can provide good-paying opportunities for individuals without a college degree and who have barriers to employment, such as criminal records.[7] While manufacturing jobs don't pay as well as they once did, workers in Ohio (for example) still earn $2.99 more per hour in manufacturing than they would in other sectors.[8] These jobs are especially critical in small towns in the heartland, where nearly one in four private sector jobs are still in manufacturing.[9] For urban communities of color, there is tremendous still-untapped potential for manufacturing to address stubborn levels of joblessness, especially among young people in places such as Cleveland and Chicago, where more than one out of three young African-Americans are neither in school or in a job.[10] While African Americans are still under-represented in manufacturing (numbers are worse among women), our tour revealed encouraging efforts by companies such as Chicago's Laystrom Manufacturing and Cleveland's Dan T. Moore companies to reach into communities of color to recruit a new generation of workers. The time is right for community-based programs that can equalize access to good-paying jobs in manufacturing trades for community of color. As described at our Pittsburgh summit by Allegheny County Councilmember DeWitt Walton, the goal is to ensure that, when minority workers enter the employment game in a manufacturing or construction trade, "a hundred yards is a hundred yards." In Cleveland, Towards Employment's Bishara Addison explained that community-level recruitment and ongoing post-employment support services and mentoring was even more critical to manufacturing employment success among people of color than hard skills training. This sentiment was echoed by numerous other leaders, who also observed that publicly supported workforce programs don't provide community leaders the resources they need to effectively recruit people of color into them.

- ***Recommendation 1: Provide federal grants for career-based K–12 programs targeting manufacturing.*** A $100 million grant program could use revenues from the H1B fees (which are visa fees paid by firms who bring in skilled immigrant workers; the proceeds are reserved in a federal account for skills training) to fund thirty communities across the nation to develop innovative efforts to introduce young people into manufacturing.[11] (This program would build on the 2014 Youth Career Connect grant

[7] Interview with Victor Dickson, president and CEO of Safer Foundation, By Andrew Stettner,May 29, 2018.

[8] Teresa Cordova, Andrew Stettner, and Matt Wilson, "Revitalizing Manufacturing and Expanding Opportunities for Chicago's Black and Latino Communities," The Century Foundation and the University of Illinois-Chicago, Great Cities Institute, June, 2018, https://tcf.org/content/report/revitalizing-manufacturing-expanding-opportunities-chicagos-black-latino-communities/.

[9] Andrew Stettner, Joel S. Yudken and Michael McCormack, "Why Manufacturing Jobs are Worth Saving," The Century Foundation, June, 2017, https://tcf.org/content/report/manufacturing-jobs-worth-saving/?session=1.

[10] Teresa Cordova, Andrew Stettner, and Matt Wilson, "Revitalizing Manufacturing and Expanding Opportunities for Chicago's Black and Latino Communities," The Century Foundation and the University of Illinois-Chicago, Great Cities Institute, June, 2018, https://tcf.org/content/report/revitalizing-manufacturing-expanding-opportunities-chicagos-black-latino-communities/.

[11] H1B training funds were equal to $176 million in FY 2017. See "FY 2019 Budget Appendix: Department of Labor," U.S. Office of Management and Budget, https://www.whitehouse.gov/wp-content/uploads/2018/02/lab-fy2019.pdf, accessed July 12, 2018.

program.[12]) The goal is to accelerate career awareness and preparation through a funding stream that goes beyond what is available through current federal efforts such as the Carl Perkins Career and Technical Education Act and the Workforce Innovation and Opportunity Act (WIOA); and to intervene earlier in the career pipeline than would apprenticeship grants. Eligible programs would include work-based learning, robust engagement of employers, and attainment of industry-recognized credentials, and grants that fund school districts that broadly market the benefits of manufacturing careers within their communities. Preferences for aid would be given to communities with high levels of unemployment and with a large manufacturing footprint (over 25,000 workers in the metro area).

- ***Recommendation 2: Double manufacturing apprenticeships in five years and build the infrastructure for sector based education and training.*** Federal funding should continue to be expanded for apprenticeship training programs with a goal of doubling the number of registered manufacturing apprenticeships from 17,000 to 35,000 in the next five years, using tax credits or grants of $2,000 per apprenticeship to catalyze expanded enrollment.[13] To benefit manufacturing, federal funding should go to proposals such as the PARTNERS Act in support of the development of sectoral partnerships that bring together companies within the same industry and geography with labor and educational institutions. Critically, the PARTNERS Act provides resources to stand up these intermediary organization that can drive regional investment toward the shared needs of companies and address broader employment opportunities on an industry-wide scale. These partnerships can establish apprenticeships for multiple firms (many of whom don't have the resource to manage apprenticeship on their own). Some proposals include programs outside of the current system of registered apprenticeship regulated by the Department of Labor. All federally funded programs should still adhere to the nondiscrimination rules present in current registered apprenticeships and limit funds to only those programs that pay a liveable post-apprenticeship wage. In addition, federal support should also be given to states, industrial partners, and educational institutions to establish pre-apprenticeship and pipeline programs, with a specific goal of increasing participation of women and people of color in manufacturing apprenticeships. These programs ensure that there are diverse cohorts of potential apprentices equipped for the technical requirements and ready for the rigors and challenges of apprenticeship programs.

- ***Recommendation 3: Use wraparound services to strengthen manufacturing employment programs in communities of color.*** In order for disinvested populations to take advantage of employment opportunities in manufacturing, communities need to implement complementary wraparound services to address the financial and personal issues that impact employment success; these services currently are not adequately

[12] U.S. Department of Labor, "Youth Career Connect," accessed August 9, 2018, https://doleta.gov/ycc/.
[13] U.S. Department of Labor, "Registered Apprenticeship National Results," https://doleta.gov/oa/data_statistics.cfm accessed August 9, 2018.

supported by federally funded education and training programs.[14] Wraparound services such as transportation, child care, and emergency funds, as well as career counseling, case management, and mentoring should be delivered by organizations with specific experience in the diverse communities which they are serving. Several key policy proposals move in this direction. The Gateways to Careers Act would deliver comprehensive services to individuals enrolled in career pathway programs that link community colleges and community workforce programs. The PARTNERS Act would deliver these services in the context of work-based learning approaches, with a specific focus on recruiting communities (especially people of color and women) that have been historically underrepresented in construction and manufacturing trades. In addition to legislation, the presidential administration can amplify support by providing the Departments of Labor and Education guidance on the importance of community-based marketing of workforce programs, as well as on how to leverage existing federal resources to mount those marketing campaigns. The administration can also advance this goal by supporting the use of U.S. employment plans in procurement processes by grantees of the U.S. Department of Transportation, to favor not only domestic manufacturing but inclusive hiring practices.[15]

Priority 2: Prevent and Mitigate the Displacement of Manufacturing

In spite of growth, many parts of the manufacturing sector are vulnerable to job loss and instability; and there are not adequate tools to help communities save jobs and help workers and communities adjust when mass layoffs do come. The heartland in particular has born the brunt of plant closures and permanent layoffs. Advocates for manufacturing communities in the region have taken a two-prong approach. First, they have sought to be proactive in doing everything they can to prevent layoffs. One successful model of this approach, the Steel Valley Authority's Strategic Early Warning Network in Pittsburgh, has saved thousands of manufacturing jobs through its layoff aversion model that identifies factories at risk of closure and provides them targeted business turnaround assistance—a strategy that has been replicated nationwide.[16] Like the workforce, many small manufacturers have aging owners who may shut down their shops unless a proactive approach is taken. Second, they have supported a strong system of transition assistance for those who are laid off, and count on government-funded benefits and retraining to get back on their feet. Policy Matters Ohio's Mike Shields called on worker protection policies to foster a partnership with workers in the heartland—the same impulse that inspired Ohio and Wisconsin to enact the first unemployment insurance

[14] "Skills for Good Jobs: An Agenda for the Next President," National Skills Coalition, November, 2016, https://www.nationalskillscoalition.org/resources/publications/file/Skills-for-Good-Jobs-Agenda.pdf.

[15] Madeline Janis, Roxana Aslan, and Katherine Hoff, "Harnessing Government Spending to Revitalize Good Manufacturing Jobs," The Century Foundation and Jobs to Move America, October 3, 2017, https://tcf.org/content/report/harnessing-government-spending-revitalize-good-manufacturing-jobs/.

[16] Joel S. Yudken, Thomas Croft and Andrew Stettner, "Revitalizing America's Manufacturing Communities," The Century Foundation, October 16, 2017, https://tcf.org/content/report/revitalizing-americas-manufacturing-communities/.

schemes in 1930s to ensure that the economy would retain skilled workers through industrial ups and downs.[17]

- ***Recommendation 4: Expand trade adjustment assistance into trade, technology, and policy adjustment assistance.*** Congress should overhaul the Trade Adjustment Assistance (TAA) program into what manufacturing workers expect it to be—an effective, comprehensive approach to mitigate the harmful effects of permanent job loss.[18] This would require moving from the laborious current standard of factory-by-factory certification to industry- and occupation-wide certification, shortening the time frame for certifications, and significantly expanding the eligibility rules to cover involuntary job losses not just to trade but also to automation and policy changes, such as the closure of a major military base or carbon taxes.[19] TAA employment services should be reformed to have better connections to well-documented reemployment programs that help dislocated workers get rehired with their existing skills, and to proven sectoral training programs when they need to retrain in an occupational course or apprenticeship. And TAA should provide a genuine promise of extended income support, to guarantee dislocated manufacturing workers an adequate income to live on while they go through training and experience extended periods of joblessness. It also should provide wage insurance to those laid off workers who won't be well served by training, such as those approaching retirement.[20] And the generally effective TAA for firms program, operated by Department of Commerce, should follow this broadening of eligibility and also shorten the decision-making process for firms at-risk, which is now three to four months.

- ***Recommendation 5: Improve the implementation of WIOA layoff aversion.*** The Workforce Innovation and Opportunity Act requires states to use federal funds to quickly provide information about available employment, training, and social services to workers impacted by large announced layoffs, services know as rapid response.[21] A new aspect of that law now requires states to use a portion of these rapid response dollars to prevent layoffs (such as help finding new markets, business consulting, identifying new owners or investors, and retraining incumbent workers), but guidance about this

[17] Michael Shields, "Manufacturing a High-Wage Ohio" The Century Foundation, March 12, 2018, https://tcf.org/content/report/manufacturing-high-wage-ohio/.
[18] Robert D. Atkinson, "How to Reform Worker-Training and Adjustment Policies for an Era of Technological Change," Information Technology & Innovation Foundation, February, 2018, http://www2.itif.org/2018-innovation-employment-workforce-policies.pdf?_ga=2.27933820.1317036802.1529525938-770564724.1529525938.
[19] Robert D. Atkinson, "How to Reform Worker-Training and Adjustment Policies for an Era of Technological Change," Information Technology & Innovation Foundation, February, 2018, http://www2.itif.org/2018-innovation-employment-workforce-policies.pdf?_ga=2.27933820.1317036802.1529525938-770564724.1529525938.
[20] Andrew Stettner, "Mounting a Response to Technological Unemployment," The Century Foundation, April 26, 2018, https://tcf.org/content/report/mounting-response-technological-unemployment/?agreed=1.
[21] "Training and Employment Guidance Letter, No. 19-16," U.S. Department of Labor, March 1, 2017, https://wdr.doleta.gov/directives/attach/TEGL/TEGL_19-16_acc.pdf.

requirement came too late to influence state plans for WIOA dollars.[22] The Department of Labor needs to give stronger guidance to get more states to provide effective business turnaround services to manufacturers at risk of closure, including a directive to immediately amend their state plans with more specific layoff aversion plans that conform to the guidance.

Priority 3: Foster High-Tech Manufacturing

American manufacturing is high-tech and highly innovative—but federal support is needed to help manufacturing communities win the global race for twenty-first-century process and product development. Heartland communities embrace manufacturing as part of a high-tech future, rather than a nostalgic look to the past. In Cleveland, Senator Sherrod Brown's keynote remarks included this call for clarification: "To call us Rust Belt demeans our work and diminishes who we are. Today's factories in Ohio and around the country are not rusting, they're innovative, they're high tech plants." Brown cited Cleveland's ArcelorMittal steel mill as the first plant in the world where one person-hour of work creates one ton of steel.[23] In Ohio, jobs in advanced manufacturing industries pay $65,000 per year compared to $53,000 in less advanced industries, and $47,700 in jobs across the state.[24] Advanced manufacturing refers to industries and processes that are capital intensive and rely on technological innovation.[25] Examples of advanced subsectors include aerospace, electronics, pharmaceuticals, and motor vehicles.

Leaders in all three cities that TCF visited called for increased public–private partnerships to bolster advanced manufacturing clusters. Moreover, they are betting on initiatives such as the Advanced Robotics for Manufacturing Institute at Carnegie Mellon University (one of fourteen institutes funded by the new Manufacturing USA program) to firmly position the industrial heartland as the manufacturing hub for a new generation of products. If there is a critique of federally funded advanced manufacturing efforts, however, it is that they are too focused on technology development and not enough on how to create jobs, connect with local supply chains, and educate the local workforce on the skills needed for high-tech manufacturing.

- ***Recommendation 6: Institute a new race to the top for advanced manufacturing.*** To capitalize on momentum in the region, the federal government should commit $400 million over four years to encourage states to undertake initiatives to develop their advanced manufacturing sectors—addressing the competitiveness of existing industry and promoting the creation of next-generation products. The race would be modeled

[22] Department of Labor, "Workforce Innovation and Opportunity Act; Final Rule" Federal Register 81, no. 161, August 19, 2016: 56072 https://www.gpo.gov/fdsys/pkg/FR-2016-08-19/pdf/2016-15975.pdf
[23] ArcelorMittal, "Cleveland, Steel Strong in CLE for 100+ Years," http://usa.arcelormittal.com/our-operations/steelmaking/cleveland accessed August 9, 2018.
[24] Mike Shields, "Manufacturing a High Wage Ohio," The Century Foundation and Policy Matters Ohio, March 12, 2018, https://tcf.org/content/report/manufacturing-high-wage-ohio/?session=1.
[25] Mike Shields, "Manufacturing a High Wage Ohio," The Century Foundation and Policy Matters Ohio, March 12, 2018, https://tcf.org/content/report/manufacturing-high-wage-ohio/?session=1.

after the Department of Education's $1 billion Race to the Top for Early Learning Challenge and the $4.35 billion Race to the Top Fund. Similar to these education programs, the grants would seek to catalyze state-level investments. Along these lines, the National Governors Association's Making Our Future policy academy supported teams from eight states to participate in a year long strategic planning process that spurred new programs, passed new state legislation, and secured state funding.[26] The goal would be to get states to race to the top around innovation rather than to a race to the bottom of tax cuts and giveaways—and states would be forbidden from giving grant funds to individual factories in the form of incentives. Instead, grant funds would be used for new partnerships between public universities and manufacturers, apprenticeships in skilled manufacturing trades, or expanded work by manufacturing extension agencies to support technology integration among small businesses. States would be encouraged to build on existing federally supported programs such as Manufacturing USA and the Manufacturing Extension Partnership. State matching funds would be required and the Race to the Top would closely align with the distinct priorities of governors.

- ***Recommendation 7: Extend and expand Manufacturing USA and its institutes.*** Modeled on Germany's highly successful Fraunhoffer-Gesellschaft applied research system, Manufacturing USA was created in 2014, as a network of public–private regional institutes that bring together large manufacturing companies, academic research institutions, small- and medium-sized manufacturers (SMMs), and government agencies to foster innovation, collaboration, and workforce education and training in critical advanced manufacturing areas.[27] This program is America's leading effort to develop advanced manufacturing innovations and jobs. Preliminary evaluations show high levels of engagement by leading manufacturers with the institutes and a number of promising product innovations.[28]

  Congress should double down on this investment. First, Congress only provided each of the fourteen institutes with five years of funding. Congress should consider making federal core institutional funding for them permanent, with prescribed levels of matching funding from private sector partners and/or state governments to ensure that federal funding is going to where there is private sector buy-in.

  Second, the number of Manufacturing USA institutes should be expanded beyond the current fourteen to the originally planned forty-five institutes, targeting new manufacturing technologies, including those that improve the competitiveness of strong

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[26] Erin Sparks and Mary Jo Waits, "Making Our Future: What States Are Doing to Encourage Growth in Manufacturing through Innovation, Entrepreneurship, and Investment," National Governors Association, January, 2013.
[27] "The National Network for Manufacturing Innovation," Congressional Research Service, May 5, 2016, https://www.everycrsreport.com/files/20160505_R44371_f9f27674a8cecfa2d2f3cf06e47040ead6b55eb4.pdf.
[28] Deloitte, "Manufacturing USA program design and impact," January, 2017, https://www2.deloitte.com/us/en/pages/manufacturing/articles/manufacturing-usa-program-assessment.html.

legacy industrial sectors (for example, metal fabrication, basic metals production, chemicals, and paper).[29] Manufacturing USA institutes have been funded primarily by the Departments of Defense and Energy; other agencies should join suit as institute sponsors, including the National Institutes of Health, which could invest in medical technologies and equipment, and the Department of Transportation, which could invest in smart highway and high speed rail manufacturing technologies.

Third, Congress should extend and strengthen the workforce initiative of each institute and ensure greater integration of the workforce education and training components of the institutes with their advanced manufacturing innovation activities. Working with the Manufacturing Extension Partnerships (MEPs), the institutes should leverage their connections with manufacturers, both large and small, to expand existing sector partnerships and set up new ones where needed with a focus on high-quality jobs, employment equity, skill development, and other workforce development, in partnership with local workforce agencies.

Priority 4: Enhance Manufacturing Partnerships

Communities are recognizing that modern manufacturing is a team sport, and are nurturing their regional manufacturing economies. The federal government needs to do more to support and scale them, and foster partnerships across sectors and industries. In Cleveland, Professor Sue Helper from Case Western Reserve University told the audience that two-thirds of the cost of major manufacturers come from supply chains, and only 8 percent come from direct expenses on labor.[30] That means today's manufacturing base consists of ecosystems of dispersed suppliers, which tend to be clustered geographically, such as fabricated metals in Chicago and rubber in Akron. Public investment can play a critical role in the shared needs of clusters in areas such as innovation, workforce training, and technology integration, especially for small and medium enterprises, which make up 70 percent of manufacturing employment.[31] For example, regional agencies are helping small businesses prepare for increasing requirements for cybersecurity by manufacturers among their suppliers. The timing is right to invest in U.S. manufacturing supply chains—small manufacturers told TCF experts that large manufacturers are looking more favorably at the advantages in quality and time efficiency provided by domestic suppliers who can use technology to provide a full array of services, from product design to just-in-time production.

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[29] "The National Network for Manufacturing Innovation," Congressional Research Service, May 5, 2016, https://www.everycrsreport.com/files/20160505_R44371_f9f27674a8cecfa2d2f3cf06e47040ead6b55eb4.pdf; Sridhar Kota and Thomas C. Mahoney, "Manufacturing Prosperity: A Bold Strategy for National Wealth and Security," Mforesight, June, 2018, https://medium.com/@MForesight/manufacturing-prosperity-a-bold-strategy-for-national-wealth-and-security-65d2a97d6d0e.

[30] Moshe Marvit, "Lessons from Cleveland about the Future of American Manufacturing," The Century Foundation, April 16, 2018, https://tcf.org/content/commentary/lessons-cleveland-future-american-manufacturing/.

[31] Authors' analysis of the Bureau of Labor Statistics, Quarterly Census on Employment and Wages. We find that 70 percent of manufacturing workers work in establishments with less than 500 employees.

Regional policies that affect economic demand can shape manufacturing's future—even including decisions that are not thought of as specifically related to the factory sector. For example, philanthropic leaders in Cleveland made early investments in LEEDCO to develop the wind power capacity of Lake Erie, with an eye to stimulating wind power manufacturing and supply chains regionally.[32] But the state's decision, until recently, to freeze standards that would have required a greater share of the energy to come from renewable power has allowed other states to surpass Ohio in wind generation and related manufacturing.[33] Similarly, government procurement of goods and services represents a $2 trillion annual market.[34] Legally, few projects can require regional governments to buy made in America goods; but new federal rules allow regional governments investing in mass transit to give a leg up to bids that would spur regional manufacturing and local hiring. Jobs to Move America used this tool to turn the Chicago's purchase of new subway cars into a major new railcar manufacturing facility, complete with an aggressive plan to ensure that residents in the heavily African American South Side neighborhood can compete for the facility's 200 unionized jobs.[35]

- ***Recommendation 8: Reinstitute and expand the 2012–16 Investing in Manufacturing Communities Partnership.*** Under a 2012 Department of Commerce (DOC) pilot program, regions that came together to develop a strategic plan to support competitive manufacturing clusters could apply for a federal designation as part of the Investing in Manufacturing Communities Partnership (IMCP). This program provided technical assistance to recipient communities of the federal grantmaking process, bringing in new resources for infrastructure and job training and serving as a catalyst for the ongoing collaboration between industry and government.[36] This DOC pilot was ended by the Trump administration in 2017. Congress should appropriate $30 million for the Defense Manufacturing Communities Program—a partial successor for the IMCP program—which was authorized by the FY 2019 National Defense Authorization Act in August and supported by President Trump.[37] The Departments of Defense and Commerce should consult with IMCP communities and take lessons from the pilot in order to re-establish the designation even before specific funds are authorized. Moreover, the program

[32] Moshe Marvit, "Lessons from Cleveland about the Future of American Manufacturing," The Century Foundation, April 16, 2018, https://tcf.org/content/commentary/lessons-cleveland-future-american-manufacturing/.

[33] Carrie Blackmore Smith, "Kasich breaks with GOP, keeps renewable energy standards," *USA Today,* December 27, 2016, https://www.usatoday.com/story/news/politics/2016/12/27/kasich-breaks-gop-keeps-renewable-energy-standards/95896582/.

[34] Madeline Janis, Roxana Aslan, and Katherine Hoff, "Harnessing Government Spending to Revitalize Good Manufacturing Jobs," The Century Foundation and Jobs to Move America, October 3, 2017, https://tcf.org/content/report/harnessing-government-spending-revitalize-good-manufacturing-jobs/.

[35] Corilyn Shropshire, "First step to new CTA rail cars: Build the factory in Chicago," *Chicago Tribune,* March 16, 2017, http://www.chicagotribune.com/business/ct-cta-new-railcar-plant-0316-biz-20170315-story.html.

[36] Amanda Novello, "Revitalize American Manufacturing by Nurturing the Industrial Commons," The Century Foundation, April 12, 2018, https://tcf.org/content/commentary/revitalize-american-manufacturing-nurturing-industrial-commons/.

[37] Office of Management and Budget, "Follow-on to Statement of Administration Policy-S. 2987 John S. McCain National Defense Authorization Act for Fiscal Year 2019," June 26, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/06/saps2987s_20180626.pdf.

should be strengthened by putting a priority on communities that take action to create more opportunities for minorities and women in manufacturing and involve labor in community planning.

- ***Recommendation 9: Strengthen and expand the Manufacturing Extension Partnership.*** The Manufacturing Extension Partnership (MEP) program is by far the most important federal program dedicated to assisting and improving the competitiveness of America's small- and medium-sized manufacturers (SMMs; under 500 employees), which account for 99 percent of all U.S. manufacturing firms and 70 percent of U.S. manufacturing jobs.[38] It consists of a network of manufacturing assistance centers, with over 400 service locations, located in all fifty states and Puerto Rico, supported jointly by federal, state, and local government, as well as by private sector funds. Despite strong bipartisan support on the Hill, MEP continues to face uncertainty about its budget—including a proposal, early on in the Trump administration, to zero out its funding.[39] Funding for MEP should be maintained at its historical norm of close to $200 million annually.

  Furthermore, Congress should institutionalize the partnership and bridges now being pilot-tested between SMMs and the Manufacturing USA institutes. This includes formalizing and supporting the embedding of MEP staff within each institute in order to facilitate the diffusion of technologies and processes developed at the institutes out to America's broader SMM supplier base. It also could include establishing a small business innovation voucher program, redeemable within the institutes, with federal and state matching investments.

Priority 5: Unlock New Sources of Capital

From the vantage point of community leaders, the region is not getting its fair share of capital investment to rebuild its communities. Most of the country's venture capital is invested in software companies (57.4 percent)—when it comes to hard technologies that require manufacturing, the pattern is now "invent here and manufacture there."[40] This investment trend has a major geographic impact: industrial states represent 32 percent of all U.S. employment but only 9.3 percent of all venture capital investment.[41]

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[38] Fred Block, "A Strategy for Rebuilding the Manufacturing Sector in the United States," The Century Foundation, September 20, 2017, https://tcf.org/content/report/strategy-rebuilding-manufacturing-sector-united-states/.
[39] Brendan Duke, "Trump's Budget Is Breaking His Promises on Manufacturing," March 27, 2017, https://www.americanprogress.org/issues/economy/news/2017/03/27/429041/trumps-budget-breaking-promises-manufacturing/.
[40] Sridhar Kota and Thomas C. Mahoney, "Manufacturing Prosperity: A Bold Strategy for National Wealth and Security," Mforesight, June, 2018, https://medium.com/@MForesight/manufacturing-prosperity-a-bold-strategy-for-national-wealth-and-security-65d2a97d6d0e.
[41] Andrew Stettner, "How Federal Government Can Foster Stateside Advanced Manufacturing," The Century Foundation, April 9, 2018, https://tcf.org/content/report/federal-government-can-foster-stateside-advanced-manufacturing/.

Pension funds are potentially a key lever for reinvestment. In Pittsburgh, United Steelworkers president Leo Gerard referred to pension funds as the deferred wages of workers, and declared that, "we should be able to use those pension funds for the kinds of returns we can get by creating good manufacturing jobs, making a product, making it in a community where people can get a job and making it so people can have good wages." In 2016, U.S. pension assets were valued at $22.5 trillion, and workers have a voice on trust funds representing $4.35 trillion.[42] Alongside citizen investors, worker trustees can demand that asset managers invest more robustly in sustainable industries and distressed communities. Speaking in Chicago, Illinois state treasurer Michael Frerichs asserted that pension investors are uniquely positioned to break free from Wall Street's obsession with short-term profits, and invest in sustainable companies, such as regional manufacturers, that can produce the long-term financial gains that pension fiduciaries are pledged to get. The lack of investment capital is a real everyday problem for manufacturers such as QuickLoadz, a Cleveland summit attendee from Ohio's section of Appalachia, who'd like to scale up manufacturing of their patented winch-free container trailers in Ohio, but may have to sell their technology to a larger manufacturer elsewhere. While sustainable investing is most popularly associated with environmental issues, organizations such as Heartland Capital Strategies in Pittsburgh and the AFL-CIO Housing Investment Trust are successfully arguing that the needs of distressed communities are a vital part of sustainability.

- ***Recommendation 10: Create an industrial bank*** A federal industrial bank can provide low-cost loans and loan guarantees to manufacturers, lowering the cost of raising capital for critical national priorities. The European Investment Bank, along with numerous national banks in Europe and Canada, has served this function for sixty years on the other side of the Atlantic, as has the U.S. Export–Import Bank for American industry, at least for a slice of manufacturers. Like proposals for an infrastructure bank and the recent successful experiment with Build America Bonds (which needs to be revisited and complemented by Made in America Bonds), industrial bank funds would require that private lenders provide part of the funding for any supported project.[43] The industrial bank could focus on a set of important national needs including accelerating green manufacturing, the reshoring of manufacturing jobs to the United States, and the restoration of key manufacturing capacities for national security. An interesting source that Congress could use to fund the bank would be revenue from tariffs targeting dumping, threats to national security, and unfair competition; these dollars could be repurposed to the overarching goal of bringing jobs back to the United States. By combining the lower-cost incentives that national bank and bond-capitalized vehicles

[42] Willis Towers Watson, "Global Pension Assets Study 2017," January 30, 2017, https://www.willistowerswatson.com/en/insights/2017/01/global-pensions-asset-study-2017.

[43] Keith Miller, Kristina Costa, and Donna Cooper, "Creating a National Infrastructure Bank and Infrastructure Planning Council," Center for American Progress, September 2012 https://www.americanprogress.org/wp-content/uploads/2012/09/InfrastructureBankReport.pdf, and Michael Lind and Daniel Mandel, "Made in America Bonds," New America Foundation, March 2010 https://www.newamerica.org/economic-growth/policy-papers/made-in-america-bonds/.

might create with existing tax credit provisions, Congress would dramatically increase investment capital availability for small and medium enterprises.

- ***Recommendation 11: Establish a national economically targeted/impact Investment clearinghouse.*** According to The Forum for Sustainable and Responsible Investment, the size of the sustainable, responsible, impact investing market has grown from $4.8 trillion in 2012 to $8.1 trillion as of the end of 2016 (this includes pension and other institutional funds). This market now accounts for $1 out of every $5 invested by asset managers in the United States. An investment clearinghouse would foster co-investments with the private sector and the industrial bank to mobilize and amalgamate pension and impact investments. Utilizing existing public guarantees/incentives in some limited cases, the clearinghouse could encourage greater risk-taking in targeted innovative sectors and projects. Finally, the clearinghouse would work with various stakeholders to encourage investment management firms to develop new, innovative investment products to fill capital gaps.[44]

- ***Recommendation 12: Establish a revolving technology loan for small businesses.*** The U.S. Small Business Administration should create a revolving loan fund that particularly targets small manufacturers who are struggling to upgrade their technology to effectively meet the demands of supply chains, enabling them to upgrade their production equipment, cybersecurity, and networks, and install smart manufacturing technologies, such as sensors.[45] As supply chains in U.S. manufacturing have become more diffuse, the project of modernizing manufacturing depends on the actions of small companies, and small companies tend to have greater challenges accessing capital. A revolving loan fund, which would be self-sustaining, would be an efficient way for the federal government to help solve the problem.

Conclusion

Stagnating wages and income inequality are a seminal crisis in America. Revitalizing manufacturing is a critical step to restoring middle class jobs, especially in the industrial heartland. The High Wage America project's scholarly and on-the-ground research in heartland communities found grounds for optimism, with a nascent industrial recovery and promising partnerships between companies, communities and labor. Stepped up investments by the federal government can play a critical role in driving this progress. To be truly effective in revitalizing American manufacturing, the plans in this report for federal-state partnerships must

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[44] Keith Miller, Kristina Costa, and Donna Cooper, "Creating a National Infrastructure Bank and Infrastructure Planning Council," Center for American Progress, September, 2012, https://www.americanprogress.org/wp-content/uploads/2012/09/InfrastructureBankReport.pdf.

[45] Sue Helper and Tom Mahoney, "Ensuring American Manufacturing Leadership through Next Generation Supply Chains," Mforesight, June 2017, https://medium.com/@MForesight/the-smart-supply-chain-5bb39fafbdc1.

be accompanied by national policies, create a new regime of fair international trade, and harness federal spending (Buy America) to stimulate national demand.

The recommendations in this report would represent an approximately $2 billion per year increase in support for manufacturing communities—still far less than what other leading industrial nations spend, but representing a major boost to the manufacturing sector in a critical part of the nation. This includes $700 million per year to fully fund forty-five manufacturing USA institutes, expanding TAA at a cost of approximately $500 million per year, capitalizing the industrial bank with $300 million per year, apprenticeship, education, and training programs at a cost of $300 million million per year, increasing MEP and Manufacturing Communities Partnerships at a cost of $100 million per year, and a cost of $100 million per year for a race to the top for advanced manufacturing.

These investments in manufacturing should be seen as a one part of a broader strategy to set the nation on a high wage path. That national strategy—benefiting workers in manufacturing and across the economy—includes revamping labor laws and workforce protections, monetary and fiscal policies that drive wage growth, and an education and training system that facilitate upward mobility. These policies see well-paid workers as the economy's greatest asset and the driver of a more productive economy and rebuilding of a vibrant middle class.

Priority 1: Communities and Employers Must Increase the Pipeline of Qualified Workers

- ***Recommendation 1: Provide federal grants for career-based K–12 programs targeting manufacturing.***
- ***Recommendation 2: Double manufacturing apprenticeships in five years and build the infrastructure for sector based education and training..***
- ***Recommendation 3: Use wraparound services to strengthen manufacturing employment programs in communities of color.***

Priority 2: Prevent and Mitigate the Displacement of Manufacturing

- ***Recommendation 4: Expand trade adjustment assistance into trade, technology, and policy adjustment assistance.***
- ***Recommendation 5: Improve the implementation of WIOA layoff aversion.***

Priority 3: Foster High-Tech Manufacturing

- ***Recommendation 6: Institute a new race to the top for advanced manufacturing.***
- ***Recommendation 7: Extend and expand Manufacturing USA and its institutes.***

Priority 4: Enhance Manufacturing Partnerships

- ***Recommendation 8: Reinstitute and expand the 2012–16 Investing in Manufacturing Communities Partnership.***
- ***Recommendation 9: Strengthen and expand the Manufacturing Extension Partnership.***

- **Priority 5: Unlock New Sources of Capital *Recommendation 10: Create an industrial bank.***
- **Recommendation 11: Establish a national economically targeted/impact investment clearinghouse.**
- ***Recommendation 12: Establish a revolving technology loan for small businesses.***