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MANUFACTURING OUR WAY TO A STRONGER ECONOMY

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

MAY 11, 2011

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

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MANUFACTURING OUR WAY TO A STRONGER ECONOMY

WEDNESDAY, MAY 11, 2011

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:12 p.m. in room SR–253, Russell Senate Office Building, Hon. John D. Rockefeller IV, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV, U.S. SENATOR FROM WEST VIRGINIA

The CHAIRMAN. Welcome. This hearing is of just vast importance, and what is frustrating is when you say the words, how we're going to do manufacturing better, all the people who are suffering from it, like everybody in West Virginia and everybody everywhere else, they can't engage with the subject properly.

Manufacturing somehow is a word which people can't get into and say, ah, that means we should do this, this, this and this, and it's complicated, but you're here to straighten that out.

Manufacturing, obviously, has been and will continue to be a focus of this committee for a very simple reason. In fact, it's our main focus this year. It's our second formal hearing here. I've had four other hearings, many of them in West Virginia. I've had four in West Virginia, including the glass industry, for example, and people are just literally going out of business and want to know how to stay in business, sometimes with government help, sometimes without it.

I don't know what this budget is going to do to us but I'm not looking forward to having to report on the answer to that question.

We just didn't become the envy of the world because of the things we made and the country that we built. We're envied because the people know that if you work hard in America opportunities are going to follow. That is the history of our country and that was the history of our country, its not right now, which is why we have to change it.

Now, you can be a steelworker. You can be a coal miner. You can be a glassmaker, but you really put in the hours, and it's probably generational, and you're fanatically loyal, work incredibly hard, and then you just get swept off the map. In fact, two of the three industries that I mentioned pretty much have been swept off the map.

It's certainly true in West Virginia. My state was built on coalmining, on steelwork, and a lot of other factories producing a

very wide range of goods. We're not a rich state, so that every one of those jobs is incredibly important to us. Many of the towns and cities across the state grew and thrived because of the industry that provided reliable jobs.

I voted against NAFTA. This isn't in my script, but it still makes me mad, because I knew at the time that it would cause, in our rural counties, where we have only garment makers and sneaker makers, to close down. And it was in 2 years, they were all closed down, and that really hurt. That really, really hurt.

So we must dig in. We must redouble our efforts to "make it in America." Manufacturing is critical, and it's critical to the national security. There are some things that we simply cannot outsource. We cannot outsource our ability to defend this country, for one, our secure communications networks or our research and development efforts.

Now, some of them are being outsourced thanks to WikiLeaks, et cetera, but we have to find a way to deal with all of this.

Co-Chair Hutchison, I just had a long meeting with cybersecurity folks, and they like the approach we're taking, but it's very complicated for them, because they're all of different sizes, but they bought the concept that if you wanted a government contract, therefore, you have to have security, cybersecurity protection which is up to the standard, and if you don't have that, you probably don't get the government contract. And they like that.

Senator HUTCHISON. Yes.

The CHAIRMAN. Because they said you have to incent people sometimes in a negative way to get things going.

Jobs are just slipping away all the time, and we know it, and it hurts so many people. The truth is that manufacturing workers get higher pay and more generous benefits than Americans in non-manufacturing jobs, and these jobs have one of the largest multiplier effects in our economy. It's estimated that two-and-a-half additional jobs come from every one manufacturing job. People say that. Nobody pays any attention. It's tremendously important. It's like health care. The multiplier effect is huge.

I don't think people appreciate that manufacturing is this country's principal source of R&D and innovation. Manufacturing firms perform approximately 70 percent of U.S. industry R&D, while accounting for only about 11 percent of the economy.

Disturbingly, the R&D could be going on here, but isn't because it's being shipped overseas as well. Now, I don't mind that if somebody from South Korea comes here to get his Ph.D. It used to be they'd stay here, or India or Japan or Brazil or some other place, get their Ph.D. and they'd stay here and then they'd be a part of our innovation machine.

Now, they go home because they want to build their countries. I can't argue against that. That's what they ought to be doing in a sense, but the loss hurts whether it's virtuous or not.

R&D—I think we had 57,000 factories that have been closed in the last 10 years, and where factories go, so does innovation. If we still want people to believe that they can make it in America, we can't let manufacturing become a relic of the past.

I'm heartened that manufacturing activity has increased over the past several months as our country makes it out of the recession.

I don't think we've quite done that, but the month-by-month numbers keep going up.

It's just that there are still so many people unemployed it doesn't make any difference, and still fewer people are unemployed and kind of know it, because they see that happening in their neighborhoods, not just them, but they've got to feel it, see it, get a sense of the momentum.

So we have to do more. Industry, labor and government have a responsibility to work collaboratively to make sure that the manufacturing sector is stronger in the short term and in the long term.

To this end, the Committee has worked supporting science, technology, engineering and math in the famous reauthorization of the America COMPETES Act, which Kay Bailey Hutchison and I sort of did in the center aisle of the U.S. Senate floor, all by ourselves, with help from Lamar Alexander, and then it passed by unanimous consent. See, bipartisanship can work. And it was fun, wasn't it?

I know that we have very hard choices to make, how Federal dollars are spent. And this is where I get into turmoil on the whole budget thing. The calls for slashing the budget have broad and often troubling implications for some of the hardest-working Americans.

Infrastructure investment is essential to promoting growth and creating jobs. You can't do anything if, like in West Virginia, over half of your bridges were built 50 years ago. Bridges are only meant to last, at the maximum, 50 years.

There's no substitute for education and workforce training programs or for helping small manufacturers and exporters find new markets. Indiscriminate and unthinking budget cuts seeking a short-term improvement in our deficit will leave the country's economic power at the mercy of the rest of the world's economic power. I'm not sure we come out a winner on that, and that would hurt this country for years to come. So everything is hard around here.

Today, I want to hear from our witnesses on what more we can do to help America's manufacturing sector and create more good-paying jobs, and, as I say, this is Kay Bailey Hutchison's and Jay Rockefeller's main agenda item for this 2-year period.

And I now call on my distinguished friend.

STATEMENT OF KAY BAILEY HUTCHISON, U.S. SENATOR FROM TEXAS

Senator HUTCHISON. Thank you. Thank you, Mr. Chairman.

I, too, am very concerned about America's manufacturing base. While we are still the major manufacturing country of the world, we have lost market share, and I think we do need to stay on top of that kind of a trend and do what we can to assure that America is continuing to be competitive.

I would say a couple of things are important. One is that we are looking now for a highly skilled workforce, and I think the bill that the chairman just mentioned is essential to assuring that we are valuing the STEM courses, making sure that we have technology training and the most advanced computer capabilities that are possible.

And I think our committee has done a great job, and Congress passed the COMPETES Reauthorization of 2010, and we now have

more research and more STEM education incentives for teachers to get teacher certificates along with their major being in science, technology and math.

Yes, thank you.

Second, I believe that we've got to aggressively open our markets. We have free-trade agreements that have been languishing that could add to our export capabilities and add to the opportunities for other countries to buy our products.

So I certainly hope that we will look to ratifying free-trade agreements that are in our country's best interests that are already in play.

The last thing that I would just want to mention, before we go to our witnesses, is that a stable regulatory environment is very important to keeping manufacturing in America.

When I talk to a CEO that does international business and I will inevitably say, Why did you put your manufacturing operation in another country rather than here? They will cite higher taxes. The corporate tax rate in America is among the highest in the world. And, second, the unstable regulatory environment.

Now, that is a terrible thing to say about America, and I think we ought to have that in mind as we are passing laws and restricting the capability for our manufacturers to compete in the global marketplace.

I would just say that in the state arena, the states that have right-to-work laws also have a competitive advantage where people have a choice whether to join a union and are not forced to, and——

Mr. GERARD. Not forced to anywhere.

Senator HUTCHINSON. Well, your definition of forced and mine might be different.

Mr. GERARD. Because I understand mine.

Senator HUTCHINSON. Sir, I want to say that I understand as well.

And for their right-to-work laws, besides right-to-work laws is tort reform, and we must have a litigation environment that is reasonable and fair is also important for our competitiveness in the global marketplace. And maybe you would argue, but I would not, that we are litigious society and that hurts our competitiveness.

So, with that, Mr. Chairman, I thank you for having this hearing and hope that we can come to agreement on goals that would benefit our competitiveness in the global marketplace. Thank you.

The CHAIRMAN. Thank you, Senator Hutchison.

We have three distinguished witnesses. Dr. Stephanie Burns, who's Chairman and CEO of Dow Corning Corporation, which has a pretty big presence in the state of West Virginia; Leo Gerard, International President—Leo, this is going to take a long time to read all——

Mr. GERARD. Don't read it all.

The CHAIRMAN. No, I'm going to read them.

International President, United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union. I didn't even mention steelworkers, did I?

OK. And then Mr. Mike Rowe. I'm very curious, Mike, about you and what you're going to say. Creator and Executive Producer and Host, Discovery Channel's Dirty Jobs.

And why don't we start off with you, Dr. Burns.

STATEMENT OF STEPHANIE A. BURNS, PH.D., CHAIRMAN, DOW CORNING CORPORATION

Dr. BURNS. Good afternoon. Thank you, Chairman Rockefeller and Senator Hutchison, for inviting me to join you this afternoon. I very much appreciate it.

It is an honor and a pleasure to join you today to share some thoughts on how to grow domestic manufacturing in a way that increases our nation's exports, in the near- and long-term, while reducing our trade deficit and strengthening America's competitiveness in a rapidly changing global marketplace.

I should note at the outset that much of what I want to share with you today is not targeted specifically to this committee. Instead, I hope to articulate a suggested framework for thoughtful policymaking in the areas of manufacturing, exports and jobs creation.

As you know, Dow Corning is a Midland, Michigan-based company that has become one of the world's leading providers of silicon-based materials that enhance the products of such industries as clean energy, automotive production, personal care products, construction—including the areas of green building and energy efficiency—electronics and health care technologies.

I am proud to say that Dow Corning has more than doubled its sales since 2003. Last year, our sales increased by about a billion dollars to nearly $6 billion, and our net income was 45 percent higher than in 2009. We are seeing record growth. We are exporting, and we are creating jobs.

We have achieved that growth in part because we believe that you can only export what customers around the world want to buy. And, to sustain this growth, we know that we must not simply cater to the markets of today. We must also anticipate the shape and demands of the global marketplace of tomorrow.

We study the trends—we call them megatrends—that will shape the world's economy and humankind in the decades to come, and we unleash our innovators to find products and solutions that will meet the needs and challenges posed by these megatrends.

The innovation necessary to meet these emerging global demands leads us to invest 5 to 6 percent of our sales every year in research and development. Then we risk the capital to manufacture those solution-based materials.

I applaud this committee for taking the time to explore the root causes of the loss of U.S. manufacturing muscle and the ways that government and industry can work together to strengthen manufacturing so more American workers can enjoy the well-paying, family supporting jobs that making things provides.

But I would urge this committee to thoughtfully consider, as well, the linkage between the profound and long-term trends that even today are shaping the world in which we live and the companies and industries that are innovating daily to meet the needs of this world.

I should tell you that my company traditionally has thrived in a culture of quiet innovation. We've only recently joined the public discussion because we know that the power of a vibrant manufacturing sector is critical to maintaining and enhancing the quality of life in our Nation. We know that forward-looking government policies are essential to encouraging innovation, eyes-on-the-future companies to take risks necessary for success.

At Dow Corning, we are convinced that one path to future success will meld good business practice with meeting the needs of the billions of people in the world who are not sharing in the lifestyles that we have come to see in developed countries.

An estimated three billion people lack access to sustainable and affordable modern energy. A billion of our global neighbors do not have access to safe drinking water, and every day, 200,000 people move to big cities, many of which are already overwhelmed by the demand for housing and other essentials of dignified life.

Our executive, our research, engineering and marketing teams see opportunities in these megatrends to do good while exploring what we think is the unlimited potential for solutions hidden in the silicon atom, all the while creating jobs for Americans and making a profit for our owners.

So what are these megatrends to do with what I have been referring to? At Dow Corning we are focused on the following:

First, energy scarcity and the need for clean energy solutions. Our materials enable solar and wind energy generation, energy efficiency and energy storage.

Second, the rapid urbanization of the developing world. Our green buildings and energy efficiencies technologies are complemented by high-performance building materials.

For example, we make glass more resistant to fire, vibration and impact, and new technology insulations by squeezing more protection from the elements into fewer inches, allowing architects to add square feet to urban dwellings.

And, third, aging populations and the corresponding challenges related to provision of health care. We are innovating our materials to enable improvements in wound care and transdermal and topical treatments to enhance patient comfort through aging.

I'm sure other companies are exploring these and other megatrends through the lenses of their competencies and business plans. I am also sure that companies that play into, and not resist, these trends will be the job engines of the coming decades, if the United States is to be home of these kinds of companies and industries, these innovators. That means having a competitive corporate tax structure and regulatory regime, as well as incentives for investment in innovation and growth.

But it also means having smart, forward-looking policies that invite investment from manufacturers poised to meet challenging global demand.

Take, for example, the challenge of energy scarcity and the unabated global demand for renewable energy. About 2 years ago, we proposed a four-point plan for accelerating America's adoption of solar energy. This plan focuses on solar power, because, as one of the world's largest producers of these materials, it is among the technologies that we know best.

But our suggestions, nevertheless, also address many of the manufacturing, legislative, regulatory and workforce-related factors that influence America's ability to develop a thriving advanced manufacturing base.

First, we are encouraging Congress and the administration to enact Federal policies and regulations that will increase domestic consumer demand for renewable energy, for energy efficiency and manufacturing of those products here at home.

Not surprising the solar supply chain wants to be where the market is. So growing demand for solar is key to realizing the enormous jobs potential that the growing market will create here in America.

Other nations have adopted aggressive policies to support growth for renewable energy, and, not coincidentally, during the past 12 years, the U.S. global market share for solar manufacturing has dropped from 45 percent down to 7 percent.

Meanwhile, other nations are aggressively courting solar manufacturers, specifically, China, Germany, India, Malaysia and the Philippines. Luring manufacturers with roughly 40 percent manufacturing tax credits, high demand markets, the U.S. risks losing this growth industry unless it puts into place strategic, short-term, demand side incentives.

Second, we are advocating increased Federal funding for research and development, as the government does for many other industries, to accelerate technology innovation and advanced manufacturing capabilities. Making the R&D tax credit permanent is critical.

Third, we support training and education to develop a green collar workforce. We won't have exports without manufacturing. And we won't have manufacturing without a ready workforce.

Other nations have undertaken massive expansions of educational assets in recent years, some nearly tripling their share of GDP devoted to education. These countries are ramping up the construction of colleges and increasing the number of college students as much as five fold to accelerate their manufacturing development.

We applaud the efforts of the Science, Technology, Engineering and Mathematics Education Coalition. It is doing the important work of supporting training for teachers and students through activities of the U.S. Department of Education, the NSF and other agencies. Rigorous education is essential to developing an American workforce that can compete in the global marketplace.

And, last, we urge our government, at the Federal, state and local levels, to lead by example. If the designers of new government facilities incorporate renewable power options, the change in the landscape would remind our citizens, in big cities and small towns, that renewable energy has arrived in our lives.

My company is doing its part to encourage a climate of collaboration, creativity and commitment to greater energy security. We know it is fundamental to protecting our nation's competitiveness in the decades to come. Generations of future Americans deserve nothing less than our best effort.

At Dow Corning, we look forward to working with each of you as we enter the marketplace that is full of incredible opportunities for American manufacturing.

Business and government must work together to lead the economic transformation to a growing and exporting manufacturing base. We should play to our strengths. For U.S. manufacturers who channel the human capital and R&D that emanates from our world class universities, that means opening markets that are currently closed to U.S. goods and services. Emerging economies offer unbridled opportunities to those companies who have access to those markets.

I take this position not only as the head of an American company selling to the world, but also as a member of the President's Export Council. The 20 private sector members of the council, whose companies represent a large swath of the American manufacturing and service sectors, have urged President Obama to prepare and submit to Congress as soon as possible pending free-trade agreements.

Leaders on both sides of the aisle know that free trade can play a major role in our nation's economic recovery and the revitalization of our manufacturing sector.

And, finally, I applaud the administration for making a case for trade in his State of the Union address when he announced his National Export Initiative, which seeks to double U.S. exports within 5 years.

Innovative, flexible, strong, courageous and collaborative public-private partnerships can lead to a recovery that creates engaging, well paying and worthwhile work for Americans, as well as exports that serve an increasing demand in our global neighborhoods for products that enhance the quality of their lives.

I'm confident that if we were to share these ideas with the people in coffee shops and diners from your communities, they would agree.

Thank you for your attention.

[The prepared statement of Dr. Burns follows:]

PREPARED STATEMENT OF STEPHANIE A. BURNS, PH.D., CHAIRMAN, DOW CORNING CORPORATION

Good afternoon and thank you Chairman Rockefeller and Senator Hutchison for inviting me to join you this afternoon.

It is an honor and my pleasure to join you today to share some thoughts on how to grow domestic manufacturing in a way that increases our Nation's exports—in the near- and long-term, while reducing our trade deficit and strengthening America's competitiveness in a rapidly changing global marketplace. I should note at the outset: much of what I want to share with you today is not targeted specifically to this Committee. Instead, I hope to articulate a suggested framework for thoughtful policymaking in the areas of manufacturing, exports, and jobs creation.

As some of you know, Dow Corning is a Michigan-based Company that has become one of the world's leading providers of silicon-based materials that enhance the products of such industries as:

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and health care technologies.

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We have achieved that growth in part because we believe that you only can export what customers around the world want to buy—and, to sustain this growth, we know that we must not simply cater to the markets of today . . . we must also anticipate the shape and demands of the global marketplace of tomorrow.

We study the trends—the *megatrends* that will shape the world economy and humankind in the decades to come—and then we unleash our innovators to find the products and solutions that will meet the needs and challenges posed by these megatrends.

The innovation necessary to meet these emerging global demands leads us to invest 5 to 6 percent of our sales every year in research and development. Then we risk the capital to manufacture those solutions-based materials. We take great pride in the fact that 10 to 15 percent of our silicone sales are from products and services less than 5 years old.

I applaud this Committee for taking the time to explore the root causes of the loss of U.S. manufacturing muscle and the ways that government and industry can work together to strengthen manufacturing so more American workers can enjoy the well-paying, family-supporting jobs that *making things* provides. But I would urge this Committee to thoughtfully consider, as well, the linkage between the profound and long-term trends that even today are shaping the world in which we live and the companies and industries that are innovating daily to meet a changing world.

I should tell you that my company traditionally has thrived on a culture of quiet innovation. We've only recently joined the public discussion because we know that the power of a vibrant manufacturing sector is critical to maintaining and enhancing the quality of life in our Nation. We know that forward-looking government policies *are essential* to encouraging innovative, eyes-on-the-future companies to take the risks necessary for success.

At Dow Corning, we are convinced that one path to future success will meld good business practice with meeting the needs of the billions of people in the world who are not sharing in the lifestyles of what we have come to call "developed" societies.

For example:

- An estimated 3 billion people lack access to sustainable and affordable modern energy. Many live off the electricity grid in the darkness of energy poverty.
- A billion of our global neighbors do not have access to safe drinking water.
- Every day, 200,000 people move to big cities, many of which already are overwhelmed by the demand for housing and other essentials of dignified life.

Our executive, chemistry, engineering and marketing teams see opportunities in these megatrends to do good while doing well by exploring what we think is the unlimited potential for solutions hidden in the silicon atom—all the while creating jobs for Americans and making a profit for our owners.

So, what are these megatrends to which I have been referring? At Dow Corning we are focusing on the following:

- First, energy scarcity and the need for clean energy solutions. Our materials enable solar and wind energy generation; energy efficiency and energy storage.
- Secondly, the rapid urbanization of the developing world. Our green building and energy efficiency technologies are complemented by high-performance building materials—that, for example, make glass more resistant to fire, vibration and impact—and new-technology insulations that—by squeezing more protection from the elements into fewer inches—allow architects to add square feet to urban dwellings.
- And, third, aging populations and the corresponding challenges related to the provision of health care. We are innovating our silicones, for example, to enable improvements in wound care and transdermal and topical treatments to enhance patient comfort and care.

I'm sure other companies are exploring these and other megatrends through the lenses of their competencies and business plans. And I am also sure that companies that play into—and not resist—these trends will be the jobs engines of the coming decades. If the United States is to maintain its global economic leadership it must strive to be home to these kinds of companies and industries . . . these innovators. To be sure, that means having a competitive corporate tax structure and regulatory regime, as well as incentives for investment in innovation and growth. *But,* it also

means having smart, forward-looking policies that invite investment from manufacturers poised to meet changing global demand.

Take, for example, the challenge of energy scarcity and the unabated global demand for renewable energy.

About 2 years ago, Dow Corning proposed a four-point plan for accelerating America's adoption of solar energy—with a key plank of that program dedicated to the need for tax incentives to stimulate manufacturing investment and create much-needed jobs in recession-ravaged places like our home state of Michigan.

Dow Corning's plan focuses on solar power because, as one of the world's largest producers of the base material needed to convert the sun's energy into clean and sustainable electricity, that is among the technologies we know best.

But our suggestions, nevertheless, also address many of the manufacturing, legislative, regulatory and work force-related factors that influence America's ability to develop a thriving advanced manufacturing base.

First, we are encouraging Congress and the Obama Administration to enact Federal policies and regulations that will increase domestic consumer demand for renewable energy, energy efficiency products and the manufacturing of those products here at home. Not surprisingly, the solar supply chain wants to be where the market is. So, growing domestic demand for solar is key to realizing the enormous jobs potential that the growing market for solar promises.

Other nations have adopted aggressive policies to support the growth of their renewable-energy marketplaces, and, not coincidentally, during the past 12 years, the U.S. global market share of solar manufacturing has dropped from 45 percent of the total to only 7 percent.

Meanwhile, other nations are aggressively courting solar manufacturers. With China, Germany, India, Malaysia, and the Philippines luring American manufacturers with roughly 40 percent manufacturing tax credits and high demand markets, the U.S. risks losing this growth industry unless it puts into place strategic, short-term, demand-side incentives. But it is also time to uncap the 48C advanced manufacturing tax credit to stimulate immediate manufacturing investments here in the U.S.

Second, we are advocating increased Federal funding for research and development—as the government does for many other industries—to accelerate technological innovation and advanced manufacturing capabilities. Making the R&D tax credit permanent is critical.

Third, we support training and education to develop a "green collar" work force. We won't have exports without manufacturing. And we won't have manufacturing without a ready workforce. Other nations have undertaken *massive* expansions of educational assets in recent years—some nearly tripling their share of GDP devoted to it. These countries are ramping up the construction of colleges and increasing the number of college students as much as five fold to accelerate their manufacturing development.

We applaud the efforts of the Science, Technology, Engineering and Mathematics Education Coalition. It is doing the important work of supporting training for teachers and students through activities of the U.S. Department of Education, the National Science Foundation and other agencies. Rigorous education is essential to developing an American workforce that can compete in the global marketplace.

Fourth, Dow Corning urges our government—at the Federal, state and local levels—to "lead by example." If designers of new government facilities incorporated renewable-power options, the change in the landscape would remind our citizens in big cities and small towns that solar energy has arrived in our lives.

My company is doing its part to encourage a climate of collaboration, creativity and commitment to greater energy security. We know it is fundamental to protecting our Nation's competitiveness in the decades to come. Generations of future Americans deserve nothing less than our best effort. We hope Congress will continue to do its part by enacting policies and incentives to encourage private sector investment.

At Dow Corning, we look forward to working with each of you as we enter a marketplace that is full of incredible opportunities for American manufacturing.

Business and government *must* work together to lead the economic transformation to a growing and exporting manufacturing base. So, let's play to our strengths. For U.S. manufacturers, which channel the human capital and R&D that emanates from our world-class universities, that means opening markets that are currently closed to U.S. goods and services.

Emerging economies offer unbridled opportunity to those companies that have access to those markets.

I take this position not only as the head of an American company selling to the world but also as a member of the President's Export Council. The 20 private sector

members of the Council, whose companies represent a large swath of the American manufacturing and service sectors, have urged President Obama to prepare and submit to Congress as soon as possible the pending free trade agreements.

Leaders on both sides of the aisle know that free trade can play a major role in our Nation's economic recovery and the revitalization of our manufacturing sector.

Finally, I applaud President Obama for making the case for trade in his State of the Union address when he announced his National Export Initiative, which seeks to double U.S. exports within 5 years to support an additional *2 million* American jobs.

Innovative, flexible, strong, courageous and collaborative public-private partnerships can lead to a recovery that creates engaging, well paying, worthwhile work for Americans . . . as well as exports that serve the increasing demand of our global neighbors for products that enhance their quality of life.

I'm confident that if we were to share these ideas with the people in the coffee shops and diners of your communities, they would agree.

Thank you for your kind attention.

The CHAIRMAN. Thank you very much, Dr. Burns.

I should point out that any member's statement is a part of the record. All of your statements are automatically a part of the record.

So all kinds of questions, Dr. Burns, I have for you.

Leo Gerard.

STATEMENT OF LEO W. GERARD, INTERNATIONAL PRESIDENT, UNITED STEEL, PAPER AND FORESTRY, RUBBER, MANUFACTURING, ENERGY, ALLIED INDUSTRIAL AND SERVICE WORKERS INTERNATIONAL UNION (USW), AFL–CIO

Mr. GERARD. Thank you very much, Chairman Rockefeller and members of the Committee.

I'm here on behalf of the 850,000 members of the steelworkers union, but also on behalf of the 12½ million members of the AFL–CIO, and we want to tell you that American manufacturing is currently in dire circumstances, and we believe its future is in jeopardy, as is the economic and national security of the United States at risk.

America's economic recovery remains fragile, as you pointed out earlier. Unemployment, underemployment, wage stagnation, foreclosures, they all paint a grim picture of a people and an economy that's still in terrible, terrible straits and is struggling to recover.

There's too many, and there have been too many shuttered factories. Forty-four thousand of those factories closed during the first 8 years of this decade. Close to 3,000 more factories closed as a result of the Wall Street economic meltdown.

Now, less than 10 percent of America's GDP comes from manufacturing, where just 20-something years ago, close to 23 percent of America's GDP came from manufacturing.

And despite, as you pointed out, Mr. Chairman, the small uptick in manufacturing, employment and production that occurs against the backdrop of a long-term decline and devastation, let me say to you and to members of the Committee that real wealth is not created by creating collateral debt offerings and phony financial bubbles. Real wealth is created when we take raw material, ingenuity, engineering, energy and people's creativity and add value to that, and that's what manufacturing does.

The details of the backdrop are outlined in the AFL–CIO's industrial council report, "Manufacturing Insecurity: America's Manufacturing Crisis and the Erosion of the U.S. Defense Industrial Base."

And the report has been submitted as support for this testimony. [This report can be found at *http://www.aflcio.org/Issues/Jobs-and-Economy/Manufacturing/Manufacturing-and-U.S.-Security/Manufacturing-Insecurity-America-s-Manufacturing-Crisis-and-the-Erosion-of-the-U.S.-Defense-Industrial-Base*.]

My written testimony makes four key points, Mr. Chairman:

The nation's technical, innovative and industrial capacities are essential to our economic and national security, as is the rebuilding of our nation's infrastructure.

The health of our manufacturing base and our defense industrial base are inextricably linked, and they are both currently in critical condition.

Our trade, tax, investment, procurement policies, the globalization of production and the failure to have a national manufacturing strategy helped create this situation.

Probably no one expects me to quote one of America's great manufacturers, one of America's great capitalist families, but Bill Ford, the chairman of Ford Motor Company, said, on more than one occasion, not having a plan is not a plan. And I'm happy to quote him, and I agree with him.

It doesn't have to be this way. I think that we must act now. The Senate, the House of Representatives and the administration need to act now with a strategic plan and employment-linked policies, investments and incentives to start revitalizing America's industrial base.

Mr. Chairman and members of the Committee, I could spend my time today on an ongoing basis describing problem after problem after problem, but I believe all of you understand it. So let me further identify what I think needs to be done to address it.

Before I do this I want to quote specific policy approaches. Let me make two overriding points. I believe that there is a fundamental and growing gap between the interests of multinational companies and Wall Street and the national interest.

Our companies in the financial sector are simply interested, most of the time, for most of them, in short-term profits wherever and however they may be achieved. Their interests are not naturally in the creation of economic growth and opportunity here at home, and we have to recognize that and deal with it.

Americans are interested in where we stand in the world and where their kids' opportunities for good jobs will come from. They know that our leadership on human rights, democracy, freedom and internationally recognized workers rights depends on our economic and military strength.

They aren't interested in being number two or number three, and we shouldn't accept decline as being inevitable, although we are number one in accumulated trade deficits.

For those that are the die-hard free traders, let me give you two quick facts. Since NAFTA, America has accumulated a $7 trillion, ongoing trade deficit, year over year over year.

Since the passage of PNTR with China, we've accumulated a $1.7 trillion ongoing trade deficit with China. That is nothing more than a wealth transfer from America to China.

So it's important that we get our trade house in order and enforce our laws, aggressively enforce our trade laws. We need to ad-

dress China's trade violations and establish our own strategic priorities and policies.

We should view success not as the number of trade agreements we can pass or that are signed, but by the results they achieve in creating jobs. Our trade agreements should be designed to lower our massive trade deficit, not to add to it.

We also need to empower workers to share in the fruits of their labor, enable them to enter the middle class with respect and compensation for their efforts.

We need to invest in infrastructure, and, Mr. Chairman, I want to compliment you for your advancement of an infrastructure bill.

The nation can no longer live on a legacy that we need—and we need the jobs now. We need to start investing trillions of dollars over time, the 21st century infrastructure, from roads to rail, from clean technology and to the rest of our infrastructure.

Let me give you a fact that you may already know. More than 50 percent of the schools in the United States are more than 60 years old. If we care about our kids, one of the things we could do is start helping our cities and municipalities to modernize our schools.

Buy America laws ensure that we actually make the things we are building and installing. An improved America is the legacy we should leave our children and grandchildren, not a decrepit and falling infrastructure.

Taxes that support domestic manufacturing. We should eliminate tax incentives and loopholes that encourage financial speculation, rather than investment, outsourcing and off-shoring production, and we should enact tax incentives for companies that produce domestically.

Innovation for American manufacturing. We must protect our nation's innovative leadership. Doing so requires that we maintain strong intellectual property protections here and abroad.

We must ensure that increased R&D investment results in American jobs in American workplaces.

We need to train and educate America's workers. Revitalizing manufacturers requires workers equipped to meet the skills and the needs of this century and the next.

Congress must increase access to training funds for people unemployed as well as those seeking to enhance their skills. Ultimately, a high skills workforce must be one whose rights on the job and ability to speak are protected and thus made real through strong labor laws and strong unions.

And we should make sure that we revitalize and strengthen TAA for those workers that have unfortunately lost their jobs through bad trade deals through no fault of their own.

Our nation's future success, the reclamation of the American dream, depends on the revitalizing of our manufacturing sector. And the steelworkers union and the AFL–CIO stand ready to work with Congress in the interests of the future.

And let me make one other point, Mr. Chairman. There are those that would want to try to blame the labor movement, as I heard at the start of this, and let me put something on the record. Consider Germany, which has high rates of unionization, an hourly compensation in manufacturing that averages $48 per hour. But

Germany has more—a bigger percentage of its GDP in manufacturing that we ever had in our lifetime. Germany has a world lead in exports. It has a balanced trade agenda with China, so that let me make it clear: Of the more than 5.5 million jobs that were lost during the first 8 years of this decade, those jobs were lost in every sector of the economy, in every region of the country, including the south, including Mississippi, Louisiana and Texas, in the East and the West and the North in almost every sector.

But one of the most important facts is more jobs were lost in non-union facilities than union facilities.

Well, thank you very much for the opportunity to testify, Mr. Chairman.

[The prepared statement of Mr. Gerard follows:]

PREPARED STATEMENT OF LEO W. GERARD, INTERNATIONAL PRESIDENT, UNITED STEEL, PAPER AND FORESTRY, RUBBER, MANUFACTURING, ENERGY, ALLIED INDUSTRIAL AND SERVICE WORKERS INTERNATIONAL UNION (USW), AFL–CIO

Thank you, Chairman Rockefeller, Ranking Member Hutchison and members of the Committee. I welcome the opportunity to be here today to testify on behalf of both my own union, the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union—the United Steelworkers (USW) and the entire AFL–CIO whose affiliate unions represent some twelve and a half million working men and women across the United States.

The focus of today's hearing is exactly what this Nation needs to do but the truth is American manufacturing is in dire circumstances and its future is in jeopardy.

The American economy remains fragile and uncertainty reigns. Unemployment, underemployment, wage stagnation, foreclosures all paint a grim picture of an economy still struggling to recover. For American manufacturing communities, this recession has been just one more big wave in a decade of economic tsunamis that have devastated workers, employers and communities.

We believe that the decade long decline of the American manufacturing base is a crisis that has undermined our economic security and is a direct threat to our national security. The question before us is, what has happened to that prosperity and security and what must we do to strengthen the Nation's industrial base?

The erosion of America's manufacturing base is a clear and present danger. The details of this threat are in a report commissioned by the AFL-CIO Industrial Union Council, entitled *Manufacturing Insecurity: America's Manufacturing Crisis and the Erosion of the U.S. Defense Industrial Base.*[*] This report has been submitted in support of this testimony, and it documents these concerns in detail.

My testimony makes four key points:

(1) The nation's technical, innovative and industrial capacities are essential to our economic and national security.

(2) The health of our manufacturing base and our defense industrial base are inextricably linked. They are in critical condition.

(3) Our trade, tax, investment, procurement policies, the globalization of production and the failure to have a national manufacturing strategy helped create this situation.

(4) It doesn't have to be this way. We must act now with strategic and employment linked policies, investments and incentives to revitalize our manufacturing base and ensure our national security.

The Current Situation

It is dangerous to assume that the 250,000 increase in manufacturing employment over the past year, the first increase since 1997, signals a major recovery. Yes, it comes as welcome news, but occurs against the backdrop of how far we have fallen. More telling is new Department of Commerce data that shows companies cut their workforces in the U.S. by 2.9 million during the 2000s while increasing employment overseas by 2.4 million. The technical and industrial capacity offshored

[*] [This report can be found at *http://www.aflcio.org/Issues/Jobs-and-Economy/Manufacturing/Manufacturing-and-U.S.-Security/Manufacturing-Insecurity-America-s-Manufacturing-Crisis-and-the-Erosion-of-the-U.S.-Defense-Industrial-Base*.]

quickly became imported goods and a major contributor to our crushing trade deficits.

Between 1998 and 2010 we lost approximately six million manufacturing jobs with over two million of these occurring from 2007–2009. At the same time some 57,000 manufacturing facilities closed. The loss of these skilled workers, engineers, designers, scientists and more has eroded the Nation's working middle class and dangerously undermined our technical, industrial and innovative capacity. This nation will not be able to double net exports, reduce our trade deficits substantially nor meet our economic and security needs unless we produce more of what we consume. Our nation's future success, the reclamation of the American Dream, in fact, depends on revitalizing our manufacturing sector.

Manufacturing Insecurity

It is a myth to think that the manufacturing base and the defense industrial base are independent of one another. A National Research Council study has noted, the boundaries between the defense industrial base—the set of industrial and military facilities devoted to the production of defense-related products—and commercial industry has become blurred. Workers see this on a daily basis as they produce commercial goods and technology that are used or modified for defense purposes.

The *Manufacturing Insecurity* report we have submitted by Dr. Joel Yudkin documents the dangers the Nation faces from this erosion. There has been a continuous weakening in manufacturing value-added output, acceleration in manufacturing's steady decline as a share of U.S. GDP, stagnant and even negative growth—the first time in seven decades—in industrial capacity, and the substantial drop in capacity utilization since 2000. In addition there is the shocking growth in trade deficits and import penetration that have led to the loss of millions of U.S. jobs. Increasingly, our Nation's corporations are picking up stake and moving their production overseas, scouring the globe for the lowest cost location to produce—in the short-term—no matter what the *long-term* cost to our economy and our people. Congress' role is to decide what's best for our people, not the corporations whose only allegiance is to short-term profits and rising compensation for their management, directors and returns to their shareholders.

Another new report by the Information Technology and Innovation Foundation, *The Case for a National Manufacturing Strategy for the United States*, offers startling evidence that the rosy published industrial output and productivity figures are grossly overstated. The truth is far more troubling. From 2000 to 2008 (pre-Great Recession), fifteen of nineteen manufacturing sectors accounting for 72 percent of manufacturing output saw absolute declines. Dr. Susan Housman of the Upjohn Institute estimates that manufacturing productivity figures for the past decade have been overstated by 20–50 percent because they failed to account for imported elements. Bad data has been used to gloss over the reality of what has occurred in critical industries. The data, however, can not mask the pain that has been, and continues to be felt, all across this Nation by unemployed workers and those that live in hollowed out manufacturing communities.

Losing Critical Industries

America's manufacturing sector continues be the largest, most productive and technologically advanced in the world. But its lead in a number of industries vanished years ago, and many of its remaining areas of strength are facing powerful challenges.

The pattern of decline in key sectors such as semiconductors, printed circuit boards, machine tools, advanced materials, and aerospace is apparent. It can be seen in defense critical technologies where domestic sourcing is endangered in products ranging from propellant chemicals to space qualified electronics, power sources for space and military applications (batteries and photovoltaics), specialty metals, hard disk drives, and flat panel displays (LCDs), to name but a few.

It can be found in critical materials like rare earth metals and magnets where the Chinese purchased U.S. manufacturing facilities and closed them, such as at Magnaquench in 2004). China now holds a monopoly on the rare-earth minerals used in the manufacturing of missile magnets, computers, wind turbines, lithium ion batteries and hybrid engines. In fact, advanced manufacturing is dependent upon rare earths.

Another critical indicator of the erosion of U.S. manufacturing competitiveness is the Import Penetration Rate (IPR), the share of the U.S. market held by imports. According to the 2010 U.S. Business and Industry Council (USBIC) study of Import Penetration Rate (IPR)—in 2008, 69 of the 114 capital and technology intensive industries examined lost share of their home U.S. market to imports, and their aggregate import penetration rate increased from 34.30 percent to 36.23 percent.

The broad domestic and global economic trends and import penetration rates reflect a sustained and dangerous erosion across nearly all manufacturing industries, including many that supply products, components, and technologies that the Pentagon considers important to defense. The capacities required for national security needs rest upon a defense industrial base embedded in, the Nation's overall domestic manufacturing base.

As the commercial industrial base globalizes, the loss of domestic production facilities can also lead to the loss of innovation capabilities.

Specifically, the acceleration of manufacturing offshore is associated with the following trends:

- Weakening innovation capabilities of domestic industrial sectors;
- The transfer—deliberate and unwitting—of cutting-edge technologies and know-how to economic rivals and potential military adversaries; and
- Foreign countries establishing industrial and technology policies aimed at enhancing their technological capabilities relative to America's.

Tomorrow's Industries

The United States has long been—and remains—the world leader in most materials-related technologies, but during the first half of the 2000s decade, the National Research Council (NRC) warned that this leadership was eroding. This is reflected in the doubling of the U.S. advanced materials industry's global trade deficits between 2002–2006, according to the U.S. Census Bureau's Advanced Technology Products (ATP) trade data, as foreign competitors made inroads into U.S. markets. The NRC found that:

- *Domestic materials production is disappearing and moving offshore.* Materials subsectors have consolidated significantly since 2000. Plant capacity and employment both have declined, and production of critical materials, such as specialty steels, advanced ceramics, and magnesium, has been moving offshore.
- *Materials R&D and innovation is following production offshore.* The migration of materials producers and users has harmed domestic advanced materials R&D by inducing many U.S. companies to shift materials R&D overseas. It has weakened U.S. R&D capabilities in several materials technologies vital to national security, including night vision systems, lanthanides (rare earth elements), and specialty metals.
- *The margin of U.S. leadership in advanced materials R&D is eroding and increasingly challenged by other nations.* The largest U.S. advanced materials trade deficit is with Japan, whose imports into the United States grew steadily over the decade, more than doubling in the years between 2002–2008 ($417 million to $948 million). However, China is also aggressively seeking to develop its own technological and production capabilities in this area. Our escalating advanced technology deficit with China and their recent actions to control rare earth exports reflect their strategy.

The net result is the erosion of U.S. leadership in advanced materials R&D. The following illustrations from the NRC reports for the National Academy of Science highlight this trend:

- *Metals*. Research into the production, processing, and development of metallic materials in the United States has been declining since 1998.
- *Superalloys*. Superalloy R&D has declined significantly over the past decade. Attracted by lower costs, superalloy manufacturers increasingly are locating their production offshore.
- *Composites*. Composites are a critical technology used in major defense systems. Once unchallenged, other countries in several areas have supplanted U.S. leadership in composites. U.S. defense and commercial programs—the Joint Strike Fighter and Boeing's 787 Dreamliner—are outsourcing production and supporting R&D in composites overseas.
- *Electronic and Opto-Photonic Materials*. These are critical technologies for maintaining leadership in semiconductors. This industry and its material supply chain are moving toward a global processing and manufacturing infrastructure that is taking some of its R&D capacity with it.

Building Other Nations' Research & Development

The flip side of the migration of U.S. innovation capabilities offshore is the build-up of other countries' R&D capacity. The strengthening of foreign technology capability does not always result from market forces and commerce-facilitating progress

in communications and transportation. Instead, this development often results from multinational companies taking one of three tacks:

— Actively exploiting the business environments created by U.S. trade policy—for which they have lobbied hard—that encourage them to supply the U.S. market even for highly sophisticated manufacturers from low-cost foreign facilities;

— Responding to foreign government carrots and sticks; or

— Formulating various investment strategies synthesizing these two approaches.

The carrot-and-stick approach by foreign governments is a direct reflection of a broader strategic and tactical approach to capture markets and technological dominance in specific sectors. The recent announcements by Intel, Applied Materials and other advance technology firms of multibillion dollar investments in research and production facilities in China show how aggressive and successful the Chinese government has become at this game.

Trading Away Jobs

Our trade deficit, especially with China, is symptomatic of the challenges we face in maintaining our industrial base. Although the overall trade deficit is down by a quarter from the record levels of 2008, the 2010 U.S. goods trade deficit with China broke all previous records. And, the reduction in our trade deficit largely resulted from the economic crisis our country faced, not a long-term change in the trend.

Through the decade our goods trade deficit with China soared, tripling since WTO accession—from $84 billion in 2001 to a record $273 billion in 2010. China's share of the U.S. trade deficit in manufactured goods rose continually from 28.5 percent in 2002 to 75.2 percent in 2009. In 2010, we ran a trade deficit with China in advanced technology products (ATP) of $94 billion, while with the rest of the world; we ran an ATP surplus of $10 billion. The U.S. trade imbalance with China in ATP should be a clear warning signal that our overall trade relationship is severely imbalanced in ways that are detrimental to our economic potential and future.

U.S. foreign direct investment (FDI) in China has jumped, especially in manufacturing. FDI in China is all about new production and job creation, unlike in the United States where new FDI tends to signal a change of ownership, not new production. The Economic Policy Institute has estimated that the growth in the U.S. trade deficit with China from 2001 to 2008 has displaced about 2.4 million American jobs.

Perhaps even more disturbing than the aggregate growth in the U.S. trade imbalance with China is the composition of our imports and exports. Our top fifteen exports to China (by 4-digit HTS code) include five categories of waste products (ferrous scrap, paper scrap, copper scrap, aluminum scrap, and offal); two categories of raw materials (soy and polymers), and at least three categories of parts. In contrast, all of China's top fifteen exports to the United States are manufactured products or parts.

More than 50 percent of China's exports to the U.S. come from foreign-invested enterprises. Many U.S. corporations supported Permanent Normal Trade Relations claiming that they wanted to serve China's vast market. Some may have had honest intentions. But the reality is, far too many of our companies have offshored their production using China simply as an export platform replacing U.S. jobs and production.

This is the result of concerted strategic interventions, starting with currency intervention, by the Chinese government over many years—and inaction by our own. With an explicit export strategy targeting key industries, sectors, and technologies, China has captured a growing share of U.S. and world markets. It has used a wide array of unfair trade practices, including currency manipulation, export subsidies, widespread suppression of worker rights and wages, and tariff and non-tariff barriers to exports, to support this strategy.

The financial crisis has proved to be another opportunity for the Chinese government. By controlling access to its market in crucial sectors with indigenous innovation, the Chinese government buys time to build dominant industries and technology powerhouses that will have a clear competitive advantage over their lagging counterparts in other countries. This is already underway in the clean energy sector, where these trade-distorting polices work in concert to ensure market control. The 301 clean energy manufacturing trade case filed by the United Steelworkers union and the currency legislation passed by the House last fall are aimed at stemming these practices.

It always baffles me why we don't believe the Chinese when they say they want to dominate certain industries, why we don't believe what they publicly announce as part of their "five-year plans". They outline to the world what their intentions are, but too many of our policymakers simply don't want to believe them. Our nation

is being victimized by free trade ideologues and policymakers who want to discuss theory, rather than recognize reality.

Innovation Is Key To Our Future

President Obama is right to focus on innovation as key to our economic future. But, innovation does not mean changing course, as America has been, and continues to be a leading innovator. And, no sector is more important to leading innovation than manufacturing, which generates more than 60 percent of all patents.

Many people continue to have an outdated image of manufacturing as companies with belching smokestacks and rusted buildings. Today, at a modern steel making facility, you will find most people working in air conditioned rooms at computer keyboards. Auto factories are replete with robot welders and workers controlling activities at ergonomic workstations. Fiber optics, carbon fiber composite materials and countless other advanced materials are produced by our people.

But, these operations are at risk. The policies of our competitors, and some failures in our own system, have resulted in more and more research and development being moved overseas. Our competitors understand that R&D and manufacturing are inextricably linked—engineers, scientists and other innovators want to be close to the action, so that they can test their creativity and ensure its success.

Our first priority must be to make sure that our intellectual property protection regime maximizes our ability to innovate, produce and create jobs for the future here at home. Congress is hard at work on patent reform legislation that, hopefully, will achieve these goals. For the last several years, organized labor has been an active participant in the legislative process and is optimistic that the legislation that passed the Senate, and is now working its way through the House will achieve those goals. Our ultimate desire is to ensure that companies that innovate can reap the rewards of their efforts and deploy the fruits of their innovation here at home in American plants and by creating American jobs. Strong intellectual property protection is the foundation upon which we can build a 21st century manufacturing base.

The linkage between innovation, research and development, and production is clear and powerful. Engineers, scientists and innovators want to be close to the action, to deploy their creativity and refine its application. Investing in research and development is critical and, as noted, once created, it must have a robust legal framework of legal protections.

But, we must do more. An activist approach is necessary. Other nations recognize the importance of investments in this area: we need to do the same. It's vital not only to the quest to develop the products of tomorrow but, to ensure that we produce them as well with the skills and hard work of our people. China, is actively seeking to develop its own innovative capacity—either by subsidizing its own indigenous development, or by incenting and coercing foreign companies to create R&D facilities on its soil. Hundreds of millions of dollars of investments in new R&D facilities are occurring by U.S. multinational companies in China. With it, today, and in the future, will go the manufacturing facilities to produce the products of those investments.

We need to permanently extend the R&D tax credit, but need to ensure that the innovation is applied here at home to reinvigorate our manufacturing sector. We shouldn't be subsidizing R&D expenditures by our companies only to find that their innovations are deployed offshore. Other nations recognize the value of investments in this area, and the need to spur domestic opportunity . . . so should we.

Undervalued Currency Subsidizes Exports and Investment

Through systematic and one-sided intervention in currency markets, the Chinese government has kept the renminbi approximately 40 percent undervalued with respect to the U.S. dollar for many years in support of its export strategy. The undervalued Chinese currency serves the government's strategy of building powerful export markets rather than boosting its own domestic consumer market. Undervaluation takes market share and jobs from the United States by penalizing our exports. It subsidizes imports into this country while encouraging outward investments into the Chinese economy.

This is not free trade, nor is it the way the major economies of the world have agreed to behave. And the Chinese government's actions influence the monetary policies of other countries compounding our trade problems. The U.S. Treasury biannual currency reports acknowledge the fact that other nations mirror the Chinese government's behavior. Indeed, South Korea has been manipulating it's currency—the won—yet we have failed to respond and the soon-to-be-considered Free Trade Agreement with that country failed to include provisions to address this critical issue.

While addressing the Chinese government's currency manipulation is one of the highest priorities for workers and employers in the manufacturing sector, it is time to recognize the broader impact of China's practices. Lost manufacturing jobs lead to lost tax revenue and higher budget deficits that limit our ability to invest in our future. This puts substantial pressure on Federal, state and local budgets, resulting in layoffs of teachers, police and other emergency responders. And it has undermined our future by undercutting the array of career choices and educational opportunities, especially in science, engineering and the technical occupations needed for a vibrant innovative manufacturing economy.

Taking action to end currency manipulation will generate jobs and investment in the U.S. economy. Nobel laureate Paul Krugman estimates an end to the manipulation would produce a net export gain to the United States, Europe and Japan amounting to about 1.5 percent of GDP, increasing growth in the U.S. economy by about $220 billion. The Peterson Institute and the Economic Policy Institute agree that a 25 percent to 40 percent revaluation in the renminbi would reduce the U.S. trade deficit between $100 billion and $150 billion per year, adding between 750,000 and 1 million jobs to American payrolls.

It is time for Congress and the Administration to act decisively to end currency manipulation and other illegal trade practices.

Strategy Matters

The U.S. needs to recognize that all our major global competitors have national manufacturing strategies. Advanced developing nations like China, India and Brazil all have one. The leading developed nations like Germany, Japan and the Scandinavian nations all have them. We do not and it is killing us.

The differences in approach are dramatic. Our competitors consciously seek manufacturing as a critical jobs and prosperity strategy for their nations. Our blind free market approach theorizes seeking cheaper prices for consumers is better than good jobs and income. They target industries and technologies seeking to generate competencies and opportunities. We do not. Economic success is not measured simply by the price of a flat-screen TV, but how well one can feed, clothe and house their families, how they can have access to health care and education, how they can look forward to a secure and dignified retirement. On that basis, we are falling further and further behind.

Other nations align their tax policies and government investments to achieve their goals and objectives. Out tax polices encourage offshoring and we quibble over Buy American policies that are less broad than our competitors own domestic procurement laws. They invest in training and education linked to their employment and economic strategies. We invest in training and education without clear employment strategies or goals and, unfortunately, as an after-the-fact sop to those most injured by free trade agreements.

Last week, one news organization highlighted the potential for Congressional consideration of corporate tax reform legislation. In the article, it identified that the Administration was looking to reduce tax rates, and would make up the revenue lost from rate reductions by "closing loopholes and slicing exemptions." It only identified two examples: the tax deduction for domestic manufacturing and accelerated depreciation for capital equipment. Those are mechanisms vital to revitalizing our declining manufacturing base. Why on earth would we want to attack those key economic engines? Not one of our competitors would take such a short-sighted and self-destructive approach. If those changes take effect, our competitors will be laughing themselves silly as they skip to the bank.

Some, like the Chinese government, engage in illegal activities in support of their manufacturing strategy such as currency manipulation, illegal subsidies, repression of workers' rights, weak environmental and wage and hour laws, intellectual property theft and more. These actions should be fought aggressively but for too many years we have been lax in the enforcement of our own trade laws. And, we find the same U.S. corporations and financial institutions that take advantage of the situation in countries like China to produce goods for export to the U.S. are the same ones fighting trade enforcement and changes to the tax laws.

There is another way. Other nations clearly recognize their national interest. It is time to recognize ours. America has an economic and national security interest in a vibrant manufacturing base. It is time to do something about it.

A Strategy for the Future

The USW and the AFL–CIO recognize the critical steps government has taken to stabilize the economy by helping ensure the survival of a domestic auto industry, investing in needed infrastructure and a diverse efficient clean energy economy, se-

curing jobs from those investments with Buy America requirements, and putting critical financial reforms in place.

This work is far from finished. But, today we see Congress mired in a specious debate that we can somehow downsize our way to success. The economy doesn't work that way.

The Congress needs to complete efforts begun last year when the House passed a series of bipartisan bills that included a National Manufacturing Strategy, currency, rare earth and other manufacturing legislation. This year the Administration has proposed needed new investments in small business, research and development, clean energy manufacturing, and infrastructure.

Democrats in the House of Representatives recently announced their Make It in America Agenda that identifies steps that should be taken to revitalize manufacturing and job creation here at home. It's an important foundation both parties embraced last year. It should not be a partisan issue in this Congress and we hope that Republicans will embrace the effort and join in promoting policies that will enhance national and economic security.

All of these provide a start but much more needs to be done at scale. *The policies, investments and incentives we enact must be strategic and employment linked.* Essential to a comprehensive program to restore domestic manufacturing are the following elements:

The USW and the AFL–CIO call on our government to aggressively address the Chinese government's trade violations, as well as to establish our own strategic priorities and policies. We believe a healthy and robust manufacturing sector is central to a sustained economic recovery and to our national security.

The following elements are essential to a comprehensive program, a national manufacturing strategy, to restore domestic manufacturing:

- *Get our trade house in order and enforce our laws:* Aggressively enforce our trade laws. We need to address China's trade violations and establish our own strategic priorities and policies. We should view success not as the number of trade agreements that are signed, but by the results they achieve. Our trade agreements should be designed to empower workers to share in the fruits of their labor and enable them to enter the middle class with respect and just compensation for their efforts.
- *A re-commitment to investment in infrastructure:* America's infrastructure needs—energy, roads, transit, bridges, rail, water, etc.—are huge. We have a $2.2 trillion infrastructure deficit, according to the American Society of Civil Engineers. Not only will spending here employ people right away, it will lay the foundation for economic growth in the future. Funding for infrastructure must be built on a foundation that aggressively promotes Buy American policies. Americans want to know that their tax dollars are being used to create American jobs. And there is no conflict between more spending now and efforts to address fiscal imbalances down the road. Indeed, an improved America is the legacy we should leave to our children and grandchildren.
- *A tax structure that encourages manufacturing investment:* Eliminate tax incentives and loopholes that encourage financial speculation rather than investment, outsourcing and off shoring production, and enact tax incentives for companies that produce domestically.
- *Investment in a 21st Century Energy Infrastructure:* Enact measures to encourage the deployment of renewable energy, advanced automotive technology and other clean energy technologies. This can be accomplished by expanding funding for 48(c), industrial efficiency projects, and other policies to encourage development of renewable sources of electricity and by providing higher loan authority and additional funding for section 136, the Advanced Technology Vehicles Manufacturing Incentive Program. These efforts must be coupled with expanded utilization of domestic supply chains. Clean and green jobs must become a reality: America must not cede leadership of this industry to other nations. We must invest in these 21st century infrastructure technologies on a similar scale to our investment in replacing the failing infrastructure of the last century. And, again, investments in this area must support and promote domestic job creation and supply chains.
- *Innovation for American Manufacturing:* The United States continues to be the world's engine of innovation, but that lead is declining. There is a direct correlation between R&D and production and we must protect our Nation's innovative leadership. Doing so requires that we maintain strong intellectual property protections to ensure that companies have the incentive to make investments in plant and equipment here at home. We must also increase efforts to fight the

intellectual property right violations of competitors that seek to profit from the creativity of our people. Increased support for research and development in the United States, coupled with support for testing and deployment of those new technologies in our factories, will ensure that our manufacturing capabilities expand. R&D investments financed with public dollars (grants, tax credits, etc.) must be accompanied by employment accountability requirements.

- *Workforce development policies:* America continues to have the best and most innovative workers To stay ahead of the competition, however, we must constantly upgrade our skills and training Revitalizing our manufacturing sector requires that we make investments in our people to ensure they are equipped to meet the needs of industry Now is the time to renew and expand investments in our people Congress must increase access to training funds for people who are out of work as well as those seeking to enhance their skills Ultimately, a high-skills workforce must be one whose rights on the job and ability to speak up are protected and thus made real through strong labor laws and strong unions.

While the economic crisis that began in 2007 has done massive damage to our country, the truth is our problems run far deeper and none is more fundamental than the catastrophic decline of U.S. manufacturing which has occurred over a long period. The health of the economy, the success of our people and our national security are inextricably tied to a vibrant and innovative manufacturing sector. We must revive U.S. manufacturing as a clear centerpiece of our Nation's economic and security strategy.

This Congress and the Administration have the opportunity to take steps to restore our Nation's manufacturing capabilities. The USW and AFL–CIO are committed to working with you to do so.

The CHAIRMAN. Thank you, Mr. Gerard, President Gerard, very much.

And Mike Rowe is the Creator and Executive Producer and Host of Discovery Channel's Dirty Jobs.

Mr. ROWE. That's true.

The CHAIRMAN. My wife thinks you're terrific.

Mr. ROWE. Your wife has excellent taste, sir. Thank you. Give her my regards.

[Laughter.]

The CHAIRMAN. I will.

STATEMENT OF MIKE ROWE, CREATOR, EXECUTIVE PRODUCER AND HOST, DISCOVERY CHANNEL'S DIRTY JOBS

Mr. ROWE. And thank you, officially, for having me here today. It really is a thrill and an honor.

One small thing, the credits for the show are very kind. In truth, I'm more of a guest. I assume the role of an apprentice on Dirty Jobs, and for the last 7 years or so I've traveled to every state and worked in just about every industry with people you would otherwise never get a chance to know. They're anonymous folks, many times, in small towns you wouldn't find on a map, who do the kinds of jobs that make civilized life possible for the rest of us.

In the history of TV, it's probably the simplest show ever, but there are some very big themes that run through Dirty Jobs. And over the last 6 or 7 years, I've personally had a front row seat and I've watched the headlines catch up to a lot of those themes. Thus, the simplest show in TV has become interesting in a way that I never anticipated or intended.

I could talk, certainly, at length about any of the people I've met in the show, and I'm tempted to, but I'd rather take a small portion of my 5 minutes and tell you about my grandfather, because he's the reason, ultimately, that I decided to come here today.

His name was Carl Knobel, and he made his living in Baltimore as a master electrician. He was also a plumber and a mechanic, mason, carpenter. Everybody knew him as a jack-of-all-trades. And I remember him mostly as a magician.

For most of his life, my granddad woke up clean and he came home dirty, and, in between, he accomplished some things that were nothing short of miraculous to me. Some days he might reshingle a roof or rebuild a motor, run electricity out to our barn. He helped build the church that I went to as a kid and the farmhouse that I grew up in.

Basically, he could fix or build anything, but to my knowledge he never once read the directions to anything. He just knew how stuff worked.

I remember one Saturday morning when I was twelve, I flushed the toilet in the same way I had been flushing it for 12 years. The toilet, however, responded in a way that was completely out of character. There was a rumbling sound, followed by a distant gurgle, and then everything that had gone down reappeared in a rather violent and spectacular fashion.

Naturally, my granddad was called in to investigate, and within the hour I was invited to join he and my father—who's right behind me there—out in the front yard for about 12 hours of forced labor. You know, there was pipe welding and there was picks and there was shovels and there were blisters and laugher, and maybe some questionable language.

But, by sunset, we were completely filthy, the new pipe was installed, the dirt was back in the hole, and our toilet was back on its best behavior, and it was one of my favorite days ever.

Thirty years later, in San Francisco, my toilet blew up again, and this time I didn't participate in the repair process. I just called my landlord and I left a check on the kitchen counter and I went to work.

When I came home, the mess was cleaned up and the problem was solved. As for the actual plumber who did the work, I never even met him. It never occurred to me to meet him.

What did occur to me that day was the fact that I had become disconnected from a lot of things that really used to fascinate me growing up. I no longer thought about where my food came from or how my electricity worked or who fixed my pipes or who made my clothes. I didn't think about who made anything. There was no reason to. I was less interested in how things got made, in fact, and more interested in how things got bought.

Well, at this point, my granddad was well into his eighties. After a long visit with him 1 weekend, I decided to do a TV show in his honor.

Today, Dirty Jobs is still on the air, and I am here before you guys, hoping to say something useful. So here it is: I believe that we need a national PR campaign for skilled labor, like a big one, something that addresses the widening skills gap head on and reconnects the country with the most important part of our workforce.

Right now, American manufacturing is struggling to fill 200,000 vacant positions, I'm told, and there are 450,000 openings today in

trades, transportation and utilities. The skills gap seems real, and it's getting wider.

In Alabama, a third of all skilled tradesmen are now over 55. They're retiring fast, and there's really nobody there to replace them.

Alabama's not alone. A few months ago in Atlanta, I ran into Tom Vilsack, our Secretary of Agriculture. Tom told me about a Governor he knows who was unable to move forward on the construction of a new power plant. The reason, I thought, was fascinating. It wasn't a lack of funds or a lack of support. It was a lack of qualified welders.

In general, people are surprised that high unemployment can exist at the same time as a skilled labor shortage, but they shouldn't be. We've pretty much guaranteed it. In high schools, the vocational arts have all but vanished and we've elevated the importance of higher education to such a lofty perch that all other forms of knowledge are now labeled as alternative.

Millions of parents and kids see apprenticeships and really valuable on-the-job-training opportunities as vocational consolation prizes, best suited for those not cut out for a four-year degree. And still, we talk about millions of shovel-ready jobs for a society that doesn't really encourage people to pick up a shovel.

In a hundred different ways, I think we've slowly marginalized an entire category of critical professions, reshaping our expectations of a good job into something that no longer looks like work. A few years from now, an hour with a good plumber—if you can find one—is going to cost more than an hour with a good psychiatrist, at which point, we'll all be in need of both.

I wanted to come here today because guys like my granddad are no less important to civilized life than they were 50 years ago. Maybe they're in shorter supply today because we don't acknowledge them the way we used to. We leave our check on the kitchen counter and hope the work gets done. That needs to change.

My written testimony includes the details of several initiatives designed to close the skills gap, all of which I've had the privilege to participate in—Go Build Alabama, I Make America, my own modest efforts through Dirty Jobs and mikeroweWORKS.

I'm especially proud, though, today to announce Discover Your Skills. It's a broad-based initiative from Discovery Communications that I think can change perceptions in a meaningful way.

I encourage you to support these efforts, because closing the skills gap doesn't just benefit future tradesmen and the companies who are desperate to hire them. It benefits people like me and anyone else who shares my addiction to paved roads, reliable bridges, heating, air conditioning and, of course, indoor plumbing, something for all of us to consider, perhaps, during the next bathroom break.

The CHAIRMAN. I have a smart wife.

[Laughter.]

Mr. ROWE. Thank you.

[The prepared statement of Mr. Rowe follows:]

PREPARED STATEMENT OF MIKE ROWE, CREATOR, EXECUTIVE PRODUCER AND HOST, DISCOVERY CHANNEL'S DIRTY JOBS

Chairman Rockefeller, Ranking Member Hutchison and members of this Committee, my name is Mike Rowe, and I want to thank you all very much for the opportunity to share a few thoughts about our country's relationship with manufacturing, hard work, and skilled labor.

According to the credits, I am the creator, executive producer and host of a TV program on the Discovery Channel called *Dirty Jobs with Mike Rowe*. In truth, I'm more like a perpetual apprentice.

For 7 years, I've been traveling around the country, working alongside the people who grow our food, provide our energy, tend to our infrastructure, and manufacture our things. To date, I've completed nearly 300 different jobs, visited every state, and worked in just about every industry. A less flattering assessment might suggest that I've been fired 300 times in less than 7 years. Either way, my current resume has more to do with trying than succeeding, and my opinions should not be confused with those of an expert.

Dirty Jobs is first and foremost an entertainment program. It does however, have a mission statement, and every episode begins the same way. *"My name is Mike Rowe, and this is my job. I explore the country looking for people who aren't afraid to get dirty. Hard-working men and women who do the kinds of jobs that make civilized life possible for the rest of us."*

For years, no one paid much attention to this mission. But in 2008, the recession made *Dirty Jobs* relevant in ways I never envisioned. As unemployment became a dominate topic, and my own dirty resume continued to expand, reporters were suddenly interested in my take on all sorts of work-related issues. Labor disputes, free trade, currency devaluations, outsourcing, student loans—I was invited to weigh in on lots of issues for which I had no real expertise.

For the most part, I pleaded ignorance and kept my mouth shut. But when a writer from *The Wall Street Journal* asked me to "reconcile soaring unemployment with an ever-widening skills gap," I felt compelled to say something. So I referred him to the mission statement of the show and added, "once upon a time, our country was filled with people who weren't afraid to get dirty. Times have changed. The definition of a 'good job' has changed."

I went on to suggest that the skills gap might not be a "problem," but rather a symptom of something much more fundamental; a societal disconnect with work, brought about by the rapid transformation of a manufacturing-based economy into one dominated by financial services and technology.

The reporter wanted to hear more so I kept talking. I told him about my grandfather, a modest man with an eighth grade education that went on to become a plumber, a mason, a mechanic, a carpenter, and a master electrician. A revered craftsman who could build a house without a blueprint. A man who today, would be mostly invisible.

I talked about the subtle and not-so-subtle ways we marginalize work in today's culture. In the media, our portrayals of working people rarely surpass one-dimensional stereotypes and predictable hyperbole. Best-selling books like "The Four-Hour Work Week" fly off the shelves, a testament to short-cuts, and a growing belief that technology (or something) can somehow replace hard work. I talked about the way colleges have become "institutions of higher learning," while all other forms of knowledge are relegated to "alternative education." I suggested a PR Campaign for skilled labor might be in order, and concluded by saying this Administration's goal of creating three million shovel ready jobs might have a better chance of succeeding if our society still respected the people willing to pick up a shovel.

When the article came out the flood gates opened. On Labor Day of 2008, I launched *mikeroweWORKS.com,* my own modest PR Campaign for hard work and skilled labor. Its primary purpose is to challenge the notion that a career in the trades is some sort of "vocational consolation prize," handed out to workers unfit for a four-year degree.

Fans of *Dirty Jobs* helped collect and assemble thousands of links to trade schools, apprenticeship programs, community colleges, on-the-job-training opportunities, and other resources that might be of use to anyone considering a career in the skilled trades. I set up a foundation and began to raise money for the purpose of tool scholarships and farming initiatives. Mostly though, I tried to encourage a bigger conversation, and challenge my partners to get behind this message in a significant way. I wanted mikeroweWORKS to function as a kind of connective tissue for other companies and organizations, and to that extent, I'm happy to say it's working.

Ford, Caterpillar, Kimberly-Clark, Lee, Master Lock, and other large corporations are all working with mikeroweWORKS in some capacity, and are highly motivated

to change perceptions about skilled labor. A few weeks ago, Alan Mulally at Ford pulled me aside and said, "Mike, this issue is nothing less than the soul of America. Our country's future is at stake, and this is a battle we cannot afford to lose."

Aside from major corporations, other like-minded initiatives have begun to use mikeroweWORKS as a resource for their own purposes, and I've been honored to speak on behalf of several campaigns that have already been deemed successful.

Last August, mikeroweWORKS partnered with "Go Build Alabama," an education and recruitment campaign designed to bring new people to the commercial and industrial construction industry. I appeared in a series of advertisements that called attention to the fact that one third of all skilled tradesmen in the construction industry are over the age of 50 and retiring fast, with no one to replace them. The campaign drives people to *GoBuildAlabama.com,* where potential employees can learn more about skilled trade careers and find information about training programs.

In this same spirit, I was also proud to join forces with Caterpillar and The Association of Equipment Manufacturers for the launch of "I Make America," a national grassroots campaign to promote U.S. manufacturing jobs through infrastructure investment and the passage of export agreements.

I would also like to commend the White House initiative called "Skills for America's Future," which is designed to reduce the skills gap by working with employers and community colleges to make sure the education students receive will translate directly into the marketplace, increasing their chances of finding and keeping a good job.

The fact is, there are many initiatives out there making a difference. The problem that so many encounter though, is a tendency to "preach to the choir." With respect to issues like the skills gap, we too often speak only to the people directly involved, the employers, desperate to hire skilled talent, and the unemployed, woefully untrained for the task at hand. To really make a difference, we need to change the perceptions of a much larger audience, and challenge the prevailing definition of a "good job." Americans need to see these workers for what they are—the key to civilized life as we know it. And that means a campaign and a message that reaches *everybody*.

Toward that end, I'm pleased to help launch a broad-based initiative sponsored by Discovery Communications that will reach millions and millions of people. Discovery's goal is to empower both unemployed and underemployed Americans with access to critical resources that will assist them in obtaining marketable job skills.

TV personalities from across Discovery's networks will participate in this campaign which will leverage Discovery's position as the top nonfiction media company reaching more than 780 million cumulative subscribers across our 14 U.S. networks and Discovery Education's unparalleled reach into schools across the country. Participating on-air talent have been chosen because their distinctive skills are particularly valuable and needed in today's marketplace, and because they are credible to viewers interested in similar professions.

As the leader in both nonfiction programming and broadband-delivered educational content and services to U.S. schools, Discovery is uniquely qualified to deliver this message to a mass audience, and to provide meaningful support on a national level. The people you see on Discovery's air are not only real people, but are also successful professionals working in critical areas of the economy.

To be clear, I support the efforts of Congress and the Administration to create three to four million shovel-ready jobs. But obviously, it's no longer enough to merely create opportunity. If that were the case, we wouldn't have 200,000 vacant positions in the manufacturing sector, or nearly 500,000 openings for tradesmen, transportation, and utility workers. We need to create respect for the work itself, and for the people still willing to do it.

As the host of a TV show about hard work, people often assume I speak for tradesmen and skilled workers. In reality, I don't. I can only speak for myself and anyone else who shares my addiction to paved roads, reliable bridges, heating, air conditioning, and indoor plumbing. The tradesmen I know don't need a spokesman. It's the rest of us who need to worry. Because a civilization without skilled labor, is not a civilization at all.

Along with Discovery, I am ready, able, and eager to partner with the Federal Government to help reconnect our country to the importance of manufacturing and skilled labor.

The CHAIRMAN. I failed to announce that there is a vote at three o'clock, which is very unchairmanlike of me and I apologize. I'm

going to miss it and stay here, so that we can keep things going, and others probably should go vote.

Senator KLOBUCHAR. Yes.

The CHAIRMAN. Yes. And then come back, if you can. OK?

Mr. ROWE. I'll vote.

The CHAIRMAN. Can't.

Mr. ROWE. No.

The CHAIRMAN. Can't. You can try, but you can't.

Dr. Burns, you all talked basically about the same major problems. We take people for granted. You can't get Americans to pick up a shovel. You know, you're right.

And I don't know what has happened to the American psyche which has made us less sort of aggressive about our own lives and the homes and circumstances around our homes that we don't.

I mean, everybody says we're hard working. We are hard working. West Virginians work like crazy, but the skill set problems that you talked about, Dr. Burns, and Leo, what you were talking about, what you already talked about is just monumental.

And the discourse in this world is about the tragedy of that, and then we don't do anything about it, which is then compounded by that really sad story—which probably has a good explanation—of those three billionaires or trillionaires who've been giving all this money to education, and they've all sort of stopped doing it, and it was in the area of people who needed exactly the kind of assistance you're talking about, and they gave up doing it because it wasn't working.

Now, I haven't read the details as to why it wasn't working, but there's obviously not just a problem, but there's a state of mind in America, both in the public body and in the private body and in the home, that grasp for reward, which then usually prices hard work at basic levels out of the market.

I don't know if any of you have a comment on that. I just worry about that about our country, that we're waiting.

I mean, I just came from a group of people that were waiting for the—had to do with cybersecurity, which is kind of dangerous—were waiting for the government to do something. And we have somehow become like that, but we're not like that. That's not how we came to be what we are, and yet we're not—neither as a public or as a private society—being aggressive in addressing this.

Yes, we have a lot of technical schools. Yes, some of them do very, very good jobs, but it's not enough. And so I just want to worry about that for a moment with all three of you. Why are we in this situation?

If you're losing jobs, then you ought to get more excited about it, all of us, get more urgent about it. We're not.

Dr. BURNS. Well, I'll try. You know, I don't know if I have the answers as to why. I can tell you that, on both sides of this coin, the skilled workforce that's required to operate our facilities, it's a critical need for us, and, for us, partnering at the local level seems to be the most effective.

We have facilities in Michigan and Tennessee and Kentucky, and, for us, partnering with the local community colleges or 4-year schools, putting skilled workforce programs in place, where we help develop the curriculum, where we fund pilot facilities, so these stu-

dents can get in and use the manufacturing apparatus that they're going to use in their jobs, that seems to help. We've done this at Delta College in Michigan. We've done it at Austin Peay University in Tennessee, and it's working.

The other partnership that we're very excited about is partnering with the military and with the veterans as they want to enter the workforce, and we're encouraging the veterans, particularly down in Tennessee coming from the Army base in Kentucky to enter into the skilled workforce programs and develop the skills.

Leo knows this very, very well, the operators that we have in our facilities, they're making very advanced materials, and we are more and more building into these operations very critical high-tech decisions that these operators make on the spot, decisions about the quality of the product, products that go into health care applications or electronic applications.

There's in-line testing that they need to understand and make decisions about the quality of the product. There are decisions that they are now making about the reliability and the maintenance needs in these operations.

So we need a skilled workforce that can understand all these challenges and respond to it, and it is a constant challenge for us to continue to fund these training programs, work with the local communities. And it seems to work more effectively—at least for us—at the local level.

Mr. GERARD. Senator Rockefeller.

The CHAIRMAN. Yes.

Mr. GERARD. I want to agree totally with Dr. Burns about that, and a lot of her workforce are our members, and they're extremely skilled. And one of the things that worries me a lot is the public denigration of manufacturing.

The hair on the back of my neck tingles when I hear people talk about the Rust Belt. If you've ever been in a modern steel mill where material is put in at one end and comes out at the other end, never touched by human hands, within one-ten-thousandth of an inch of variance, or a modern paper mill that is the same way, these aren't rust belts. These are high-skill, technologically advanced, meaningful jobs where people make strategic and important decisions on the fly as it's running, and they've got to be absolutely well informed and knowledgeable.

In the steelworkers union, we created, as you may know, some 20 years ago, the Institute for Career Development, because we had to take an existing workforce and make sure that they had the opportunity to enhance their skills. So, like Dr. Burns said, we've made alliances with community colleges in areas where we have major manufacturing in steel, in aluminum, in tire and rubber.

We're now trying to do the same thing in paper, where our existing workforce can go in and enhance their skills as the world around them changes.

I made the reference to Germany. German workers get lifelong learning. They get the opportunity to get paid while they go back to school to enhance their skills, so that they can be the most productive workers in the world. We're a long ways from that in America.

The last thing I'd say is that——

The CHAIRMAN. Could you explain that further? I mean, they get it when they're 22 and they get it when they're 49.

Mr. GERARD. They get ongoing, lifelong learning that every—and I don't want to say it's universal, but in most of their major industries, their technologically advanced industries, they get the opportunity to go back to school or the school comes to them.

That was the basis on which we tried to create the Institute for Career Development. That's the basis on which Dr. Burns makes these alliances with community colleges.

The problem is, in our case, it's done by the private sector or it's done by an individual union or an individual company, whereas, in Germany, it's done by the society.

Let me make this last point, because I know that people have to go do their votes. It's about time that we started telling elected officials that we need more chemical engineers, we need more mechanical engineers, we need more aeronautical engineers, and we need less financial engineers.

We've had nothing but financial mishap after financial mishap for the last 15 years, while, at the same time, we've watched our manufacturing industry get denigrated. And I think once we change the language, kids will start to want to go to vocational school, kids will start to want to be able to work with their hands the way Mike said.

And the reality is if my grandson got a job in a steel mill, I'd be happy. My grandson doesn't have to be a financial engineer to make me happy. He can earn a good living in a steel mill. That's honorable work.

Mr. ROWE. Language really is important, you know. Metaphors are even more important, and that's what I meant to suggest earlier when I said that the way the headlines have caught up to this little TV show was really interesting to watch. And Leo's talking about, you know, more people talking about it. Obviously, that's huge. Having a conversation is the whole point.

The challenge is who are you talking to, and, from what I've seen, there's so much preaching to the choir that goes on with these topics—infrastructure, manufacturing, currency devaluation, the definition of a good job. I mean, we all kind of talk to each other, and I've been to a lot of those places.

Jim Ryan is CEO of a company called Grainger, and a couple of years ago—It was Jim who really brought to my attention the really unique challenge the skills gap meant for his company, because not only was it something he was concerned about for the country, his customer base was just getting smaller and smaller and smaller year after year, and fewer electricians, fewer carpenters.

And so he was the one that really impressed upon me, there's not much new to say. We just have to find a way to say it to a much bigger audience. And, ultimately, in my view—I'm certainly not an expert—but it seems like the real conversations have to be between parents and kids at kitchen tables when they're sitting down trying to figure out what to do with the rest of their life and in their heads is an image of what a good job is, and I would imagine in most parents' minds is this hope that there's going to be something better for their kids.

Problem is we just haven't defined what better is, and we're assuming that it's clean. I'm all for clean, but the idea of Dirty Jobs is to sort of tap the country on the shoulder and remind people, look, once upon a time, dirt was a badge of honor. Now, we've somehow found a way in popular culture to make an enemy out of it.

And so, to your earlier question, I just think we're confused about what a good job looks like today. And I think we don't have a good toolbox as educators and parents. We're just celebrating a different kind of thing than we used to.

And so—look, it's so immensely complicated. There's so much policy. There's so much politics. I just feel like sometimes when these issues come up we didn't look at the headline, you know, the country didn't look at the headline. And the big conversation about what's worthwhile in terms of encouraging your kids to do, that hasn't happened, and that's what I believe ought to be happening contemporaneously with all of these other conversations.

The CHAIRMAN. Mike, thank you, but I need to go directly to Senator Hutchison.

Senator HUTCHISON. Well, thank you. I am going to go vote, but a couple of things. First, I do agree with you, Mr. Rowe, that we need to do so much more to elevate the importance of these very good paying jobs, middle-class income jobs, that are going wanting because we have somehow said if you don't get a college degree, then your job is not worth something.

I visited a manufacturing facility in my state, and I saw row upon row upon row of welders who were welding, and I said, what do they make? And the manager said, between $80,000 and $100,000 a year. And I said, where do you train them? And they have an agreement with the junior college in that area that does the training with them.

And I thought, good heavens, I mean, that's fabulous to be able to have that kind of solid, steady job, and they were very fully employed. And that happens everywhere, but I think we are underutilizing our community colleges and our technical and vocational colleges.

And I believe that the importance of computer training in our lower and middle schools is so important, and our high schools, because there's not a plumber, an electrician, a worker of any kind that doesn't have to have a computer to do their jobs, to keep up with the inventory, to make their buys, whatever it is. So it's not low-level work. It is a technically proficient necessity for that kind of work.

So I think maybe—I mean, there are many ways that we could address this, but I certainly think the vocational training and talking about it in the right way is important to give these people the chance for those good jobs.

Let me ask a question of Dr. Burns. Would you comment on the importance of the stability of the regulatory environment on what you can do in America? And if Dow Corning is doing work in other countries how would it compare?

Dr. BURNS. Yes. I guess, first of all, I would say that regulations are important. I don't think anyone wants to live in a society where good regulations are not in play, because they are critical.

I applaud the administration, and being a member of the President's Export Council, we've actually submitted letters to the President recommending, and it is obviously being acted on, for a streamlining of regulations looking at which ones are the most effective, the most critical, looking at regulations that add cost, but do not necessarily achieve the outcome that they're designed to achieve. And we're available and support any relationship to help with that streamlining here in America.

It is a burden. I think it's more of a burden for small companies and small businesses who really don't have the internal infrastructure to deal with regulations. You know, we're fairly capable in this respect, but it is a burden even on us, and I think anything we can do that can allow us to innovate faster, move quicker in the marketplace, grow, grow our business, create jobs in America is a good thing.

Senator HUTCHISON. In your capacity with the Council, where do you see the most in need of change or reform regulations? And where do you see the most that are—the cost-benefit analysis is skewed the wrong way?

Dr. BURNS. Yes, you know, it's fairly broad-based. Certainly in the solar value chain, in working with our customers in the solar industry, a lot of it is in the permitting processes and the ability to move quickly with the installations, a lot of them being utility-skill installations.

In our manufacturing facilities, it's mainly around environment, EPA regulations. We know there are a lot of regulations yet to be enacted by the EPA, and we just ask that they be smart regulations, fact-based, science-based regulations with a strive toward streamlining as much as possible, so that we can be efficient and so that the regulatory bodies can evaluate our compliance sufficiently.

Senator HUTCHISON. Thank you. I'm going to go vote. Thank you very much.

The CHAIRMAN. Thank you, Senator Hutchison. Thank you. Well, you're a fast walker so you'll make it. She's a power walker, five miles an hour.

I asked some time ago for GAO, because of the German factor, also the Australian factor, they're keeping their manufacturing. And I asked them to do a report, which is coming shortly, on what they do that we don't, but, more importantly, what can we learn from them that we should be doing.

And it's interesting to me because it's so easy to ask for a GAO report, you know, and the time goes by, and that slips into the hole. But, on the other hand, they tell you stuff that you really need to know.

And then the question is are you going to be able to act on that or get a consensus on that in a year where we almost have no votes during the course of a week because everything is stopped, all legislation is stopped.

We vote on judges. We do that once a day. You can count on us to vote for a judge every day or against a judge every day. But we don't really get much substantive work done, just because of the nature of the Congress right now, which reflects, in some way, the

nature of the people—the anger, the hostility—which goes to your point, in a way, Mike.

And I mentioned it in my opening statement, but not as well as you did, that you say the word manufacturing and it doesn't engage people's interest. And that's crazy, because that's where, as I say, so much of our R&D comes from. I mean, you're doing carbon capture and sequestration in West Virginia in the Kanawha Valley, which is taking 90 percent of the carbon dioxide out of your emissions.

I don't know why you decided to do that, but you decided to do it, and it's working and potentially is a salvation for a much-despised product, which, in fact, I think is the only place that the Nation has to go, ultimately, to get its—have this electricity on all day long.

But the whole psychological concept of how we talk about manufacturing, how we talk about everybody has to go to college, and then everybody has to do graduate work, and everybody has to——

You know, I was in New York City last night, and I didn't want to live in New York City. I went to West Virginia, I'm much happier. But people talk a lot about their bonuses. They talk a lot about the size of their apartments or where the next apartment—what street is it going to be on? Is that an upgrade or a downgrade? And that's a superficial thing to say, but, frankly, it's a money culture.

And there's a lot of manufacturing in New York, I'm sure, but the kind I think about, which is the kind all three of you not only talk about, but do, how do we enter that into the American psychology?

And I don't know, maybe we want to rename manufacturing and call it surviving or something, but it doesn't make sense, or we throw money at things, at the vocational technical schools. I mean, those are working in some places, and they're not working in some places, because they're not always juxtaposed to the places that are likely to need workers.

And in some cases—West Virginia being one of them—this is ironic, too, people want to work close to home.

On the other hand, we have a Japanese motor company there, which employs only Americans, and all of their profits stay in this country, and they are taxed in this country. And they came in and built a plant, set out ads for applications for 300 jobs, and they got 25,000 responses.

And I said to myself and I checked later on—this is absolutely—of course, they were from Ohio and Kentucky, too, and I understand that. I said, well, that must be from former coalminers who have been unemployed, but who had the kind of skills that could be applied, for example, in the highly sophisticated world of automobile manufacturing.

It turned out only three of those 300 who were accepted had backgrounds in coalmining of any sort. And in fact, they were people from 27 of our 55 counties who had enormous drives to work, or they probably just stayed in motels for the week, but they were mostly rural people. They were mostly in their 20s and 30s. They wanted to work. They had no alternatives in their own commu-

nities, and they took a chance on this brand name, which you've got for your company, Dr. Burns, and went to work.

And they're all happy and they call themselves team members, and there are no special CEO parking spaces and no CEO lunch spaces, and everybody treats everybody very well.

And I was kind of stunned by that, because they're not—and Toyota trains them. Well, maybe that's OK. You see? They send a lot of them to Japan for several weeks and they get trained.

But Toyota has never stopped expanding in West Virginia. Since 1997, they're in their sixth expansion, and they employ well over 1,000 employees. So those kids see something.

And so I go back to my question: Why are the rest of us missing this engagement with very good employment, very good wages, very good benefits and a very stable present and future? Why are we doing this, please?

Dr. BURNS. Can I try?

The CHAIRMAN. Yes.

Dr. BURNS. It seems to me like what is missing is engagement with the public in understanding the connection between manufacturing, education and innovation.

And I think we thought 15 or 20 years ago that manufacturing can go. You know, it can go to Asia. We can still innovate. We can still have highly-educated people and that we'll have a service economy and that everything is going to be fine.

You can't separate those three. If the manufacturing goes, the innovation is going to go, and if the innovation goes, you're not going to have jobs for educated people either in manufacturing or in discovery research. So I think what's missing is the understanding that those are so linked now to our economic future, and we don't have an overarching manufacturing strategy.

If I go to an Asian country and I say I want to build a plant here, I am surrounded by people who are going to make that happen. Whether it's government officials, whether it's banks, they are going to make it happen, and they have figured out to serve and attract that investment.

I have heard from Asian companies trying to come to America the frustration that they don't even know where to start. Do they go to the state? Do they go to the Federal Government? There is no one-stop shopping for, you know, help me make my investment decision. You get that in Asia. If I want to put a research facility in Singapore, they'll make it happen next week. So we're missing this overarching priority on manufacturing and this understanding that they're so linked together.

And I can tell you, if we lose manufacturing, the innovation is going to go with it, because you want to innovate close to where you're going to scale up materials, where you're going to experiment with materials, and you want to be close to the customers, and if the manufacturing is there, so goes the innovation.

Mr. GERARD. Senator, I don't disagree with very much that Dr. Burns said, but I want to build on it about the discussion we've had about words matter and strategy matters and having a position matters. Let me give you a couple of examples.

A well known steel company that has facilities in your area and our area, the Pittsburgh area, wanted to build a brand new coke

battery, had to go to the market for capital. The capital wanted to treat them differently and charge them a premium.

This is a company that's over 100 years old, that's been profitable for almost 100 years. Wanted to charge them a premium on their capital, so they could get the capital to build the brand new coke battery that would have made it much more environmentally efficient. It would have almost guaranteed the productivity of those mills for another 20 or 25 years.

Yet, if I wanted to go to the market and borrow some money for some harebrained idea in high tech, they'd give it to me for next to nothing. There's something wrong with that when you look at the concept of America not having a plan, an America worrying about national security.

Why should we have to rely on foreign oil to be the driver of our energy on our Air Force bases, on our military bases, on our Naval bases? Why don't we look at renewable energy on those Air Force bases and military bases and Naval bases? Why don't we look at wind turbines? Why don't we look at solar?

If we were to say that we're going to power our military bases with renewable energy over the next 20 years and have 5,000 wind turbines on military soil, there's all kinds of steel companies that would invest in new plate mills and make more steel. There's 200 tons of steel that goes into a wind turbine.

If we were to use solar panels, Dr. Burns' facilities could expand, because there'd be a plan that over the next years we're going to do this. She can't meet the requirement now, so she's got to invest, and she wants to invest close to the market. We don't have any plan.

DOD is one. DOE was going to—remember all the scuttle about building nucs? They were all going to be Korean nucs until the union interfered and said, if you're going to try to build Korean nucs, this is what we're going to do. And all of a sudden that toned down a bit, and, now, we're having a more civilized discussion.

But it's all because we have no plan and everything happens sort of hit and miss. Somebody comes up with a policy, we're going to give this tax break for that. Give this tax break for that, and she's left there with no plan, you know.

And so I think it's all about how we change the culture, and for 25 or 30 years here we've had a culture of denigrating manufacturing. And Dr. Burns says if we lose it—we're on the verge of losing it. We're down to below 10 percent of GDP. There's more people unemployed today from manufacturing than there are employed in manufacturing. 11.2 million people are employed in manufacturing. And unless we grow that back to a number, we're going to be losing our innovation.

And an interesting part—I'll just close on this—an interesting part a few weeks ago was on ABC where they went through a house and took out everything that wasn't made in America. The only thing that was left was the kitchen sink and a Yankee candle.

That same day on *Meet the Press,* a senator who's well known who ran for president got on and that senator said, Well, if they'd have checked for computers they would have seen that the iPad and computers are made in America.

Well, guess what, they were invented in America, but they're not made in America. They're made in China.

We need a plan.

The CHAIRMAN. Senator Ayotte, I welcome you. I'm glad you're here, and you haven't had a chance to hear the testimony, so you can question away.

STATEMENT OF HON. KELLY AYOTTE,
U.S. SENATOR FROM NEW HAMPSHIRE

Senator AYOTTE. Thank you, Mr. Chairman.

Dr. Burns, I wanted to follow up on something you had said about if you go to Asia and they want to put a plant up, they make it happen tomorrow.

Well, one of the things I wanted to hear your insight on is I come from a small-business family. My husband has a landscaping and snowplowing business. So I actually did have to help him shovel in the beginning. So there's a little shoveling in my family.

But one of the concerns I've heard from a lot of small-business owners across our country, many of them that do so much of the important work to help the rest of us, is the regulations that they see that are passed by our government really make it difficult whether you want to start your own business, whether you want to expand, whether you're involved in a particular trade.

You know, we come up with a lot of ideas here in Washington and we think they're well-intentioned, and then people have to go out in the field and implement them, and I think so many times they make us less competitive.

And I wanted to get your thoughts on as we look forward and make ourselves more competitive in a regulatory context, how could we make it better for our private sector businesses? And a lot of them are just small businesses, a couple of people getting together and trying to provide services for other people.

Dr. BURNS. Yes, exactly. I spoke just briefly on this. You know, I started by saying I think regulations do matter and they're important, but they need to be smart regulations. And, frankly, I think there's a huge opportunity to streamline our regulations, to look at the cost of adhering to the regulations and the intended benefit of the regulation, and really just take a thorough look at what we've got with the intent to streamline.

And I know the administration is supporting that. The President's Export Council has recommended that we do this, and I do agree. I said earlier I think it's more a burden on the small company than a large company because we end up getting a regulatory machine that is geared up to it. It is a cost, and it does hurt our competitiveness. But I think when it hurts a startup or an innovative company trying to get going, that's where a lot of jobs get created.

Senator AYOTTE. And just as a follow-up, one of the things that you mentioned is the need for us when we're passing regulations to really look at the cost-benefit analysis of them. Would you agree with that, that that's got to be in the component?

Dr. BURNS. Yes, absolutely. Absolutely.

Senator AYOTTE. So I very much appreciate that. I hope that we take that to heart here, and a lot of times cutting through the red tape to make it easier for us to—the private sector to thrive.

Mr. Rowe, really appreciate your being here, and I have a 6-year-old daughter, Kate, who is one of your biggest fans. So——

Mr. ROWE. What's she do for a living?

[Laughter.]

Senator AYOTTE. You know, I'm not sure what she's going to do, at this point, but she loves the show and is an avid watcher. So I'm going to be her hero now that I can tell her that I've met you.

But I wanted to follow up. You're traveling around the country. You must have interacted somewhat with—in terms of interaction with state, Federal Government, what impression you have on this issue of what we're doing on the regulatory end that makes it more difficult.

Mr. ROWE. Yes, it's—I mean, again, that was not one of the reasons we wanted to do the show. I mean, the show is first and foremost a celebration of work, but, you know, the network kept ordering more and more, and we kept going further and further and doing some things we didn't anticipate doing.

And by the second or third season, when we got around 200 of these jobs, it was really interesting, in the sense that—well, in terms of the nomenclature of the town—you know when you guys are running for office, you spend a lot of time connecting with regular people, and I suddenly realized—though I'm not running for anything except possible renewal—I was out there working with a lot of different types of people in a lot of different types of industries.

And, to your point, we began to stop looking for big, municipal, state-run jobs, because the red tape that we had to go through from a production standpoint was really instructive.

Now, certainly, we've done a lot. I mean, I've built bridges in Mackinaw, and the Army Corps of Engineers has endless opportunities to get dirty and learn stuff, and that's great fun.

But the obstacles to actually shooting with them are probably on par with the compliance issues that you're talking about that they deal with internally, and it's really fascinating.

I mean, if somebody was doing a show about this show, to watch us, for instance, working with some coal miners in West Virginia, which we've done, versus, say, a family run maggot farm in Idaho, which is wildly profitable, by the way. People have no idea of the money that's in maggots.

Mr. GERARD. The oil industry does.

Mr. ROWE. You would see the difference, you know, in how those industries play out, and conversely.

I mean, I could go down the list, but the short answer is there's a huge, huge cost of regulation and compliance, and, obviously, it's necessary, as Dr. Burns said, but there's no extra credit for going beyond what you need.

And my sense, from working with a lot of people in a lot of industries, is a real frustration with policies that essentially force them to spend a lot of their day doing things that simply don't translate straight into the task at hand.

What that actually means in terms of total lost revenue, way past my pay grade. I don't know. You should ask your daughter. [Laughter.]

Senator AYOTTE. Probably. Yes.

Mr. ROWE. She might know.

Senator AYOTTE. She's—well, I don't know. Maybe she's going to take up this maggot farming——

Mr. ROWE. Maybe she will.

Senator AYOTTE. She appreciates every one of your shows, so——

Mr. ROWE. Well, you know what, here, share this with her, too, because I was just listening to—as Leo was talking about the way manufacturing has shrunk in terms of a composite part of our GDP, if there were such a thing as a dirt index—and I believe there should be.

I mean, there's a misery index. There's a poverty index. We have an index for everything in this town it seems. We ought to have a dirt index, and if we did, I bet if we looked back at the last 100 years or so in terms of how our GDP was composed, we would see a really consistent level of the country's relationship with dirt.

Certainly, in our agrarian past, our farmers were role models, because they woke up clean and came home dirty. And we understood that the dirt and the work and the profit and the need were all wrapped together in much the same way as innovation and manufacturing, but it just all made sense through the lens of dirt.

As we evolved from agrarian into industrial, well, the work changed, but the relationship with work didn't. In the same way farmers were on the front line of agriculture, now, we have tradesmen on the front line of manufacturing in the middle part of the last century, and our relationship with dirt was still great because tradesmen were heroes, ergo, my granddad.

But, then, in terms of the GDP—and it's just a theory, I'm just making stuff up—but for the first time, suddenly, manufacturing and industry isn't dominant. Farming is not dominant. Less than 2 percent of the workers in this country are feeding 300 million people. It's financial services and technology. That's dominating the GDP. But what is the dirty relationship—at least visibly—with finance and technology?

That's what I meant before when I was talking about the changing look of a good job, because as you look at what the country is making and our collective relationship with the traditionally dirty face of work, the dirt's been scrubbed off, and what's left is clean and green, and that's all nice, but it's sent a weird confusion and a kind of disconnect.

And not to beat a dead horse, but reconnecting—reconnecting, not your industry specifically, but with the people who watch my show, you know, the 300 million-or-so people who are simply going about their day and not thinking about these things, we've got to reconnect them to the dirt index in some way. It's got to be fun, you know. Work can't be portrayed constantly as drudgery. It isn't drudgery, you know.

I hope one of the reasons your daughter likes my show—and your wife, senator, enjoys it—is because we find humor where we have been conditioned to expect drudgery. And the people I know and the people I've met on the show have a wonderful sense of

humor, and infusing that back in to the conversation and back into the practical reality of doing the job strikes me as key.

Senator AYOTTE. Thank you.

Mr. Gerard—if I may follow up briefly, Mr. Chairman—wanted to get your thought on one issue, and, then, Dr. Burns, if you have any comments on it.

I heard from—wanted to get your thoughts on repatriation.

Mr. GERARD. I didn't hear.

Senator AYOTTE. Repatriation. This week, I heard from a number of large companies who argue on the tax code that we're not competitive and that they're anxious to bring jobs and manufacturing plans and revenue back to this country, but they have a 35-percent corporate tax rate that does not make them competitive. So they've got a greater incentive to keep the revenue overseas than to bring the jobs back here.

So what do you think we need to do in terms of what are your thoughts on the corporate tax rate issue and encouraging—making us more competitive to encourage the larger global companies to come back to the United States?

And if Dr. Burns has any comments on that, I'd appreciate it.

Mr. GERARD. I'll confess, off the bat, that I don't think I'm technically informed enough to talk about the tax code. I know that the tax rate isn't necessarily the tax paid. Some of the most profitable companies in America paid no taxes, like General Electric.

We've been giving tax handouts to the richest corporations on earth, the oil industry. I think we ought to quit giving them those subsidies and use those subsidies to provide computers to kids in schools.

The other thing that I think is tremendously important is that we don't give tax breaks to companies that move jobs offshore, which we've been doing. And if either you or the senator, Senator Rockefeller, can jog my memory, I think that that issue came up in the Senate and there was a proposal to incent companies to bring jobs back where they would get an incentive to bring jobs back and we would remove the incentive that we were giving them when they moved jobs overseas. And I think that got defeated on a party-line vote, I think, with not an ability to overcome a filibuster. So that's the little bit that I know about that.

But I do believe we ought to sit down and have a rational discussion to incent those companies that want to bring jobs back to America to do that, but take away the incentive for shipping jobs overseas.

And I actually think we ought not get too wrapped up in the tax code until we find out what the real taxes that are being paid. As I said, General Electric paid nothing, in fact, and got a multibillion-dollar tax rebate.

Senator AYOTTE. Well, I'm just—If we look at the rates, where we are, we have the second highest corporate—we may end up being the highest if Japan decides to move theirs. So just as a matter of comparing numbers, we're not competitive. So I just was curious——

Mr. GERARD. Well, let me just pick that up, because I don't think that Japan has the issue of their multinational corporations not bringing their industry back. They don't have that problem. We

seem to do, for some reason. So I don't think it's about the tax rate. I think it's about the taxes paid. And, as I said, I'm not technically qualified, but from a distance, that's what I see.

The CHAIRMAN. I have to interrupt. Senator Ayotte, I apologize to you, but we have to be at the White House in 10 minutes.

Mr. GERARD. When are we going?

The CHAIRMAN. No.

[Laughter.]

Mr. GERARD. I tried.

Dr. BURNS. I hope you talk about manufacturing.

The CHAIRMAN. I know. And we're going to talk about the budget, so that's going to be a lot of fun.

Mr. GERARD. Manufacturing and the budget, senator.

The CHAIRMAN. I know. So let me just say that it's not like we're moribund in this. This has been a—had a bit of a wandering in it.

But I'm OK with that, because we're a little bit wandering in the desert as to what we need to do, and we need to talk about it, and we need to prove to ourselves that we're good at talking about it, but not very good at doing much about it.

There are some things going on. I'm working with Steny Hoyer on a Make-It-In-America concept, which he's very aggressively pursuing, and which I am. And one of the things we have in that is one-stop shopping, that industry would just be able to go to one place.

Now, I hear that in my mind and I say, yes, that's just a great thing for the government to be doing, and then watch the war of the turfs as to who gets the one-stop. But I can't think that way.

In other words, what happens so much in this country is if you bring up a subject of substance people will then bring up, oh, what about regulation? What about EPA? What about this or what about that?

And what it does—it's totally fair to do it and often right to do it—but it keeps us away from the subject. It keeps us away from the subject. We're really good at getting away from discussing what manufacturing really means.

And the thing that we ought to be thinking about, and virtually the only thing, is that 70 percent of all innovation and research and development takes place in manufacturing, even though they're a very small part of our GDP. We're not going to move forward without manufacturing. We're not going to do it.

So we're going to continue to work away at this, and, hopefully, we won't have a lot of budget meetings at the White House. But, on the other hand, I'm very afraid of what's going to happen, very afraid of what's going to happen.

But I will tell you that we have the five biggest oil companies before us tomorrow at nine o'clock in the Finance Committee. I'm looking forward to that. And if you have nothing else to do——

Mr. GERARD. I might come and watch.

The CHAIRMAN. No, you just pay somebody tonight to stand in line and keep your seat. All right?

Mr. GERARD. Senator, if I could, just for a moment, I really want——

The CHAIRMAN. Can't actually.

Mr. GERARD. I just want to congratulate you on your infrastructure investment fund. I really think that's important—hopefully, you'll get bipartisan support.

The CHAIRMAN. Yes, yes, and that's $340 billion a year for the next number of years to get back to where we need to be.

Mr. GERARD. Terrific.

The CHAIRMAN. On infrastructure.

Dr. BURNS. We support it, too.

The CHAIRMAN. And so where do we get the money?

Look, I totally thank you. Huge subject, hard to get one's arms around, but we're just going to work at it until we do. That's what we're doing for the next year-and-a-half and beyond, but certainly for the next year-and-a-half.

So I thank you very much, and—I really do. I mean, you know.

Dr. BURNS. Thank you.

Mr. GERARD. You're welcome.

Mr. ROWE. Thank you.

The CHAIRMAN. I wish I could talk more about that CCS thing and why you did that, but I can't. Got to go.

Hearing adjourned.

[Whereupon, at 3:41 p.m., the hearing was adjourned.]

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