

**OUR NATION OF BUILDERS: POWERING U.S.  
AUTOMOBILE MANUFACTURING FORWARD**

---

---

**HEARING**  
BEFORE THE  
SUBCOMMITTEE ON COMMERCE, MANUFACTURING,  
AND TRADE  
OF THE  
COMMITTEE ON ENERGY AND  
COMMERCE  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

APRIL 10, 2013

**Serial No. 113-27**



Printed for the use of the Committee on Energy and Commerce  
*energycommerce.house.gov*

U.S. GOVERNMENT PRINTING OFFICE

82-180

WASHINGTON : 2014

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON ENERGY AND COMMERCE

FRED UPTON, Michigan  
*Chairman*

RALPH M. HALL, Texas  
JOE BARTON, Texas  
*Chairman Emeritus*  
ED WHITFIELD, Kentucky  
JOHN SHIMKUS, Illinois  
JOSEPH R. PITTS, Pennsylvania  
GREG WALDEN, Oregon  
LEE TERRY, Nebraska  
MIKE ROGERS, Michigan  
TIM MURPHY, Pennsylvania  
MICHAEL C. BURGESS, Texas  
MARSHA BLACKBURN, Tennessee  
*Vice Chairman*  
PHIL GINGREY, Georgia  
STEVE SCALISE, Louisiana  
ROBERT E. LATTA, Ohio  
CATHY McMORRIS RODGERS, Washington  
GREGG HARPER, Mississippi  
LEONARD LANCE, New Jersey  
BILL CASSIDY, Louisiana  
BRETT GUTHRIE, Kentucky  
PETE OLSON, Texas  
DAVID B. MCKINLEY, West Virginia  
CORY GARDNER, Colorado  
MIKE POMPEO, Kansas  
ADAM KINZINGER, Illinois  
H. MORGAN GRIFFITH, Virginia  
GUS M. BILIRAKIS, Florida  
BILL JOHNSON, Missouri  
BILLY LONG, Missouri  
RENEE L. ELLMERS, North Carolina

HENRY A. WAXMAN, California  
*Ranking Member*  
JOHN D. DINGELL, Michigan  
*Chairman Emeritus*  
EDWARD J. MARKEY, Massachusetts  
FRANK PALLONE, JR., New Jersey  
BOBBY L. RUSH, Illinois  
ANNA G. ESHOO, California  
ELIOT L. ENGEL, New York  
GENE GREEN, Texas  
DIANA DEGETTE, Colorado  
LOIS CAPPS, California  
MICHAEL F. DOYLE, Pennsylvania  
JANICE D. SCHAKOWSKY, Illinois  
JIM MATHESON, Utah  
G.K. BUTTERFIELD, North Carolina  
JOHN BARROW, Georgia  
DORIS O. MATSUI, California  
DONNA M. CHRISTENSEN, Virgin Islands  
KATHY CASTOR, Florida  
JOHN P. SARBANES, Maryland  
JERRY McNERNEY, California  
BRUCE L. BRALEY, Iowa  
PETER WELCH, Vermont  
BEN RAY LUJAN, New Mexico  
PAUL TONKO, New York

SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND TRADE

LEE TERRY, Nebraska

*Chairman*

LEONARD LANCE, New Jersey

*Vice Chairman*

MARSHA BLACKBURN, Tennessee

GREGG HARPER, Mississippi

BRETT GUTHRIE, Kentucky

PETE OLSON, Texas

DAVE B. MCKINLEY, West Virginia

MIKE POMPEO, Kansas

ADAM KINZINGER, Illinois

GUS M. BILIRAKIS, Florida

BILL JOHNSON, Missouri

BILLY LONG, Missouri

JOE BARTON, Texas

FRED UPTON, Michigan, *ex officio*

JANICE D. SCHAKOWSKY, Illinois

*Ranking Member*

G.K. BUTTERFIELD, North Carolina

JOHN P. SARBANES, Maryland

JERRY McNERNEY, California

PETER WELCH, Vermont

JOHN D. DINGELL, Michigan

BOBBY L. RUSH, Illinois

JIM MATHESON, Utah

JOHN BARROW, Georgia

DONNA M. CHRISTENSEN, Virgin Islands

HENRY A. WAXMAN, California, *ex officio*



## CONTENTS

---

	Page
Hon. Lee Terry, a Representative in Congress from the State of Nebraska, opening statement .....	1
Prepared statement .....	3
Hon. Janice D. Schakowsky, a Representative in Congress from the State of Illinois, opening statement .....	4
Hon. Leonard Lance, a Representative in Congress from the State of New Jersey, opening statement .....	5
Hon. Henry A. Waxman, a Representative in Congress from the State of California, opening statement .....	6
Hon. Fred Upton, a Representative in Congress from the State of Michigan, prepared statement .....	
WITNESSES	
Joseph R. Hinrichs, President of the Americas, Ford Motor Company .....	8
Prepared statement .....	10
Answers to submitted questions .....	134
Scott Dahl, Regional President, Starters and Generators—North America, Robert Bosch, LLC .....	16
Prepared statement .....	19
James C. Wehrman, Senior Vice President, Honda of America Manufacturing, Inc. ....	44
Prepared statement .....	47
Answers to submitted questions .....	140
Chris Nielsen, President, Toyota Motor Manufacturing Texas, Inc. ....	64
Prepared statement .....	66
Answers to submitted questions .....	148
Scott E. Paradise, Vice President, Marketing and Business Development, Magna, International .....	76
Prepared statement .....	79
William A. Smith, Executive Director, Government Affairs and Community Relations, American Axle & Manufacturing .....	88
Prepared statement .....	90
Annette Parker, Ed.D., Executive Director, Automotive Manufacturing Tech- nical Education Collaborative (AMTEC) .....	97
Prepared statement .....	99
Kathy M. Kinsey, Deputy Secretary, Maryland Department of the Environ- ment, Member of the Electric Vehicle Infrastructure Council .....	103
Prepared statement .....	105
SUBMITTED MATERIAL	
Statement of Motor & Equipment Manufacturers Association .....	126
Statement of American Federation of Labor and Congress of Industrial Orga- nizations .....	132



## **OUR NATION OF BUILDERS: POWERING U.S. AUTOMOBILE MANUFACTURING FORWARD**

**WEDNESDAY, APRIL 10, 2013**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON COMMERCE, MANUFACTURING, AND  
TRADE,  
COMMITTEE ON ENERGY AND COMMERCE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:19 a.m., in room 2123, Rayburn House Office Building, Hon. Lee Terry (chairman of the subcommittee) presiding.

Present: Representatives Terry, Lance, Blackburn, Harper, Guthrie, Olson, McKinley, Kinzinger, Bilirakis, Johnson, Long, Schakowsky, Dingell, Barrow, and Waxman (ex officio).

Staff Present: Charlotte Baker, Press Secretary; Kirby Howard, Legislative Clerk; Nick Magallanes, Policy Coordinator, CMT; Brian McCollough, Senior Professional Staff, CMT; Shannon Weinberg Taylor, Counsel, CMT; Tom Wilbur, Digital Media Advisor; Michelle Ash, Minority Chief Counsel; and Will Wallace, Minority Policy Analyst.

### **OPENING STATEMENT OF HON. LEE TERRY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEBRASKA**

Mr. TERRY. Well, I just want to welcome all of our witnesses here today. And isn't it nice that we can come here under no crisis, no angst or anxiety? Things are actually improving in the automobile industry. And we just want to say to the industry and its suppliers, what can we do to help? And that should be a question we actually ask more often. But it is almost—I said a lovefest in one of our hearings, but, in reality, that is about what this is. We just want to help. We want you to do better.

So, go to my official? Oh, yes, those type of details.

So, good morning. And welcome to our third installment of our subcommittee series of hearings entitled "Our Nation of Builders." Today we are focusing on the U.S. automotive manufacturing sector—a sector that supports more manufacturing jobs than any other manufacturing industry, employing almost 8 million Americans across all 50 States, according to the Alliance of Automobile Manufacturers.

Our subcommittee will be hearing from a distinguished panel of witnesses consisting of experts from several sectors within the automotive manufacturing industry. And it is my hope that our witnesses can shed some light on the criteria taken into consider-

ation when making a determination on where to initiate manufacturing and where to expand manufacturing in the United States.

I also hope to surface important details on the effect that expanding or initiating manufacturing can have on a community, whether it is through job creation, increased tax revenue, or charitable involvement.

Auto manufacturers, suppliers, and dealers have certainly faced tough times in the last few years. Our great recession saw vehicle production fall from 10.7 million in 2007 to 5.7 million in 2009. However, since 2009, we have seen this figure rebound to 8.7 million vehicles produced and 100,000 jobs recouped or added.

This is progress, but we have more work to do to create jobs and grow our Nation of builders. Attracting foreign investment to build manufacturing facilities in the U.S., lowering barriers to expansion, and incentivizing companies to increase domestic production capacity should be top priorities in Congress.

By all accounts, increased domestic manufacturing is a net positive. When we increase manufacturing, we not only increase direct employment but also take advantage of the auto industry's tremendous employment multiplier. Eight hundred thousand direct jobs represents a total economic effect of almost 8 million domestic jobs.

We all know that more jobs means less unemployment, more tax revenues for cities and States, and a better quality of life for thousands of Americans. What increased domestic manufacturing also means is that the U.S. can expand its export base and shift from being a net importer to a net exporter. Policies aimed at promoting increased domestic manufacturing, a higher level of foreign direct investment, and increased exports are critical right now, given the current negotiations on the Trans-Pacific Partnership and the potential for a U.S.-EU trade agreement.

When discussing trade agreements, many automatically think about tariffs. However, there is much more to these pacts than tariffs on imports. This subcommittee has jurisdiction over and is very interested in non-tariff-related barriers. To that end, we would be very interested to hear the opinions of our witnesses when it comes to the positive effects that pursuing a regulatory mutual-recognition standard should have on the domestic automobile industry. I am sure that as free trade talks continue this will be an important issue for this subcommittee.

With us today we have eight witnesses on two different panels. The first panel will consist of Joe Hinrichs, president of the Americas for the Ford Motor Company.

I have a Ford. A little suck-up moment.

Scott Dahl—

Ms. SCHAKOWSKY. So do I.

Mr. TERRY. There you go, ranking and—teamwork here.

Scott Dahl, regional president for starters and generators in North America for Robert Bosch. Thank you.

Our second panel: James Wehrman, senior vice president of Honda North America Manufacturing; Chris Nielsen, president of Toyota Manufacturing in Texas; Scott Paradise with Magna International, where he is vice president of marketing and business development; Annette Parker, executive director of the Automotive Manufacturing Technical Education Collaborative; William A.

Smith, with American Axle & Manufacturing, where he serves as executive director of government affairs and community relations; and, finally, Kathy Kinsey, deputy secretary with the Maryland Department of the Environment and member of the Electric Vehicle Infrastructure Council.

I hope that all fits on your business card.

Again, I would like to thank our witnesses for appearing here at our subcommittee today.

[The prepared statement of Mr. Terry follows:]

#### PREPARED STATEMENT OF HON. LEE TERRY

Good Morning and welcome to the third installment in our subcommittee's series of hearings titled "Our Nation of Builders." Today we are focusing on the U.S. Automotive manufacturing sector—a sector that supports more jobs than any other manufacturing industry—employing almost 8 million Americans across all 50 states, according to the Alliance of Automobile Manufacturers.

Our subcommittee will be hearing from a distinguished panel of witnesses, consisting of experts from several sectors within the automotive manufacturing industry. It is my hope that our witnesses can shed some light on the criteria taken into consideration when making a determination on where to initiate manufacturing and where to expand manufacturing. I also hope to surface important details on the effect that expanding or initiating manufacturing can have on a community—whether it be through job creation, increased tax revenue or charitable involvement.

Auto manufacturers, suppliers and dealers have certainly faced tough times in the last decade. The Great Recession saw vehicle production fall from 10.7 million in 2007 to 5.7 million in 2009. However, since 2009, we have seen this figure rebound to 8.7 million vehicles produced and 100,000 jobs recouped or added. This is progress but we have more work to do to create jobs and grow our nation of builders.

Attracting foreign investment to build manufacturing facilities in the U.S., lowering barriers to expansion and incentivizing companies to increase domestic production capacity should be top priorities for this Congress. By all accounts, increased domestic manufacturing is a net positive. When we increase manufacturing we not only increase direct employment but also take advantage of the auto industry's tremendous employment multiplier—800,000 direct jobs represents a total economic effect of almost 8 million domestic jobs.

We all know that more jobs means less unemployment, more tax revenues for cities and states and a better quality of life for thousands of Americans. What increased domestic manufacturing also means is that the U.S. can expand its export base, and shift from being a net importer to a net exporter. Policies aimed at promoting increased domestic manufacturing, a higher level of foreign direct investment and increased exports are critical right now given the current negotiations on the Trans-Pacific Partnership and the potential for a US-EU free trade agreement.

When discussing trade agreements, many automatically think about tariffs. However, there is much more to these pacts than tariffs on imports. This subcommittee has jurisdiction over, and is very interested in, non-tariff related trade regulations. To that end, we would be very interested to hear the opinions of our witnesses when it comes to the positive effects that pursuing a regulatory mutual recognition standard could have on the domestic automotive industry. I am sure that as the free trade talk continues, this will be an important issue for this subcommittee.

Again, I would like to thank our witnesses for appearing before the subcommittee today and look forward to their testimony.

# # #

Mr. TERRY. And I now recognize the ranking member, Jan Schakowsky, for her opening statement.

**OPENING STATEMENT OF HON. JANICE D. SCHAKOWSKY, A  
REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLI-  
NOIS**

Ms. SCHAKOWSKY. Thank you, Mr. Chairman.

I really welcome all of our witnesses and look very much forward to your testimony.

This is the subcommittee's third hearing of the year and the third in our series on manufacturing—a critical sector of our economy that creates good jobs for American workers. Nearly 800,000 employees in the motor vehicle industry and parts manufacturing, and they support millions of additional jobs nationwide in other industries. And without a doubt, it is valuable to look at the factors that have contributed to the current strength of the industry and the potential for future growth.

Clearly, we are doing something right and you are doing something right. The big three U.S. auto companies have rebounded significantly from the 2008 financial crisis, and 10 other major auto manufacturers now have facilities located here in the United States. The industry is investing in creating new technologies, including those for improved safety, emissions control, and fuel economy, and rolling out new features and achievements seemingly every single day.

Manufacturing of cars, trucks, and other products has shifted substantially from the image many of us still have. Like the rest of our society, manufacturing has gone high-tech. There are more computers in the design room, on the testing floor in factories, and more computers in the cars themselves.

The changes in the manufacturing process and the rapid pace of innovation means that the auto industry depends on a workforce that has the education levels, skills, experience, and credentials to step into those jobs that are available. I know that even in my little auto shop in my neighborhood, you really have to have a pretty good knowledge of computers to even touch a car these days.

At our previous hearing, we heard that steel executives are having difficulty finding qualified workers. In almost all of your prepared testimony, everyone that is testifying, you mention the need to expand educational opportunities and job training for workers and applicants so that your companies can continue to grow.

I am hopeful to hear more about how STEM and technical education, skills training, and workforce development can be leveraged to further strengthen the auto industry. And I must say, we have been talking about this for a while, but I think it is really time to see fairly dramatic changes in our preparation of our students as they move toward the outside world in jobs.

I hope to hear also how you are working to get all consumers, from purchasers of the most high-end models to the most basic, the newest critical features and the latest fuel-economy elements that will help buyers truly get the most value and peace of mind for their money.

Let me just say that I was a big supporter of the help that our government offered to the auto industry. And I think that the industry itself took full advantage of that, not taking advantage of the taxpayers, but actually bringing back the industry. And we are very, very happy about that.

I will want to talk in my questioning about a particular safety feature, mainly the prevention of backover accidents, and ask you about those. And I thank all of our witnesses for coming here today to testify.

I yield back.

Mr. TERRY. Thank you.

At this time, I recognize the vice chairman, Leonard Lance, for 5 minutes.

**OPENING STATEMENT OF HON. LEONARD LANCE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY**

Mr. LANCE. Thank you, Mr. Chairman.

I am pleased that we are able to reschedule the hearing from the cancellation in March, and I welcome the new witnesses who have been added since then.

New Jersey, the State I represent, has 1.8 percent of automotive jobs in the United States, and these are primarily corporate rather than manufacturing positions. From the panel today, Ford and Toyota have both regional offices in the Garden State and contribute vital business to New Jersey, so I thank you for your contribution. The North American headquarters for several other companies are in New Jersey, as well—BMW, Mercedes, Jaguar Land Rover, Volvo, and Mitsubishi, none of which I can afford, personally. New Jersey accounts for approximately \$22 billion in new car sales, and the Garden State has 123 supplier companies and nearly 3,000 dealerships. This yields a great deal of revenue at both the Federal and State levels.

New Jersey also has a vital role in the supply chain. Along the eastern seaboard, our ports are used primarily for incoming shipment of automobiles and parts.

I am encouraged that more foreign direct investment is coming to the United States and that our domestic automotive industry, including manufacturers and suppliers, is innovating and expanding.

We have challenges regarding STEM-educated employees in the U.S. workforce, the ways our complicated Tax Code affect businesses, and the lack of certainty regarding governmental projects related to business.

I welcome your testimony and your suggestions about the ways in which government can be a better partner to the manufacturing community and to the automotive industry in particular. And I thank you for your participation today.

And I am pleased to have others have the remaining portion of the 3 minutes, and I would be happy to yield to my colleagues.

I yield to the vice chair of the full committee, Mrs. Blackburn of Tennessee.

Mrs. BLACKBURN. Good morning, and welcome. We are delighted that you are here. And on behalf of our constituents in Tennessee who are involved in the auto manufacturing industry with Toyota and Nissan and GM and Ford Motor Credit, which is located in my district, Bosch has a presence there, we are delighted that you are here.

We like building things and making things in Tennessee, and we think we do a pretty good job of it. And one of the frustrations that

we are hearing from so many of our manufacturers is the debilitating effect that overreaching government agencies, regulatory agencies, are having on their ability to do business here and manufacture here.

So we are delighted to hear from our panel and welcome that panel today. And we do seek your input. We like “made in America,” and we want it to be a good, healthy environment.

With that, I yield back my time.

Mr. LANCE. Thank you.

Others who wish to speak?

Mr. TERRY. Please, we need to delay for another minute, so—oh, Henry is here.

All right. No further time, and the gentleman yields back his time.

And now the gentleman from California is recognized for 5 minutes.

**OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA**

Mr. WAXMAN. Thank you, Mr. Chairman, from Nebraska. I appreciate your stalling for time for me to get here from our other committee. We have two committees meeting simultaneously, which makes it difficult.

I am glad you are holding this hearing on auto manufacturing. Motor vehicle and parts manufacturers play a major role in the U.S. economy. In my home State of California alone, the broader auto industry employs more than 412,000 people. We need a vibrant U.S. auto industry that leads the world in innovation.

However, it was just 4 years ago that the financial crisis left our domestic auto industry on the brink of liquidation. If President Obama had not acted forcefully to rescue the industry, the livelihoods of millions of Americans would have been lost.

Since that time, the auto industry has emerged more productive and profitable, thanks largely to the rescue engineered by the President. The industry is also more innovative, which has led to job growth.

There are two areas, in particular, in which rapid innovation has become especially apparent.

First, there has been a significant advance in emission control and fuel economy. Emission-control technologies help the environment, but they also create jobs. In 2010, these new technologies were associated with \$12 billion in total economic activity.

Consumers are increasingly considering fuel economy at the point of purchase when they are deciding on what car to buy. Reflecting an agreement with automakers, the Obama administration set rules to restrict greenhouse gas emissions and required an average fuel economy of 35.5 miles per gallon by 2016 and 54.5 miles per gallon by 2025. Fuel-economy innovations include alternative energy vehicles, full and hybrid electric vehicles, and various energy-efficiency technologies.

This is tremendously important, and it is ironic that the other subcommittee of our full committee that is meeting at this moment is trying to pass a bill to approve the tar sands pipeline from Can-

ada. They don't want to hear the discussions whether it is a good idea or a bad idea, the pipeline is good or the pipeline is not good. They don't care that the tar sands, in order to be sent through a pipeline, is going to require so much use of energy that it is going to add to our global warming problem. Rather than discuss things that we can do to become less dependent on oil, they say, well, what we need is to produce more oil, even if it pollutes our environment.

The second particular innovative area for autos is safety technology. It has been driven by consumer preferences for safer cars. Electronic stability control, airbags, seatbelts, child restraints are now mandatory and have saved thousands of lives. Newer advances in safety technology include advances in collision avoidance, adaptive cruise control, and rearview cameras.

Innovations like these make cars less polluting, less dangerous. They are good for the environment. They are good for public health. They are good for the safety of American families. But they are also good for motor vehicle and parts manufacturers.

I understand that some of our witnesses today will advocate for regulatory harmonization, both with other countries and with States. As the United States continues to negotiate the Trans-Pacific Partnership and begins its work on the U.S.-EU agreement, we must ensure that the push for regulatory consistency does not create a race to the bottom. You can be consistent, but you can be consistent with the lowest protection. We don't want that. I consistently believe in the principle that trade agreements negotiated by the U.S. should not compromise our environmental or safety standards here in this country or abroad. We should strengthen the competitiveness of our auto industry by raising our own standards, not by weakening those of others.

In addition, we need to remain mindful that the progress we have made on cleaning up cars hasn't just happened. Time and again, the States have taken the first step and demanded cleaner cars. That certainly happened in California. Those State successes have then been expanded at the national level. We should be supporting innovative State efforts, not trying to undermine them.

We have done well and we must continue to do well to produce good cars, safe cars, less polluting cars. And I am proud of the auto industry, and we ought to continue to do what we can to help them.

Thank you. I yield back.

Mr. TERRY. Thank you, Mr. Ranking Member, Mr. Waxman.

And at this time, we turn it over to our witnesses.

And so, Mr. Hinrichs, you will have 5 minutes. And being the experienced person you are, you know the lights in front of you. Yellow means start wrapping it up. Red means you can stop.

So, with that, Mr. Hinrichs, you are recognized for your 5 minutes.

**STATEMENTS OF JOSEPH R. HINRICHS, PRESIDENT OF THE AMERICAS, FORD MOTOR COMPANY; AND SCOTT DAHL, REGIONAL PRESIDENT, STARTERS AND GENERATORS—NORTH AMERICA, ROBERT BOSCH, LLC**

**STATEMENT OF JOSEPH R. HINRICHS**

Mr. HINRICHS. All right. Good morning. And thank you, Chairman Terry, Ranking Member Schakowsky, and all committee members, for providing us this opportunity.

My name is Joe Hinrichs, and I am president of the Americas for the Ford Motor Company. Ford is a global automotive industry leader, but our success is especially tied to our competitiveness here in the United States, where we conduct the vast majority of our research and development, produce more than 2 million vehicles annually, and support manufacturing in 48 States through our supplier network.

I have been with Ford since December of 2000. Before that, I spent 10 years at General Motors and 2 years in private equity. I started at Ford as a plant manager, and I have worked in seven different manufacturing plants in five different States in the United States throughout my career.

More recently, I was president of Ford's Asia-Pacific and Africa region, based in Shanghai, China. Before that, I served as group vice president of global manufacturing and labor affairs, responsible for the operations of 105 assembly, stamping, and powertrain manufacturing plants. So manufacturing is and has been my world.

Manufacturing matters. It remains the backbone of every successful economy in the world. As an example, one job at an auto plant supports nine additional jobs. This year, Ford is creating more than 2,200 new salaried positions right here in the U.S. This builds upon the 8,100 salaried and hourly jobs we created just last year.

Ford demonstrated we can compete with automakers around the world. We are now lean, more efficient, and we are producing cars, utilities, and trucks with quality, fuel efficiency, safety, smart design, and great value.

Government is also a key stakeholder in helping shape the competitive climate our industry depends on. I would like to highlight four key issue areas that are critical to Ford.

First, corporate tax reform. The U.S. has the highest corporate tax rate among developed countries. A lower rate frees up capital that can be reinvested in new products, technologies, and manufacturing innovation. We are encouraged that Congress and the President have both identified the need to drive down the corporate rate to ensure American companies remain competitive. Tax reform can further expand economic growth and jobs.

Second, regulatory efficiency and certainty. We need a performance-based, data-driven approach to regulation, especially as we develop emerging technologies like vehicle-to-vehicle communications and driver-assist features. We need efficiency in the regulatory process that provides certainty and avoids a patchwork of State regulations that can undermine efficiency, often with no societal or environmental benefit.

When multiple regulators do exist, we need to work together to ensure that we ultimately develop standards that are achievable and consistent with one another so that compliance costs are minimized.

New regulations also must be monitored to ensure that they are consistent with underlying assumptions, market conditions, and technological advancements. As an industry, we worked together to shape one national program for fuel-economy regulations, projecting standards over an unprecedented 10-year period. Our support of this effort was dependent upon a robust and equitable mid-term review, which is absolutely critical. Data collection must begin today to support a final assessment in 2018.

Third, trade. Ford has supported every free-trade agreement approved by the United States, and Ford is a leading vehicle exporter in the United States. We need to continue to open new markets to American-made products and ensure that new trade agreements are not just to reinforce one-way trade.

Trade issues are not just about tariffs. Trade flows can be significantly skewed by using non-tariff barriers, including currency manipulation to protect home markets and subsidize exports. We firmly believe exchange rate values should be determined the marketplace, not by governments. We encourage the U.S. to include strong and enforceable discipline to prevent currency manipulation in the future of trade agreements.

In addition, trade agreements can also help harmonize regulations across borders. A U.S.-EU free-trade agreement that pursues regulatory harmonization and mutual recognition of standards will enhance competitiveness in both regions.

Fourth, training and education. We need to continue training our current workforce and encourage education in math, science, and engineering if America is to remain competitive and innovative in the future. For our current workforce, continued up-skilling is critical to maintaining our competitive performance. Existing Federal training programs should be flexible, work closely with States, and prioritize incumbent worker training.

In summary, other countries are leveraging their workforce and markets to encourage and attract manufacturing. I experienced this firsthand in China and throughout Asia. For the U.S. to continue to lead, we have to be more innovative, efficient, and collaborative. We will need your help to ensure that government policy supports manufacturing. What is at stake is not just the future of Ford or American manufacturing but the very future of jobs and growth across our great country.

Thank you.

Mr. TERRY. Thank you. And well-timed.

[The prepared statement of Mr. Hinrichs follows:]



**Joe Hinrichs - President of the Americas, Ford Motor Company  
Testimony before the House Energy and Commerce  
Subcommittee on Commerce, Manufacturing and Trade  
Wednesday, April 10, 2013**

Good morning, and thank you, Chairman Terry, Ranking Member Schakowsky, and Committee members for providing this opportunity. My name is Joe Hinrichs, and I am President of The Americas for Ford Motor Company.

Ford is a global automotive industry leader that manufactures or distributes automobiles across six continents. Our success is especially tied to our competitiveness in the United States, where we conduct the vast majority of our research and development, produce more than 2 million vehicles annually and support manufacturing efforts in 48 states through our supplier network, and continue to be the leading U.S. vehicle exporter.

I have been with Ford since December 2000. Before that, I spent ten years at General Motors and two years in private equity. I started at Ford as a plant manager in Sterling Heights, Michigan. I also was a plant manager at GM and have worked in seven different manufacturing plants in five states throughout my career. More recently, from December 2009 to November 2012, I was President of Ford's Asia Pacific and Africa region, based in Shanghai, China. Before that, I served as group vice president, Global Manufacturing and Labor Affairs, responsible for the operations of 105 assembly, stamping and powertrain plants – so manufacturing is my world.

Manufacturing matters. It remains the backbone of every successful economy in the world because one job at an auto plant supports nine additional jobs in the supply base and the community.

Auto manufacturing is also high-tech, delivering new product and technology innovations in communications (SYNC), lightweight materials, advanced powertrain technologies and collision avoidance technologies – to name a few.

This year, demand for our fresh new vehicle lineup is creating more than 2,200 new salaried positions in areas such as product development, manufacturing, and information technology.

This builds on the 8,100 salaried and hourly jobs we created in the United States in 2012, including 1,000 hourly positions we brought back to America from countries including Japan and Mexico.

We have demonstrated we can compete with automakers around the world. Since 2009, we have increased Ford vehicle exports by nearly 50 percent. Ford continues to exports more vehicles from the U.S. than any other auto manufacturer.

Prior to the fiscal crisis, we took on the tough decisions – together with all of our business stakeholders and partners – to transform our company and meet the challenges of the global markets. We are now leaner, more efficient and producing cars, utilities and trucks with quality, fuel efficiency, safety, smart design and value.

Government is also a key stakeholder in helping shape the competitive climate our industry depends on. We share the common goal of economic growth and development, which creates jobs that support families and communities across the country.

Government policies must evolve in today's environment to ensure that American businesses and workers are not disadvantaged in the global market. United States policy makers must work together to support manufacturing by shaping a climate for economic growth, regulatory certainty, and a strong foundation for U.S. exports. Business thrives - and jobs grow - where there is stability and predictability.

I would like to highlight four key areas where policy makers can play a critical role in supporting manufacturing. Although some issues fall outside the jurisdiction of this subcommittee, they are all integrated elements of a competitive manufacturing agenda:

**First ... Corporate Tax Reform:** The United States has the highest corporate tax rate among developed countries. A lower rate frees up capital that can be reinvested in new products, technologies, and manufacturing innovation. We are encouraged that Congress and the President have both identified the need to drive down the corporate rate to ensure American companies remain competitive. Tax reform can help further expand economic growth and jobs.

**Second ... Regulatory efficiency and certainty:** We need a performance-based, data-driven approach to regulation - especially as we develop emerging technologies like vehicle-to-vehicle communications and driver assist features. We need efficiency in the regulatory process that provides certainty and avoids a patch work of state regulations that can undermine efficiency - often with no societal or environmental benefit. When multiple regulators exist, we need to

work together to ensure that we ultimately develop standards that are achievable and consistent with one another so that compliance costs are minimized.

New regulations also must be monitored to ensure that they are consistent with underlying assumptions, market conditions and technological advancements. As an industry, we worked together to shape One National Program for fuel economy regulations – projecting standards over an unprecedented 10-year period. Our support for this effort was dependent upon a Mid-Term review, where EPA and other stakeholders must reassess the assumptions. A robust and equitable Mid-term review is absolutely critical for manufacturers and, importantly, our customers. Data collection must begin today to support a final assessment in 2018.

**Third ... Trade:** Ford has supported every free trade agreement approved by the United States, and Ford is the leading vehicle exporter in the U.S. We need to continue to open new markets to American-made products and ensure that new trade agreements are not used to reinforce one-way trade in critical sectors such as autos. Trade issues are not just about tariffs. Trade flows can be significantly skewed by using non-tariff barriers, including currency manipulation, to protect home markets and subsidize their exports. We firmly believe exchange rate values should be determined in the marketplace, not by governments and encourage the United States government to include strong and enforceable disciplines to prevent currency manipulation as part of future trade agreements.

In addition, trade agreements also can help shape and harmonize regulations. A U.S.-EU trade agreement that pursues regulatory harmonization and mutual recognition of standards would enhance both regions' competitiveness in today's global marketplace.

**Fourth ...Training and Education:** We need to continue training our work force and encourage education in math, science and engineering if America is to remain competitive and innovative. In our hourly workforce, continued up-skilling is critical to maintaining our competitive performance. Existing federal training programs should be flexible, work closely with States, and prioritize incumbent worker training as part of the Department of Labor's strategic vision.

In summary, other countries are leveraging their workforce and markets to encourage and attract manufacturing. I experienced this firsthand in China and throughout Asia. For the United States to continue to lead, we have to be more innovative, more efficient, and more collaborative. Manufacturing must be a priority for our nation at all levels of government and business. We will need your help to ensure that government policy supports manufacturing. What is at stake is not just the future of Ford or American manufacturing but the very future of U.S. economic growth and the jobs it supports across our great country.

Thank you.

**Summary**  
**Ford Motor Company**  
**Testimony before the House Energy and Commerce**  
**Subcommittee on Commerce, Manufacturing and Trade**  
**Wednesday, April 10, 2013**

**Background**

Other countries are leveraging their workforce and markets to encourage and attract manufacturing. For the United States to continue to lead, we have to be more innovative, more efficient, and more collaborative. Policies that create a strong business environment are more essential than ever to support America's manufacturing resurgence.

**Key Areas**

**Corporate Tax Reform:** The United States has the highest corporate tax rate among developed countries. A lower rate frees up capital that can be reinvested in new products, technologies, and manufacturing innovation. We are encouraged that Congress and the President have both identified the need to drive down the corporate rate to ensure American companies remain competitive. Tax reform can help further expand economic growth and jobs.

**Regulatory efficiency and certainty:** We need a performance-based, data-driven approach to regulation - especially as we develop emerging technologies. We need efficiency in the regulatory process that provides certainty and avoids a patch work of state regulations that can undermine efficiency – often with no societal or environmental benefit. When multiple regulators exist, we need to work together to ensure that we ultimately develop standards that are achievable and consistent with one another so that compliance costs are minimized.

**Trade:** We need to continue to open new markets to American-made products and ensure that new trade agreements are not used to reinforce one-way trade in critical sectors such as autos. Trade agreements also can help shape and harmonize regulations. A U.S.-EU trade agreement that pursues regulatory harmonization and mutual recognition of each market's high standards would enhance both regions' competitiveness in today's global marketplace.

**Training and Education:** We need to continue training our work force and encouraging education in math, science and engineering if America is to remain competitive and innovative. With our hourly workforce, continued up-skilling is critical to maintaining our competitive performance. Existing federal training programs should be flexible, work closely with States, and prioritize incumbent worker training as part of the Department of Labor's strategic vision.

Mr. TERRY. Mr. Dahl, you are now recognized for 5 minutes.

**STATEMENT OF SCOTT DAHL**

Mr. DAHL. OK. Chairman Terry, Ranking Member Schakowsky, members of the committee, thank you for the opportunity to testify before you today. My name is Scott Dahl, and I am the North American regional president for the Starter Motors and Generator Division of Robert Bosch.

I am particularly honored to be here today because North American manufacturing, U.S. manufacturing has supported me. They have put me through college, and it made me the person I am today. My father became a journeyman tool and die maker back in 1966 and worked there in GM and Chrysler until the late 1980s, when he transitioned to a die engineer without a 4-year degree.

Robert Bosch founded our company in 1886 when he opened the Workshop for Precision Mechanics and Electrical Engineering in Stuttgart, Germany. Today, Bosch employs more than 300,000 associates across the globe, including 15,000 here in the United States. We have deep roots in the U.S. Our founder first opened his New York office in 1906, where he had learned about American ingenuity as an apprentice under Thomas Edison. Now we operate more than 100 manufacturing, engineering, and service sites across the country.

We have four business sectors: automotive technology, energy and building technology, consumer goods, and industrial technology. Automotive is our largest sector, comprising nearly 60 percent of our business. And our automotive technology has touched almost every part of the vehicle, with specialized business units devoted to vehicle safety, advanced diesel systems, electronics, gasoline systems, hybrid technologies, and car multimedia, just to name a few. Together with our customers, we make vehicles safer, cleaner, and more economical.

In January, we unveiled our prototype automated driving test vehicle outfitted with Bosch advanced radar systems and computer algorithms. Many of our high-tech components and systems that support automated driving will in the near term help drivers avoid collisions, save fuel, and reduce emissions. Predictive emergency braking will reduce the severity and number of crashes in the near future. Engine start-stop systems and high-efficiency alternators help improve fuel economy and reduce emissions up to 8 percent and 2 percent, respectively. And both systems provide an excellent cost-benefit ratio, as they can easily be integrated into existing systems.

None of these incredible advancements would be possible without strong and sustained investment into innovative products. Research and development are at the heart of Bosch success. Approximately 42,000 Bosch engineers work at 86 locations across the globe and file an average of 19 patents per day.

One innovation project under way, in collaboration with the University of Michigan, AVL, and other partners, is something we call ACCESS. This project is 50 percent funded by the Department of Energy vehicle technology program. ACCESS aims to increase the efficiency of a gasoline engine up to 30 percent. And because the U.S. Government is supporting this high-risk, high-reward project,

we chose to establish the global center of competence for this technology here in the U.S. This project is an excellent example of public-private relationships that can keep the U.S. at the forefront of innovation.

While the U.S. continues as a world leader in innovation, there is a growing need for workplace development and worker training. To illustrate the challenge facing Bosch and many other manufacturers, I want to highlight South Carolina, where many of our automotive products are made.

First, the good news: Bosch will have added approximately 450 jobs over 5 years in South Carolina to support the manufacture of products ranging from precision machine fuel injectors to electronic stability control and engine management systems.

However, there has been a significant struggle to identify and hire skilled workers for these positions. Bosch recently joined the Department of Commerce in hosting an economic roundtable at our Charleston plant, and the significant lack of skilled workers was echoed by other employers from the region as well as several economic development specialists. Our plant managers across the country expressed the same frustration. They have worked diligently to attract employees, participating in job fairs and military veteran recruiting events all across the country.

Along with their fellow manufacturers in South Carolina, Bosch embraced several different avenues to address this challenge, including direct engagement with and support for local technical colleges and in-house apprenticeship programs. At just one of our South Carolina plants, we have graduated 308 apprentices in three different curriculums: electrician, mechanic, and toolmaker. And in March we also provided a \$400,000 Greenville Technical College to support their training program.

The intent of these programs is to produce individuals like my father who have hands-on, real-world experience to help companies like Bosch innovate, develop, and manufacture the next generation of technology here in the United States.

While Bosch recognizes that occupational training is part of our social responsibility, the reality is that significant resources are required to hire and train workers who are not prepared to enter the modern manufacturing workplace. We are willing to do our part, but we need greater flexibility and focus from our Nation's education system so K through 12 schools can instill the base knowledge, interest, and skill set required for jobs in science, technology, engineering, and math, referred to as STEM. This is vital to keep the U.S. attractive for investment. In fact, this is one of the issues that Bosch considers to be very important when we look at where we put our investments.

Looking to the future, Bosch sees many exciting opportunities on the horizon. At the top of the list is the Transatlantic Trade Investment Partnership. We support this endeavor and believe that it would result in notable benefits for the automotive industry and consumers, particularly in the form of enhanced regulatory harmonization and standardization.

Both the U.S. and the EU maintain stringent requirements and performance standards for motor vehicles and motor vehicle components. And this is particularly true relative to passive and active

safety technologies and carbon emissions. Significant benefits could be accrued from additional regulatory harmonization between the U.S. and EU. And we look forward to engaging with the committee as negotiations progress.

Thank you for the opportunity to speak before the committee, and I welcome any questions you may have.

Mr. TERRY. Thank you very much.

[The prepared statement of Mr. Dahl follows:]

## Testimony of Scott Dahl

Regional President North America for Starters & Generators

Robert Bosch LLC



---

Hearing on  
Our Nation of Builders:  
Powering U.S. Automobile Manufacturing Forward

Subcommittee on Commerce, Manufacturing and Trade  
United State House of Representatives

Wednesday, April 10, 2013

**Robert Bosch LLC**  
**Testimony before the House Energy and Commerce**  
**Subcommittee on Commerce, Manufacturing and Trade**  
**Wednesday, April 10, 2013**

**Background**

As an international company, Bosch makes thoughtful business decisions on where globally to invest in research, development and manufacturing capacity to meet its customers' needs. One of the most important decision influencers is the business environment. The United States boasts many advantages, especially its innovative, can-do culture and its people. However, the U.S. also raises some concerns from the perspective of its workforce and the need for more individuals with science, technology, engineering and math (STEM) skills. These concerns can be addressed through government policy decisions, as well as increased public-private collaboration, making the U.S. an even stronger global competitor for international investment.

**Key Areas**

**Innovation:** Continued federal investment in advanced technology research, development and demonstration projects, especially projects that facilitate collaboration among the private sector, universities and national laboratories, is vital to keeping the U.S. at the forefront of technological innovation. This is especially important for high-risk, high-reward concepts that can result in game-changing technological advancements that benefit society.

**Training and Education:** This is a critical issue for U.S. competitiveness. The increasingly higher skill levels needed in modern manufacturing require an increased focus by Americans in careers that involve science, technology, engineering and math. This applies to R&D as well as to people operating and maintaining the machinery of a modern manufacturing plant. Federal policies that encourage and support both knowledge and skills development will help the U.S. compete. Support for 2-year technical colleges is especially important for training and retraining today's workforce.

**Regulatory Harmonization:** Efforts to achieve alignment between the U.S. and EU regulatory environments can provide additional development and manufacturing efficiency, with the potential for increased safety and fuel efficiency technologies that benefit the end consumer.

**Economic Clarity:** The U.S. budget and long-term debt debates are very important to the country and to a more predictable economic environment. The current process of seeking resolution leads to uncertainty about the economic climate. Businesses require a certain level of clarity in the country's economic climate in order to make favorable investment decisions.

Chairman Terry, Ranking Member Schakowsky, members of the Committee, thank you for the opportunity to testify before you today and to share Bosch's perspective on this important topic.

I am Scott Dahl, North American Regional President with responsibility for the starters and generators product lines. I am based in Plymouth, Michigan.

Robert Bosch founded our company in 1886, when he opened the "Workshop for Precision Mechanics and Electrical Engineering" in Stuttgart, Germany. Today, Bosch employs more than 300,000 associates across the globe, including 15,000 in the United States.

Bosch has deep roots in the U.S. Our company founder first established an office in New York City in 1906, where he had learned about American ingenuity while serving as an apprentice to Thomas Edison. Bosch presently operates more than 100 manufacturing, engineering and service sites across the country.

Bosch has four business sectors – Automotive Technology, Energy and Building Technology; Consumer Goods; and Industrial Technology. Automotive technology is our largest sector, comprising nearly 60 percent of our business. Our automotive technologies touch almost every part of the vehicle, with specialized business units devoted to vehicle safety, advanced diesel systems, electronics, gasoline systems, hybrid technologies and car multimedia – just to name a few. Together with our customers, we make vehicles safer, cleaner and more economical.

In January of this year, we unveiled our prototype Automated Driving test car to the public, outfitted with Bosch advanced radar sensors and computer algorithms. Many of the high-tech systems and components that support future automated driving will in the near-term help drivers avoid collisions, save fuel and reduce emissions. Innovations like adaptive cruise control improve efficiency and the driving experience by allowing a vehicle to automatically adjust its speed to the flow of traffic.

Predictive emergency braking will reduce the severity and number of crashes in the near future. Engine start-stop systems and high-efficiency alternators – both products that I am responsible for – help improve fuel economy and reduce emissions up to 8 percent and 2 percent respectively. Both systems provide an excellent cost-benefit ratio, as they can be easily integrated into existing systems.

None of these incredible advancements would be possible, however, without strong and sustained investment into innovative products. Research and development (R&D) are at the heart of Bosch's success. Approximately 42,000 Bosch engineers work at 86 locations worldwide. Bosch files 19 patents on average every business day.

One innovation project underway in collaboration with the University of Michigan, AVL, and other partners is something we call ACCESS. This project is 50 percent funded by the Department of Energy Vehicle Technology Program. ACCESS aims to increase the efficiency of a gasoline engine up to 30 percent. Because the US government is supporting this high-risk, high-reward project, Bosch chose to establish its global center of competence for the technology in the U.S. This project is an excellent example of public-private partnerships that can help keep the U.S. at the forefront of innovation.

While the U.S. continues as a world leader in innovation, there is a growing need for workforce development and worker training. To illustrate the challenge facing Bosch and many other manufacturers, I want to highlight the Bosch facilities in South Carolina, where many of our automotive products are made. First the good news: Bosch will have added approximately 450 jobs over 5 years in South Carolina to support the manufacture of products ranging from precision-machined fuel injectors to electronic stability control and engine management systems to hydraulic pumps for mobile construction, mining and heavy industries.

However, there has been a significant struggle to identify and hire skilled workers for these positions. In order to remain a world-class manufacturing nation, we must have skilled workers who are prepared to meet the challenge of modern-day manufacturing.

Bosch recently joined the U.S. Department of Commerce in hosting an economic roundtable at our Charleston, South Carolina plant, and this significant lack of skilled workers was echoed by other employers from the region as well as by several economic development specialists. Our plant managers across the country express the same frustration.

They have worked diligently to attract employees, participating in job fairs and military veteran recruiting events all across the country. Along with our fellow

manufacturers in South Carolina, Bosch has embraced different avenues to address this challenge, including direct engagement with, and support for, local technical colleges and an in-house apprenticeship program.

At one of our plants, we have graduated 308 apprentices in three different curriculums; electrician, mechanic and tool maker. Just last week, we also provided a \$400,000 dollar donation to Greenville Technical College to support its hands-on training program.

While Bosch recognizes that occupational training is part of our social responsibility, the reality is that significant resources are required to hire and train workers who are not prepared to enter the modern manufacturing and engineering workforce. We are willing to do our part, but we need greater flexibility and focus from our nation's education system so K-12 schools can instill the base knowledge, interest and skill set required for jobs in STEM fields. This is vital to keeping the U.S. attractive for investment. In fact, one of the trends Bosch considers in its global investment planning is the growth or shrinkage of student engagement in STEM subjects.

We are pleased to see that some states are starting to pilot programs like Germany's dual education approach. This is a positive step, but we believe it will take a game-changing national effort to meet manufacturers' needs. We also believe that more investment should be made in two-year technical colleges and in creating and fostering apprenticeship programs, based on regional needs throughout the U.S. Bosch would welcome the opportunity to work with all of you and your colleagues on this critical issue.

Looking to the future, Bosch sees many exciting opportunities on the horizon. At the top of the list is the Transatlantic Trade and Investment Partnership. We support this endeavor and believe that it would result in notable benefits for the automotive industry and consumers, particularly in the form of enhanced regulatory harmonization and standardization.

Both the U.S. and the European Union maintain stringent requirements and performance standards for motor vehicles and motor vehicle components. This is particularly true relative to passive and active safety technology and carbon emissions. Significant societal and company operational efficiency benefits could be

accrued from additional regulatory harmonization between the U.S. and the EU. We look forward to engaging with the Committee as the negotiations for the Free Trade Agreement progress.

Finally, I would like to make a comment about the U.S. economic environment. Our North America sales in 2012 increased 8 percent in U.S. dollars over 2011, which underscores the company's investment in manufacturing sites. However, the lack of fiscal policy clarity in Washington is creating economic uncertainty, and that uncertainty impacts future investment plans in U.S. manufacturing. I believe the U.S. stands on the verge of significant growth, and hope our elected representatives are able create an environment conducive to this potential.

Thank you again for the opportunity to speak before the Committee. I welcome any questions you may have.

Mr. TERRY. Both well done and much appreciated.

My first question is to Mr. Hinrichs. And you testified about the job creation and improvement over the last couple years. But what do you attribute, what does Ford attribute to the job growth in the auto industry and the recovery?

Mr. HINRICHS. Well, certainly, coming out of a global financial crisis and the recession that occurred not just here but in most parts of the world, we are seeing increased demand for autos today as the U.S. economy starts to improve.

But at Ford specifically, the restructuring actions that we undertook back in 2006, 2007, 2008, and 2009 led us to have a much stronger business, which is now growing. And over the last 4 or 5 years, we have increased our market share and are now reinvesting in our business.

We received lots of supports along the way from all of our stakeholders to make that happen. But, clearly, as the U.S. economy improves, we are able to reinvest here in the United States. We converted many of our manufacturing facilities from truck plants to car plants to adjust to the new reality of where the auto market has gone and where it is going. And we are investing in high-technology and new technologies to meet the new CAFE and other requirements that are out there for the industry.

We are very proud to be investing in the United States. And with the 8,100 jobs we created last year, 2,200 salaried jobs this year, plus 1,200 at our Flat Rock facility we will be adding this summer, you can see that we are investing in America and growing.

Mr. TERRY. I appreciate that.

You also mentioned, if you can answer fairly quickly, that the effective tax rate impacts Ford's global competitiveness. Could you be more specific?

Mr. HINRICHS. Yes. As you know, the U.S. has one of the highest corporate tax rates in the world and certainly the highest amongst the large economies. When you want to compete as a manufacturer to export, you have to have a competitive environment to operate in. We just started shipping Ford Explorers from Chicago here in the United States to China.

We are competing with manufacturers who have different tax rates, so our cost structure is different. If you want to have a manufacturing base that is capable of exporting here from the United States, we need to have a competitive tax rate vis- AE2a-vis the other countries of the world we are competing against.

Mr. TERRY. Now, do you know if Ford has said whether a 25 percent or a 28, have they gone into those type of details?

Mr. HINRICHS. We have said, listen, this is so important to industry that everything should be on the table as part of the conversation here, that what we want is a lower tax rate so we can reinvest.

Mr. TERRY. Very good. I appreciate that.

Mr. Dahl—by the way, putting you two together, a U.S.-based automotive company and then the European-based company of Bosch's size and impact in the industry, was purposeful on our part.

So I want to know, first of all, as a European company, you mentioned in your testimony opening up the innovation research center

in the United States, that you chose the United States. What were the factors that led to that decision?

Mr. DAHL. I think there are several factors when we take a look at the investments of R&D in the United States.

One is, of course, the innovative and can-do attitude that all of the associates in the United States tend to have. It is different here. Everyone is willing to work together as a team to try to find a solution for these topics and kind of think outside the box.

So we also like to look at developments that are for regional specific. So Bosch does have our research and development centers and RTC in Palo Alto and in Pittsburgh. So we support full R&D, corporate R&D here. But then also our divisions have regional development activities in the United States, as well, which also support the global R&D.

So, really, the attitude of the people, the education, the innovative spirit, these are really the focus points for us having it here, along, of course, with our customer base, which is also very interested in our activity.

Mr. TERRY. Several of our universities are engaging in research and development of advanced manufacturing technologies. Does that factor into the decision for Bosch?

Mr. DAHL. Absolutely. Absolutely. We partner with several universities, ourselves, in Michigan and other areas to have these advanced technologies and utilize those resources in our activities.

Mr. TERRY. Mr. Hinrichs, same question.

Mr. HINRICHS. Most definitely. When you think about manufacturing leadership, partnership with universities is critical to get the new technology that is out there. And we do a lot of that partnering, as well.

Mr. TERRY. Can either one of you say specifically one breakthrough that has been helpful that has come through a partnership with the university? And you can quit saying University of Michigan.

Mr. DAHL. I mean, I was going to bring the example of the ACCESS issue, where we are achieving this 30 percent through a various array of technologies, working with the University of Michigan.

Mr. TERRY. We just wish Fred was here to hear all of this, but he is upstairs.

All right. I appreciate that.

And now the ranking member, Ms. Schakowsky, you are recognized.

Ms. SCHAKOWSKY. Thank you.

Mr. Hinrichs, as promised, I wanted to ask you about the issue of rearview visibility. Every year, NHTSA estimates that there are 228 fatalities and 17,000 injuries, 100 children, who, in my view, needlessly die as a result of being backed over by drivers who can't see them.

I was the lead sponsor, along with my Republican colleague Peter King, of the Cameron Gulbransen Kids Transportation Safety Act of 2007, which required a rulemaking to improve visibility and prevent those tragic backovers. I mean, we would have press conferences every 6 months or so, and parents and grandparents

would come holding pictures of their children that they had literally killed.

So, in the proposed rule, NHTSA estimated that rearview video systems would reduce fatal backovers by 95 percent. So we are awaiting finalization of the rule. And NHTSA concluded that the cost to include rearview cameras in cars that already have some sort of in-vehicle display is less than \$90 per vehicle.

So my question for you—and I will want to get an answer also from Mr. Wehrman of Honda and Mr. Nielsen of Toyota. So each year more and more vehicles are sold with these in-car displays. What percentage of cars sold by your company currently come with those display screens? And what are your projections for the next year? And when will you reach 100 percent?

Mr. HINRICHS. Thank you.

I don't have with me the specific percentages of vehicles that have displays in them, but we can certainly follow up on that.

I can tell you that at Ford, all of our light-duty cars and trucks sold here in the United States have the option of having a rearview camera. And we have been moving forward with a lot of new technology with the displays. As a matter of fact, the take rate on MyFord Touch, which includes a display, has been growing every year, and it is substantially up this year.

I will have to follow up with you on the numbers regarding the displays.

Ms. SCHAKOWSKY. OK.

Let me just ask you this, because obviously it is my view that everyone should have access to rear visibility and other safety features. I mean, there are so many ways in which our children, we can't protect them from the world, but this is one where we know this will prevent these kinds of horrific fatalities.

And so, recognizing this potential, do you, does Ford support the finalization of the rear visibility rule?

Mr. HINRICHS. Well, we at Ford want to continue to work with the government to find the right solution that makes sense for customers and for safety. We have always been advocates for safety.

There are many technologies that help with identifying any obstacle or person in the rear of the vehicle—for example, sensors as well as rearview cameras. And so we are open to certainly continuing to work together, find the right solution that works for customers, and, clearly, keeps everyone safe.

Ms. SCHAKOWSKY. Right, except that the kind of research that we have done is that even the sensors, and regardless of how you place the mirrors, that we still have these blind spots, and that the most surefire way is to have these rearview cameras.

Now, the auto industry did support originally the legislation, not the particular technology. But now we are down to the question of whether or not we are going to have this particular technology. I mean, that is the issue. And I certainly would love to have the support of the industry and hope that we can work together on that particular technology.

Mr. HINRICHS. Thank you. I am sure we can work together because, clearly, we all have the same interest in mind.

Ms. SCHAKOWSKY. Thank you.

I yield—no, I don't yield back.

I wanted to ask Mr. Dahl about the investments in fuel injectors, for example, for clean diesel passenger cars.

I understand that your company announced over the next 5 years it will invest \$125 million and create approximately 450 new jobs in a new manufacturing facility in Dorchester County to this effect. I wonder how much progress has been made thus far.

Mr. DAHL. We actually are getting ready to launch our new high-pressure fuel pump, and that will basically lead the market, if you will, with regards to performance and fuel-efficiency improvements.

And, additionally, we are utilizing the manufacturing base there in Charleston, and we will export. So we will actually supply 15 percent of the world's exports of that technology out of Charleston for that high-pressure pump.

Ms. SCHAKOWSKY. Thank you very much.

I yield back.

Mr. TERRY. Thank you.

The vice chairman of the subcommittee is now recognized for your 5 minutes, Mr. Lance.

Mr. LANCE. Thank you very much, Mr. Chairman.

Mr. Hinrichs, you have testified that Ford created an impressive 8,100 jobs in the United States last year, including 1,000 jobs that were repatriated from other countries.

Would you please explain to the committee what factored into the decisions to repatriate those jobs? And, more broadly, to what do you attribute the job growth in general?

Mr. HINRICHS. Well, the work we have done inside our company and certainly with the UAW to make our business from a manufacturing standpoint much more competitive has allowed us to bring more work back in. So some work that was done overseas, transmission work in Japan or some supplier work in Mexico, has been returned to work here because we have a much more competitive manufacturing environment today.

We are also seeing strong growth in the industry here with Ford and our volumes are growing, which is also helping with that. We also made some announcements that we are bringing more production back into the U.S., including a recent announcement that we will bring a transmission currently built in Spain back to Cleveland, Ohio.

So the work that we have done with UAW to make our contract and our operating patterns much more efficient is allowing for that.

Mr. LANCE. Thank you. This is good news, and I think we are all pleased to hear that. And I hope that trend might continue.

I know that our recovery has been slower than all of us would like. We are hearing some concerns at the moment about the European market. And would you comment on the European market as it affects Ford?

Mr. HINRICHS. Sure.

Ford announced a pretty aggressive restructuring plan for our business in Europe in October, which includes the closure of three manufacturing facilities. Europe, as an industry, is going through somewhat similar situations that we went through here in North America several years ago, which means overcapacity and the need to rationalize that capacity.

And Ford is taking a leadership role in Europe in making that happen. It is not easy to do, but it is necessary, just as we did here in closing 16 manufacturing facilities to now allow us to have the ability to grow with a much more competitive cost structure.

Mr. LANCE. Thank you.

You have stated in your testimony that there has been a significant struggle to identify and hire skilled workers. And, of course, many Americans who are out of work or who are underemployed wish to work or wish to work fully.

And you have also stated that you are pleased to see that some States are starting to pilot programs like Germany's dual education approach. And could you describe to the committee your view on dual education and how we might improve so that as many Americans as who want to work are able to work?

Mr. HINRICHS. Well, yes. We have been very fortunate in the growth we are seeing in our employment. It has attracted a lot of interest. And, in fact, at Ford, probably because of our history and the strength of our brand, we have been able to attract a lot of good talent and are getting the talent we need. But our supply base continues to tell us that one of the biggest challenges they face is getting skilled labor in the manufacturing environment to help support our business.

We have been focused on upscaling our workforce, both salaried and the manufacturing workers in the plants, for the new technology that has been discussed about what is happening in the future. Because we are a high-tech business.

Mr. LANCE. Of course. Thank you.

Mr. Dahl, might you comment on that, regarding making sure that we have the necessary skills so that young people can go into manufacturing?

Mr. DAHL. Absolutely. I think Bosch values manufacturing very, very much. Some of our top executives have a manufacturing background—for instance, Mike Mansueti, the president of Bosch North America.

These apprenticeship programs, we feel, are absolutely vital. If you take a look at how Germany is set up with their dual education system, where you get to go through the standardized schooling and then you have to apply with the company, you get accepted with that company, and then you get the specialized training for not only the manufacturing but also other areas, we see that to be very beneficial in Germany, where the unemployment rate for young people has dropped significantly due to these.

So bringing these types of programs into South Carolina, North Carolina, all the other States, we think is a very big advantage for us.

Mr. LANCE. Thank you.

I am not aware of these figures. Does Germany have a lower unemployment rate among young people, lower than our rate here in the United States?

Mr. DAHL. Yes, they do, sir.

Mr. LANCE. And, at least in part, in your opinion, is that due to this dual education approach?

Mr. DAHL. Yes. Yes, I believe it is.

Mr. LANCE. That is certainly something we should analyze in this country moving forward.

I have 10 seconds left, so I will yield back my time.

Mr. TERRY. Thank you, Mr. Vice Chairman.

And, at this time, it is my distinct honor to recognize not only the dean of Congress but what we consider as the dean of the automotive industry.

Mr. Dingell, you are now recognized.

Mr. DINGELL. Mr. Chairman, thank you for your friendship, for your very fine introduction, and for the having of this hearing today.

First, welcome to our witnesses, especially Joe Hinrichs, who comes from the great company Ford, which is headquartered in my district. I would also like to welcome Chris Nielsen from Toyota. The trucks his plant makes were substantially designed in my district.

Now I would like to use my time to gain a better understanding of the potential benefits of a free-trade agreement between the United States and the European Union. Trade is a tricky subject, and I think here there may be an opportunity to do some good, as long as it results in job creation and advances the public interest.

Mr. Hinrichs, does Ford currently export vehicles or parts from the United States to the EU, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. Mr. Hinrichs, has Ford announced plans to expand its vehicles or parts exports to the EU, yes or no?

Mr. HINRICHS. Yes, we have.

Mr. DINGELL. Mr. Hinrichs, are there differences between U.S. and EU vehicle standards, yes or no?

Mr. HINRICHS. Yes, there are.

Mr. DINGELL. Does Ford believe these differences inhibit its ability to export vehicles from the United States to the EU?

Mr. HINRICHS. Yes.

Mr. DINGELL. Do?

Mr. HINRICHS. Yes.

Mr. DINGELL. OK. Mr. Hinrichs, would harmonization of these standards reduce Ford's design, engineering, and manufacturing costs, yes or no?

Mr. HINRICHS. Yes, they would.

Mr. DINGELL. Mr. Hinrichs, would harmonization of these standards benefit all automakers with a manufacturing presence in the United States, yes or no?

Mr. HINRICHS. Yes, they would.

Mr. DINGELL. Mr. Hinrichs, does Ford believe that harmonization of these standards with the EU would not lead to a diminution of U.S. vehicle occupant safety, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, Mr. Hinrichs, just so my colleagues and I understand the term "harmonization" a little better, would you please submit for the record what Ford believes the term would mean within the context of the trade deal which we are now discussing?

Mr. HINRICHS. With the European Union?

Mr. DINGELL. Yes, and just submit that for the record.

Mr. HINRICHS. OK, we will, yes.

Mr. DINGELL. Now, Mr. Hinrichs, does Ford believe harmonization of standards would aid in the development of common global vehicle platforms, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, Mr. Hinrichs, would the development of such platforms enhance Ford's ability to export from the United States?

Mr. HINRICHS. Definitely, yes.

Mr. DINGELL. And that would generally benefit American manufacturers, too, would it not?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, Mr. Hinrichs, does Ford believe U.S. automakers could be competitive in price and quality by exporting from the United States, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, I would like to ask a question or two about how a potential U.S.-EU free-trade agreement might influence trade relations with Asian countries.

Mr. Hinrichs, again, are standards in Asian countries where vehicles are produced different than the U.S. and EU standards, yes or no?

Mr. HINRICHS. Yes, they are.

Mr. DINGELL. Now, Mr. Hinrichs, am I correct that China alone is expected to expand its production to well over 20 million vehicles in the near future, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, Mr. Hinrichs, although China does not export many automobiles today, do you expect China to eventually become a major auto exporter, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. And the U.S. and EU respectively have 15 million vehicle markets; is that correct?

Mr. HINRICHS. Generally, yes.

Mr. DINGELL. Now, Mr. Hinrichs, with this in mind, would common standards help U.S. and EU vehicle manufacturers to compete better with their Asian counterparts, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. And, also, specifically with regard to the Chinese?

Mr. HINRICHS. All the Asian manufacturers.

Mr. DINGELL. Now, in conclusion, does Ford believe a U.S.-EU free-trade agreement would create opportunities to enhance U.S. global competitiveness, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, Mr. Hinrichs, I would like to contrast the potential benefits of a U.S.-EU free-trade agreement with what would happen if Japan is allowed to join the Trans-Pacific Partnership, TPP.

Is it true that foreign automakers have only approximately a 5 percent market share in Japan?

Mr. HINRICHS. Yes.

Mr. DINGELL. I would note that I have been complaining about this having existed because of the way the Japanese behave with regard to closing down on imports.

Now, Mr. Hinrichs, based on Ford's experience, is it reasonable to assume that permitting Japan to become a party to TPP would result in Japan's making meaningful policy changes, yes or no?

Mr. HINRICHS. No, it wouldn't.

Mr. DINGELL. So if we are going to let them in, we ought to see to it that they first agree that they are going to open their markets. Am I correct?

Mr. HINRICHS. Yes.

Mr. DINGELL. Now, Mr. Hinrichs, in other words, the potential benefits to U.S. automakers would be greater in a U.S.-EU free-trade agreement than in a TPP with Japan as a member, yes or no?

Mr. HINRICHS. Yes.

Mr. DINGELL. So thank you, Mr. Hinrichs. It seems that there are significant opportunities for U.S. automakers in a free-trade agreement with the EU but questionable benefits if the Japanese get into a TPP without opening their markets, which have been closed tighter than a drum since World War II; is that right?

Mr. HINRICHS. Yes.

Mr. DINGELL. Thank you for your courtesy, Mr. Chairman. And I am delighted to see that the committee is going into these matters. And since the committee has jurisdiction over these things, I would expect that we would actively and very interestedly see to it that the TPP is in the benefit of the United States, our workers, and our industry, and not in the benefit of a market-closing country like Japan.

Thank you.

Mr. TERRY. So noted. And brilliantly done, as usual.

At this point, we recognize the vice chairman of the full committee, Ms. Blackburn, for 5 minutes.

Mrs. BLACKBURN. Thank you, Mr. Chairman.

And I appreciate that you all would both be here.

Mr. Hinrichs, let's talk about that Ford Motor Credit unit there in Tennessee, 800 employees. I have had the opportunity to be there a couple of times, as I had said.

And I am just curious how these credit units are going to fit into your plans for the future and what we can do within the financial system to make those captive finance arms continue to work on behalf of the commercial end-user. If you could talk about that?

Mr. HINRICHS. Yes, thanks. Ford Credit is an incredible part of our company and our success over the last several years, and we are so glad that we could keep Ford Credit as a captive part of our business. I am actually on the board of Ford Credit, so I get a close look at the business. And we are very proud to be in the Nashville area and a part of Tennessee.

It is critical that all the regulation that is going into place, which has good intentions, does not allow for unintended consequences of the inability for captive finance companies to compete when it comes to serving dealers for wholesale and retail and serving customers for retail financing. I think that is one thing we should keep in mind, to make sure that as we move forward the regulatory environment here in the United States, that we can allow for consumers to get access to credit and for dealers to have access to credit for their wholesale financing.

Mrs. BLACKBURN. Well, thank you for that.

And I think it is so important just to remind each of us that you can manufacture all the things that there could possibly be or anyone could possibly want. If they cannot get credit and cannot afford it, you are not going to have the end-user out there that is going to be able to benefit from those items.

And, indeed, trade is an important component, but that domestic marketplace is also very important also. And I would appreciate that as you see things that are a hindrance to this, that you would bring those forward and be open in articulating those to us.

Mr. Dahl, let me ask you, you talked about Bosch's patents that you hold. And just very quickly, piracy and illicit products in the marketplace, how is that affecting you all? What kind of impact are you seeing there?

Mr. DAHL. A lot of the piracy, obviously coming out of the Asia-Pacific area, hasn't affected our automotive industry in a large fashion.

Mrs. BLACKBURN. OK.

Mr. DAHL. In some of the aftermarket areas, perhaps, but nothing from an OE perspective.

Mrs. BLACKBURN. OK. If you have further information on that, I would appreciate knowing that. And I would think you all could probably give us some stats on that. We continue to fight the impact of piracy on U.S. products, whether it is entertainment or a manufactured product.

Let me ask you, you talked about your dad. I liked hearing you talk about your dad and his engineering abilities. And I am sure, because of that, you are particularly close to what engineers are doing to innovate and solve problems.

One of the things that comes forward to us many times is the impact of these blended fuels, the E10s, E15s, the corrosive nature that that plays on the engines. Is this something that you all are looking at?

It seems as if we are approaching an issue—on one hand, let's use the renewable fuels. On the other hand, we are getting less gas mileage, less miles per gallon, and it is having an adverse impact on the systems.

So what are you all doing to help address this?

Mr. DAHL. Certainly, a lot of our research and development activities are in that direction of how can we withstand these corrosive fuel combinations. We have made a lot of progress up to this point in time, but we need much more.

Mrs. BLACKBURN. Mr. Hinrichs, how about you? What is Ford doing?

Mr. HINRICHS. Well, Ford has been a leader in advanced technologies, and we support moving forward with all of them. We want to make sure that, for example, on E15 and products like that that we don't do a disadvantage to the vehicles in a retroactive nature. Vehicles need to be designed and capable to use these new technologies, and we can't just artificially go back and say, let the older—

Mrs. BLACKBURN. Yes. Let me ask you this: How much added cost does this put on the vehicle as you are having to go in and

design so that it can take the corrosive nature of these blended fuels? How much more does it make a vehicle cost?

Mr. HINRICHS. Yes, I am sorry I don't have the specifics with me, but there certainly is an increased cost in the powertrain system to be able to handle the advanced fuels. We are very supportive of moving forward with that, but we want to make sure that we understand what those costs are as we get the benefits.

Because there are all kinds of new advanced technologies out there, including electrification of vehicles and all these alternative fuels. All of them need to be part of the solution, but we need to make sure that we are looking forward and not necessarily just arbitrarily letting older vehicles use the technology.

Mrs. BLACKBURN. Right. Plus, we want to make certain people can afford those cars. If you could submit that information to me, I would appreciate it.

I yield back.

Mr. TERRY. Thank you.

At this time, we will recognize the gentleman from Kentucky, Mr. Guthrie, for 5 minutes.

Mr. GUTHRIE. Thank you, Mr. Chairman.

Thank you guys for being here, and the rest of the panel that will be here next.

My dad is a Ford retiree, so I grew up in the automotive industry. As a matter of fact, I left the automotive industry when the good citizens of Kentucky allowed me to come here. And it is massive. I remember I left the Army to go work in a factory, and I am watching a power-steering pump/rack that was on the Ford Explorer, going down about 60, 70 an hour, going down the line. And you pick one up, and it is this big, but every one of them had a power-steering clip attached to it, four wheels, four tires, windshields. And that was only one car and one model of one car for one company.

And so having a robust automotive industry is just so important to all of us. And when Toyota came to Kentucky, my district doesn't have the big plant, and I wish it did, but we have a lot of suppliers that came with it. So those type of brackets and things are made in my district. And Magna is in my district to serve Ford. They are there to sell bodies, to truck them up to Louisville to your plant. And, also, General Motors makes the iconic Corvettes right near where I live.

So it is great to have you guys here to talk about this. The thing that I want to focus on—and I have already talked about a minute and a half, but I think the automotive industry is so important. But everywhere I go in my district, whether it is a manufacturing plant—and, from my experience in manufacturing plant today, with the unemployment rate that we have, nobody can find qualified workers. And what are you guys trying to do?

At the State level, we are trying to do more. I know we have a bill that got out of the House to go to the Senate to try to help with the SKILLS Act that Virginia Foxx has put forward. But it just seems like we have this disconnect of people just dropping out of looking for work right now. And everybody is looking for workers, if they can get the worker with the right skills. And some of them

can't get just hourly work. Just people come in to do basic skill work, as well.

And what are you guys trying to do. Just address it. And then in the next panel, we will talk about it a little more, I guess.

You pay well. It is not like there is something to a earn minimum wage job either.

Mr. HINRICHS. Yes. We are proud of the jobs we create, and you mentioned Louisville. We hired 2,000 people last year, and we had to cut off the application of like 18,000. The interest is exciting to work at Ford. We are proud to be a longstanding member of the Commonwealth. I think we are actually the second largest employer in the State of Kentucky now.

When you look at the skill requirements in this country for manufacturing, specifically, it comes back to what Scott said also, technology, engineering, science, math, these skills and these subjects matter, and if you look at the Asian country, they are emphasizing this in their schools and in their disciplines when it comes to education. The one thing we need to do is get back to emphasizing the innovation comes from science, engineering, and math and make that a priority with our students.

I have three teenagers who are in high school right now emphasizing the importance of those subjects. And also, continual training. One thing we work very closely with the Commonwealth on and continue to upscale our workforce because technology advances. You hire somebody today, and 10 years from now the technology has changed dramatically in manufacturing or other places, so working together with governments locally, regionally to continue to help train and have policies to help develop training programs are very important.

Mr. GUTHRIE. Mr. Dahl, what are you guys focusing on in trying to bring that, the skill levels, or finding people that are employable?

Mr. DAHL. I think the issue is on both the skilled labor and on the engineering side, too. So the skilled labor, of course, we were implementing our own apprenticeship programs. We are working with the technical colleges, we are supporting these colleges with training material, textbooks, grants even to bring the students in.

And on the more the engineering side, we are supporting the Society of Automotive Engineering, a World in Motion programs, the first robotics programs where we are in actually working with these people. In fact, this Saturday we are hosting a VIP reception for that first robotics in Michigan. It is so critical for us to actually have our engineers go work with the young students and get them excited about this technology so that they can move forward in their own, should we say, education paths.

Mr. GUTHRIE. What we did, we started a factory—my father left Ford and started a factory in the 1980s, and we found we couldn't find tool and die makers, industrial, the guys you are probably looking for and we had to really create them. That sort of actually got me involved in politics, started working with the tech school, and we found there was a whole floor full of smart people, very smart people. They didn't figure out they were smart in high school or somebody didn't tell them they were smart in the aptitudes that they had, and we had one guy that was essentially a high school

dropout almost. Well, just barely got out that's now got his engineering degree because he flourished, and so that is my passion.

We are out of time, and we will hit that on the next panel, I am sure. Well, thank you for your coming here today.

Mrs. BLACKBURN [presiding]. The gentleman yields back. At this time I recognize Mr. McKinley for 5 minutes.

Mr. MCKINLEY. Thank you, Ms. Chairman.

I would like to hear Ford's perspective on this issue. We have the condition of our roads and bridges. I am a fellow of the ASCE, and we know that bridges are rated at a C and our roads are rated at a D in their condition, and with the CAFE standards that are being promoted to get up to approximately 55 miles per gallon, the CBO is claiming that we are going to have a reduction in revenue by about 21 percent for a loss of reportedly at \$57 billion that we would otherwise use for infrastructure. What would you suggest that we should be doing to replace that revenue so that we can maintain our bridges and roads if we are going to maintain 55 miles per gallon?

Mr. HINRICHS. Well, I think infrastructure in the United States is a very critical discussion item for manufacturing even, because getting parts moved around, having solid and predictable routes for transportation is critical to a manufacturing base, so it is a very applicable topic for us today.

At Ford, we believe that it is Congress' responsibility to work through the funding mechanisms, but clearly, when you look at the countries, the advanced economies that are out there driving manufacturing today, the road systems, the rail systems, bridges, et cetera, are part of the infrastructure investment priorities that go on in government.

China is a great example. I just lived there the last 3 years, and that infrastructure drives the ability to be able to manufacture competitively.

As far as funding goes, there are many alternatives, and obviously Congress will consider those, but I do think that the status, the current status of our infrastructure here in the United States needs to be a priority as they move forward to be competitive in manufacturing.

Mr. MCKINLEY. Don't you see we are exacerbating the problem by pushing 55 miles per gallon in a short timeframe? That obviously \$57 billion, that is just to replace what we currently have, and our bridges are at C and our roads are D. We have needed more money, not less money for our infrastructure.

Let me, in the time remaining, if I could, continue to hear what Ford's perspective is. Also with the CAFE standards implemented, you have seen cars be getting smaller and lighter; and from a safety standpoint, I have here reports that were produced here in 2009 by the Insurance Institute. Also USA Today has put out articles about this that suggests that there had been a 23 percent increase in deaths per cars as a result of the reduction in weight and size, and there were 1,300, and that equates to 1,300 to 2,600 additional crash deaths occurred in 1993 because of vehicular weight reduction.

We are just talking about deaths, let alone how many people were injured in the hospital and health care costs as a result of

this. So I am just, you can see my conflict here, trying to achieve energy efficiency, but at what risk? If we are taking money away from infrastructure and we are putting our families, our children, and our spouses at risk in driving smaller, lighter cars when they could be injured, what should we be doing about that if we want to achieve 55?

Mr. HINRICHS. Well, I think all of us—

Mr. MCKINLEY. Are the reports correct? Or do you deny that these—or would you say these reports are inaccurate?

Mr. HINRICHS. Well, I don't have the reports in front of me, so I can't speak to them specifically, but I will be happy to follow up on that. In regards to the safety of all vehicles, all manufacturers continue to improve the safety of our smaller vehicles, different technologies, of course, as a part of that. There has been a downsizing of the fleet, partially because of fuel economy requirements but also partially because of affordability and what has happened since the global financial crisis.

Our focus is on making every vehicle that we sell as safe as possible and giving those options for safety features to our customers. I will follow up with you on the data that you recognize with our team so we can follow up on that.

Mr. MCKINLEY. Thank you very much. I yield back the balance of my time.

Mrs. BLACKBURN. Gentleman yields back. At this time, Mr. McNerney, you are recognized for 5 minutes.

Mr. MCNERNEY. I thank the chairwoman. Thank you panelists for your testimony today.

Mr. Hinrichs, I am honored to have you in front of me. How would you say that the new fuel efficiency standards that have been promulgated recently have affected innovation and job creation with Ford and with the American manufacturers in general?

Mr. HINRICHS. Sure. At Ford we were a big supporter of the one national standard and all the work that went on, including back in the 2007 Energy Independence and Security Act. Let me give you an example of how the future looks with Ford in that regard.

We took a plant in Michigan called the Michigan Truck Plant which produced Expeditions and Navigators, large SUVs, and converted it into making small cars, and now that plant makes Focus, C-Max hybrid, C-Max plug-in hybrid, Focus battery electric vehicle, all in the same plant, down the same line, only place in the world where we do where that is done. That is the future. That is what is driving advanced technology is with the fuel economy standards.

At Ford, we believe it is very important that we use data with the government together for the upcoming midterm review to make sure that we are all moving forward, consumers and the industry, to meet the expectations of the one national standard over the next several years.

Mr. MCNERNEY. Are you leveraging research being conducted at the national labs like Sandia National Labs, their internal combustion facility for your innovation and new product design?

Mr. HINRICHS. We have partnerships throughout the United States and with universities, with national labs, with all kinds of different—and other companies as well, looking at everything from

hydrogen to, of course, batteries and electrification of the vehicles, and what is happening with compact natural gas and everything else. All of that is part of the future in the industry.

Mr. MCNERNEY. Well, my first question was regarding effective fuel economy regulation on innovation. What about federal regulation on safety? Is that a big impact on innovation and job creation as well?

Mr. HINRICHS. Both advanced technology for fuel economy and also for safety is affecting the industry. It is one of the reasons why we brought in our remarks the need for homologation around regulation around the world because we are a global auto industry now. We use global platforms. We compete globally.

In regards to safety specifically, the most important thing is that we work together to make sure that we have the intended results, obviously, for the customers and the other individuals, pedestrians around the area, but we want to stay focused on the delivery of those safety features that have the best benefit.

Mr. MCNERNEY. Thank you. How are foreign nations leveraging their workforce impacting your ability to manufacture in the United States on a competitive basis?

Mr. HINRICHS. Well, auto manufacturing takes place in many countries around the world. I think when you look at it, what we have asked for is that any—and we supported all the U.S. Free trade agreements, that any free trade agreement going forward takes into account all aspects of what can happen, both tariff and non-tariff barriers, and also, to make sure that there is a discussion around what mechanisms could be in place around currency manipulation. We feel that is another issue that needs to be addressed in free trade.

The American economy is the largest economy in the world and the American auto industry is the second largest in the world and it is one of the most attractive for people to compete in. We want to make sure that if we are going to have free trade and fair trade in the United States, that other countries play along the same way. We are old-fashioned that way.

Mr. MCNERNEY. I think I like your answers because they are kind of to the point and brief and they don't wander around for 5 minutes.

Mr. DAHL, I want to ask you a little bit about the impact of American education on our ability to be productive and competitive with overseas companies.

Mr. DAHL. Again, we believe that education of the STEM areas is absolutely vital to our future success. We have seen, as we stated earlier, a challenge in getting applicants for not only the manufacturing jobs, but also from an engineering perspective, so we feel it is absolutely vital as a part of our future here in North America from a manufacturing and a R&D center.

Mr. MCNERNEY. Are we, in your opinion, competitive on the educational aspect in order to keep competitive on the production and economic sectors?

Mr. DAHL. I don't want to comment on the competitiveness of North American educational system. I can just only state that, again, we are still having some challenges here. We have challenges in other areas as well, but our focus here is North America,

United States in trying to get those education levels to be satisfactory for our employment.

Mr. MCNERNEY. Thank you. I yield back.

Mrs. BLACKBURN. Gentleman yields back.

At this time, Mr. Johnson, you are recognized for 5 minutes.

Mr. JOHNSON. Thank you, Madam Chairman.

I came to Congress in 2010 after the 2010 election from the auto industry. I worked for a company that manufactured electronic components, highly-engineered electronic components for all of the automotive and many of the recreational vehicles and 18-wheel tractors and those sorts of things, so I have watched with interest the progress that you folks have made in job creation in spite of the challenges that you had.

Let me just, I want to take a little bit of a broader scope in my questions. How does U.S. Energy policy affect your manufacturing process? And with all the progress that you have made, do you see progress in this area maybe stalling, or even reversed, by tighter environmental controls, any concerns?

Mr. HINRICHS. Well, one of the most exciting things happening in the United States actually is the whole natural gas and what is happening in that side of the business that could possibly lead to lower energy costs for manufacturing in the U.S.

In regards to in general, regulatory environment, as we discussed, one of the big areas of opportunity we believe that exists here in the U.S. Is to work collectively with the U.S. And other governments to homologate regulations around the world when it comes to fuel economy, safety, other things, without sacrificing the intended outcomes of both those areas.

But we think actually manufacturing can be more competitive in the U.S. With a lower energy cost base, which is certainly encouraging right now.

Mr. JOHNSON. So it would stand to reason, then, with increased pressure from Washington, to regulate hydraulic fracturing and kind of stymie the development of oil and gas development, domestic energy development, and the shale plays across the country. That would have a negative impact potentially on your industries.

Mr. HINRICHS. Well, what I will say is the auto industry is energy intensive, so the ability to lower energy costs in the United States would help make automotive manufacturing in America more competitive.

Mr. JOHNSON. Mr. Dahl, any comments?

Mr. DAHL. I can only second Mr. Hinrichs' commentson that. It definitely would make us more competitive manufacturing-wise.

Mr. JOHNSON. Great. Again, in a broader context, sorry for putting you on the spot, but what Federal agency have you found to be most helpful in dealing with, and this is not a trial so you can't take the Fifth, so.

Mr. HINRICHS. I think the correct answer is all agencies are great to work with, and we enjoy our relationships with all of them as a large manufacturer in the United States.

I will make a general statement, and that is, we are U.S. Citizens, we are Americans, we all have the same interest at heart. We want our country to be great. And so agencies that listen and work for collaborative solutions are the ones that we think are most ef-

fective because ultimately, we all want the same thing, but we have to find the best way to get there.

Mr. JOHNSON. Right. OK. Mr. Dahl, any thoughts?

Mr. DAHL. I think we have had very good relationships with all of the agencies, so I can't single out one or the other at this point in time.

Mr. JOHNSON. Well, without putting you too much on the spot, the reason for this line of questioning, of course, is, we hear from manufacturers all over the country and businesses all over the country about the negative impacts of the regulatory burden that comes out of Washington. I mean, the cost for starting a manufacturing company, sustaining a manufacturing company, complying across the board with the massive mountain of Federal regulations. If there is a regulatory burden that causes you the most frustration, what would that be?

Mr. HINRICHS. I wouldn't call it frustration, but clearly, in the auto industry, one of the most important opportunities we have working with the government has been around fuel economy and emissions, and it is a very important topic for all of us, so that is one of the most important topics. I wouldn't call it frustrating, but it is certainly one of the most important.

Mr. JOHNSON. You are right. You are quite the diplomat.

Mr. DAHL. Actually, I wouldn't look at regulation. I would look at the current economic uncertainty, which is really the major factor that is affecting our investments in manufacturing right now.

Mr. JOHNSON. OK. Well, thank you. Madam Chairman, I yield back. Thank you, gentlemen.

Mrs. BLACKBURN. I thank the gentleman for his time. Mr. Kinzinger, you are recognized for 5 minutes.

Mr. KINZINGER. Well, thank you, Madam Chair, and I want to thank this committee for holding this hearing. This is kind of a step in a longer process we have had in talking about manufacturing in this company, and I think it is very important. In the last—and I thank you—all for coming in, too, by the way. In the last two decades, we have seen a steady decline in America's share of global manufacturing activity. This is due, in part, to increased competitiveness from emerging economies but also due, I think, to outdated economic policies.

Today we have had the opportunity to hear from a key part of that in auto manufacturing, a sector that we have seen hit, major lows, frankly, and then come back from those major lows into what today appears to be resurgence in a very good, a very positive day.

I have a couple of questions for each of you. I don't think I am going to take all my 5 minutes. Well, it will be up to you.

Mr. Hinrichs, first, Ford has recently expanded operations in Chicago to produce the Ford Explorer, and as a result, the supply base has benefited very successfully. In the case of Illinois, do you know approximately, of course, how many suppliers you have that support those assembly operations and do you know, again, in general, how many—how much you purchase annually from these suppliers? I know it is asking for a very specific number, so it doesn't have to be very specific.

Mr. HINRICHS. That is why I lean back. We have 200, 250 suppliers in Illinois, and we purchased well over a billion dollars' worth of material each year in Illinois.

Mr. MCKINLEY. By the way, I know it is a good question if you have to lean back. That is always a good thing, if you have to get the information from behind.

Mr. HINRICHS. It is hard to memorize everything.

Mr. MCKINLEY. I understand that. Also in your testimony you mention currency is an issue that should be addressed as part of trade agreements. How does currency impact your ability to expand exports specifically in the Chicago area, in Illinois, but in general.

Mr. HINRICHS. Well, as I said earlier, we think the free market should set currency rates, and if a government has intervened in the past or threatens to intervene in the future, that affects currency rates. We don't think that is what fair trade represents and what free trade should represent for the United States. We compete with global manufacturers, whether producing in Chicago or producing anywhere in the United States.

Ultimately, the global platforms we are on and the vehicles we ship around the world are competing with great companies, strong companies around the world, and we need a fair and free environment to do that in, and it can't just be one-sided from the United States' perspective.

Mr. MCKINLEY. Thank you. That actually brings to mind maybe a little bit of a separate subject but very related to this. Illinois is a manufacturing hub, obviously, a center of the country in both transportation and people and everything else, but we have created, in our State, some terrible economic policies. I am not going to ask you guys to comment on this, but some terrible economic policies, including increasing our corporate tax rate in the middle of a recession, which makes zero sense to me, and what we have seen is we are competing with Indiana, with Wisconsin, with Iowa, with the south, and we are having to fight tooth and nail to try to even keep manufacturing in our State, much less get new manufacturing, but what you see is, although those competitiveness, that competitiveness we have at the State level against other surrounding States, frankly they are winning, as a country, we have to compete like that around the world. Gone are the days where we can put up the walls and say, well, we are just going to do business here at home now. We have to understand that just like Illinois competes with Indiana, we are competing with India, with China, and so we have to create that environment. I think that is what you gentlemen are getting to is the idea that to create an environment here, we want to expand in the United States. This is where we want to be, you know. The weather is fine here, everything is good, the people are great, just create an environment that we can do that so that we can be competitive and access the consumers around the rest of the world.

Mr. Dahl, you have a facility in the small town of Watseka, Illinois, which I represent, and you have, I think, approximately 130 employees, so thank you for that great injection into the economy there. I understand you have dealt with manufacturing operations around the world. What do you believe makes the U.S. Unique rel-

ative to other countries and economies and what are some of the lessons learned in that process?

Mr. DAHL. I go back to the unique innovative can-do attitude here within North America. The United States in particular, the associates don't give up, they see a problem and they pursue it, and they find a solution and they are willing to work outside of their normal boundaries as a team to find that, and that is one of the main things that attracts us here to the United States.

Mr. MCKINLEY. Thank you. And I think that is a good point, because you see as government comes in and forces more regulation in some cases, I think it stifles innovation and especially with the uncertainty in the economy, you have a lot of young entrepreneurs right now that may have an idea that have no idea how to pursue it because it has created such an—they don't know if it will be successful, what the economy is going to look like.

Finally, does Bosch conduct research and development activities in the United States and what informs your business decision on where to conduct R&D activities?

Mr. DAHL. We have corporate R&D centers in Palo Alto, California and in Pittsburgh, Pennsylvania. We have R&D centers in our various divisions that do regional specific R&D for particular products, and then also support the global development, R&D for the rest of the divisions.

Mr. MCKINLEY. OK. Thank you. Gentlemen, thank you, and Madam Chair, I yield back.

Mrs. BLACKBURN. The gentleman yields back.

Mr. HARPER for 5 minutes.

Mr. HARPER. Thank you, Madam Chair. And I welcome and appreciate each of you taking time from very busy schedules to join us and give us a little insight into what is going on. Question for each of you, and I will start with you, Mr. Hinrichs, would be, talking about intellectual property protection for the industry. How important is that to you, what are we not doing properly, and what could we do better?

Mr. HINRICHS. Where it manifests itself, and from OEM perspective in the auto industry is typically in after-market parts, and one of the things that, of course, we do is we stamp the Ford Blue Oval where we can on our own after-market parts that are obviously designed and up to our standards. But counterfeit components that go into the after-market business is where the auto industry is most interested in intellectual property protection, and I think we just need to continue to be diligent in enforcement, both of our expectations of what comes into these borders but also with other governments to ensure that that is a priority that recognition of intellectual property rights is something that is fundamental to global business competitiveness.

Mr. HARPER. Mr. Dahl.

Mr. DAHL. I absolutely concur. I think our biggest challenge is in the after-market area. We do have issues there. The department is actually 100 percent dedicated to finding these counterfeit parts and to eliminating them, so any support we can get to basically at the borders to ensure that they are not coming in is key.

Mr. HARPER. Thank you. Mr. Hinrichs, you have managed facilities in a number of different States, and I am sure they are varied

in what is there. If you were looking at helping any place in the country, here is how you put your put your best foot forward, these are the things that we found are most effective to help on competitiveness, what advice would you give to a local area if you are talking about a new product line, you are going to be look at your existing facilities and comparing them, what is it that stands out that you would say was good advice?

Mr. HINRICHS. Yes. Well, we actually work with the State agencies to attract and hire personnel, so the first thing would be good cooperation and good screening processes for training—for uncovering the talent that wants to come to work. It is not just about someone is willing to work, but can they work in a team environment, are they willing to upscale their technical capabilities, et cetera.

We work with many of our States, including Commonwealth of Kentucky, where we had good training and development funds to support the continual development of our workforce. I think that is very critical and one, I think, we can differentiate at the local level.

The other thing is partnerships with local community colleges or educational institutions to do some of that skilled trade development, the apprenticeship development that Scott talked about or also in our own facilities, those are good examples. I think the best advice I can give is just be willing to listen to what the needs are and find creative solutions because we want to be in your area.

Mr. HARPER. I thank each of you. In order to allow sufficient time for the next panel, I yield back.

Mrs. BLACKBURN. Thank you, and we appreciate the gentleman for yielding back and appreciate each of you being here today at this time. We want to thank you and say the first panel has concluded.

We would ask our second panel to bear with us as we have a very short recess and give the clerk time to preset your name plates so you will know where to take your seat. This first panel is concluded.

[Recess.]

Mr. TERRY [presiding]. All right. We are back in after this short recess. Thank you for all of your patience in this matter.

Since all have been previously introduced by our original opening statements, Mr. Wehrman, you can begin. You have five minutes.

**STATEMENTS OF JAMES C. WEHRMAN, SENIOR VICE PRESIDENT, HONDA OF AMERICA MANUFACTURING, INC.; CHRIS NIELSEN, PRESIDENT, TOYOTA MOTOR MANUFACTURING TEXAS, INC.; SCOTT E. PARADISE, VICE PRESIDENT, MARKETING AND BUSINESS DEVELOPMENT, MAGNA, INTERNATIONAL; ANNETTE PARKER, ED.D., EXECUTIVE DIRECTOR, AUTOMOTIVE MANUFACTURING TECHNICAL EDUCATION COLLABORATIVE (AMTEC); WILLIAM A. SMITH, EXECUTIVE DIRECTOR, GOVERNMENT AFFAIRS AND COMMUNITY RELATIONS, AMERICAN AXLE & MANUFACTURING; AND KATHY M. KINSEY, DEPUTY SECRETARY, MARYLAND DEPARTMENT OF THE ENVIRONMENT, MEMBER OF THE ELECTRIC VEHICLE INFRASTRUCTURE COUNCIL**

**STATEMENT OF JAMES C. WEHRMAN**

Mr. WEHRMAN. Good morning, and thank you, Chairman Terry and Ranking Member Schakowsky for inviting me here to testify today. My name is Jim Wehrman. I am the senior vice president of Honda of America Manufacturing in Marysville, Ohio. Today I would like to give you an overview of Honda's evolving presence in the United States, and then I will spend a few minutes discussing areas where we think the government could be helpful to manufacturers.

Honda's three decades of manufacturing in this country have been a real success story for our company, and through that success, we believe we have made a significant contribution to the U.S. economy as well. Our automobile presence in the U.S. began in 1969 by importing every vehicle that we sold here, but early on, our founder, Mr. Soichiro Honda, determined that to be successful we needed to build our products close to our customer.

So in 1982, we became the first Asian manufacturer to build automobiles in America, and since then, we haven't looked back. Last year, more than 90 percent of the vehicles we sold in the U.S. were built in North America, and as our local presence grew, we added many functions associated with building cars, including new R&D facilities, design centers, testing and certification laboratories and parts manufacturing facilities. Today, Honda operates nine manufacturing facilities across the United States, four of which have the capacity to produce more than 1.3 million Honda and Acura vehicles. Our other U.S. facilities produce 1.5 million auto engines, 1.3 million transmissions, 2 million general purpose engines, more than 400,000 power equipment products, and more than 575,000 altering vehicles and ATV engines.

Our 14 research and development facilities perform all aspects of new model development with 24 Honda and Acura models conceived, designed, and engineered in the U.S. since 1991. Honda employs over 28,000 American associates nationwide. We are supported by an extensive network of over 500 parts and materials suppliers in 34 States with almost \$22 billion purchased from U.S. suppliers in 2012, but the process does not end there. It continues to evolve, and in the last 2 years alone, Honda has invested \$1.3 billion to expand our U.S. manufacturing capabilities to position our company to export vehicles from the U.S. to 49 different countries and U.S. territories worldwide.

This expansion is simply the next step in the evolution of our U.S. operations. In 2012, Honda exported more than 90,000 vehicles, a number that we expect to double in the coming years, and in 2 years, we expect to be a net exporter. We will export more vehicles than we import.

Moreover, we recently announced our intention to focus new responsibilities here in the U.S. for Honda's global operations. Historically, all of our global model development was led by Japan. In the future, though, the U.S. will serve as a center for developing our manufacturing processes for some of Honda's highest selling vehicles. Associates here in America will lead the effort to generate new ideas, develop processes and then change trained associates from Honda factories throughout the world in those new techniques.

Our next frontier in the U.S. is Honda Jet, an advanced light jet aircraft that delivers class leading performance, fuel efficiency, comfort, and quality. Our competence in the U.S. as a manufacturing base is reflected by the decision to locate the world headquarters of Honda Aircraft in Greensboro, North Carolina.

Now, I would like to talk about two areas that we think the government has a key role to play in helping strengthen manufacturing. We hear so much today about the gap between skills workers need in today's manufacturing environment and the skills workers have, but we also know that the government is facing difficult budgetary choices, and workforce development programs need to harness the joint power of the public and private sectors to ensure the productivity of the American workforce.

One of the ways Honda fosters workforce development is through partnerships with local education institutions. For example, Honda Manufacturing of Indiana has worked with Ivy Tech Community College to develop training curriculum for Honda's equipment services and die services associates.

Now, most auto makers today are also developing alternative fuel vehicles. Honda is the only auto maker currently producing six different drive trains and improve more fuel efficient internal combustion engine, hybrid, plug-in hybrid, battery, natural gas, and fuel cell vehicles. 10 States currently require manufacturers to sell a total of 5 million advance technology vehicles between now and 2025.

At the moment, however, the infrastructure simply does not exist to support these vehicles, and what is the greatest concern to us is that with the exception of California, States plans to assure that that infrastructure will be in place during their infancy. The Clean Air Act grants authority to California and other States adopting California's regulations to require these advance technology vehicles. However, neither California nor the EPA believes it has the authority to assure that the necessary infrastructure will exist. That places auto makers in an untenable position. We are required to sell the vehicles but there is no assurance that the infrastructure will be there to support them.

30 years ago, when Honda began auto production in the U.S., many doubted the wisdom of that move.

Mr. TERRY. Wrap up.

Mr. WEHRMAN. I guess my light is—

Mr. TERRY. Wrap up.

Mr. WEHRMAN. OK. Well, today, U.S. auto production exceeds our production in Japan, and our U.S. operations are assuming leadership for much of Honda's global manufacturing direction. We continue to believe in the ability of the U.S. to compete globally. Thank you very much—

Mr. TERRY. Thank you.

Mr. WEHRMAN. —for the opportunity to testify.

Mr. TERRY. Thank you.

[The prepared statement of Mr. Wehrman follows:]

**Statement of Mr. James Wehrman  
Senior Vice President of Manufacturing  
Honda of America Manufacturing, Inc.  
before the  
Subcommittee on Commerce, Manufacturing, and Trade  
April 10, 2013**

### Executive Summary

Honda has an evolving and growing presence in the U.S. Its three decades of manufacturing in this country have been a real success story for our company, and we believe we have made a significant contribution to the U.S. economy as well. Early on, our founder, Mr. Soichiro Honda, determined that to be successful, we needed to build our products close to our customers.

We began by importing from Japan 100% of the cars we sold in the U.S. Last year, more than 90 percent of the vehicles we sold in the U.S. were built in North America. And in two years, we expect to become a net exporter – we will export to Japan more vehicles than we import. As our local presence grew, we added many functions associated with building cars, including new R&D facilities, design centers, testing and certification laboratories and parts manufacturing facilities. Today the associates in our U.S. factories build millions of Honda and Acura vehicles, engines, transmissions and components, as well as power equipment products and All-Terrain Vehicles. We are supported by an extensive network of 500 parts and materials suppliers in 34 states, with \$22 billion purchased from U.S. suppliers in 2012.

But the process does not end here – it continues to evolve. In the last two years alone, Honda invested \$1.2 billion to expand our manufacturing capabilities to position our company to export vehicles from the U.S. to 49 countries and U.S. territories worldwide. We also recently announced a new role for our North American operations – the U.S. will serve as a center for developing our manufacturing processes for some of Honda's highest selling vehicles and will train associates from Honda factories throughout the world on these new techniques.

Honda's next frontier in the U.S. is HondaJet, an advanced light jet aircraft that delivers class-leading performance, fuel efficiency, comfort and quality. The world headquarters of Honda Aircraft is Greensboro, North Carolina.

One challenge we face is the gap between the skills workers need in today's manufacturing environment, and the skills workers have while they are looking for jobs. Industry and government should work together to assure that our workers are trained for the sophisticated manufacturing processes they will find to assure U.S. competitiveness.

A second challenge for our country and the auto industry is assuring that the infrastructure exists for the new alternative fuel technology vehicles we are required to build. Ten states currently require manufacturers to sell a total of five million advanced technology vehicles between now and 2025. At the moment the infrastructure does not exist to support these vehicles. This places automakers in an untenable position – we are required to sell these vehicles, but there is no assurance that the infrastructure will be there to support them.

Good morning, and thank you to Subcommittee Chairman Terry and Ranking Member Schakowsky for inviting me here to testify today. My name is Jim Wehrman, and I am senior vice president of Honda of America Manufacturing (HAM) in Marysville, Ohio. I joined Honda in 1988, and my areas of focus include supply chain management, production engineering strategy, and manufacturing.

#### **Overview**

Honda's three decades of manufacturing in this country have been a real success story for our company, and through that success, we believe we have made a significant contribution to the U.S. economy as well. Our presence in the U.S. began in 1959, with a motorcycle sales subsidiary. A decade later, in 1969, our automobile presence began by exporting to this country from Japan every vehicle that we sold here. But early on, our founder, Mr. Soichiro Honda, determined that to be successful, we needed to build our products close to the customer. So, in 1977, we announced our plan to establish our first manufacturing facility in Marysville, Ohio. That facility opened in 1979 to produce motorcycles. Three years later, we became the first Asian manufacturer to build automobiles in America as well. Honda has the distinction of being the international automaker with the longest continuous manufacturing presence in the U.S.

And we haven't looked back. Last year, more than 90 percent of the vehicles we sold in the U.S. were built in North America. As our local presence grew, we added many functions associated with building cars, including new R&D facilities, design centers,

testing and certification laboratories and parts manufacturing facilities to name a few. Many of the models we build here also are conceived, designed and engineered in the U.S.

But the process does not end here – it continues to evolve. In the last two years alone, despite the struggling economy, Honda invested \$1.2 billion to expand our manufacturing capabilities in America to position our company to export vehicles from the U.S. to 49 countries and U.S. territories worldwide. In fact, within two years, we expect to become a net exporter, meaning that we will export more cars built here in North America than we import from Japan.

Moreover, we recently announced our intention to focus new responsibilities here in the U.S. for Honda's global operations. As I will describe, we will now serve as a center for developing our manufacturing processes for some of Honda's highest selling vehicles and will train manufacturing associates from Honda factories throughout the world on these new techniques. These are functions that, until now, were done in Japan and reflect the growing role of Honda's U.S. capabilities, resources, responsibility and know-how. To facilitate these new responsibilities, we recently announced a reorganization that will strengthen the leadership function of our North American Regional Operations.

#### **Honda's Evolution in the United States**

American Honda began operating in the United States in 1959 as the first overseas sales subsidiary of Honda Motor Company. By 1979, Honda of America Manufacturing, Inc.

(HAM) was producing motorcycles; three years later, the first Honda Accord rolled off the assembly line at our Marysville Auto Plant.

#### Honda's U.S. Investment

Today, Honda operates nine manufacturing facilities across the United States, four of which have the capacity to produce more than 1.3 million Honda and Acura vehicles. We also have the capacity to build at our U.S. facilities 1.5 million auto engines, 1.3 million transmissions, 2 million general purpose engines, more than 400,000 power equipment products such as lawnmowers and tillers, and more than 575,000 All-Terrain Vehicles (ATVs) and ATV engines. Our 14 research and development facilities perform all aspects of new vehicle creation from initial market research and concept creation to styling, design, and complete platform engineering. Honda employs over 28,000 American associates in manufacturing, R&D, sales, finance, and other operations nationwide. Honda also supports American businesses by purchasing parts and materials from more than 500 U.S. suppliers across 34 states, with \$22 billion in purchases in 2012.

Over the past 50 years, Honda has invested more than \$14 billion in the U.S. economy. \$1.2 billion of that has been in the last two years alone, resulting in more than 2,000 new jobs. In 2012, through a steady increase in Honda's North American production capacity, more than 90 percent of Honda and Acura vehicles sold in the U.S. were manufactured in North America. Considered Honda's North American sourcing rate, Honda has maintained this level above 75 percent for more than a decade.

Collaboration with Suppliers

We are supported by an extensive network of 500 parts suppliers in 34 states, with the highest concentration in the Midwest and Southeast regions. Companies that supply OEM (original equipment manufacturer) parts to Honda include a mix of traditional, long-standing automotive suppliers, small operations and international companies that have established new operations in the U.S.

Honda's Ohio-based North American Purchasing division works closely with Honda's suppliers to make parts purchases for vehicles built at all of Honda's North American manufacturing facilities. As I noted earlier, Honda purchased \$22 billion in parts from U.S. suppliers in 2012 alone. Since 2006, Honda has purchased \$114 billion in parts and materials from U.S. suppliers.

In addition to the OEM parts suppliers, Honda's U.S. operations utilize more than 13,500 suppliers for its Maintenance, Repair and Operational (MRO) business needs. Honda's MRO suppliers represent local, regional and national businesses that provide a wide range of goods and services that support product manufacturing. Many have grown with Honda's expanding manufacturing in the United States, and some local suppliers have opened additional operations near new Honda plants.

Honda suppliers are our long-term collaborators, and we want them to grow and succeed. In fact, many years ago, Honda established a North American Technical group within our Purchasing Division to specifically work with suppliers who might be struggling or

looking for ways to enhance their operational characteristics. Sometimes that involves a Honda associate or team of associates spending a period of time working on operational issues with a supplier. Other times, our North American Technical group works to link suppliers with resources that they may not have previously known about, such as the Manufacturing Extension Partnership (MEP) program, which is funded through the National Institute of Standards and Technology (NIST) at the U.S. Department of Commerce.

#### Looking Forward

Honda's 30 years of continuous improvement has led to the production of more than 19 million vehicles in the U.S.—and the capability to design and develop vehicles from scratch. Since 1991, 24 Honda and Acura auto and light truck models have been researched, designed, and developed in the U.S. At the 2012 North American International Auto Show, it was announced that Honda's U.S. R&D and manufacturing teams would lead the development of the next-generation Acura NSX “super car” and build it in Ohio.

But inside Honda, the real news had come a few months earlier at a global management meeting. There, our CEO Mr. Takanobu Ito told us that Honda was “at a crossroads.” He said it was time for our North American operations to step up and play an even larger role within global Honda.

After 30 years of auto production in the U.S., our associates have great experience and skills in both R&D and manufacturing, and it was time for us to take on the next level of responsibility. In the coming years, our associates will play an unprecedented role for an international automaker. We in the U.S. will have the lead role in taking production know-how for key global models and transitioning it to other Honda plants throughout the world.

In the past, our team has been responsible for the launch of numerous products that are developed and built exclusively in America, including the Honda Odyssey minivan, Ridgeline truck and Pilot SUV. But this new responsibility calls on Honda associates in our U.S. operations to develop and define production processes for key global models that also are made in other regions—and then to share their knowledge and expertise with those Honda plants all around the globe.

To give you an understanding of what this means: historically, our production associates from the U.S. went to our New Model Center in Japan to learn how to launch new models. Along with associates from other Honda plants, they would gain the know-how and refine the processes used to build those global models, and bring that knowledge back to the U.S. Now, much of this activity will occur in North America, specifically in the United States. This will require our U.S. associates to deeply understand and then share production expertise that is needed to build these global platforms with Honda associates from around the world.

Additionally, Honda will be further increasing automobile and parts exports from the U.S. to 49 countries and U.S. territories around the world, including Japan, South Korea, China, and markets in Latin America, Europe, and the Middle East. Within the next two years, Honda will become a net exporter, meaning that we will export more vehicles from North America than we import from Japan. In addition to finished vehicles, we are also exporting a rapidly growing volume of auto parts from our component plants and US suppliers to Honda plants around the world.

But this is simply the next step in the evolution of our U.S. operations. In 1987, Honda became the first Japanese automaker to export U.S.-built automobiles to overseas markets. In 2012, Honda exported more than 90,000 vehicles, a number that is expected to double in the coming years. Last December, we celebrated the production of our one-millionth vehicle for export, an Ohio-made Accord that was shipped to Seoul, South Korea. Our export operations to South Korea were greatly facilitated by the Korean – U.S. Free Trade Agreement.

As a further step, we announced recently that, effective April 1, 2013, Honda will strengthen the leadership function of its North American Regional Operations in Ohio, creating more efficient management and quicker decision making with the goal to enhance the ability to deliver high quality products to the customer more quickly and efficiently.

The continued expansion of our U.S. operations, combined with the new leadership role we will play, speaks volumes about our confident outlook for the future. One of our new products we are most excited about is HondaJet, an advanced light jet aircraft that delivers class-leading performance, fuel efficiency, comfort and quality. The Honda Aircraft Company was founded in 2006 after more than 20 years of research. Our confidence in the U.S. as a manufacturing base is reflected by the company's decision to locate the world headquarters of Honda Aircraft in Greensboro, North Carolina. It is here where our associates are working to develop, produce, market and service HondaJet. And it is here in Burlington, North Carolina where we also are developing and building the Honda-developed jet engine in joint venture with General Electric.

#### **Fostering Workforce Development and Addressing the "Skills Gap"**

We hear so much today about the gap between the skills workers need in today's manufacturing environment, and the skills workers have while they are looking for jobs. Jobs in manufacturing represent 76 percent of Honda's direct employment in the U.S. We rely on an educated and skilled workforce to produce the high-quality products that bring joy to our customers.

One area in particular where we face a critical challenge is hiring and training skilled maintenance technicians. This is a position that involves making sure that the highly-complex manufacturing equipment is running smoothly, and quickly trouble-shooting any incidents when it is not. If a manufacturer cannot maintain equipment and predict and prevent failure, that manufacturer cannot meet the production demands of its customers.

Our suppliers face similar challenges. While technical needs may vary from supplier to supplier, the most common types of technical needs arise in the areas of robotics and controls, welding, machining, stamping, and plastic injection.

One of the ways in which we foster workforce development is through partnerships with local high schools, community colleges, and four-year institutions. For example, Honda Manufacturing of Indiana (HMIN) has had a relationship with Ivy Tech Community College since it began operations in 2008. Ivy Tech is the state's largest public postsecondary institution. It has 23 campuses and serves nearly 200,000 students annually. It is the largest single accredited community college system in the nation.

HMIN has worked with Ivy Tech to develop technical and manufacturing training for Honda's equipment service and die service associates, as well as basic leadership skills training. The training conducted on Ivy Tech's campus focuses on mechanical and electrical operations, troubleshooting, and fluids. The training conducted at HMIN focuses on leadership development and awareness in the areas of communications, diversity, team-building and computer classes. HMIN also recently supported Ivy Tech's new Advanced Manufacturing Center of Excellence (AMCE) with funding for scholarships.

In North Carolina, there were plenty of skilled workers but not necessarily in the areas Honda Aircraft was looking for. Honda Aircraft partnered with Guilford Technical

Community College (GTCC) to design a curriculum for advanced aeronautical engineering creating a pool of qualified candidates for positions at HondaJet in research and development and manufacturing. GTCC recently broke ground on their new aviation facility. The \$10 million project will open in spring 2014 and expand GTCC's existing aviation programs. Honda Aircraft, along with other aviation companies based in Greensboro, collaborated with the school on developing the capabilities we will need in the future.

Looking forward, we anticipate a challenge in maintaining a steady pipeline of new graduates from high school, community college, and four-year institutions who have an interest in and aptitude for working in the modern, high-tech manufacturing environment. For this we have looked at ways to raise awareness of career opportunities in manufacturing through initiatives of groups like the National Association of Manufacturers (NAM) and programs like "Project Lead the Way," a national, school-based, pre-engineering program.

### **Regulatory Challenges**

Within Honda, our overarching goal is to be "a company that society wants to exist." Part of that commitment leads us to strive to work in partnership with government to address societal objectives, particularly those that are affected by the products we produce and which our customers enjoy. These include, among others, environment, energy sustainability and safety goals that Congress and regulatory agencies have defined in law or which we undertake as a matter of corporate citizenship.

In this regard, Honda has long been a leader in, and advocate for, reducing the consumption of gasoline and greenhouse gas emissions. As such, we were proud to participate in the Administration's efforts to achieve the single national fuel economy and vehicle greenhouse gas program through 2025. We also appreciated the State of California's decision to harmonize its regulations with the federal initiatives. Although meeting the standards will be a challenge, particularly in the later years, we are confident that we will be able to achieve the program's ambitious goals.

These initiatives were win-wins because not only do they move us closer to meeting key environmental and petroleum reduction goals, but they do so in a way that harmonizes federal and state requirements that might otherwise have been inconsistent and inefficient. Indeed, the "One National Program" approach should serve as a model for certain other regulatory objectives. One example is the increasingly fractured chemicals regulatory system. States are moving ahead with ambitious plans that go beyond the federal Toxic Substances Control Act (TSCA) in their obligations for chemical users. While Honda supports environmental control measures, the resulting patchwork of regulations makes it difficult for us not only from a compliance perspective, but from a materials management and product planning viewpoint as well.

#### **Infrastructure Needs for Alternative Fuel Vehicles**

Most automakers today are developing alternative fuel vehicles, not only to reduce consumption of gasoline and greenhouse gas emissions, but also to meet regulatory

requirements. Honda is the only automaker currently producing six different drive-trains as we work to envision the vehicle of the future. They include an improved, more fuel efficient internal combustion engine, as well as hybrid-electric, plug-in hybrid-electric, battery electric, natural gas, and fuel cell electric vehicles. In the end, however, our success – and that of every other manufacturer – will depend on the decisions of the ultimate arbiter of the marketplace: the customer.

America's future vehicles will have to meet the needs and desires of customers in terms of utility, versatility, cost and ease of operation, safety, and, of course, initial cost. While all of these vehicle characteristics are – and should be – the province of vehicle manufacturers, there is one area that is out of our hands and where government help is needed: infrastructure. Without an infrastructure that guarantees our customers the ability to refuel their vehicles wherever they take them and at a price that is competitive with gasoline, the vehicle of the future will remain just that – the vehicle of the future.

Ten states currently require manufacturers to sell a progressively larger number of advanced technology vehicles between now and 2025. Together, manufacturers have to place five million of these vehicles – battery electric, plug-in hybrid-electric and fuel cell electric vehicles – on the road by 2025. At the moment, however, the infrastructure simply does not exist to support these vehicles. What is of greatest concern is that with the exception of California, states' plans to assure that the necessary infrastructure will be in place are in their infancy.

The Clean Air Act grants authority to California and other states adopting California's regulations to require these advanced technology vehicles. California sets the standards and other states are free to adopt them as their own. However, neither California nor the Environmental Protection Agency believes it has the authority to assure that the necessary infrastructure will exist. This places automakers in an untenable position – we are required to sell alternative fuel vehicles, but there is no assurance that the infrastructure will be there to meet the needs of customers who might be interested in purchasing one of these vehicles.

To its credit, California is prodding the other states to address the infrastructure concerns. But as of now, there is no path identified to assure that the fuels will be there in 2018 when the responsibility to sell these vehicles in significant numbers begins to kick in.

#### **Ensuring the Tax Code Works for Manufacturers**

Tax policy plays a critical role in helping to shape investment strategies for manufacturers. While this hearing is not the appropriate venue to discuss Honda's entire tax agenda, I want to highlight our general principles and discuss two particular tax breaks that have proven useful to our U.S. operations.

Honda supports a tax policy that promotes a fair and level playing field for all companies, whether they are domestically-owned or U.S. subsidiaries of international companies. Simplicity and stability in the tax code allows for long-term planning and investment strategies that in turn lead to innovation and jobs.

For capital-intensive manufacturing industries, a strong capital cost recovery system is important to spur maximum investment. The depreciation deduction is useful in this regard. Additionally, the research and development tax credit complements our efforts to bring cutting-edge and value-added technologies to market. We appreciate that the R&D credit was extended through 2013, but it would help our long-term planning if it were made a permanent part of the tax code.

### **The Importance of Free and Open Trade**

Honda relies on customs processes that are rules-based and transparent to facilitate the flow of our products around the world. This will become even more important to us in the coming years as we look to substantially increase our exports from the U.S. to emerging markets. The federal government can support the trade systems of emerging markets by offering capacity-building and technical assistance when appropriate.

While Free Trade Agreements (FTAs) are useful for reducing hurdles to the flow of goods, such agreements must contain strong enforcement and dispute resolution mechanisms to be effective. The most difficult hurdles to overcome are often invisible, ineffective, and sometimes opaque procedures when crossing borders. Such inefficiencies may exist in documentation, data submission and processing, and physical inspection. This causes undue uncertainty for importers and exporters, who must account for a range of scenarios. Globally-equivalent, efficient and transparent customs procedures and standards would help reduce this uncertainty.

As Honda's U.S. operations assume greater global responsibility, we anticipate challenges related to ensuring the protection of our intellectual property rights, especially in terms of technology transfers and cross-border data flows. Strong intellectual property rights protections both here and abroad provide incentives for companies like Honda to continue to invest in cutting-edge safety and environmental technologies.

Somewhat unrelated to trade, but inextricably linked to our growing global role I described a moment ago, Honda expects to further utilize short-term visas to allow our associates from around the world to come and learn at our facilities in the U.S. To that end, Honda supports a streamlined, straightforward U.S. visa system.

#### **Conclusion**

Mr. Chairman, I commend you for convening these hearings. They underscore all that America offers as a manufacturing base for global companies – and that first attracted Honda to build products here more than 30 years ago. And they allow companies to identify steps that can be taken to assure the future of U.S. manufacturing and that America remains a strong and attractive place for global manufacturers. As I said at the beginning, Honda's evolution from importer to fully-established manufacturer and exporter has been a success for us, our associates, the communities in which we work and the American consumer. We look forward to a bright future.

Mr. TERRY. Mr. Nielsen.

**STATEMENT OF CHRIS NIELSEN**

Mr. NIELSEN. Thank you, Chairman Terry and Ranking Member Schakowsky and members of the subcommittee. My name is Chris Nielsen, and I thank you for the opportunity to participate in this hearing. I am president of Toyoto Motor Manufacturing, Texas, our facility in San Antonio that builds Tundra and Tacoma pickup trucks. I would like to spend the next few minutes sharing Toyota's view and how we might work together with Congress to improve U.S. manufacturing.

First, I am proud of the auto industry, the role it plays in the U.S. economy and the role that Toyota plays in both. We have been part of the U.S. automotive story for over half a century. It had been U.S. manufacturers for nearly 30 years. Today we have 10 plants in the U.S., and with our four other North American plants, we produce 12 models, accounting for 70 percent of our U.S. vehicle sales. And this substantial manufacturing footprint also is boosting our ability to export.

Our U.S. operations currently ship vehicles to 21 global markets, soon to be 23. Across these operations, sales and R&D, Toyota employs over 31,000 people in the U.S. and we are directly and indirectly responsible for 365,000 jobs.

Now, let's talk about how we can make all that productivity even more competitive. The topic on which I would like to focus my remarks is workforce training. If you visit an automotive manufacturing plant, one thing will be immediately obvious. People build cars. While there is a great deal of automation in modern auto plants, producing quality automobiles requires skilled, disciplined, and well-trained workers.

Sadly, even with relatively high unemployment, our sector struggles to attract work ready applicants. In fact, nationally 600,000 skilled technical jobs are currently unfilled. Why? Manufacturing is not as widely viewed as a rewarding career as it once was, despite the excellent pay and benefits in today's advanced manufacturing jobs, and for those advanced jobs, only 5 percent of our candidate pool is qualified. Most applicants have only a single discipline such as a welder or a programmer, and many have basic educational deficiencies.

Toyota is not sitting still in confronting these issues. A great example is our Advanced Manufacturing Technician, or AMT program, developed in 2010, now rolled out across most of our plants and endorsed by the automotive manufacturing technical education collaborative as a best practice. To date, Toyota graduates have a 100 percent pass rate in the technical written exam, which is double the historical average.

Congress can help the sector in two major ways: First, the government can help encourage cooperation among itself, academia, and the private sector to improve K through 12 STEM education and teacher recruitment. Second, you can help focus resources on workforce programs that encourage nationally, portable credentialed programs likes AMT, emphasize next generation multi-skilled worker training, and encourage coordination between

community colleges and local employers to help ensure curriculums meet local employment needs.

Many of the right resources are already in place, but for manufacturing to remain competitive into the 21st century and beyond, technical and intellectual training must be more balanced and also more available. Toyota will do its part. We hope Congress will help by encouraging funding of programs, promoting the kinds of technical skills that the 1.7 job automotive sector needs to carry it forward into the future.

I would like to close on a real positive note, and I am going to stick with what I know best, which is the great State of Texas. Conventional wisdom is to locate plants near suppliers for obvious efficiencies, but in the case of the plant that I run, we went where the buyers were. Texans purchase about 20 percent of this country's Tundras. Our challenge was both to find skilled workers and to provide suppliers the opportunity to set up local operations. We offered suppliers space on our property, and today there are 21 on-site suppliers in San Antonio. A third of the suppliers are minority-owned, and two-thirds of our workforce is Hispanic.

As you know, when the world's economy slowed, cars and especially trucks were dramatically affected, but we retained all of our employees and reinvested in their training and development. We asked for their help in improving operations, so we were ready when the economy came back. We preserved jobs. There are nearly 6,000 on site. And we may soon be in a position to create more, provided we can find the skilled workers we need.

Now, let me finish where I started in behalf of the 31,000 Toyota workers in the U.S., we are proud of what we have accomplished. With the right kind of training in the American workforce, there is no limit to what this country can do. We are committed to a successful and competitive industry for the long term, and know that a highly trained U.S. workforce is essential to the success of our company and to the American economy. Thank you.

Mr. TERRY. Thank you very much.

[The prepared statement of Mr. Nielsen follows:]

**Testimony of Chris Nielsen**  
President of Toyota Motor Manufacturing, Texas,  
Inc.

---

**Hearing in Our Nation of Builders: Powering  
U.S. Automobile Manufacturing Forward**

**SUBCOMMITTEE ON COMMERCE, MANUFACTURING AND  
TRADE**

**United States House of Representatives**

**April 10, 2013**

**Executive Summary: Workforce Training is Key to Powering U.S. Automobile Manufacturing Forward**

Auto manufacturing is vital to a strong American economy. Our industry directly employs over 1.7 million people and is responsible for eight million jobs nationwide, or about 4.5% of private-sector employment. For more than a half century, Toyota has played an ever-increasing role in contributing to the strength, size and competitiveness of this part of the U.S. economy. From humble beginnings in Hollywood, California – where we sold 288 vehicles in our first year – to debuting as an American manufacturer with the 1986 Corolla, to our current footprint of 10 plants across the U.S., our success has depended on a talented, motivated American workforce.

Our integral role in the American economy grows more robust each year. We are now an exporter of 124,000 vehicles to 21 global markets, a 45% increase over the prior year – in part thanks to trade agreements like those Congress supported with Korea and Russia. This success means that today, Toyota employs over 31,000 people and is directly and indirectly responsible for 365,000 workers – and 70% of what we build in North America, we sell here. We are proud of what we all accomplish together.

Tomorrow, as both a company and as a manufacturing-driven sector, a major challenge is attracting qualified, work-ready applicants with the necessary skill sets to step directly into jobs and contribute. The unfortunate reality is that what were traditionally referred to as “skilled trades” – today called multi-skilled maintenance positions – are ever-more difficult to fill. Only 5% of the candidate pool is qualified, in our experience. The root causes of this phenomenon lie in both perception – manufacturing is no longer considered a rewarding career and is not promoted to students – and preparation. U.S. students are falling behind the international talent pool, particularly in STEM fields. As our sector has grown more competitive, job requirements have grown more complex. Most applicants have only a single discipline (welder, or electrician) when multiple ones are needed. And many lack basic skills like reading.

For Toyota’s U.S. operations to keep competing and to overcome these issues, we need even greater partnership with other organizations and the government. One type of response that shows the promise of such partnership is our Advanced Manufacturing Technician (AMT) Program, which includes a two-year Associates Degree, technical studies and paid work experience. This initiative is endorsed by the Automotive Manufacturing Technical Education Collaborative (AMTEC) as a best practice – and we have rolled it out at most of our U.S. plants. This kind of local focus is vital to our company and allows Toyota to contribute directly to the education and training of our communities, which in turn reinforces the positive impact our business can have on given regions.

The Federal government can help us help the American worker by focusing resources on education and workforce development programs that result in portable, industry-recognized programs like AMT; emphasize multi-skill technical training; encourage coordination between community colleges and local employers; and strengthen and improve technical education programs in the U.S. In summary, for American industry to successfully compete going forward in the global marketplace, our students – and future workers – need to be ready, willing and able to keep pace with the technical and educational career challenges of an ever-evolving manufacturing base.

Good Morning.

Mr. Chairman and members of the Subcommittee, my name is Chris Nielsen and I am President of Toyota Motor Manufacturing, Texas (TMMTX), in San Antonio where Toyota produces Tundra and Tacoma pickup trucks.

I commend the subcommittee for holding this hearing on auto manufacturing and want to thank you for the opportunity to participate.

Auto manufacturing is vital to a strong American economy. Our industry directly employs over 1.7 million people and is responsible for eight million jobs nationwide, or about 4.5% of private-sector employment. It is a highly competitive industry, with multi-national companies from around the globe, investing in America and providing good paying jobs and terrific value to American consumers.

#### **Toyota In the US**

Toyota was established nearly 57 years ago in a former Rambler dealership in Hollywood, California. That first year we sold a grand total of 288 vehicles. Sales grew as Americans became more familiar with our products. In 1986, Toyota made its debut as a US manufacturer with the rollout of a white Corolla FX16.

Today Toyota operates 14 vehicle and parts plants in North America – 10 of which are in the U.S. Together these plants produce 12 models, which represent over 70% of what we sell in the U.S., in addition to engines, transmissions and other critical parts. Purchases of parts, components, goods and services from roughly 500 suppliers now exceed \$25 billion annually. And we are continuing to grow.

Last year we reached full production at our new \$800 million plant in Mississippi, where we hired 2,000 team members. This year we are in the process of investing nearly \$750 million in various locations, which will result in an additional 1,500 jobs. Together, our sales, design, engineering, research and development and manufacturing operations employ more than 31,000 people in the U.S. and we are directly and indirectly responsible for creating 365,000 jobs.

Beyond manufacturing and sales, Toyota Technical Center (TTC), celebrated its 35th Anniversary last year. Through TTC in particular, Toyota's

North American operations have made great strides in recent years, gaining more responsibility for designing and developing vehicles that are primarily sold in the U.S. market. This means Americans are now taking the lead in design and development in order to better reflect consumer tastes.

With locations in Michigan, Arizona and California, TTC has major vehicle development responsibilities. The 2012 RAV4 Electric Vehicle and the 2013 Avalon and Tundra are the latest vehicles engineered at TTC. And there's more to come as we seek to localize additional production to better serve our customers.

Our new Tundra pickup truck, which is built by 3,000 Toyota team members and another 3,000 supplier team members at my plant in San Antonio, Texas, is a good example. Product planning was managed by our sales headquarters in California. All engineering development was directed by Chief Engineer Mike Sweers in Michigan. Styling was the work of Toyota's Caltex Research and Design Centers in California and Michigan. The result: our best Tundra yet, one that will be a solid competitor in the marketplace when it launches in August, 2013. And it's worth mentioning that along with the Tundra, the Camry and Sienna are the most American cars in their segments.

Having just gone through a next generation model launch, I can tell you it takes time and it takes money. New or next generation vehicles generally take between five to seven years to bring to market. When considering new policies, it is important to keep this lead time in mind. To pass laws that fail to provide adequate lead time or effectively require mid-model-life vehicle changes imposes an economic drain on companies and, maybe more importantly, a strain on critical manpower resources.

Providing legislative and regulatory certainty also is important to manufacturers. Knowing what to expect and when is important for planning purposes. A quick example is the uncertainty created by the on-again, off-again renewals of the federal tax credit for qualified research activities at our U.S. manufacturing plants. The expiration of the research credit on December 31, 2013, and the uncertain prospects for renewal of the credit, makes long-term after-tax planning for research at our U.S. manufacturing plants next to impossible.

**Exports**

We also want to point out another benefit of increasingly-US domiciled manufacturing growth: Toyota's rising U.S. export business. Last year we exported a record 124,000 vehicles to 21 global markets from the US, which represented a 45% increase over the previous year. The Korean and Russian trade agreements were important elements in our decision to export US-built vehicles to those countries. We want to applaud Congress for supporting those two trade pacts.

Earlier this year we announced that the Venza, a crossover vehicle produced at our Georgetown, Kentucky plant, will be exported to Russia and the Ukraine this year. We expect Venza exports to build on last year's record and to help further solidify and grow our U.S. manufacturing base.

**Workforce Training**

However, we want to focus Congress' attention on a larger issue that directly impacts U.S. manufacturing competitiveness. We, and in fact our entire sector, struggle to attract qualified, "work ready" applicants who have the necessary skill sets to step into jobs and begin contributing at a high level.

As employers, we need to provide specific company training and methodology, but too often we find we must level up more basic skills to assure success. Each of our plants require team members to have a broad range of skill sets – from basic foundations in reading, math, and science; to problem solving, communication and strong interpersonal maturity; to the technical skill sets necessary to perform at peak efficiency in their chosen career.

However, after 25 years of strong growth and development, Toyota and our suppliers still face acute challenges replacing what was traditionally referred to as "skilled trades" positions in the US. Today these are called multi-skilled maintenance positions.

With the advancements in manufacturing technology and techniques, the required skill sets of these manufacturing careers are changing too. This is a systemic problem for all automakers and suppliers and for manufacturing in general.

Products can be made and sold anywhere. To sustain our manufacturing in the U.S. we must be competitive in the global manufacturing market, not only against our direct competitors but against other countries with Toyota facilities.

Nationally, 600,000 skilled training jobs are currently unfilled, as manufacturers across America comb the countryside for qualified workers. In part, this is because of a perception problem. Manufacturing is not considered a rewarding and valued career. It is not promoted to students, so they are not fully aware of the opportunity or reality of today's advanced manufacturing operations and careers.

It is also a preparation problem. The preparation of our K-12 students is declining compared to other countries. School systems are struggling to develop globally competitive talent, particularly in the STEM fields. Global rankings show our students declining – now ranking 17th overall, 14th in reading, 17th in science, and 27th in math. In addition, traditional community college systems are failing to fully provide graduates with the manufacturing skills necessary to integrate into the workplace.

Our experience shows that only 5% of the candidate pool is qualified in the skilled maintenance positions. Most applicants have only a single discipline (electrician, welder, programmer, etc.) and many applicants simply have basic educational deficiencies. For instance, national testing shows that only 35% of 12th graders are proficient in reading.

At Toyota, we recognize that it takes partnerships to embrace and create change. And we are working with willing partners to identify best practices in education that will help close the achievement gap and provide better prepared candidates for careers in manufacturing and other fields. In 2010, Toyota developed an Advanced Manufacturing Technician (AMT) Program.

This cutting-edge program has been endorsed by the Automotive Manufacturing Technical Education Collaborative (AMTEC) as a best practice in the industry. It includes a two-year Associates Degree that combines a next generation technical curriculum and paid real-world working experience with the development of the non-technical skills required of world-class advanced manufacturing technicians.

An Advanced Manufacturing Technician skill set includes:

- Multi skilled (electric/fluid power/mechanics/fabrication)
- Math Skills (top 1/3 nationally)
- Reading (minimum 12th grade equivalency)
- Fast Technical Learner
- Use/learn with Digital Media
- Problem Solver; Effective Written/Verbal Communicator (One-on-one and in group settings; develops materials)
- Interpersonal Skills (can resolve conflict)
- Teamwork
- Qualified to work at the next level

First implemented at Toyota's Georgetown, Kentucky plant in coordination with the Bluegrass Community and Technical College, this model has been duplicated at most of our plants. I'm proud to report that just last Friday, it was announced that my plant has introduced the AMT program and will be working with Alamo College. We will support graduating high school seniors with an advanced learning methodology with hands on experience resulting in highly skilled job ready candidates for San Antonio's workforce.

The key to any sustainable program like AMT is to develop the k-12 pipeline of students so they are prepared and aware of this career pathway to manufacturing.

#### **POLICY RECOMMENDATIONS**

In order to address this skilled worker crisis throughout the country, we need to:

- Intensify cooperation between government, academia, and the private sector to improve K-12 STEM education. Further, we need to recruit and train additional qualified K-12 STEM teachers throughout the United States.
- Support innovative STEM education programs in middle school and high school, such as Project Lead the Way (PLTW), which engage students in hands-on, project-based learning and to expose them to STEM fields through local industry professionals and real-world workplace experiences

- Focus Federal resources on education and workforce development programs that:
  - result in a nationally portable, industry-recognized credentialed program (such as Toyota's AMT program); and,
  - emphasize the development of the next-generation skilled worker through multi-skill technical training, as well as non-technical competencies, such as verbal and written communication; and,
  - encourage coordination between community colleges and local employers to help ensure that the curriculum meets the local employment needs; and,
  - strengthen and improve career and technical education programs in the U.S. so that they produce graduates with world-class skills and capabilities and who do not require extensive "up-skilling" when hired.

We clearly recognize the budget challenges facing our nation. However, we believe many of these recommendations can be accomplished by a shift in emphasis among existing workforce development funds. Simply put, America's focus for some time now has been on the idea that everyone needs to go to college and get a generalist four-year degree. The benefits of this focus, as great as they are, do not necessarily accrue to the manufacturing sector. Our talent pool of skilled technicians has declined precipitously and it needs to be replaced if America is going to compete in the global manufacturing marketplace. Four-year degrees per se are not the issue – and we need skilled Bachelor's graduates as well. But the balance of technical and other training is critical. That is why, for example, the Toyota AMT program provides for a 2 year Associate Degree, with a defined pathway to continue, if desired to get a 4 yr. Bachelor's Degree in Engineering from the State College or University.

But at Toyota, we are also looking upstream in the education pipeline to help assure students have a solid foundation in preK-4 programs. On a local level, we also get involved in other programs such as the Pre-K 4 SA initiative, to which we donated funding in Texas. This provides universal pre-K education and helps assure that all participating students remain on track with the appropriate grade levels by 3rd grade – which in turn reduces dropout rates, for example.

In summary, for manufacturing to compete in the global market place, our students need to be ready, willing and able to take on the manufacturing career challenges in the future that will keep U.S. Manufacturing as a global leader.

### **Market Variables**

Toyota looks at a host of variables when deciding where to locate production facilities. One of those variables is proximity to suppliers. Ironically, my plant in San Antonio is an exception to that rule.

We located in Texas because it is the biggest truck market in the U.S. But in doing so, we had to find ways to get closer to our supply base in order to fully take advantage of our just-in-time system. So we decided to allow those suppliers who wanted to locate on our property to do so. Today, there are 21 on-site suppliers in San Antonio; some even have operations in the plant itself. About a one-third of these suppliers are minority owned and two-thirds of our workforce is Hispanic.

The decision to locate where the buyers are was a good one. Currently, Texans purchase 20 percent of the Tundra's sold in the U.S.

### **Toyota Production System Support Center (TSSC)**

Toyota believes we need to produce where we sell and that we have an obligation to contribute to the societies in which we operate. One unique example of that philosophy is the way we share the Toyota Production System (TPS) in the U.S. We originally began sharing TPS at the direction of then-global President Dr. Shoichiro Toyoda in an effort to help our U.S. supply base address operational issues.

Over the years we received many requests from non-automotive companies who tried on their own, or with the help of consultants, to copy TPS. Most struggle with this. To help overcome this challenge, we recently established the Toyota Production System Support Center (TSSC) as a not-for-profit division of our company.

We are helping small-to-mid-size companies solve operational issues, enabling them to retain or grow their U.S. businesses, thereby retaining or growing U.S. jobs as opposed to off-shoring or losing their business to low-wage countries.

Our production engineers approach this work by first assuring top management buy-in and participation. We then go straight to the plant floor to tackle a problem and work directly with the people who do the work. At the same time, we teach plant floor leaders how to problem-solve so that they can sustain continuous improvement throughout their company when Toyota leaves.

We've also discovered that charities are in dire need of improved efficiency, especially in a tough economy when the need is greatest. But most of these charities cannot afford consultants. We provide TPS support just like we do for companies, except we freely donate our time and expenses.

For example, we helped the St. Bernard Project – a non-profit rebuilders of homes destroyed or damaged in the Lower Ninth Ward of New Orleans by Hurricane Katrina – rebuild homes 50 percent faster. We are doing the same in Joplin, Missouri, following the devastating tornado there nearly two years ago.

We are also helping food banks in New York City and San Antonio improve the efficiency of meal and pantry distribution. And we have just begun work with the Red Cross to help it improve its response time following disasters.

Mr. Chairman and members of Subcommittee, I appreciate this opportunity to testify today and am happy to answer any questions.

###

Mr. TERRY. Mr. Paradise, you are recognized for 5 minutes.

#### STATEMENT OF SCOTT E. PARADISE

Mr. PARADISE. Mr. Chairman and members of subcommittee, my name is Scott Paradise. I am responsible for marketing business development in the Americas for Magna. On behalf of our 20,000 American employees working at 62 manufacturing facilities in 15 States, it is a pleasure to be here today to share Magna's perspectives in the future of American automotive manufacturing. Magna, if you are not aware, we are a most diversified supplier in industry today. We make—what we don't make is tires and glass, and just about everything else we do, including contract manufacturing and only contract manufacturing for OEM customers so we don't compete against them.

We are completely global. We were established in 1957. We are the number one supplier to the industry in the USA, and we are the number four supplier globally in the market.

We have over 400 manufacturing and product development facilities in 29 countries, and our sales last year were approximately 31 billion U.S. dollars.

I am also pleased to inform you that Magna has increased our investment here and are hiring here in the United States. Between 2009 and 2017, we have committed to investing nearly \$840 million in 22 new or expanded facilities, and in the process, we alone at inside of Magna are creating 6,500 new jobs in communities such as Michigan, Kentucky, Tennessee, Missouri, Alabama, South Carolina and Georgia. These are meaningful jobs with good pay and good benefits, the kind of jobs that support families and help build for a better future.

Let me commend Chairman Terry and Ranking Member Schakowsky for convening this important hearing today. It is critical to the health of the U.S. economy that Congress and the automotive manufacturing industry work together to encourage innovation and job growth. In that regard, I will focus my remarks on the need for a partnership between government industry as a means of growing the manufacturing base in the United States.

Before discussing areas where the Federal Government can contribute to a successful partnership, I will briefly call the members' attention to my written statement that highlight areas where Magna and other private sector manufacturers must control their own costs, including R&D workforce development and product costs. While not exhaustive, they are illustrative of the types of cost that industry can control.

Now I would like to focus to the public component of the successful public/private partnership and would like to propose several areas in which Congress and this subcommittee should take particular care in order to ensure American leadership in the automotive manufacturing sector, that is, regulation and legislation, corporate tax rates, workforce development, and other incentives.

When it comes to regulation and legislation, the key objective from Magna's perspective is to continue the active dialogue and collaboration between the public and private sectors to ensure that any new legislation or regulation that changes policy objectives in

a way that does not create new problems where none previously existed. In my written statement, I point out several errors where industry and policymakers have worked collaboratively to leverage the expertise and innovation of the private sector to meet certain policy objectives, including those related to driver safety and fuel efficiency standards. I would also suggest that hearings such as today's are critical to making this process work for U.S. consumers, manufacturers, and the U.S. economy.

Another issue that Congress should address is the high corporate tax burden in the United States. It has been mentioned earlier. The U.S. corporate tax rate is the second highest among OECD countries and is a drag on American business and job creators. The high corporate rate discourages capital investment in the U.S. as companies may be lured to locate major operations in countries with a lower tax burden such as Mexico.

Reducing the overall tax burden on corporations in the U.S. would help spur greater capital investment, increase manufacturing output, promote job retention in the United States, and stimulate the U.S. economy.

In addition, the United States is unquestionably the top high skilled manufacturing nation in the world. While market forces have pushed many low skilled manufacturing jobs broad, U.S. manufacturing industry has been undergoing something of a renaissance through high skilled labor, including in the automotive sector.

Competition, however, is strong across the globe, and for America to compete, we will need is a top caliber workforce to meet the needs of the 24th century manufacturers. Congress should therefore work to develop workforce training initiatives that respond to employer needs and prepare American workers for the high skilled jobs of the future. Such workforce development initiatives could include investing in community colleges and stimulating K through 12 vocational training, creating new scholarships for high skilled manufacturing programs, leveraging government procurement to place greater emphasis on new manufacturing technologies, adequately funding Workforce Investment Act programs and supporting innovative public/private initiatives at the local and State level.

For example, one State public/private initiative that has been particularly successful is Michigan's Community Ventures program. It is collaboratively run between Governor Rick Snyder and Michigan MEDC Corporation. Out of that program, we have hired 75 people who were not working at the time and put them to work inside of our facilities. It has been a great success.

Lastly, Congress can encourage the growth of the manufacturing sector through tax incentives. Such initiatives could include energy efficiency tax credits, R&D tax credits, infrastructure investments to modernize and improve our Nation's roads, bridges, ports and schools.

In conclusion, the automotive manufacturing industry is a key drive of the U.S. economy and we look to continue to participate in it heavily, and on behalf of Magna's 120,000 employees and the 20,000 here, we appreciate your time. Thank you.

Mr. TERRY. Appreciate yours.

[The prepared statement of Mr. Paradise follows:]



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48084  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
[www.magna.com](http://www.magna.com)

**Testimony of Scott Paradise**  
**Magna International Inc.**  
**Before the House Committee on Energy and Commerce**  
**Subcommittee on Commerce, Manufacturing and Trade**  
**Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward**  
**April 10, 2013**

Good morning, Mr. Chairman and Members of the Subcommittee. My name is Scott Paradise. I am the vice president of business development for Magna International, and on behalf of the nearly 20,000 Magna employees working at 62 manufacturing facilities in 15 states, it is a pleasure to be here today to share Magna's perspectives on the future of American automobile manufacturing.

As a company, Magna is focused on delivering superior value to our customers through innovative processes and world-class manufacturing. We are the most diversified automotive supplier in the world. We design, develop and manufacture body, chassis, interiors, exteriors, seating, powertrain, electronics, mirrors, closures and roof systems and modules, primarily for sale to original equipment manufacturers (OEMs) of cars and light trucks in North America, Europe, Asia, South America and Africa. We also offer complete vehicle engineering and contract manufacturing to OEMs around the world.

Magna is keenly aware of the intensely competitive market in which we compete around the globe. Started in 1957, Magna is now the largest automotive supplier in the United States and the fourth-largest supplier in the world, operating more than 400 manufacturing and product development facilities in 29 countries. In 2012, Magna's global sales approached \$31 billion USD.



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48084  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
www.magna.com

While our global presence is robust, I am pleased to inform you of Magna's increased investment and hiring in the United States. Between 2009 and 2017, we have committed to investing nearly \$840 million in 22 new or expanded plants and in the process will create or maintain 6,500 jobs in communities such as Michigan, Alabama, South Carolina, Georgia, Kentucky, Tennessee, and Missouri. These are, and will be, meaningful jobs with good pay and benefits, the kind of jobs that support families and help them build for a better future.

Let me commend Chairman Terry and Ranking Member Schakowsky for convening this important hearing today. Automotive parts manufacturing helps create jobs and drive the entire U.S. economy as a world leader:

- In 2012, more than 734,000 jobs were directly supported by the motor vehicle parts manufacturing industry.
- Over \$220 billion in total wages and income was paid to workers.
- Nearly \$355 billion in contribution to the GDP was generated by automotive parts suppliers – 2.3% of U.S. GDP

*(Source: "The Economic Impact of the Motor Vehicle Parts Manufacturing Industry on the United States," prepared by HIS and released April 2013 by the Motor & Equipment Manufacturers Association.)*

Therefore, it is critical to the health of the U.S. economy that Congress and the automotive manufacturing industry work together to encourage innovation and job growth in the industry. Magna is pleased to share our views with members of the Subcommittee on areas where Congress might focus to help ensure sustained American leadership in the automotive manufacturing sector. In that regard, I will focus my remarks on the need for a public/private partnership between government and industry as a means of growing the manufacturing base in the United States. A successful public/private partnership is based on the recognition that certain



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48064  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
www.magna.com

factors are controlled by the government, while other factors are best controlled by the private sector. Problems arise and jobs are lost when one side attempts to control decisions that are best left to the other.

Before discussing areas where the federal government can contribute to a successful public/private partnership with the automotive manufacturing industry, I will briefly highlight two areas – of many – where Magna and other private sector manufacturers must control their own costs. These two are far from exhaustive, but they are illustrative of the types of costs that industry controls on its own.

I. R&D and Workforce Development

Magna is committed to innovation that meets consumer demands for cleaner, more efficient and safer vehicles. We have dedicated an enormous amount of capital to researching and developing new breakthroughs in green technologies, fuel efficiency, process efficiency, lightweight materials, safety and comfort and convenience. Simultaneously, Magna maintains a workforce that is fast, accountable and customer focused. We cultivate an industry leading employee base through our dedication to management training, employee training, apprenticeship programs, fairness committees and employee advocates. For instance, Magna's tool and die machinists are among the many skilled workers who receive state-of-the-art technical training at 16 engineering and product development facilities in a concerted effort to keep our workforce current with the latest technology.

II. Product Cost

The price we charge to OEM purchasers for our leading products is another important structural factor controlled by Magna. We do so by working with technical experts to optimize design and by actively assessing and reassessing our supply base to identify the most capable and efficient



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48064  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
[www.magna.com](http://www.magna.com)

suppliers at the best prices. By carefully controlling our supply chain selections, we are able to effectively manage our overall cost structure.

#### **Costs Controlled by the Federal Government**

Now I would like to turn my focus to the public component of the successful public/private partnership. As I noted above, the private manufacturing sector is able to control its cost structure to a large yet incomplete degree. The federal government controls the other portion and therefore has the power to do significant harm or good to the United States manufacturing industry.

I propose five areas in which Congress and this Subcommittee should take particular care in order to help ensure sustained American leadership in the automotive manufacturing sector: Regulation, legislation, corporate tax burden, workforce development, and incentives and funding.

##### **I. Regulation**

Magna recognizes that the federal government is best positioned to set certain standards that protect American consumers and American workers. We applaud the efforts of the National Highway Traffic Safety Administration (NHTSA), for instance, to protect drivers and passengers on the nation's roads, and we have been an active partner with NHTSA to help shape the agency's safety regulations in a way that maximizes safety while leveraging the expertise and innovation of the private sector. Given the need for a continued regulatory framework, we simply ask that the government collaborate in a meaningful way with the private sector to craft regulations that respond to the public interest in a way that unleashes the potential of automotive manufacturers.

Indeed, the automotive manufacturing industry often has a vested interest in pursuing the same policy goals as regulators, which is why we believe the government should maintain an active dialogue with industry rather than imposing new regulations without meaningful discussion. One need look no further than gas mileage innovations in recent years to see this dynamic in action. In



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48084  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
www.magna.com

this prolonged period of high gas prices and tight household budgets, consumers demand cars that get more miles to the gallon. Therefore, increasing fuel efficiency would already be in the best interest of automotive manufacturers, even if there were no federal regulations mandating as much.

Similarly, as I have alluded to, Magna is an industry leader in innovating new safety features to protect drivers and passengers, and we would continue to do so in the absence of federal regulations. We go the extra mile to make safer cars not only because safety technology can differentiate automakers' products and help develop loyal customers, but because our innovations make the roads safer for our own families, friends, and employees. While many auto safety features mitigate damage during and after an accident, Magna is already developing active safety technology which can help prevent accidents altogether, even in the absence of a federal mandate. Examples include rear-view cameras, lane departure warning systems, intelligent headlamps and crash-avoidance systems.

## II. Legislation

As is the case with regulations, Magna understands the important role that this Subcommittee and the Congress play in passing legislation to address critical gaps left by the private marketplace. I believe you will find an eager partner in the private sector when it comes to crafting legislation, as we are on the front lines every day. The key objective from Magna's perspective is to continue the active dialogue and collaboration between the public and private sector to ensure that any new legislation achieves its policy objectives in a way that does not create new problems where none previously existed. Hearings such as today's are critical to making this process work for U.S. consumers and the U.S. economy.

## III. Corporate Tax Burden



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wishire Drive  
Troy, Michigan 48064  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
www.magna.com

Congress can play a constructive role in tax reform. We recognize that the issue of corporate tax reform is one of a great deal of complexity that extends beyond the automotive and manufacturing sectors. The high corporate tax burden in the United States – the second highest among countries that participate in the Organization for Economic Co-operation and Development – is a drag on American businesses and job creators. The high corporate rate discourages capital investment in the U.S., as companies may be lured to locate major operations in countries with a lower tax burden such as Mexico. Magna is proud to have 20,000 American employees in 15 states, but the high corporate tax rate serves as a disincentive that must be weighed in strategic business decisions about future capital investment and growth. Reducing the overall tax burden on corporations would help spur greater capital investment, increase manufacturing output, promote job retention in the United States and stimulate the U.S. economy.

#### IV. Workforce Development

The United States is unquestionably the top high-skill manufacturing nation in the world. While market forces have pushed many low-skill manufacturing jobs abroad, the U.S. manufacturing industry has been undergoing something of a renaissance through high-skill labor, including in the automotive sector. These are high-quality, high-paying jobs that cannot be easily outsourced. However, they require a top-caliber American workforce to meet the needs of 21<sup>st</sup> century manufacturers. Congress should therefore work with the private sector to develop workforce training initiatives that respond to employer needs and prepare American workers for the high-skill manufacturing industry of the future. Such workforce development initiatives could include:

- Investing in community colleges, where much of the nation's talented manufacturing labor force originates, and promoting partnerships between community colleges and industry.
- Creating new scholarship and fellowship funds for high-skill manufacturing programs.
- Altering the selection criteria of government agency programs to encourage greater emphasis on new manufacturing technologies.



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48084  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
[www.magna.com](http://www.magna.com)

- Recommitting to adequately funding Workforce Investment Act programs.
- Supporting innovative public/private initiatives at the local and state level.

For example, one state-level public/private initiative that has been particularly successful is Michigan's "Community Ventures" program. Collaboratively run by Governor Rick Snyder and the Michigan Economic Development Corporation, Community Ventures leverages public and private resources to help structurally unemployed workers develop the skills they need to thrive in the 21<sup>st</sup> century economy. In doing so, Community Ventures also responds to the labor force needs of Michigan businesses, such as Magna and numerous other manufacturers. I am pleased to report that we have hired approximately 75 employees through this program, not only giving them a path out of poverty, but also putting them on a path to long-term career success. Companies receive a \$5,000 wage reimbursement grant for each eligible program participant hired, and this sort of public/private initiative has become especially critical in light of budget cuts to the federal Workforce Investment Act initiative.

Another example of a successful public/private initiative that could be scaled nationally is Focus:HOPE in Detroit, an organization which Magna joined in 2003. Focus:HOPE provides the training programs and skills development that people need for high-tech manufacturing and engineering careers. Magna has benefited directly at our Magna Seating facility in Highland Park, where students from Focus:HOPE career training programs have been hired. These students arrive with the skills and training they need to succeed within the company, making them a growth asset to Detroit and Detroit's economy.



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48064  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
[www.magna.com](http://www.magna.com)

V. Incentives and Funding

Congress can further encourage the growth of the manufacturing sector through tax incentives and targeted funding to fill gaps that exist in the private marketplace. Such initiatives could include, among others:

- Energy efficiency tax credits to promote widespread adoption of green technologies, including automotive components.
- R&D tax credits to promote continued American dominance in manufacturing innovation. The credit is beneficial across numerous industries and sectors, but the capital-intensive manufacturing industry derives particular benefit. The United States has rapidly lost ground to other OECD countries when it comes to research and development incentives, and this is a recipe for long-term decline of the U.S. manufacturing sector, as new innovations will increasingly originate overseas.
- Infrastructure investments to modernize and improve the nation's roads, bridges, ports and schools. Such investments not only will lay the foundation for several generations' worth of sustainable economic growth, but also provide immediate job creation in the manufacturing and construction sectors.



**Magna Services America, Inc.**  
**Office of Government Affairs**  
600 Wilshire Drive  
Troy, Michigan 48064  
Tel: (248) 729-4097  
Fax: (248) 729-4035  
[www.magna.com](http://www.magna.com)

### **Conclusion**

The automotive manufacturing industry is a key driver of the U.S. economy and U.S. job creation. In order to remain a pillar of U.S. economic growth, a strong public/private partnership must exist between auto manufacturers and the government. Hearings such as this are a critical element of creating an open flow of information and dialogue between the public and private sectors.

On behalf of Magna's 20,000 American employees, I thank you for this opportunity to testify and share Magna's views on strengthening the U.S. automotive manufacturing industry. I look forward to answering any questions you may have.

Mr. TERRY. Mr. Smith, you are now recognized for your 5 minutes.

**STATEMENT OF WILLIAM A. SMITH**

Mr. SMITH. Well, good afternoon. And thank you, Chairman Terry, Ranking Member Schakowsky, committee members for providing this opportunity to present some issues we face in automotive manufacturing. My name is Bill Smith, and I am executive director of Government Affairs and Community Relations for American Axle & Manufacturing, a tier one automotive supplier headquartered in Detroit, Michigan.

AAM is a \$3 billion supplier of automotive driveline and drivetrain systems. We operate more than 30 locations across four continents, with 12 of our facilities located in the United States. We have invested over \$2.3 billion in these facilities, and we are in the middle of \$100 million investment in new tooling and equipment for our Three Rivers, Michigan facility to launch a new industry leading disconnecting all-wheel drive system, which will provide enhanced fuel economy and safety over existing driveline systems in the industry.

AAM currently employs 3,000 associates in the United States and another 8,400 in other countries. I have worked for AAM since 2005 and have had the personal pleasure of starting up new manufacturing operations in China, Poland, and the United States, and prior to my work for AAM, I spent 37 years in other manufacturing companies for a total of over 45 years of manufacturing experience. I feel that manufacturing is one of the key engines that will drive our economy to the next level. Let me provide some supporting data.

Across the Nation, 12 million Americans are employed directly in manufacturing jobs. For every dollar invested in manufacturing, \$1.48 is added to the economy, the highest multiplier of any economic sector. Manufacturers in the United States perform two-thirds of all private sector R&D in the Nation, driving more innovation than any other sector. However, our competitiveness is slipping, so much so that it is now 20 percent more expensive to manufacture in the United States compared to competing countries.

Manufacturers are poised and ready to power the economy with the right policies in place. I would like to offer four areas in which we can focus to improve our manufacturing competitiveness.

Number one, corporate tax reform; two, energy; three, R&D incentive; and four, workforce training. The United States now has the dubious distinction of having the highest corporate income tax rate among the Nations in the OECD as mentioned. Other countries are lowering corporate tax rates. We need to create a national tax climate that enhances the global competitiveness of manufacturers in the United States, and we need Congress to consider reducing the corporate tax rate to a level that will make the United States competitive with other major trading partners.

And in the area of the energy, energy is now becoming a significant competitive cost advantage for manufacturing in the United States compared to our major trading partners. We can widen this gap and enhance our energy security by embracing every energy resource at our disposal with steps such as approving construction of

new domestic and cross-border pipelines, new transmission lines, expanding energy-related transportation infrastructure. Also, we can standardize and streamline regulations and policies to provide access to traditional energy resources, electricity generation, and the expansion of renewable alternative energy.

Moving to R&D. Innovation propelled the United States to its global leadership position in manufacturing, but other nations are eager to take our place and are establishing R&D incentives that are more attractive than those offered by the United States. We must provide a strong and permanent competitive research and development R&D incentive. We need a stable, forward-looking R&D incentive in place to guide our budgeting decisions to perform R&D in the United States.

And finally, moving to workforce training and skills. World class manufacturing demands world class talent proficient in STEM disciplines. Skills must match our level of manufacturing technology. AAM is currently hiring approximately 500 associates at our Three Rivers, Michigan facility. Due to skills mismatch, we were only able to hire one in three applicants for manufacturing assembly positions. And on a national level, more than 600,000 manufacturing jobs are unfilled due to skills mismatch. These skills gap threatens U.S. competitiveness.

Our manufacturing workforce today is required to understand statistical process control, value stream mapping, machine maintenance and other numerous skills to maintain our competitive position, so we need to put a national focus on increasing proficiency in STEM education and start generating interest in manufacturing careers much earlier in our education systems.

So, in summary, we need your help in supporting and enacting policies to address corporate tax reform, energy, R&D incentives, and the workforce skills gap. It is our belief at AAM that these actions in these key areas will improve our manufacturing competitiveness and stimulate economic growth and job creation. Thank you.

Mr. TERRY. Thank you. Perfect timing.

[The prepared statement of Mr. Smith follows:]



**Summary**  
**American Axle & Manufacturing**  
**Testimony before the House Energy and Commerce**  
**Subcommittee on Commerce, Manufacturing and Trade**  
**Wednesday, April 10, 2013**

**Background**

Manufacturers are ready to power the economy. With the right policies in place, we will transform a difficult and sluggish recovery into an economic resurgence. After all, manufacturing has the highest multiplier effect of any other sector of our economy. Investments in manufacturing multiply across the economy, creating jobs and growth in other sectors.

**Key Areas**

**Corporate Tax Reform:** The United States now has the dubious distinction of having the highest corporate income tax rate among the nations in the Organization for Economic Co-operation and Development (OECD) after surpassing Japan in 2012. Around the world, countries are lowering corporate tax rates, often dramatically. We need Congress to consider reducing the corporate tax rate to a level that will make the United States competitive with our major trading partners and recognize the significant reductions made by competing nations.

**Energy:** Energy is now becoming a significant competitive advantage for manufacturing in the United States. In fact, the United States enjoys a slight advantage on energy costs compared to our major trading partners. We need to embrace every energy resource at our disposal, both traditional and alternative sources including: natural gas, oil, coal, nuclear, wind, solar, hydropower, biomass, energy efficiency and all other technologies that may be harnessed now and in the future. We need to standardize and streamline regulations, policies and permitting to provide access to traditional energy resources, electricity generation and the expansion of renewable and alternative energy.

**R&D:** We need a stable, forward looking R&D incentive permanently in place to guide our budgeting decisions as to the best global locations to carry out our Research and Development activities. Let's make that location the United States with a permanent incentive program.

**Trade Agreements:** The United States needs to establish global trade policies that open international markets, enhance competitiveness and reduce regulatory and tariff barriers.

**Workforce Training and Skills:** World-class manufacturing demands world-class talent. Our workforce must be proficient in science, technology, engineering and mathematics (STEM) and possess the skills that match our level of technology. Our manufacturing workforce of today is required to understand basic Statistical Process Control Techniques, Value Stream Mapping, Basic Machine Maintenance Duties, Inventory Control procedures and numerous other skills to maintain our competitive position. We need to put a national focus on increasing proficiency in STEM education, and start generating interest in manufacturing careers much earlier in our education systems to develop the powerful skilled workforce demanded by today's technology.



**William A. Smith – Executive Director, Government Affairs & Community Relations  
American Axle & Manufacturing  
Testimony before the House Energy and Commerce  
Subcommittee on Commerce, Manufacturing and Trade  
Wednesday, April 10, 2013**

Good morning, and thank you, Chairman Terry, Ranking Member Schakowsky, and Committee members for providing this opportunity to present some issues we face in Automotive Manufacturing - along with some proposed solutions. My name is Bill Smith, and I am Executive Director of Government Affairs and Community Relations for American Axle & Manufacturing, or AAM, a tier one automotive supplier headquartered in Detroit, Michigan.

AAM is a \$3 Billion, supplier of driveline and drivetrain systems and related components for light trucks, SUVs, passenger cars, crossover vehicles and commercial vehicles with a regionally cost competitive and operationally flexible global manufacturing, engineering and sourcing footprint. Through our highly-engineered, advanced technology products, processes and systems and industry leading operating performance, the AAM team provides a highly competitive advantage to our customers.

AAM's global footprint includes more than thirty (30) locations across four continents; specifically, North America, South America, Asia and Europe. Twelve (12) of our facilities are located in the United States. We have invested over \$2.3 Billion in these facilities in Michigan, Ohio, and Indiana. And, at this exact time, we are in the middle of a \$100 million investment in new tooling and equipment at our Three Rivers, Michigan facility which is resulting in the launch of an industry leading disconnecting all-wheel drive system. This new, high technology system will provide enhanced fuel economy and safety over existing driveline systems in the industry. We currently employ 2,981 associates in the USA to which this new Michigan project will be adding approximately 500 additional associates. This brings our US total to nearly 3,500 associates. We also employ another 8,400 associates globally bringing our grand total to 11,381 associates.



I have worked for AAM since 2005, and have had the pleasure of starting up new manufacturing operations in China as President of AAM China, and then in Poland as Managing Director of AAM Europe. Additionally I have worked throughout AAM as a Lean Manufacturing trainer and advisor and now in my current role I am working with Economic Development Teams to smooth the path to global growth for AAM. Prior to my work at AAM, I spent 11 years at General Motors, 6 years at Allied Signal Automotive, 10 years at Chrysler, and 10 years at another NYSE diversified Global Manufacturing Company. This provided me with over 45 years of hardcore manufacturing experience, of which almost 11 years were spent overseas. So, like the other panel members here before you, manufacturing is also my world, and more specifically, automotive manufacturing.

I am truly honored to be here today representing the profession of automotive manufacturing. With four and a half decades of automotive experience under my belt, I carry with me a passion for manufacturing and the automotive industry. I feel that manufacturing is one of the key engines that will drive our economy to the next level. It is the backbone of where jobs are created ... where you create wealth ... and where you help sustain communities.

The proof is in the numbers. Let me provide some current facts and data:

- Across our nation, 12 million Americans are employed directly in manufacturing jobs.
- Taken alone, manufacturing in the United States would be the 10th largest economy in the world.
- For every dollar invested in manufacturing, \$1.48 is added to the economy – the highest multiplier of any economic sector.
- Manufacturing value-added continues to grow, rising from \$1.42 trillion in 2000 to \$1.73 trillion in 2011, or 11.5 percent of Gross domestic product.
- Manufacturers in the United States perform two-thirds of all private-sector R&D in the nation, driving more innovation than any other sector.



- Manufactured goods exports account for approximately 61 percent of our total exports.
- However, our competitiveness is slipping, so much so, that it is now **20 percent more expensive** to manufacture in the United States compared to our competitors primarily due to our policies on taxes, energy, tort and trade.

Manufacturers are ready to power the economy. With the right policies in place, we will transform a difficult and sluggish recovery into an economic resurgence. After all, manufacturing has the highest multiplier effect of any other sector of our economy. Investments in manufacturing multiply across the economy, creating jobs and growth in other sectors. Simply put, manufacturing makes America strong.

I would like to offer five key areas upon which we can focus to improve our manufacturing competitiveness in the United States.

1. Corporate Tax Reform
2. Energy
3. R&D Incentive
4. Trade Agreements
5. Workforce Training

Starting with Corporate Tax Reform –

The United States now has the dubious distinction of having the highest corporate income tax rate among the nations in the Organization for Economic Co-operation and Development (OECD) after surpassing Japan in 2012. Around the world, countries are lowering corporate tax rates, often dramatically.

We need to create a national tax climate that enhances the global competitiveness of manufacturers in the United States and avoid policy changes that would increase the tax burden on the manufacturing sector, discouraging job creation and investment. We need Congress to



consider reducing the corporate tax rate to a level that will make the United States competitive with our major trading partners and recognize the significant reductions made by competing nations.

And in the area of Energy –

Energy is now becoming a significant competitive advantage for manufacturing in the United States. In fact, the United States enjoys a slight advantage on energy costs compared to our major trading partners. The United States can widen this gap and enhance our energy security.

We need to embrace every energy resource at our disposal, both traditional and alternative sources including: natural gas, oil, coal, nuclear, wind, solar, hydropower, biomass, energy efficiency and all other technologies that may be harnessed now and in the future.

We need to strengthen our energy infrastructure to accommodate growing energy resources, with steps such as approving construction of new domestic and cross-border pipelines and new transmission lines and expanding energy-related transportation infrastructure. Also, standardize and streamline regulations, policies and permitting to provide access to traditional energy resources, electricity generation and the expansion of renewable and alternative energy.

And finally, take advantage of new opportunities to develop energy resources, such as unconventional oil and natural gas formations across North America.

Moving to R&D -

Innovation propelled the United States to its global leadership position in manufacturing. But other nations are eager to take our place and are establishing R&D incentives that are far more attractive than those offered by the United States. To maintain its mantle of leadership, the United States must adopt policies that will attract and retain R&D activities.



If the United States is to continue to be the global leader in innovation, we must provide a strong, permanent and competitive research and development (R&D) incentive. We cannot continue the practice of allowing this important incentive to expire, and then be retroactively reinstated. AAM establishes our annual competitive budgets based upon policies in place at the time, and we need a stable, forward looking R&D incentive in place to guide our budgeting decisions as to the best global locations to carry out our Research and Development activities. Let's make that location the United States with a permanent incentive program

Regarding Trade Agreements -

I am sure that you are aware that our neighbor to the south, Mexico, now has 12 Free Trade Agreements with 44 countries in place and operating. This is more than any other country in the world. The United States needs to establish global trade policies that open international markets, enhance competitiveness and reduce regulatory and tariff barriers.

Moving on to Workforce Training and Skills gap –

World-class manufacturing demands world-class talent. Our workforce must be proficient in science, technology, engineering and mathematics (STEM) and possess the skills that match our level of technology. I mentioned earlier that AAM is hiring approximately 500 new associates right now at our Three Rivers, Michigan facility. Due to skills mismatch, we are only able to hire 1 in 3 applicants for our manufacturing assembly positions, and then find that 1 in 4 of the hired associates is unable to make the step to permanent employment. In The State of Michigan there are currently has 60,000 unfilled jobs due to skill set mismatch. And taking that one step further, on a national level, more than 600,000 manufacturing jobs are unfilled because workers don't have the right skills—this skills gap threatens U.S. competitiveness. Due to my experience, I can tell you with certainty that this is not the case in other countries. For example, in China, every associate I hired had at least a 3 year technical degree, and these were the associates who worked our axle assembly lines.



Our manufacturing workforce of today is required to understand basic Statistical Process Control Techniques, Value Stream Mapping, Basic Machine Maintenance Duties, Inventory Control procedures and numerous other skills to maintain our competitive position.

We need to put a national focus on increasing proficiency in STEM education and start generating interest in manufacturing careers much earlier in our education systems to develop the powerful skilled workforce demanded by today's technology.

In summary, we need your help in supporting and enacting policies to address Corporate Tax Reform, Energy Policy, R&D Incentives, Foreign Trade Agreements, and the Workforce Skills Gap. It is our belief at AAM, that actions in these key areas will improve our manufacturing competitiveness and stimulate economic growth and job creation in the United States.

Thank you for the opportunity to speak at this hearing.

Mr. TERRY. Ms. Parker, you are now recognized.

**STATEMENT OF ANNETTE PARKER**

Mr. PARKER. Thank you, Chairman Terry and Ranking Member Schakowsky and members of the subcommittee for the opportunity to testify today. My name is Dr. Annette Parker, and I am executive director of the Automotive Manufacturing Technical Education Collaborative, AMTEC, at the Kentucky Community and Technical College System, KCTCS.

I am proud to be here today to share our story and to discuss with you how we can further support automotive manufacturing in the United States.

In order for the United States to be able to keep its leadership position, or competitiveness in the global economy, the workforce must keep pace with the knowledge and innovation in advanced automotive manufacturing, and other STEM disciplines.

The Automotive Manufacturing Technical Education Collaborative was created because education leaders in Kentucky and other States came together and recognized this key challenge for the automotive manufacturers to maintain the flexible workforce and develop new worker competencies that would enable automakers to maintain high performance work organizations that create jobs and add value to products and services.

We recognize that highly skilled engineers are part of the solution; however, there also needs to be, we need to fill the gap from middle-skilled workers and technicians in advanced automotive manufacturing.

These types of workers generally have an associate degree or industry recognized post secondary credential. Yet, institutions of higher education are not producing the number of students needed by our employers. These types of workers also need the fundamental skill-sets that are common across all of the automotive manufacturing companies, and it is the basis of the development of the AMTEC center.

The auto workers have shared with us that they need work-ready employees with the basic skills to whom they can provide specific company training. In order to meet industry skills, AMTEC has recognized that the automotive industry requires uniquely trained employees to support increasingly flexible and lean manufacturing lines, fluctuating customer demands, a growing focus on green manufacturing, and rapidly improving technology.

In response to these industry demands, AMTEC offers an industry-endorsed, multi-skilled maintenance certification assessment, validated college curriculum aligned to industry-endorsed skill standards, shared best practices and educational models among colleges and industry partners, and flexible career pathways to fit unique needs of students, employers, and employees.

AMTEC, through the leadership of the Kentucky system, built a collaboration of approximately 35 community colleges and automakers in 12 States to build consensus in the development of national standards for multi-skilled maintenance or mechatronics technicians for the automotive manufacturing sector; the development of competency measurement tools to assess knowledge skills and abilities of incumbent and future STEM technicians; the devel-

opment of career pathway models that follow the key success factors in order to create a pipeline for the future workforce; and we also have AMTEC academies that we convene with key stakeholders to share those best practices and learn and grow from each other.

Through the development of standards, competency-based modularized curriculum, and assessments, AMTEC has created a unique collaboration of industry in colleges that provide education of workers prized by the industry. In 2011, the National Governors Association, through a case study selected AMTEC as a model in national best practice.

The NGA states that the AMTEC story shows that it is possible for governors to work collaboratively with industry, with community colleges, and with each other to provide people with the opportunity to build their technical skills and ensure both America's future prosperity and their own economic security.

AMTEC is at the forefront of education because the future workers involves a very different kind of technical worker, a very different kind of partnership, and a very different kind of education. As a collaborative, we are excited about the future as we work with K-12 educators, community colleges, automotive manufacturers and suppliers, to ignite our students' interests to educate them to compete globally and accelerate them into the workplace to become competent, well-educated STEM workers in the advanced automotive manufacturing industry.

AMTEC academy events have been successful in convening college and industry stakeholders to learn and grow from locally specific best practices. As a matter of fact, the next AMTEC academy is hosted by Nissan, at the Tennessee Technology Center in Murfreesboro, Tennessee, April 11th and 12th, 2013.

The recommendations that AMTEC would provide include continued funding in support of collaborative efforts across the automotive sector and other sectors that drive supported national standards and assessments. We recommend the expansion of collaborations that engage K-12 higher education, industry, and government entities.

The National Science Foundation Advanced Technological Education Funds have been critical to the development and success of AMTEC and similar centers of excellence that need to be continued with support funding.

And finally, these efforts should be national in scope, and therefore cross local, regional, and State lines to increase collaboration and effectiveness while reducing duplication of funds and efforts. Thank you, again, for the opportunity to speak today.

Mr. TERRY. Thank you.

[The prepared statement of Ms. Parker follows:]

**Testimony of Dr. Annette Parker**

**Executive Director of the Automotive Manufacturing Technical Education Collaborative**

**National Science Foundation Advanced Technological Education Center of Excellence**

**Kentucky Community & Technical College System**

**Versailles, Kentucky**

**Hearing in Our Nation of Builders: Powering**

**U.S. Automobile Manufacturing Forward**

**SUBCOMMITTEE ON COMMERCE, MANUFACTURING AND TRADE**

**United States House of Representatives**

**April 10, 2013**

Thank you Chairman Terry, ranking Member Schakowsky, and Members of the Subcommittee for the opportunity to testify today.

My name is Dr. Annette Parker and I am the Executive Director of the Automotive Manufacturing Technical Education Collaborative (AMTEC) at the Kentucky Community and Technical College System (KCTCS). I am proud to be here today to share our story and to discuss how we can all further support automobile manufacturing in the United States.

In order for the United States to keep its leadership position or competitiveness in the global economy, the workforce must keep pace with the knowledge and innovation in advanced automotive manufacturing and other science, technology, engineering, and mathematics disciplines. The Automotive Manufacturing Technical Education Collaborative (AMTEC) was created because education leaders at KCTCS and other states came together and recognized that a key challenge for automotive manufacturers would be maintaining a flexible workforce and developing new worker competencies that would enable automakers to maintain high performance work organizations that create jobs and value-added products and services. We recognized that highly skilled engineers are part of the solution, but a need also existed in middle-skilled (mid-level) workers and technicians in advanced automotive manufacturing. These types of workers generally have an associate degree or industry-recognized postsecondary credential, yet institutions of higher education are not producing the number of students needed by employers. These types of workers also need the fundamental skills that are common across all of the automotive companies, a basis for the development of the AMTEC Center. The automakers have shared with us that they need work-ready employees with the basic skills to whom they can then provide specific company training.

In order to meet industry needs AMTEC has recognized that the automotive industry requires uniquely trained employees to support:

- Increasingly flexible and lean manufacturing line;
- Fluctuating customers demands;
- A growing focus on green manufacturing; and
- Rapidly improving technology

In response to these industry demands, AMTEC offers:

- Industry-endorsed maintenance certification assessments;

- Validated college curriculum aligned to industry-endorsed skills standards;
- Shared best practices and educational models among colleges and industry partners; and
- Flexible career pathways to fit the unique needs of students, employees, and employers.

AMTEC through the leadership of the Kentucky Community & Technical College System built a collaboration of approximately 35 community colleges and automakers in 12 states to build consensus in the development of national standards for multi-skilled maintenance/mechatronics technicians for the automotive manufacturing sector; development of competency measurements tools to assess knowledge skills and abilities of incumbent and future STEM technicians; the development of career pathway models that follow key success factors in order to create a pipeline for the future workforce; and AMTEC academies to convene key stakeholders to share best practices and learn and grow from each other.

Through the development of standards, competency-based modularized curriculum and assessments, AMTEC has created a unique collaboration of industry and colleges that provide education of workers prized by the industry. In 2011, the National Governors Association (NGA), through case study, selected AMTEC as a model and National Best Practice. NGA states that “The AMTEC story shows that it is possible for governors to work collaboratively with industry, with community colleges, and with each other to provide people with the opportunity to build their technical skills and ensure both America’s future prosperity and their own economic security”, (A Sharper Focus On Technical Workers, How to Educate and Train for the Global Economy, Martin, et. al. 2010).

AMTEC is at the forefront of education because the future involves a very different kind of technical worker, a very different kind of partnership, and a very different kind of education. As a collaborative we are excited about the future as we work with K-12 educators, community colleges, automotive manufacturers and suppliers to ignite our students’ interests, and educate them to compete in a global economy; and accelerate them into the workplace to become competent, well-educated STEM workers in the advanced automotive and manufacturing industry. AMTEC academy events have been successful in convening college and industry stakeholders to learn and grow from locally specific best practices. As a matter of fact, the next AMTEC academy is hosted by Nissan and the Tennessee Technology Center in Smyrna, Tennessee April 11 & 12, 2013.

Recommendations from AMTEC would include continued funding and support of collaborative efforts across the automotive sector and other sectors that drive industry supported national standards and assessments. We recommend the expansion of collaborations that engage K-12, higher education, industry, and government entities. The National Science Foundation Advanced Technological Education funds have been critical to the development and success of AMTEC and similar centers of excellence that need to have continued support and funding. Finally, these efforts should be national in scope and therefore

cross local, regional, and state lines to increase collaboration and effectiveness while reducing duplication of funds and efforts.

Thank you again for the opportunity to speak today. I look forward to your questions.

Mr. TERRY. Ms. Kinsey.

**STATEMENT OF KATHY M. KINSEY**

Ms. KINSEY. Chairman Terry, Ranking Member Schakowsky, members of the subcommittee, my name is Kathy Kinsey. I am a Deputy Secretary at the Maryland Department of the Environment, and I want to thank you for the opportunity to be here today to address the subcommittee on an issue that we believe is very central to the long-term future of the automobile industry in this country. And that is the need for alternative fuel vehicles and development of a robust fueling infrastructure in the Nation.

Maryland has enjoyed a very long association with General Motors, and the future of the automotive industry in this country is very important to us. Baltimore is now home to GM's new Allison Transmission Plant, which manufactures the electric drive trains for the Volt, and also which will start production next week of electric motors for the new Spark EV that they are manufacturing.

So expansion of the alternative fuel vehicle market is particularly important to us. We see it as critical to achieving our air quality and our long-term greenhouse gas action goals. Many in this room know very well that poor air quality is one of our State's most intractable environmental problems, and in spite of the tremendous progress that we have made in reducing emissions and improving fuel efficiency of our automobiles, car and truck emissions remain a major cause of our ozone nonattainment problems in Maryland and on the East Coast, and atmospheric deposition of nitrogen is responsible for nearly one-third of the nutrient pollution in the Chesapeake Bay, and half of airborne nitrogen oxygen oxide is attributable to the mobile source industry sector, mobile source sector.

Transportation is second, only to the energy sector as a source of greenhouse gas emissions in our State. So expansion of the electric vehicle market is a very high priority for the O'Malley-Brown administration in our State, and you know, we are very committed to developing a robust market, and a fueling infrastructure for plug-in vehicles in our State, and we are moving forward on a number of different fronts to do that.

And I really would like to respond to the characterization that our, the development of our infrastructure is in its infancy. Our draft greenhouse gas plan which is due to be finalized very shortly, has set a goal of 60,000 plug-in electric vehicles on the road in Maryland by 2020. Last year the legislature passed two very important bills removing potential regulatory barriers to development of a State charging network infrastructure charging network.

This year the legislature passed two bills extending tax credits for plug-ins, and charging stations both, and extending HOV lane access, and I will say that GM worked very closely with us on those initiatives to ensure passage of both of those bills.

We have in Maryland and will continue to provide significant State funding for installation of public charging stations. In 2010 and 2011, we awarded \$.5 million in matching grants for charging stations. This year, Governor O'Malley has committed \$1 million in his capital budget for charging stations at MARC and Metro stations. And we now have more than 350 public charging stations in

the State. And this ramp-up has occurred over a relatively short period of time.

Two years ago, our general assembly established the electric vehicle infrastructure council, and it is comprised of members from all of the interest groups. GM was a member of the council, and we looked comprehensively at all of the barriers and challenges in our state to establishing a robust charging infrastructure network.

There is a final report that was issued in December with many, many recommendations for removing barriers, enhancing the market, developing our charging infrastructure, and it included a very detailed blueprint for installation of a state-wide charging network that would be adequate to service 60,000 PEVs that we hope to have on the road in Maryland by 2020.

And this year because of the work that we have done on that council, the general assembly extended the council for another 3 years to continue to work so that we can dig a little deeper into some of the more challenging aspects of developing the infrastructure network, develop pilot demonstration projects, engage in more outreach and education.

We have been working collaboratively in Maryland with the other East Coast states through the Transportation Climate Initiative on a regional initiative to develop a charging network along the I-95 corridor on the East Coast that is going to hopefully enable long-distance travel throughout the region.

And in closing, I just want to say that I—we in Maryland, I believe we have demonstrated our very strong commitment to working with the automobile industry, the charging station manufacturers, the utilities, our sister States, and the many other stakeholder groups to make the necessary investment in our infrastructure.

And we have seen a significant expansion of the infrastructure in a short period of time, a big upward trend in EV sales in Maryland, and we expect it to continue. Thank you very much.

Mr. TERRY. Thank you very much.

[The prepared statement of Ms. Kinsey follows:]

Testimony of Kathy M. Kinsey  
Deputy Secretary  
Maryland Department of the Environment

Before the  
House Committee on Energy and Commerce  
Subcommittee on Commerce, Manufacturing and Trade

Hearing on  
Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward

April 10, 2013  
Washington, DC

Thank you Chairman Terry, Ranking Member Schakowsky and members of the Subcommittee. My name is Kathy Kinsey and I am the Deputy Secretary for Operations and Regulatory Programs at the Maryland Department of the Environment. I appreciate this opportunity to address the Subcommittee regarding efforts underway in Maryland to promote and support advancements in motor vehicle technology that we believe are the future of the automobile industry and are critical to achieving our State's long-term goals to reduce transportation-related air pollution and greenhouse gas (GHG) emissions, enhance energy security, save consumers money and promote economic growth.

**The Need for Cleaner Cars**

The automobile industry has achieved significant technological advances to lower automobile pollution and is now doing the same to increase vehicle fuel efficiency. In spite of tremendous progress made at the state, regional and federal level over the past 40 years, however, poor air quality continues to be one of our State's most intractable environmental problems. Cars and trucks remain among the largest emission sources that contribute to air quality related public health and environmental problems in Maryland, and the transportation sector is the second largest source of GHG emissions in our State. Continued technological progress is essential if we are going to achieve meaningful reductions in GHG emissions and much needed further improvements in air quality.

***Ozone Nonattainment Areas***

Maryland is one of 13 states that have adopted the California low emission vehicle standards. These standards benefit Maryland by reducing emissions of pollutants that cause our continuing ozone nonattainment problem. Nearly 90 percent of Maryland's citizens live in ozone nonattainment areas and are subject to some of the worst ozone pollution east of the Mississippi

River. Reducing emissions of nitrogen oxides (NOx) is key to improving our air quality and mobile sources are the leading contributor to NOx emissions in Maryland – nearly twice the emissions of power plants. When fully implemented, the low emission vehicle standards will reduce pollutants from cars and light-trucks that contribute to ground level ozone by 75 percent. Adoption of the low emission vehicle standards is a key component of Maryland’s ozone attainment strategy.

***Nutrient Pollution in the Chesapeake Bay***

The Chesapeake Bay watershed is a national treasure and vital to the economic health and cultural identity of Maryland. Reducing mobile source emissions of NOx is an important component of the Chesapeake Bay restoration effort. Atmospheric deposition of nitrogen is responsible for approximately one-third of the Bay’s nutrient pollution and 50 percent of the airborne NOx is attributable to mobile source emissions. The new vehicle standards will significantly reduce nitrogen deposition to the Bay.

***Zero Emission Vehicles***

The zero emission vehicle (ZEV) provisions – that require the auto manufacturers to provide for sale, in each state, a certain percentage of vehicles powered by electricity or hydrogen – are a critical component of the low emission vehicle program. State ZEV requirements will advance the development of a new generation of cleaner and more efficient vehicle technologies that will benefit Maryland and, ultimately, the entire nation.

There is reason for confidence that this transformation will come about quickly. In 2002, there were only three hybrid vehicle models commercially available for sale in the United States; ten years later that number has grown to 38. In 2006, there were no plug-in electric vehicles on the market in the United States; only six years later, there are at least 13 different models. These

advancements illustrate the importance of the state ZEV requirements, which have spurred development of new low and zero emission vehicles and demonstrated the automobile industry's ability to innovate in a short period of time. The transition to these advanced technology vehicles will support our efforts to achieve our air quality and climate change goals, and will enhance energy security by reducing our dependence on foreign oil. There is no other known way for Maryland to achieve its long term 2050 goal to reduce State-wide GHG emissions 90 percent from 2006 levels without ultimately transitioning the vehicle fleet to non-petroleum fuels.

Electricity is a low cost, lower carbon domestic alternative that currently cost two-thirds less than gasoline/diesel on a per-mile basis. Today, our State relies almost entirely on imported petroleum fuels for transportation. Switching from imported gasoline and diesel to low cost domestic energy sources will have a positive macro-economic impact by reducing the outflow of capital from the State and putting more money in the pockets of consumers. A portion of the savings that accrues through reduced fuel costs would be invested within the State, with positive multiplier effects across the economy.

Maryland's ZEV requirements are critical to ensuring that automobile manufacturers deliver electric vehicles to our State and region. History has shown that a robust regulatory driver is necessary to ensure this vital transition. The automotive industry has demonstrated the ability for incredible innovation in mass-market commercialization of new technologies to meet the demands of strong regulatory requirements. The rapid improvements in fuel economy that have occurred since the passage of the new CAFE standards are testament to the innovative capacity of the automotive market. The fact that these developments are taking place after two decades of little change in fleet fuel economy demonstrates the importance of a strong regulatory driver with clear long-term goals. Given the huge challenge Maryland faces in meeting our 2050 climate

goals, and the fact that we can't achieve the necessary GHG reductions from the transportation sector without electric vehicles, it is essential that industry maintain its momentum in this transition.

**Maryland's Commitment to ZEVs**

The State of Maryland is committed to doing its part to help build a robust market for these vehicles through financial and other incentives. The State currently provides a one-time excise tax credit of up to \$2,000 for purchase or lease of a qualifying plug-in electric vehicle (PEV). Fleet operators are eligible for State excise tax credits on up to 10 vehicles. This State credit is in addition to the federal tax rebate for PEVs.

The increasing availability of PEVs is driving investment in electric vehicle fueling infrastructure. In the past two years, Maryland has funded the installation of more than 350 public charging stations. Together with privately funded installations, the State has made a commitment to ensuring the development of adequate charging infrastructure consistent with our ZEV program requirements and consumer demand. The State currently offers a tax credit of up to \$400 on electric vehicle supply equipment. Maryland also provides non-monetary incentives to ZEVs, such as permitting electric vehicles to use high occupancy vehicle (HOV) lanes, regardless of the number of passengers. Legislation extending tax incentives and HOV lane access, due to expire this year, passed both chambers of the Maryland General Assembly last week.

Last year's General Assembly passed two important bills to facilitate development of a charging infrastructure network in the State: (1) legislation exempting owners and operators of electric charging stations from regulation by the Public Service Commission as "public utility companies" subject to tariff and other regulatory requirements; and (2) legislation allowing the

Motor Vehicle Administration to share owner/address information for newly registered electric vehicles with electric utilities to ensure the reliability of the grid.

***Recommendations of the Maryland Electric Vehicle Infrastructure Council***

Two years ago, the Maryland General Assembly demonstrated its commitment to developing the electric vehicle infrastructure necessary to facilitate widespread use of PEVs by establishing the Electric Vehicle Infrastructure Council, composed of 26 members representing local and State government agencies, citizens, manufacturers of charging equipment, utilities and other interest groups. In December, the Council released a comprehensive final report and action plan to advance the development of a State-wide charging network. In addition to the legislative recommendations discussed above, other key recommendations of the Council included:

- Establishment of a goal to have 60,000 PEVs on the road in Maryland by 2020;
- A detailed blueprint for the State-wide location of public charging stations sufficient to serve 60,000 electric vehicles to guide public investment in charging infrastructure;
- Measures to facilitate installation of charging stations in multi-dwelling and urban settings where many homeowners do not have access to private garages or parking spaces;
- 2020 and 2025 State fleet purchase goals for PEVs;
- Exploration of State bulk PEV lease/purchase agreements with local governments and Northeast Corridor states;
- Educational webinars and other outreach for property managers, developers and homeowner associations to explain the benefits of providing charging infrastructure;
- Guidance documents for local governments on infrastructure planning; and
- Revisions to local government zoning and planning codes to eliminate existing barriers to infrastructure development, including siting and design guidelines.

***State Funding for Charging Stations***

In 2010 and 2011, Maryland's Energy Administration awarded more than \$500,000 in competitive matching grants for installation of charging stations in the State, enabling PEV drivers to charge at more than 40 different locations in Maryland and the District of Columbia. This year, Governor O'Malley included \$1 million in capital funding for installation of charging stations at MARC and Metro Stations in the State.

***Regional Collaboration***

Through the Transportation Climate Initiative (TCI), Maryland and other East Coast states are working collaboratively to ensure development of a robust charging station network along the I-95 corridor that will permit long distance travel in electric cars throughout the region. We are also coordinating and collaborating with California and the other ZEV states – which together comprise more than one-quarter of the U.S. car market – to support and facilitate the commercialization of ZEVs and ensure the successful implementation of our Zero-Emission Vehicle programs. These states are exploring opportunities to develop and implement consistent standards to promote ZEV consumer acceptance and awareness, industry compliance and economies of scale, including adoption of universal signage, common methods of payment and interoperability of electric vehicle charging networks and reciprocity among states for ZEV incentives, such as preferential parking and HOV lane access.

***Fueling Infrastructure***

It has been suggested that the necessary fueling infrastructure is not in place in the states, and that this will constrain efforts to market plug-in electric vehicles (PEVs) and hydrogen fuel cell vehicles (FCVs). We disagree. As I described, the fueling infrastructure for plug-in vehicles,

is rapidly expanding in Maryland, and the nation as a whole, to keep pace with consumer demand.

With respect to hydrogen fuel cell vehicles, the so-called “Section 177” states (states other than California that have ZEV requirements) have acknowledged the important role that hydrogen fueling infrastructure plays in ensuring customer acceptance of this technology. For this reason, the Section 177 states have supported the California Air Resources Board’s (CARB’s) extension of the so-called “travel” provision for these vehicles, until such time as the infrastructure is in place to support wider deployment. This provision ensures that manufacturers who meet a portion of their near-term ZEV obligation in California with FCVs will automatically earn credit toward their obligations in all other ZEV program states – without placing a single vehicle outside of California. This concession is likely to significantly lower some manufacturers’ obligations outside California. Moreover, the Section 177 states agreed to support this provision after detailed conversations with the automakers and CARB.

The infrastructure challenges for PEVs are much different. Where hydrogen-powered vehicles require a new, technology-specific fuel delivery system, PEVs make use of an already ubiquitous source of energy. While there are new hardware requirements necessary for vehicle charging, the fuel source is adequate and widely available. We are confident that Maryland’s electric infrastructure can accommodate a smooth transition to electric transportation through careful planning, close coordination with private sector, and strategic investment.

#### *Consumer Acceptance*

Some also suggest that customer acceptance is not sufficient to successfully market advanced vehicles outside of California. However, the track record of hybrid-electric vehicles, such as the Toyota Prius, and the burgeoning demand for plug-in vehicles across the country

suggest otherwise. As of March, there were more than three times the number of plug-in vehicles on America's roads compared to just one year ago.<sup>1</sup>

In contrast to several automakers that have chosen to limit their product plans for advanced vehicles, manufacturers such as GM and Nissan have committed to marketing PEVs nationwide. The impressive initial sales figures for these models validate their decision to make PEVs available more broadly and are indicative of growing market demand for these products across the nation.

### *Economics*

Finally, it must be acknowledged that auto manufacturers have tremendous influence over the response of their customer base through marketing and strategic vehicle pricing. A narrow focus on near-term profitability of new vehicle models fails to recognize the overall return on investment that will be realized over time. For example, GM has announced plans to roll out the plug-in Cadillac ELR, based on the Volt powertrain, enabling the company to leverage its initial investment in research and development, while expanding consumer choice. One can expect that manufacturers will continue to broaden their deployment of advanced technologies across product lines, as Toyota has done with the Prius hybrid system, and as is common practice with engines, transmissions and other power train components. This will reduce production costs for ZEVs over time and allow manufacturers to competitively price early models with the knowledge that their current investments will pay dividends in the future.

Thank you again for this opportunity to address the Subcommittee on Maryland's commitment to, and efforts toward, developing a robust charging infrastructure and market for ZEVs.

---

<sup>1</sup> <http://www.electricdrive.org/index.php?ht=d/sp/i/20952/pid/20952>

Mr. TERRY. My first question goes to Mr. Wehrman and Mr. Nielsen. And as manufacturers with U.S. facilities, will an E.U./U.S. free trade benefit you, and what would you like to see in this area? Mr. Wehrman first.

Mr. WEHRMAN. Yes, as I mentioned, the export has become a much bigger part of our business for Honda in North America. And without question, any Free Trade Agreement certainly helps us. We recently began exporting to Korea as a result of the Free Trade Agreement that was signed with South Korea, and that is very beneficial to us. We would expect to see more opportunities to export to Europe, to the E.U. as a basis of—based on our Free Trade Agreement or any other Free Trade Agreement, for that matter. It certainly opens opportunities.

Mr. TERRY. And what would we need to have in that trade agreement to facilitate your exports of U.S. manufactured Hondas?

Mr. WEHRMAN. Naturally, elimination of any tariff barriers, but also looking at non-tariff barriers and ideally, any work towards harmonization of standards. Because clearly, the difference in standards increases the cost of manufacturing. The more commonality, the more volume we can get, the more competitive we can be, both in North America, and in other markets as well.

Mr. TERRY. Mr. Nielsen.

Mr. NIELSEN. Chairman Terry, I believe a very similar response as a global automaker, we strongly support free trade across the globe. So any type of—we are supportive of trade agreements with all regions, including Europe. And to the second part of your question, also we are in support of harmonization activities, but I would add not only between the U.S. and Europe, but also harmonization on a more global basis. A forum does exist today that all automakers are a part of, and we think—

Mr. TERRY. What is that?

Mr. NIELSEN. I am sorry?

Mr. TERRY. What is the forum?

Mr. NIELSEN. I am sorry, I don't recall the exact name but it is a world, a global harmonization forum that allows participants from each of the main global regions to work on harmonization across the globe. And you know, as a company that exports to 23 global markets, that is critically important to us.

Mr. TERRY. Thank you, and then for Mr. Paradise and Mr. Smith. You have facilities in Europe and the U.S. How do you see the potential for Free Trade Agreement to benefit your companies? And we will go with Mr. Paradise first.

Mr. PARADISE. Anything that has to do with free trade, we are supportive of, and anything, as Chris pointed out, that balances, and makes sure that things are fair between countries, is important to us.

We can manufacture anywhere in the world, but if we can have a balanced trade agreement between us, and be able to ship product back and forth without unnecessary tariffs that penalize our products, that is where we are looking to get to.

Mr. TERRY. All right, Mr. Smith.

Mr. SMITH. Thank you, Mr. Terry. We don't make decisions at AAM strictly based on trade policy, but are very much in support

of trade policies that are well thought out and balanced across the planet.

Mr. TERRY. OK, and then again to Mr. Paradise and Mr. Smith. Both of you in your testimony mentioned the U.S. Tax Code. Now, obviously we aren't Ways and Means, but we are working to get their jurisdiction moved to us.

Thank you for laughing. I am going to ask the same question I did of our first panel in that respect. Do you have any feel for what a reformed corporate Tax Code should look like by way of, is the appropriate number 20 percent, or 25 percent? Have you guys had any feel?

Mr. Smith, you seem—

Mr. SMITH. Well, again, the gray hair comes from a lot of thinking and things like that about the world. Certainly, something 25 percent or south thereof would be really good.

Mr. TERRY. Do you think that would level the playing field so you could be more competitive, not at a disadvantage?

Mr. SMITH. It may not completely level the playing field, but certainly puts us a little bit more in the game. Working in other countries, there is a lot of very aggressive folks out there that we work with that try to attract our business, and at least that moves it in the right direction.

Mr. TERRY. Mr. Paradise.

Mr. PARADISE. Anything you can get us 30 percent or below will make us competitive. When you look at the success that Mexico has had in securing OEM facilities which ultimately attract us as suppliers to be close by, nowadays logistics costs are huge and we are under huge pressure to locate as close as we can to the OEMs.

Mr. TERRY. All right, very good. I yield. I am going to recognize Ranking Member Schakowsky.

Ms. SCHAKOWSKY. OK, as promised, Mr. Wehrman and Mr. Nielsen, I wanted to go back to the issue of rearview video systems in the cars. And let me just state, again, I am going to be meeting with a woman this week whose husband tragically ran over and killed their 1 year old, and then 5 years later, he committed suicide.

These are just agonizing situations, and when we lose two children a week, they are not rare. So these kinds of systems could reduce by 95 percent those accidents.

So you may not have these numbers now. I would like to know the percentage of cars served by your companies that currently come with display screens, and your projections for next year, and when you think you might reach 100 percent. What percentage of new cars sold by your companies have rearview cameras standard, and what percentage of Honda and Toyota cars sold in Japan have rearview cameras?

Let me get to that. Are there different standards for what is standard in a car in the U.S. when it comes to safety, U.S., and other markets? Let me start with you, Mr. Wehrman.

Mr. WEHRMAN. First of all, yes, there are different standards, but I can't say I am an expert as far as what the standards are in Japan compared to North America because my focus is, of course, on North America.

Ms. SCHAKOWSKY. Sure.

Mr. WEHRMAN. Regarding the rearview cameras, 96 percent of the Hondas sold in the U.S. do have rearview cameras today. And our intention is over the next couple of years, to make that 100 percent. And that is not based on regulation. It is just based on our overall commitment to safety, and because customers do appreciate this feature and they want this feature. So that is what has driven it.

Our general feeling on the regulation is certainly a regulation that improves the safety, is something to be considered very heavily. We would recommend it be based on a performance standard than a specific technology. It may very well be over the next couple of years that a better technology for detecting a child behind the car might be available compared to video, and we would like to have that flexibility to adapt the best and most effective technology should that happen.

Ms. SCHAKOWSKY. Thank you. Mr. Nielsen.

Mr. NIELSEN. I am pleased to say that for all of our trucks and sport utility vehicles, we currently have rearview vision systems available. And as you know, those are the vehicles that are the most critical in terms of rear visibility. We have rear visibility systems available on most, all of our passenger cars as well. I don't have a specific number for you.

Ms. SCHAKOWSKY. As an option?

Mr. NIELSEN. As an option, that is correct. And also we are supportive certainly of the role in principle. We would also like to also understand the technical detail, but we agree that this is a very important issue and are very supportive of it as well.

Ms. SCHAKOWSKY. Thank you. I wanted to ask Dr. Parker a question. So you are saying that right now, the certification process is just for Kentucky and for AMTEC, but that you are working to make a national standard so that a certification can be available provided there is certain training?

Ms. PARKER. Yes, we believe that the standards for the fundamental skills for multi-skilled maintenance is essentially the same across all manufacturers, all automotive manufacturers, and have thus worked with our industry partners to define what those standards should be and to develop standards that follow APA requirements of high stakes assessments that they are using to analyze incumbent workforce—worker skills, and also to certify new STEM students that are coming through the pipeline.

Ms. SCHAKOWSKY. Now that we have other manufacturers is there anyone who doesn't agree that some sort of a national certification or standard of competency would be helpful, so that is a good direction to go in. And thank you for your leadership.

I wanted to ask Ms. Kinsey, are you aware that there is a battery project going on right now in Illinois, a collaboration of universities and industry to make a more efficient battery for cars smaller and better? Are you aware of that?

Ms. KINSEY. I am not familiar with that.

Ms. SCHAKOWSKY. OK, so you know, hopefully, we are going to be able to be on the leading edge of technology. I just want to tell you. I myself would be more interested for my next car and my Ford—are they still here—is 10 years old, so it is probably time for me to be thinking about it.

But it is typical, a grandmother's car with 78,000 miles on it. I should get something good when I trade it in. The infrastructure issue really is critical, so you are saying that the technology is all there, but—and Maryland has made a commitment. What about other States where people are considering buying electric cars?

Ms. KINSEY. Well, the Transportation Climate Initiative, which is comprised of the Northeast States, New York, Rhode Island, Massachusetts, all along the corridor down through Maryland, are working collaboratively together. I mean, all of the States in the Northeast are working on various infrastructure initiatives, and we are working together on this regional initiative.

So I can't speak with specificity about what other States are doing outside of their involvement with us in this regional initiative. I do know that New York is also a leadership State. They have done a lot with the development of the infrastructure in that State.

Ms. SCHAKOWSKY. Thank you so much.

Mr. TERRY. Thank you. Mr. Guthrie, you are recognized for 5 minutes.

Mr. GUTHRIE. Thank you, and I welcome Dr. Parker here from our great Commonwealth. She is from Woodford County. I think Mr. Stronach has a place in Woodford County, a rather nice place, from Magna, who owns Magna. And it is a show place for horse country there. It is just wonderful. So thanks. And your facility in Bowling Green, we appreciate that very much.

What is interesting, I was saying earlier that my father worked for the automotive industry. I also had job at Ford in 1982 when I was a senior in high school, too. And I would tell you, I would bet if you had all of the CEOs, or guys in your level here talking about what can we do to make the automotive industry more competitive and jobs staying in America, not some of you sitting here, but some of maybe earlier their predecessors would have said, we need barriers. We need to make sure that we don't have other competition coming in, because, I mean, I have lived through that.

And now you are not, nobody is here asking for that. And nobody is here saying we need lower wages, we need whatever. What you are saying is, we need better tax rates. And I was in a meeting with the President and he said that we could agree that we need a corporate tax reform. That is not our committee, unless Chairman Terry pulls something off, but I know that our chairman in the Ways and Means is working for that.

So hopefully, this is a call to Washington to come together because of our bipartisan meeting here today, and we all want manufacturing to stay in America. And there is one thing easy that you said, not easy to do, but something we can do to have immediate impact, and that is regulatory certainty. All of you said it, and energy, is what we are discussing the Keystone Pipeline in another meeting right now.

But the question of how we are going to get this workforce trained, and we have unemployed people, people dropping out of the workforce, that is a little longer term because you have got to change. But my question I guess is for Dr. Parker, and any of you that want to add, everybody here says they are looking for workers. Everywhere I go in my district say they are looking for workers.

We know people aren't working. And how do we get people into the KCTCS system, which is our community college and technical school system in Kentucky, or in these? Why is the market not working for labor? I think you said 600,000 unfilled manufacturing jobs in America today. Why isn't the market working for labor?

Ms. PARKER. Well, I have done some research in this area, and one of the things that the research has shown in manufacturing, specifically, is that we were of the thought that people didn't understand that manufacturing is not your father's old manufacturing environment. And they just needed to understand that, young people and parents.

And the research has shown that that is really not the issue. They understand that manufacturing is high tech now. They understand that it is important to our economy, and that they need it in their backyards. But they don't think that their kids should go into manufacturing, parents, so what we have to do is a better job of the understanding that the skills that these workers will have, these STEM students will have are transferrable in manufacturing, because over the last 30 years as we have become global at companies, it is very important that they do have a global footprint, that there has been this fear that all jobs would go to China.

So we need to do a better job of informing our parents and our young people about what a job and the skills in manufacturing would provide to them and to their future. And then I think we need to quit condemning, and we don't do this in Kentucky, so let me make that clear, but we need to quit condemning K-12, and come together with K-12 and with business and industry to provide those solutions.

And we do a good job of that with several of our programs. We have an outstanding program that Mr. Nielsen referred to that is emulated in Kentucky at Bluegrass Community and Technical College, where the college, the companies and actually not just Toyota. Toyota is providing this for everyone in Scott County in that region, and the K-12 systems all come together and work together towards these issues.

And so it informs the young people and informs the parents about good jobs, good skills, and a future, and that is where I think we need to go.

Mr. GUTHRIE. Because, like I said, they closed the Ford plant. I told this story, but a friend of mine, beginning of our senior year of high school said, I know somebody with some pull that can get me on at Ford. Graduate from high school and work for 30 years and retire and be in the middle class. But if you show up today to one of your facilities with only a high school ability, you can't afford because the productivity is not there, but if they show up with industrial maintenance, with all of these different lists, they are middle class. I mean, they are literally middle-class jobs in Kentucky for people with those skills.

And what I am trying to figure out, in State government, and here, how do we get, why isn't the market working, because it seems like somebody would want to make \$60- or \$70,000 a year with skills for 2-year skills instead of working at minimum wage or somewhere for the rest of their life. And we haven't been able to make that connection yet, and we have got to figure out how to

do it as a country, because people can that, I mean, we need those jobs.

Ms. PARKER. Right. I think we need to do a better job of informing our parents and our young people that manufacturing is a good, viable career, and that you need an education beyond a high school education and the community colleges have a significant role to play there.

Mr. TERRY. That is a good point, and before I recognize the gentleman from Maryland, Mr. Sarbanes, I will say that just this last week we had that same discussion in a forum back home. And yet, we talk about K through 12. When you are in high school, and you judge themselves about how many kids go to a 4-year college. And so we have got to turn that thought that somehow if a kid doesn't go to a 4-year college, that that is a failure on the high school part.

Ms. PARKER. Exactly.

Mr. TERRY. And that is just not true.

Ms. SCHAKOWSKY. May I make one quick comment? Wheeling High School, in Wheeling, Illinois, is a STEM high school, and I am telling you, these kids are job ready, if they want to be, when they graduate from high school. So it is not simply, and there are ways to do it even in high school.

Mr. TERRY. Yes, and that is where we need to get that back into the high schools, as she testified. So the gentleman from Maryland, Mr. Sarbanes, you are recognized for 5 minutes.

Mr. SARBANES. I appreciate it, Mr. Chairman. I want to thank the panel for being here.

Ms. Kinsey, I wanted to ask you a couple of questions. First off, thank you for the integral role you have been playing in Maryland's efforts to be really on the cutting edge when it comes particularly to sort of the takeup on electric vehicles. And I want to congratulate you and the Maryland Department of the Environment, the council that you are a member of, and Governor O'Malley, frankly, for the commitment that is being made to that.

And you sort of described the phenomenon that if you build it, they will come, in a sense. If you build an environment in which it is easier to access these opportunities than not, you will start to get the sort of engagement and traction that we want to see.

What I was curious about, is kind of looking back over Maryland's coming to this experiment. What were some of the things that were identified as real hurdles that maybe you discovered afterwards weren't as tough to overcome as maybe they had been made out to be?

What was some of the narrative ahead of Maryland really taking the plunge on this that was borne out in the experiment, and what parts of that narrative sort of refreshingly did you discover weren't as kind of sinister or daunting as they may have seemed to be? I would be curious about that.

Ms. KINSEY. Well, I guess I would answer that by saying that we have a lot of challenges remaining, and I will acknowledge that. Funding is a huge issue for us right now. The electric vehicle charging stations are not, comparatively speaking, very expensive, but funding public charging stations, given our budget constraints at the State level and the Federal level, is a challenge. We defi-

nately need to work to get more funding committed and dedicated to charging stations.

I think that we are starting to see in Maryland much greater acceptance of the need, the understanding, the need for these vehicles. One of our biggest challenges going forward is working with employers. Everybody has an electric plug in their home, so everybody can charge their electric vehicle at night overnight. That is not the problem. The challenge that we are facing going forward is convincing employers to start installing these vehicles so that—the charging stations so that their employees will start buying these cars and driving to work with confidence.

I mean, range anxiety is one of the two biggest barriers to acceptance of electric vehicles, plug-in vehicles. The other one is the cost. And so these things are all intertwined. And I think if we can expand significantly the number of charging stations, I think we are going to see a very, very significant increase, very rapidly of the number of stations. But that is a challenge.

And the other big challenge that we are going to be looking very closely at going forward when our council reconvenes later this fall, is urban charging and multiunit dwelling charging situations. These are very challenging because most residents in these situations don't have access to a garage, or a private driveway, or an electric plug.

And so we really have to come up with some really good, creative solutions to providing that charging infrastructure in the urban and in multidwelling settings. So we need to have some demonstration projects in some of our urban areas. We would like to start working on getting employers and businesses to install charging stations that can be for use of employees and patrons during the day, but then for residents at night when the businesses are closed.

Mr. SARBANES. That is helpful because you have identified really out of all of the various things that need to be focused on, the two key factors are the charging station infrastructure, and the range anxiety. And they are interrelated. Obviously, if you have got more charging stations along the way, you are going to be less anxious. I mean, I have range anxiety. I have hesitated to take the plunge because I commute every day from north of Baltimore, and I think that that distance is just enough to produce that extra level of range anxiety, and worry about whether I can get here in time for the chairman's hearing. So that is an impediment to me.

But the availability of charging stations would obviously help with that, and the manufactures have a role to play in terms of the vehicles themselves and their ability to overcome that range anxiety. But again, I want to congratulate you on the efforts Maryland has made and you have mentioned GM and some of the others who have really stepped up and made that a collaborative experiment, and I think it is an exciting thing to watch. Thank you.

Mr. TERRY. At this time, we recognize the vice chairman of the committee, Mr. Lance. You are recognized for 5 minutes.

Mr. LANCE. Thank you, Mr. Chairman, and I apologize for being at committee and then leaving and then coming back. I have followed your testimony, and it is a pleasure to be with you all.

Mr. Wehrman, I want you to know that I have a 2004 Honda Accord with 175,000 miles on it as of yesterday, and it is going

strong, four-cylinder stick shift, but not an electric car yet for the reasons that my colleagues have suggested.

Mr. Nielsen, it was a pleasure to meet with you and your colleagues in the chairman's office, and we had a wonderful discussion about initiatives to encourage young people to enter manufacturing, because these jobs do provide high salaries, and strong benefits, and I know that Toyota, and others are working in this area.

It is my understanding that San Antonio is the seventh largest city in the United States, and it is the largest majority Hispanic city in the country. And perhaps you have discussed this with colleagues, but would you elaborate on career opportunities afforded to the Hispanic community by Toyota, especially given the diversity of San Antonio's population?

Mr. NIELSEN. Thank you very much for that question. We really embrace the fact that we are a part of the San Antonio community. We have been welcome with open arms from when we first broke ground almost 10 years ago, and being a key participant in the community, and providing job opportunities for the young people in the community is really important to us.

And we look at our workforce development at several different levels. Of course, we commented in the testimony about our Advanced Manufacturing Technician program which really starts at the high school graduate level, and allows them to do a work-study program, 3 days at work, 2 days at school to earn enough money to pay for their education so they can earn an Associate's Degree without having to go into the significant debt that so many people have to go into to earn their degrees.

But we have really looked to go even further than that. We start really at the middle school level in supporting a lot of STEM initiatives in the community to expose the young people, especially on the south side of San Antonio, to careers and opportunities.

Mr. LANCE. Is that the side that has the larger Hispanic population?

Mr. NIELSEN. It is. It is. The plant is located on the south side and overall, San Antonio is about two-thirds Hispanic but on the south side it is maybe 85, 80, to 90 percent. So that is, most of the population is located there.

Mr. LANCE. Thank you. Would there be comments from other members of the panel on this issue as how we move forward to make sure that young people are trained appropriately for the positions that your great companies provide? Ms. Parker.

Ms. PARKER. Yes, I would just like to say that Mr. Nielsen's program with the Alamo Community College District is an exceptional program, that Toyota has taken a major leadership role within AMTEC, and across the country as a best practice. And it has also been used outside of the automotive industry with Lockheed Martin, and over 10 years, that same program has been offered to Lockheed Martin, and the program has students now that one of their students, a model student, is a chief negotiator for Lockheed Martin now and has attained her Master's Degree.

So it is an outstanding program that has support from the government of San Antonio, the industries in San Antonio, and the college, and K-12 system.

Mr. LANCE. I thank you. I think that this will be a continuing issue, especially since so many young people are in debt as a result of higher education, and although interest rates are currently low, I would imagine at some point they might increase, and it would further exacerbate an already extremely difficult situation. And obviously, we have to move in the direction in the 21st century of making sure that young people are well educated and well educated in the positions that your companies and others provide. And although I do not agree with the President on all issues, I certainly was in support of his statements during the State of the Union address that we need a fundamental analysis of higher education in this country. Costs are extremely high, and have far outstripped rates of inflation, and I commend the efforts of all on the panel who have been involved in this, and I thank you for your participation today.

Thank you, Mr. Chairman.

Mr. TERRY. Thank you, Mr. Lance. And now the gentleman from Texas, Mr. Olson, you are now recognized.

Mr. OLSON. I thank the chair, and good afternoon, and welcome to the panelists. I appreciate you coming back after the Snowquestration. Thank you, thank you, thank you for coming back here again.

As you can tell, I am a Texan. And whenever we have a chance to brag about Texas, then by golly, I am going to brag about my home State.

Coming up on the screen here, is a picture that I am sure all of you saw during the Super Bowl, the most recent Super Bowl with a Toyota Tundra pickup truck towing the Space Shuttle Endeavor to its final resting place in California. I saw that commercial and thought, this is Hollywood with the special effects, but then I talked to Mr. Nielsen. No. This was actually a Toyota pickup truck made in San Antonio, Texas, modified with a special trailer hitch that pulled the shuttle over the bridge. The problem right there is that bridge could not withstand the weight of the shuttle and the track that NASA had to get over the bridge. That was the big obstacle, getting the shuttle from LAX Airport to the museum. Toyota stepped up and got that to its destination.

That picture is Texas in pecan shells, Tundra pickup truck, Space Shuttle Endeavor, and you see in the back, Randy's Donut Shop. Thank you, Mr. Nielsen, for getting that space shuttle home.

And again, I want to talk to you about Toyota's motivation for locating in San Antonio, Texas. You had a choice to do that almost a decade ago, which created, as you know, 6,000 direct jobs through both Toyota Motor Manufacturing and your parts suppliers. And they have actually moved with their plant on site.

So can you tell me about the business climate in Texas, how that influenced the move, State, and local tax incentives, ability to purchase a large piece of land and big suppliers, 21 of them right there in San Antonio? Tell me about that.

Mr. NIELSEN. Well, thank you very much for recognizing our Tundra product. We are awfully proud of the product we make, and that was a proud day for us towing the shuttle, and certainly, if there is a shuttle available to tow to the space center in Houston, we would be more than happy to do that as well.

Mr. OLSON. We are working on that.

Mr. NIELSEN. But our decision to locate in Texas was really first and foremost driven by, that is where the market is. That is the largest pickup truck market really in the world, and we wanted to be located there. And we found that working with both the State, and the local governments in Texas to be just a wonderful experience, a very pro-business environment, very supportive of us.

We needed some infrastructure put in place, specifically around training, since in the San Antonio area, manufacturing was not a large part of the economy, historically. And we put in place initial training programs that initially serviced Toyota, but as Ms. Parker has mentioned, now are serving many other companies as well, such as Boeing in their facility where they provide the technical support and service for Air Force One; Lockheed Martin, and a number of additional companies, international companies as well, that are located in the San Antonio area and are able to take advantage of the education infrastructure that we have put in place through cooperation with State and local governments.

Mr. OLSON. And sir, as you know, San Antonio is military city U.S.A.; Air Force bases, Army Hospital, Brooke Army Medical Center. Would you elaborate on what Toyota has done about our combat war heroes coming back from Iraq and Afghanistan, who joined your team, I mean, and came back with special skills, advanced training, how does that translate to the workplace?

Mr. NIELSEN. The transition of so many returning veterans came at the perfect time for us as we were struggling to fill many of these multi-skilled maintenance technician positions at our plant. And of course, our education programs we are putting in place will be very helpful for us in the long run, but in the short run, in order to close some of the gaps, we could focus on recruitment of some of the returning veterans. And I am very proud to say that just over the course of the last year, we have hired 30 returning veterans from all branches of service. They come in with both the technical skills they learned in the service, but perhaps even more importantly, the ability to work as a part of a team to be very disciplined. And I think that has been extremely helpful to us at the plant, and we are very proud to be able to offer good employment opportunities to those returning veterans.

Mr. OLSON. As someone served in the Navy for 10 years, thank you, thank you, thank you for taking care of our veterans. They have been fighting for our freedom. They deserve our support when they come back home. I guess we all can work hard going forward, and as we said, make sure that blue collar does not become some sort of term of delusion. I mean, these are good-paying jobs.

Right down to Eagle Ford Shale right there south of San Antonio. You get out right now with a high school degree, maybe a couple of years of trade school, junior college, learn some skills, pass a drug test, you can be making \$65,000 bucks now right off the bat; \$100,000 within 5 years.

That is good money that provides for a family. That is just great. We need to make sure the American people realize, the kids realize they have got a future in manufacturing. I yield back the balance of my time.

Mr. TERRY. Thank you. I appreciate the 5-minute Texas commercial.

Mr. OLSON. I can go another 5 minutes.

Mr. TERRY. I bet you could. I bet you could. So, and I just have to counter by saying, there is something special about being in the middle of America, with great rail and truck access.

So, with that, I ask unanimous consent to include in the hearing record a statement by the Motor & Equipment Manufacturers Association, and I know we have run that by your side already.

So hearing none, so ordered.

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

Mr. TERRY. Ms. Schakowsky, you also have a request?

Ms. SCHAKOWSKY. I do. I would like to put in the record a statement from the American Federation of Labor and Congress of Industrial Organizations.

Mr. TERRY. And without objection, so ordered.

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

Mr. TERRY. So thank you. You have provided excellent testimony and feedback from our questions. All of you were spectacular, and we thank you, and you are now adjourned.

But I have to say before we adjourn up here, remind members that they have 10 working days to submit any questions for the record. You may receive questions from us, and we would appreciate a timely reply to those questions that we were unable to answer or ask. So with that, we are adjourned.

[Whereupon, at 1:08 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

#### PREPARED STATEMENT OF HON. FRED UPTON

We are a nation of builders, and the auto industry is a source of great pride. The auto industry produces a product that touches the daily life of nearly every American, but I think the great impact of the industry on our economy may not be widely understood.

Our nation's auto manufacturers, suppliers, and dealers have certainly faced some challenges in the last decade—but the sector is on the rebound. Vehicle output is on the rise, sales are up, and the Big 3 have all recently announced they plan to expand operations and hire more employees.

The auto industry, comprised of auto manufacturers, dealers, and parts suppliers, touches all 50 states. It is the largest industry in the country with over 1.7 million people employed in designing, engineering, and manufacturing of vehicles and parts. The multiplier effect of the industry is calculated at 8 million jobs here in the U.S.

Of course, my home state of Michigan has a proud and storied history as the Auto State and our rich tradition continues: 125 auto companies transformed Detroit into Motor City in the early 20th century, directly and indirectly employing hundreds of thousands of workers. To this day, the impact on Michigan still resonates: auto manufacturing and its downstream impact employ over 20 percent of Michiganders. In my southwest Michigan district, close to one-third of the manufacturing is auto related. I am especially pleased that William Smith from American Axle is testifying today—the company has a long tradition in Three Rivers, Michigan. American Axle and its workers have played a prominent role in Michigan's comeback—recently announcing they are investing more than \$100 million in the Three Rivers plant and are adding an additional 500 jobs.

Although this hearing is not about safety mandates or other auto regulation, I want to be clear about our interest in those topics: we intend to have industry back to discuss those issues in the future. There are exciting developments in the auto safety realm such as vehicle-to-vehicle communication and other active safety systems that we wish to explore. Today, however, we are most interested in hearing about the challenges facing the industry as well as the success stories. This is an important time in auto manufacturing.

125

# # #






---

**Motor & Equipment Manufacturers Association**  
**Written Statement**  
**for the**  
**United States House of Representatives**  
**Committee on Energy & Commerce**  
**Subcommittee on Commerce, Manufacturing, and Trade**  
**“Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward”**  
**April 10, 2013**

---

### **Introduction**

The Motor & Equipment Manufacturers Association (MEMA) represents more than 1,000 companies that manufacture and supply motor vehicle parts for use in the light- and heavy-duty vehicle original equipment and aftermarket industries. MEMA represents its members through four affiliate associations: Automotive Aftermarket Suppliers Association (AASA); Heavy Duty Manufacturers Association (HDMA); Motor & Equipment Remanufacturers Association (MERA); and, Original Equipment Suppliers Association (OESA).

Our members provide over 734,000 direct jobs in the motor vehicle parts manufacturing industry, making this industry the largest creator of jobs nationwide. Additionally, motor vehicle parts manufacturers generate an additional 1.27 million indirect jobs in the supply chain. The motor vehicle parts manufacturing industry provides over \$220 billion in annual wages and income, and \$355 billion in economic contribution to the U.S. Gross Domestic Product.

Motor vehicle parts manufacturers have facilities in all 50 states. Regional distribution of U.S. direct employment is as follows: Midwest 51 percent, Southeast 32 percent, Northeast 7 percent, Southwest 5 percent, and West 5 percent.

The top five states for direct employment are Michigan, Ohio, Indiana, Tennessee, and Kentucky. These five states make up just under 50 percent of total direct employment of motor vehicle parts manufacturing. (See *Figure 1 on page 6.*)

Next month, MEMA will release a detailed study of the motor vehicle parts manufacturing industry. The study will include employment figures for each state, as well as information on the direct and indirect economic impact for light- and heavy-duty original equipment and aftermarket segments of the industry.

### **Recession and Recovery**

The past five years have been challenging for the United States motor vehicle industry. The great recession hit the industry particularly hard. Consumer spending and credit curtailed

sharply, which drastically diminished light vehicle purchases because consumers were choosing to not replace their older vehicles. Also, a steep rise in unemployment reduced annual vehicle miles traveled and increased deferred vehicle maintenance, contributing to declining aftermarket sales. The credit crunch hit the business community as well, and as consumption dropped, so did business investment, which also cut into the sales impacting the heavy-duty vehicle market.

Light vehicle sales fell by more than one-third from the pre-recession level of 16.5 million units in 2006 to 10.4 million units in 2009. The impact on heavy-duty vehicle sales was even more pronounced; as the 2009 low-point of 199,000 units was nearly two-thirds that of the 2006 peak of 561,000 units. The impact of declining vehicle sales carried through to vehicle production, as 2009 light and heavy duty production of 5.8 million units was just over half of the 2006 value.

Consistent with recovery efforts within the broader motor vehicle industry, the U.S. motor vehicle parts manufacturing sector has experienced substantive restructuring over the past five years. The entire industry is now more efficient, better utilized, and better prepared for volume fluctuations.

The motor vehicle industry, aided by a slow but steadily recovering economy, has seen a rebound from the worst of the recession. As the economy has stabilized, the industry is growing once again. In 2012, light vehicle sales reached nearly 14.5 million units, while the heavy-duty segment moved 345,000 units. As a result, vehicle production has rebounded with 2012 combined vehicle production at just under 10.4 million units.

Suppliers work closely with vehicle manufacturers to provide cutting edge, innovative systems and components to consumers. In order to meet regulatory requirements and consumer demand for safer, cleaner, and more advanced vehicles, motor vehicle parts manufacturers have increasingly taken on a significant role in the research, development, engineering, and manufacturing of the advanced technologies necessary to meet these ever-increasing goals. Working together, suppliers and vehicle manufacturers develop an assortment of technologies and products that improve vehicle performance, safety, fuel efficiency, and emissions. Examples of fuel efficiency and emissions improvement technologies include – but are not limited to – hybrid and electric vehicle batteries, clean diesel engines, fuel cell technology, lighter weight materials, innovative glass, thermal management systems, waste heat recovery systems, and anti-idling technology. The next generation of vehicle safety advancements includes various driver assist systems (*e.g.* adaptive cruise control with braking, collision imminent braking, dynamic brake support, lane keeping systems, blind zone management systems, pedestrian detection) as well as advanced vehicle lighting, improved driver visibility and occupant protection.

### **The Road Ahead**

While the recent turnaround has been positive, the industry remains below peak levels. For example light-duty vehicle sales are approximately 13 percent below their peak in 2006, and this has a corresponding effect on the parts manufacturing production and workforce.

While confidence in the industry is growing, there are a number of federal public policy issues impacting the overall health of the industry.

**Regulations** can impose substantial compliance costs on manufacturers and onerous requirements on the way companies conduct business. MEMA believes that regulations must be applied in a balanced fashion without legislating through the regulatory process and those final regulations should not be burdensome or harmful to U.S. competitiveness.

---

**Conflict Mineral Reporting Requirements**

The Securities and Exchange Commission adopted a final rule for Section 1502 of the Dodd-Frank Financial Reform Act, establishing reporting requirements for companies whose products contain "conflict minerals" from the Democratic Republic of Congo (DRC), and adjoining countries. Under the rule, companies must file a Conflict Mineral Report and disclose the mine of origin, the smelter used to process the minerals into metals, and demonstrate their due diligence on the source and chain of custody of conflict minerals. The requirements of the rule exceed those outlined in statute.

The minerals in question (tin, tungsten, tantalum and gold) are used in a wide variety of manufacturing processes and products, especially motor vehicle parts manufacturing, up and down the supply chain. Tracing mineral origin throughout the supply chain, passing through multiple tiers of suppliers, is virtually impossible to do with any certainty or accuracy. This rule is overly broad, unworkable, and places an expensive and undue burden on supply chain manufacturing companies.

**Labor Regulations and Proposals**

There has been a significant increase in regulatory activity by the National Labor Relations Board (NLRB). In 2011, the NLRB began issuing decisions and proposing rules that would have dramatic negative impacts on employer-employee relationships in workplaces across the country. There are several highly controversial NLRB activities including requiring employers post information regarding an employee's right to unionize, shortening the timeframe in which union elections must occur, dictating access to private property, and issuing decisions to allow micro-unions within a facility. Furthermore, the Department of Labor (DOL) issued a proposed rule that would limit an employer's right to consult with legal counsel in matters relating to union elections and collective bargaining. These NLRB and DOL activities indicate an aggressive and politically motivated pro-union agenda on behalf of the administration. These proposals would be harmful to employer-employee relations.

**Legislative** issues are also important to our industry and members. If enacted, these measures would have a positive impact on the industry and lead to greater economic growth, production, and jobs. For example, the House of Representatives is expected to vote on the Preventing Greater Uncertainty in Labor-Management Relations Act (H.R. 1120). A recent court ruling found that the administration's recess appointments to the NLRB were unconstitutional: this means that the NLRB does not have the required three member quorum. H.R. 1120 temporarily prohibits NLRB activities while the quorum is lacking and prevents the board from enforcing decisions or rules promulgated since the Jan. 2012 recess appointments were made.

The court decision finding the January 2012 recess appointments to the National Labor Relations Board (NLRB) unconstitutional has created uncertainty for both employers and employees. This legislation is important to suppliers because it will provide clarity for companies and unions. At the same time, the legislation preserves the agency's essential functions, such as the workers' ability to petition for union elections and the ability of the NLRB regional offices to accept and process unfair labor practice charges.

---

**Tax Provisions that Encourage Investment and Provide Certainty**

MEMA supports efforts to reform the U.S. tax code that make it simpler for manufactures to conduct their businesses and allow them to compete in an increasingly competitive global market. The federal tax system is too complicated, burdensome, unfair, and inefficient for individuals and businesses alike. Many important tax provisions critical to manufacturers, such as the Research and Development (R&D) Tax Credit, function on an "on-again, off-again" basis, making it difficult for businesses to create long-term investment plans. The tax system should foster the development and deployment of new products in this country. The need for reform is crucial for American competitiveness as many competing countries have an edge in the global marketplace due to their country's tax requirements. MEMA supports a simpler, more predictable, and fairer tax code that would help generate more investment, economic growth, and job creation.

**Policies that Protect Intellectual Property**

The manufacturing and trafficking of counterfeit products is a serious problem for the motor vehicle supplier industry. A wide range of products are being counterfeited, including many safety-related parts, such as brakes and brake pads, brake fluid, tires, structural parts and automotive lighting. In the past, MEMA conservatively estimated counterfeit goods cost motor vehicle suppliers at least \$3 billion in the U.S. and \$12 billion globally in lost sales. MEMA supports legislation to strengthen enforcement measures to prevent counterfeit parts from being manufactured and imported.

**International Trade Policies that Open Global Markets and Reduce Barriers**

MEMA continues to work with appropriate federal agencies and congressional offices in promoting policies aimed at opening world markets and creating new opportunities for motor vehicle parts suppliers. The U.S. is party to numerous Free Trade Agreements with other countries and continues to participate in negotiations for new trade agreements with many countries and regions of the world. International trade agreements must address the need for a consistent availability of raw materials including steel, magnesium, and rare earth minerals. Additionally, the growing globalization of the motor vehicle industry makes it imperative for companies to be competitive domestically and abroad, which requires greater regulatory cooperation between trading partners. Trading partners and their respective industries will greatly benefit from the elimination of regulatory redundancies and overlapping or duplicative certification procedures as it will lower the costs of doing business, expand new market opportunities, and enhance global competitiveness.

**Energy and Environmental Policies that Encourage Investment and Innovation in Products and Manufacturing**

MEMA supports government programs that assist manufacturers not only to develop and deploy new technologies for cleaner and more efficient vehicles, but also to make manufacturing and remanufacturing more efficient. Within the U.S. Department of Energy (DOE), government programs have taken the form of grants, loans, and public-private partnerships. These programs are critical to the ability of vehicle manufacturers to meet the current and future fuel efficiency and emissions mandates. Suppliers work independently from and in collaboration with vehicle manufacturers to conduct research and development to make vehicles cleaner and more efficient. Federal programs such as those at DOE must be applicable to both suppliers and vehicle manufacturers.

To reach these goals, Congress should pass the Advanced Vehicle Technology Act, which is being reintroduced this week by Rep. Gary Peters. The investments called for in this legislation will advance fuel efficiency, lower emissions, and expand and strengthen U.S. manufacturing capabilities for the next generation of automobiles and increase our nation's energy independence. It is important to note that the funding in this legislation is not new funding, but rather provides greater congressional direction and oversight to vehicle technology research conducted by DOE.

MEMA also encourages incentivizing the purchase of advanced vehicle technologies.

**Long-Term Transportation Reauthorization that Provides Dependable Methods for Manufacturers to Ship Goods**

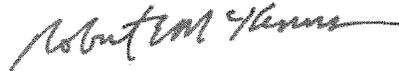
As manufacturers, motor vehicle parts suppliers rely on a sound transportation system for the safe and efficient flow of commerce. A long-term transportation program is critical to ensure that our highway system is properly maintained to meet economic needs. MEMA continues to support the passage of long-term transportation reauthorization legislation.

**Conclusion**

The motor vehicle parts manufacturing industry represents a significant part of the U.S. manufacturing base and economy as a whole. While the industry has made gains from the depths of the recession, certain changes in public policy issues – like those outlined above – will have a positive impact and generate further expansion and job growth.

MEMA appreciates the opportunity to share our views with the Subcommittee, and we look forward to working with you to provide more detailed information on these and other issues.

Respectfully submitted,



Robert E. McKenna  
President & CEO

**Figure 1. State Distribution of Total U.S. Direct Employment**

Total U.S. Direct Employment	
TOTAL	734,222
Michigan	102,624
Ohio	89,423
Indiana	79,651
Tennessee	48,284
Kentucky	41,097
Illinois	37,087
Alabama	30,566
Texas	29,422
North Carolina	25,843
South Carolina	24,569
California	22,736
Pennsylvania	21,130
New York	19,005
Missouri	16,648
Georgia	16,287
Iowa	14,398
Wisconsin	13,542
Arkansas	10,212
Virginia	9,729
Oklahoma	8,086
Nebraska	7,911
Mississippi	6,888
Kansas	6,833
Florida	5,843
Utah	5,577
Connecticut	5,069
Minnesota	4,695
Arizona	3,765
Oregon	3,249
Washington	3,092
New Jersey	2,455
West Virginia	2,327
South Dakota	2,306
Louisiana	2,277
Massachusetts	2,222
Colorado	2,168
Maryland	1,610
North Dakota	1,320
New Hampshire	1,062
Idaho	575
Rhode Island	529
Vermont	442
Maine	387
Nevada	344
Montana	289
Delaware	245
New Mexico	203
Wyoming	169
Hawaii	22
Alaska	7
District of Columbia	0

**AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS**



815 Sixteenth Street, N.W. • Washington, D.C. 20006 • (202) 637-5000 • www.aflcio.org

**EXECUTIVE COUNCIL**

**RICHARD L. TRUMKA**  
PRESIDENT

**ELIZABETH H. SHULER**  
SECRETARY-TREASURER

**ARLENE HOLT BAKER**  
EXECUTIVE VICE PRESIDENT

**LEGISLATIVE ALERT**

April 9, 2013

Dear Representative:

On behalf of the AFL-CIO, I am writing to urge you to vote against the so-called “Preventing Greater Uncertainty in Labor Management Relations Act” (H.R. 1120), which the House is scheduled to consider later this week.

H.R. 1120 would require the National Labor Relations Board (NLRB) to cease all activity that requires a three-member quorum and prohibit the Board from enforcing any action taken after January 2012. In effect, H.R. 1120 would shut down the NLRB indefinitely and deprive both labor and management of the ability to have their rights adjudicated when a violation of the NLRA is alleged. While the NLRB enforces the rights of workers to form unions and bargain collectively, it also protects businesses and the public by providing orderly procedures to prevent the disruption of commerce by either side in a labor dispute.

While there is no question that the recent decision by the D.C. Circuit Court of Appeals in *Noel Canning V. NLRB* has thrown our system of labor law enforcement into disarray, Congress should not interfere with the functioning of the Board while cases involving the President’s recess appointment authority make their way through the federal court system. The U.S. government has announced that it will appeal the ruling, and the D.C. Circuit is holding other appeals from the NLRB in abeyance pending review by the U.S. Supreme Court.

Other cases challenging the NLRB recess appointments have been argued but not decided in the 3rd and 4th Circuits; and similar cases are pending in the 5th, 6th and 7th Circuits. Finally, a case decided by the 11th Circuit in 2004 upheld the constitutionality of a similar recess appointment – the appointment of Judge William Pryor made by President George W. Bush.

The solution to this problem is for the President to nominate, and for the Senate to promptly confirm, a full package of nominees to the NLRB. This will remove any doubt about the Board’s authority to act and restore stability to our system of labor-management relations.

The deceptively titled “Preventing Greater Uncertainty in Labor Management Relations Act” would do just the opposite. By ordering the NLRB to “cease all activity that requires a quorum,” H.R. 1120 would shut down the Board and deny workers a final, enforceable order

from the NLRB when they have been illegally fired, retaliated against, denied the right to bargain with their employer, or otherwise had their legal rights violated. If this bill were enacted, employers could simply ignore the law, knowing that there could not be a timely decision against them by the NLRB. This would throw our system into chaos and deprive workers of their legal rights.

H.R. 1120 is misguided legislation that, contrary to its title, would create massive uncertainty and chaos in our labor-management system. This bill fits in to a larger strategy by opponents of the NLRB to undermine the rights of workers to decide whether or not they want to form a union and bargain for better wages and working conditions.

We strongly urge you to vote no on H.R. 1120.

Sincerely,

A handwritten signature in black ink, appearing to read 'William Samuel', is centered on the page.

William Samuel, Director  
Government Affairs Department

FRED UPTON, MICHIGAN  
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA  
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115  
Minority: (202) 225-2627  
Minority: (202) 225-3641

March 18, 2014

Mr. Joseph Hinrichs  
Executive Vice President  
President of the Americas  
Ford Motor Company  
21175 Oakwood Boulevard  
Dearborn, MI 48124

Dear Mr. Hinrichs,

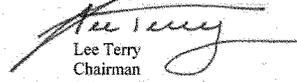
Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Wednesday, April 10, 2013 to testify at the hearing entitled "Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Tuesday, April 1, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at [Kirby.Howard@mail.house.gov](mailto:Kirby.Howard@mail.house.gov) and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

  
Lee Terry  
Chairman  
Subcommittee on Commerce,  
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade  
Attachment

Responses to Questions from 4/10/13 Hearing before the Committee on Energy and Commerce,  
Subcommittee on Commerce, Manufacturing and Trade.

**Questions from the Honorable Jan Schakowsky**

1. **At the hearing on April 10, 2013, you indicated that it would be possible to provide for the record detailed information on the inclusion of video display screens in Ford passenger vehicles for sale in the United States. As you know, these screens can be used for rear-visibility systems that the National Highway Traffic Safety Administration estimates would reduce fatal backover deaths by 95%. I understand that these screens, as well as cameras, are often offered as an option, but I would like to establish conclusively their exact usage.**

Ford currently offers three types of displays: two unique center console display designs and a rear camera display in the rearview mirror. All of these systems provide driver assistance with backing maneuvers, but are not a substitute for driver attentiveness when operating a vehicle. In addition to rear video camera systems, Ford offers other technologies that may also provide drivers assistance with backing maneuvers such as blind spot monitoring mirrors, cross traffic alert and audio warnings.

- a. **What percentage of Ford passenger vehicles sold in the United States come with video display screens as standard equipment and in what percentage are they purchased as an option?**
- i. Currently, nearly 50% of our vehicles are equipped with video display screens.
  - ii. Video display screens are standard on all Lincoln vehicles which account for about 3% of Ford's combined sales. All other applications have optional availability including package and series-related content.
- b. **What percentage of Ford's U.S. passenger-vehicle fleet do you estimate will come with video display screens as standard equipment and in what percentage do you expect they will be purchased as an option in the 2014 model year?**

We expect 2014 model year to have similar percentages as provided in question 1a.

- c. **When do you project that 100% of Ford's U.S. passenger-vehicle fleet will come with video display screens as standard equipment?**

Ford is a leader in the industry in the depth and breadth of display screen offering. We will be at 100% by May 2018 consistent with the recently finalized rule on Rear Visibility in vehicles under 10,000 lbs.

- d. **What percentage of model year 2013 passenger vehicles sold by Ford in the United States come with rearview cameras as standard equipment and in what percentage are they purchased as an option?**

Ford offers a rear view camera as an option on all passenger vehicles. In addition, MKT and Navigator, the 2014 model year MKS and Escape have rearview video cameras as a standard offering. We will be at 100% by May 2018 consistent with the recently finalized rule on Rear Visibility.

- e. **When do you project that 100% of Ford's U.S. passenger-vehicle fleet will have rearview cameras standard?**

Ford offers a rear view camera as an option on all passenger vehicles. In addition, MKT and Navigator, the 2014 model year MKS and Escape have rearview video cameras as a standard

Responses to Questions from 4/10/13 Hearing before the Committee on Energy and Commerce,  
Subcommittee on Commerce, Manufacturing and Trade.

offering. We will be at 100% by May 2018 consistent with the recently finalized rule on Rear  
Visibility.

2. **Based on public comments from automakers on its proposed rear visibility standards, the National Highway Traffic Safety Administration (NHTSA) estimated that making rearview video systems standard on every car would add \$58 to \$88 to the price of vehicles already equipped with dashboard display screen and \$159 to \$203 for those without them. The New York Times reported in 2012 that automakers offer a standalone rearview video system for a few hundred dollars, or for as much as \$2,000 as part of a full navigation package.**

**How much does Ford currently charge for rearview video systems as an add-on to models in its existing U.S. fleet for which it is offered as an optional feature?**

Rearview camera is a free-standing option on the Ford Mustang (\$375 MSRP) and Ford E-Series van/wagon (\$470 MSRP). It is bundled in option packages or series content on other vehicles, with an imbedded price similar to Mustang and E-Series.

3. **In 2004, sister Raechel and Jacqueline Houck were tragically killed when the rental car they were driving caught fire and crashed into an oncoming tractor-trailer. The rental car company had been warned one month earlier that the car had a defective steering component prone to catching fire and had been notified that the care's manufacturer would repair any defective vehicles free-of-charge. The company neglected to repair the car or remove it from the road, and the defect ultimately caused the Houck sisters' death.**

**In the 112<sup>th</sup> Congress, I was an original cosponsor of H.R. 6094, the Raechel and Jacqueline Houck Safe Rental Car Act of 2012, which would have required rental car companies to ground recalled vehicles as soon as they receive a safety recall notice, and prohibit the vehicles from being rented or sold until required repairs are made. In late 2012, stakeholder discussions yielded a bipartisan Senate bill, S. 3706, reflecting compromise language to close the existing gap in safety standards.**

**It is my hope that the 113<sup>th</sup> Congress will pass into law legislation substantially similar to S. 3706 in order to prevent future tragedies involving rental cars.**

**I understand that organizations representing automakers have already indicated support for the objectives of the Raechel and Jaqueline Houck Safe Rental Car Act. Does your company support enactment of the compromise language introduced in December 2012 as S. 3706?**

Ford is committed to safety, and works with all stakeholders including NHTSA and dealers to ensure all customers, including rental car companies can quickly repair a recalled vehicle. If the House considers legislation in this area, we would like to work closely with this Committee to provide facts and perspective on how proposed changes will affect the industry and consumers. In general, we support the premise that all customers should be treated equally regardless if you are a retail customer or a fleet customer, including rental car companies. Further, Ford and the Alliance of Automobile Manufacturers would support legislation that requires rental car companies to provide notice of open recalls to customers, and prohibits rental if the vehicle was subject to a do-not-drive notice.

Responses to Questions from 4/10/13 Hearing before the Committee on Energy and Commerce,  
Subcommittee on Commerce, Manufacturing and Trade.

4. **Technological advances are having a dramatic impact on auto safety. For example, adaptive cruise control adjusts a car's speed relative to the speed of the vehicles nearby and electronic stability control adjusts pressure on individual brakes if a sensor picks up wheel, steering wheel, or brake data that suggests a lack of control. Additional technology includes collision avoidance and lane departure warning systems, adaptive cruise control, and rearview cameras.**

- a. **One of Ford's newest safety advances is the inflatable seat belt airbag. I understand that this technology is available in the Explorer. How does this technology improve safety and what is the outlook for further adoption of seat belt airbags in other models? Can we expect this safety feature to be included as standard in 100% of Ford models, and if so, when?**

Ford's Inflatable Belt combines attributes of seatbelt and airbag technologies (only the shoulder belt portion inflates). The technology is intended to enhance head, neck and chest protection for rear seat passengers by distributing crash energy across more of the occupant's torso than a traditional seatbelt.

Ford introduced the Rear Inflatable Seat Belt on the 2011 Explorer, and has since expanded its availability as an option on the 2013 Ford Explorer, Flex, Lincoln MKT and Lincoln MKZ as well as the 2014 Ford Fusion and 2015 F-150. Ford closely monitors and analyzes customer acceptance and field experience for new features /technologies, and adjusts their availability as appropriate.

- b. **Ford recently introduced lane-departure warning and lane-keeping systems in certain U.S. models. For each of these two technologies: (1) what do you see as this technology's benefits and drawbacks, from a safety perspective; and (2) do you anticipate extending this technology's availability to other Ford models available in the United States, and can we expect this safety feature to be included in 100% of Ford models, and if so, when?**

Crash Avoidance technologies, if used properly, will provide the driver with additional information/assistance to help them drive safely. Some of these new technologies, particularly those that provide a warning and not an active intervention by the vehicle, still rely on the driver to take action. We are working to better understand the capabilities and limitations of these technologies. In particular, lane-departure warning and lane-keeping systems are dependent upon external factors such as lane markings, turn signal and environmental conditions, which may affect the operation of the system. There isn't enough available data to assess the level of driver assistance provided by lane-departure warning and lane-keeping assist technologies yet. Ford offers lane departure systems on the Ford Fusion, Taurus, Explorer, and new 2015 Transit and F-150, as well as the Lincoln MKZ, MKS, and MKT and new MKC. Both Lane departure warning and rearview video systems are listed as NCAP recommended features. Customer demand for lane departure systems is lower than for rearview video camera systems.

- c. **Consumer demand, along with government involvement, is driving an increase in safety technology. Consumers can now rapidly compare features and safety ratings of cars online. How does consumer awareness of safety features affect sales and how will this affect future safety innovation?**

Responses to Questions from 4/10/13 Hearing before the Committee on Energy and Commerce,  
Subcommittee on Commerce, Manufacturing and Trade.

Ford Motor Company has eight 2014 model year and nine 2015 model year vehicles earned the highest possible Overall Vehicle Score of five stars in the U.S. New Car Assessment Program (NCAP).

It is Ford's long-standing policy to design and build vehicles that meet or exceed applicable laws and regulations, and to advance the state-of-the-art in safety wherever practicable. Ford is engaged in continuous improvement in vehicle safety including accident avoidance attributes as well as occupant protection systems.

**5. At the hearing on April 10, 2013, the Subcommittee discussed the importance of a well-educated workforce to the long-term success of the U.S. auto industry.**

**a. Does your company have any job openings right now that could be filled if the workers applying were better trained – yes or no? If so, what functions are represented among these job functions?**

In 2014, we plan to hire 5,000 new employees – 3,300 of these will be salaried positions with a focus on IT, manufacturing and product development. More information about Ford career opportunities can be found at: [careers.ford.com](http://careers.ford.com)

**b. Are you currently engaged in a partnership with any community or technical colleges in the United States – yes or no? If so, please list each institution with which you are working and explain the nature of the partnership.**

Ford Motor Company is involved with two formal partnerships, AMTEC- Automotive Manufacturing Technical Education Collaborative, sponsored by National Science Foundation and M-S AMC - Multi-State Advanced Manufacturing Consortium, sponsored by US Department of Labor. In general, we are giving our input and support to these community college driven programs to improve manufacturing education and training at the community college level.

In addition we have partnered with the Business and Technology College, 1775 Universal Avenue, KC, MO. in delivering a one-year vehicle diagnostics skill building program for our plant electrical repair employees. We have another major partnership with Henry Ford Community College where we are delivering the majority of our new technology training for the Dearborn Truck F150 launch.

**6. Your company has maintained a major manufacturing presence in the United States even as supply chains in the auto industry become increasingly global in nature. I understand that several of your company's models are considered to be among the most "American-made" vehicles, but others incorporate significant numbers of imported parts.**

**a. Among all models in your U.S. passenger-vehicle fleet, what percentage of their total value comes from imported goods?**

**b. Does your company intend to reduce this percentage and ultimately perform a greater share of the manufacturing for its U.S. passenger-vehicle fleet in the United States? If so, how does your company plan to carry out this goal?**

Responses to Questions from 4/10/13 Hearing before the Committee on Energy and Commerce,  
Subcommittee on Commerce, Manufacturing and Trade.

In 2013, cars.com named the Ford F-150 the most American Made vehicle. Similarly, in 2014, the American University Kogod Auto Index identified the F-150 as its most American vehicle (tied with GM Corvette). We are confident that significant majority of our parts are domestically-made – and it remains our objective to prioritize domestic content. As an American-based manufacturer, we are also proud of all of the ways our business contributes to the U.S. economy. Ford conducts the vast majority of our research and development here at home, produces more than 2 million vehicles annually in the U.S., and employs more than 68,000 U.S. employees. Every year in the U.S., Ford spends nearly \$36 billion in purchases from suppliers in 48 states, and another \$5 billion on R&D to develop next-generation products and technologies. This year, Ford plans to hire 5,000 workers in the U.S., which builds on the creation of more than 14,000 salaried and hourly jobs in the U.S. over the last two years.

**Questions from the Honorable Peter Welch**

- 1. I understand from reading your testimony that you are hiring new workers, both salaried and hourly. Are you able to find workers with the right skill set?**

In most instances we are hiring assembly line workers not skilled trades. On the salaried side we are finding employees with the right skill set. Generally, our major challenge, is the up-skilling of our current workforce to meet the demands of advanced manufacturing.

FRED UPTON, MICHIGAN  
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA  
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115  
Minority (202) 226-2927  
Minority (202) 225-3641

March 18, 2014

Mr. James Wehrman  
Senior Vice President  
Honda of America Manufacturing  
24000 Honda Parkway  
Marysville, Ohio 43040

Dear Mr. Wehrman,

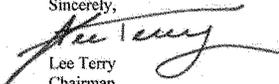
Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Wednesday, April 10, 2013 to testify at the hearing entitled "Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Tuesday, April 1, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at [Kirby.Howard@mail.house.gov](mailto:Kirby.Howard@mail.house.gov) and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Lee Terry  
Chairman  
Subcommittee on Commerce,  
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade  
Attachment

**HONDA**

**Honda North America, Inc.**  
1001 G. Street, N.W. Suite 950  
Washington, DC 20001  
Phone (202) 661-4400

April 2, 2014

The Honorable Lee Terry  
Committee on Energy and Commerce  
House of Representatives  
2125 Rayburn House Office Building  
Washington, DC 20515

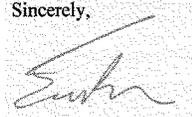
Dear Mr. Chairman:

Please find enclosed the responses to Congresswoman Schakowsky's questions dated March 18, 2014 as they pertain to the hearing entitled "Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward," held by the Commerce, Manufacturing, and Trade subcommittee on Wednesday, April 10, 2013.

Please note that Jim Wehrman, who testified on behalf of Honda last spring, has since retired from the company. I have answered on his behalf in my capacity as Vice President of Government and Industry Relations for Honda North America, Inc.

Please let me know if I can be of further assistance to you in this or any other matter.

Sincerely,



Edward B. Cohen, Vice President  
Government & Industry Relations

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade

1. *In 2004, sisters Raechel and Jacqueline Houck were tragically killed when the rental car they were driving caught fire and crashed into an oncoming tractor-trailer. The rental car company had been warned one month earlier that the car had a defective steering component prone to catching fire, and had been notified that the car's manufacturer would repair any defective vehicles free-of-charge. The company neglected to repair the car or remove it from the road, and the defect ultimately caused the Houck sisters' death.*

*In the 112<sup>th</sup> Congress, I was an original cosponsor of H.R. 6094, the Raechel and Jacqueline Houck Safe Rental Car Act of 2012, which would have required rental car companies to ground recalled vehicles as soon as they receive a safety recall notice, and prohibit the vehicles from being rented or sold until required repairs are made. In late 2012, stakeholder discussions yielded a bipartisan Senate bill, S. 3706, reflecting compromise language to close the existing gap in safety standards.*

*It is my hope that the 113<sup>th</sup> Congress will pass into law legislation substantially similar to S. 3706 in order to prevent future tragedies involving rental cars.*

*I understand that organizations representing automakers have already indicated support for the objectives of the Raechel and Jacqueline Houck Safe Rental Car Act. Does your company support enactment of the compromise language introduced in December 2012 as S. 3706?*

Honda works to repair vehicles in a timely and efficient way in every safety **recall** we undertake to ensure the continued safety of all of our customers. Honda does not sell vehicles directly to rental car fleets as a matter of company policy. While Honda dealers may sell vehicles to rental fleet owners, this number is quite small. Honda does not object to its enactment.

2. *Technological advances are having a dramatic impact on auto safety. For example, adaptive cruise control adjusts a car's speed relative to the speed of vehicles nearby and electronic stability control adjusts pressure on individual brakes if a sensor picks up wheel, steering wheel, or brake data that suggests a lack of control. Additional technology includes collision avoidance and lane departure warning systems, adaptive cruise control, and rearview cameras.*
  - a. *Honda offers lane-departure warning and lane-keeping systems in certain U.S. models. For each of these two technologies: (1) what do you see as this technology's benefits and drawbacks, from a safety perspective, and (2) do you anticipate extending this technology's availability to other Honda models available in the United States? Can we expect this safety feature to be included as standard in 100% of Honda models, and if so, when?*

Honda has started to make lane departure warning systems available on every model we offer in the United States, and as we update our model lineup over the next few years, we will offer lane departure warning systems on at least one version of every model of Honda and Acura passenger vehicle we sell.

Honda recognizes the safety benefits of lane-departure warning systems. We consider our lane-keeping systems a driver assistance feature – much like adaptive cruise control – that are provided for the convenience of drivers but are not designed to provide a specific safety benefit.

- b. *Consumer demand, along with government involvement, is driving an increase in safety technology. Consumers can now rapidly compare features and safety ratings of cars online. How does consumer awareness of safety features affect sales and how will this affect future safety innovation?*

Honda has long been a leader in vehicle safety, with many industry-leading crashworthiness, crash avoidance and occupant protection milestones, including the development of many advanced airbag innovations, application of our exclusive ACE™ frontal crash compatibility body structure, and 100 percent standard application of rearview visibility camera systems starting with the 2014 model year.

Indices like NCAP and the IIHS safety ratings are one of many factors that consumers take into account when making purchasing decisions. Honda is an industry leader in both, with eleven 2014 models achieving a 5-Star Safety Rating from NCAP and eight models receiving a Top Safety Pick or Top Safety Pick Plus from the IIHS.

Building on this history of safety leadership, Honda views safety feature decisions differently than some of our competitors. To take one example, we have applied the ACE™ frontal body structure on all of our vehicles since 2005. It is designed not only to protect the occupants of the Honda vehicle, but also to reduce the damage inflicted on the crash partner vehicle. This illustrates that Honda often decides to apply safety features, then determines how best to express the value and benefits of those features to prospective customers in a sales context.

3. *At the hearing on April 10, 2013, the Subcommittee discussed the importance of a well-educated workforce to the long-term success of the U.S. auto industry.*
- a. *Does your company have any job openings right now that could be filled if the workers applying were better trained -- yes or no? If so, what functions are*

*represented among these job openings, and approximately how many current openings are there for each function?*

Jobs in manufacturing represent 76 percent of Honda's direct employment in the U.S. We rely on an educated and skilled workforce to produce the high-quality products that bring joy to our customers. Manufacturing has changed over the past decade. As manufacturing processes become increasingly more automated, there is a need for skilled technical manufacturing associates who have capabilities with myriad technologies, including computerized system controls, electronics, robotics, hydraulics, and mechanical. These skills are needed to maintain manufacturing equipment and minimize downtime and job applicants with these skills are valued highly.

- b. Are you currently engaged in a partnership with any community or technical colleges in the United States – yes or no? If so, please list each institution with which you are working and explain the nature of the partnership.*

Honda has a two-fold approach to addressing the “skills gap” in the manufacturing sector. First, we are establishing two technical training centers of our own in Ohio which will allow us to train our associates throughout the U.S.: a new training center for powertrains at our engine plant in Anna, Ohio, and a training center for auto production located near our Marysville Auto Plant. These centers will provide our engineers, equipment service technicians, and line-side associates with unique opportunities to develop skills that will refine their current technical know-how in a hands-on environment. The centers will provide associates the opportunity to learn fundamental skills in mechanical, hydraulic, pneumatic, electrical and robotic manufacturing applications. The centers will also provide advanced automation training in robotics, vision, machines controls and communication.

The second approach has been to support the efforts of local high schools, career and technical centers, community colleges, and universities to teach key skills and to expand awareness of available jobs which utilize these skills. Honda has a variety of partnerships in the six states in which we have manufacturing facilities. In addition to producing vehicle engines, transmissions, passenger vehicles, and

light-duty trucks in Alabama, Indiana, and Ohio, Honda also produces transmissions in Georgia, power equipment in North Carolina, and all-terrain vehicles in South Carolina. We are also in the process of certifying a new small business jet and aircraft engine; the world headquarters for HondaJet is in Greensboro, North Carolina.

Some of the partnerships that Honda has developed and maintained over the years include:

**Honda Manufacturing of Alabama:** Honda Manufacturing of Alabama works closely with the Talladega County Industrial Development Training Center that was established nearby our plant in Lincoln. This center, which was so critical to the training of our original base of associates for the startup of production in 2001, is again playing a key role as we prepare our associates for the launch of new models.

**Honda Precision Parts Georgia:** Honda Precision Parts of Georgia has worked with West Georgia Technical College since 2006 to fulfill various training needs, including associate process training, leadership development, technical training (especially equipment service) and computer-based training.

**Honda Manufacturing of Indiana:** Since 2008, Honda Manufacturing of Indiana has worked with Ivy Tech Community College to develop technical and manufacturing training for Honda's equipment service and die service associates, as well as basic leadership skills training. It also recently supported Ivy Tech's new Advanced Manufacturing Center of Excellence (AMCE) with funding for scholarships.

**Honda Aircraft:** Honda Aircraft in North Carolina partnered with Guilford Technical Community College to design a curriculum for advanced aeronautical engineering, creating a pool of qualified candidates for positions at HondaJet in research and development and manufacturing. GTCC recently broke ground on

their new aviation facility. The \$10 million project will open this spring and expand GTCC's existing aviation programs. Honda Aircraft, along with other aviation companies based in Greensboro, collaborated with the school on developing the capabilities we will need in the future.

Honda of America Manufacturing and Honda Transmission Manufacturing of America: In Ohio, we draw associates from a 15-county region to work in our four manufacturing plants. There are five separate community colleges that serve this region, and we have worked with each of them to address the unique employment needs for the plants in their respective regions. The colleges include Columbus State, Marion Tech, Clark State, Rhodes State, and Edison State. One example is a pilot program that gives Worthington district high school students the chance to attend a summer camp hosted by the Columbus State Community College of Engineering and our manufacturing facility. Students have the opportunity to learn about college and Honda technical careers during the camp.

Honda South Carolina: Since 1998, Honda of South Carolina (HSC) has partnered with Florence-Darlington Technical College to assist Ready SC, a state-based workforce training program, with welding and manufacturing processes. For our plant's 15 year anniversary in June 2013, it partnered with Francis Marion University to support the start-up of their industrial engineering program, which began this January. It is the first industrial engineering program in the northeastern region of South Carolina. Additionally, the plant works with local schools to expand their welding programs and other training capabilities at their career centers.

4. *An August 2012 Department of Commerce report indicated that U.S. subsidiaries of foreign companies are responsible for a disproportionately large share of both U.S. exports and imports. This report also found that imports by these firms, in aggregate, are usually more than twice as high as exports, and that these firms account for more than 45% of the total U.S. trade gap.*
  - a. *Your company has established a major manufacturing presence in the United States even as supply chains in the auto industry become increasingly global in*

*nature. I understand that several of your company's models are considered to be among the most "American-made" vehicles, but others incorporate significant numbers of imported parts. Among all models in your U.S. passenger-vehicle fleet, what percentage of their total value comes from imported goods?*

For Honda and Acura, 96 percent of the vehicles sold in the U.S. are produced in North America, which is the highest of any international automaker. We use parts and components valued at \$23 billion from our 500 U.S. suppliers across 34 states, to produce a record-setting 1.3 million vehicles here in 2013. That is an increase of 10 percent from our 2012 purchases.

**Honda has another 13,500 maintenance, repair, and operational (MRO) services suppliers supporting Honda's operations in the U.S. Our MRO purchases increased from \$7.9 billion to \$9.8 billion from 2012 to 2013.**

- b. Does your company intend to reduce this percentage and ultimately perform a great share of the manufacturing for its U.S. passenger-vehicle fleet in the United States? If so, how does your company plan to carry out this goal?*

Honda is committed to producing vehicles close to the markets where we sell them. Sourcing locally provides many opportunities, but may not always be the best solution for each of the thousands of parts that go into a vehicle.

That said, our U.S. production and capacity continues to grow. This allows us to satisfy not only our U.S. product needs, but to export from the U.S. as well.

At the end of 2013, Honda became a net exporter, which means we are now exporting more vehicles from the U.S. than we import from Japan. Honda exported more than 108,000 vehicles to nearly 50 countries around the world last year, a 48 percent increase from 2012.

FRED UPTON, MICHIGAN  
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA  
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115  
Majority (202) 225-2927  
Minority (202) 225-3941

March 18, 2014

Mr. Chris Nielsen  
President  
Toyota Motor Manufacturing Texas  
1 Lone Star Pass  
San Antonio, TX 78264

Dear Mr. Nielsen,

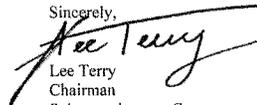
Thank you for appearing before the Subcommittee on Commerce, Manufacturing, and Trade on Wednesday, April 10, 2013 to testify at the hearing entitled "Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions by the close of business on Tuesday, April 1, 2014. Your responses should be e-mailed to the Legislative Clerk in Word format at [Kirby.Howard@mail.house.gov](mailto:Kirby.Howard@mail.house.gov) and mailed to Kirby Howard, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

  
Lee Terry  
Chairman  
Subcommittee on Commerce,  
Manufacturing, and Trade

cc: Jan Schakowsky, Ranking Member, Subcommittee on Commerce, Manufacturing, and Trade  
Attachment

149

**TOYOTA**

**TOYOTA MOTOR NORTH AMERICA, INC.**

WASHINGTON OFFICE  
601 THIRTEENTH STREET, NW - SUITE 910 SOUTH, WASHINGTON, DC 20005

TEL: (202) 775-1700  
FAX: (202) 822-0928

June 5, 2014

The Honorable Fred Upton  
Chairman  
House of Representatives  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairman,

On behalf of Mr. Chris Nielson, I am forwarding Toyota's submission to the follow-up questions asked by Congresswoman Schakowsky in connection with the hearing entitled "Our Nation of Builders: Powering U.S. Automobile Manufacturing Forward."

Toyota appreciates the opportunity to contribute to the debate on this important topic and welcomes the opportunity to continue to discuss important automobile issues with the committee.

Sincerely,



Stephen Ciccone  
Toyota  
Group Vice President  
Government Affairs  
202.463.6830  
stephen\_ciccone@toyota.com

**The Honorable Jan Schakowsky Questions:**

1. **One topic of discussion at the hearing on April 10, 2013 was the inclusion of video display screens in Toyota passenger vehicles for sale in the United States. As you know, these screens can be used for rear-visibility systems that the National Highway Traffic Safety Administration estimates would reduce fatal backover deaths by 95%. I understand that these screens, as well as cameras, are often offered as an option but I would like to establish conclusively their exact usage.**
  - a. **What percentage of Toyota passenger vehicles sold in the United States come with video display screens as standard equipment and in what percentage are they purchased as an option?**
  - b. **What percentage of Toyota's passenger vehicles sold in Japan come with video display screens as standard equipment and in what percentage are they purchased as an option?**
  - c. **What percentage of Toyota's U.S. passenger-vehicle fleet do you estimate will come with video display screens as standard equipment and in what percentage do you expect they will be purchased as an option in the 2014 model year?**
  - d. **When do you project that 100% of Toyota's U.S. passenger-vehicle fleet will come with video display screens as standard equipment?**
  - e. **What percentage of model year 2013 passenger vehicles sold by Toyota in the United States have rearview cameras as standard equipment and in what percentage are they purchased as an option?**

Answer: Toyota is firmly committed to safety. We have evaluated and installed numerous technologies to address safety needs. Prior to NHTSA's rulemaking, Toyota had already been installing rear-visibility camera systems and video screens connected to these cameras as standard equipment or as an option on most of our U.S. market vehicles. For the 2014 model year, we estimate approximately 51% of our vehicles (combined Lexus, Toyota, and Scion models) sold will have the rear-visibility camera with video screen system as standard equipment, and approximately another 36% will be sold with this technology as an option. As you know, at the end of March, NHTSA issued its final rule amending FMVSS 111 to require rear-view cameras on vehicles. Toyota supports this final rule and continues to evaluate its vehicle rear-view camera/video systems to determine whether modifications to our systems are needed to ensure compliance. Toyota expects to have rear-view camera/video screen systems on our entire passenger vehicle fleet prior to the May 1, 2018 date specified by the final rule.

2. **Based on public comments from automakers on its proposed rear visibility standards, the National Highway Traffic Safety Administration (NHTSA) estimated that making rearview video systems standard on every car would add \$58 to \$88 to the price of vehicles already equipped with dashboard display screens and \$159 to \$203 for those without them. The New York Times reported in 2012 that automakers offer a**

standalone rearview video system for a few hundred dollars, or for as much as \$2,000 as part of a full navigation package.

**How much does Toyota currently charge for rearview video systems as an add-on to models in its existing U.S. fleet for which it is offered as an optional feature?**

Answer: In March, NHTSA issued its final rule amending FMVSS 111 to require rear-view cameras on vehicles. Toyota supports this final rule and continues to evaluate its vehicle rear-view camera/video systems to determine whether modifications to our systems are needed to ensure compliance. Toyota expects to have rear-view camera/video screen systems on our entire passenger vehicle fleet prior to the May 1, 2018 date specified by the final rule. If modifications due to the recently issued rule are necessary that could impact the price, one way or the other.

3. **In 2004, sisters Raechel and Jacqueline Houck were tragically killed when the rental car they were driving caught fire and crashed into an oncoming tractor-trailer. The rental car company had been warned one month earlier that the car had a defective steering component prone to catching fire, and had been notified that the car's manufacturer would repair any defective vehicles free-of-charge. The company neglected to repair the car or remove it from the road, and the defect ultimately caused the Houck sisters' death.**

**In the 112<sup>th</sup> Congress, I was an original cosponsor of H.R. 6094, the Raechel and Jacqueline Houck Safe Rental Car Act of 2012, which would have required rental car companies to ground recalled vehicles as soon as they receive a safety recall notice, and prohibit the vehicles from being rented or sold until required repairs are made. In late 2012, stakeholder discussions yielded a bipartisan Senate bill, S. 3706, reflecting compromise language to close the existing gap in safety standards.**

**It is my hope that the 112<sup>th</sup> Congress will pass into law legislation substantially similar to S.3706 in order to prevent future tragedies involving rental cars.**

**I understand that organizations representing automakers have already indicated support for the objectives of the Raechel and Jacqueline Houck Safe Rental Car Act. Does your company support enactment of the compromise language introduced in December 2012 as S.3706?**

Answer: While we support the good intentions with which the rental recall bill was introduced, as with any major policy shift, there can be unintended consequences. Toyota believes that all of its customers, whether individual owners, fleets or rental car companies, should receive equal treatment with respect to service-related issues. This legislation, however, effectively sets up two classes of customers -- rental car companies and individual vehicle owners. By federally requiring that rental companies park all vehicles subject to a recall, it unfairly places them first in line for service and parts, many of which may be limited in supply, especially in the early stages of mitigation.

Additionally, creating a new federal mandate requiring that rental car companies ground all vehicles subject to any recall appears to be overly broad. As you know, recalls can be instituted for either a defect or for noncompliance; the vast majority of recalls do not rise to the level of "do not drive." One solution would be to redraft the bill so that it mandates that rental cars be grounded when NHTSA or the manufacturers issue a "do not drive" order.

We would also recommend adding a section requiring rental car companies to notify their customers when a vehicle they are about to rent is subject to a recall. This would allow the customer to opt out of the transaction and request a different vehicle not subject to a recall.

Finally, the legislation appears to establish a basis for rental car companies to seek "loss of use" revenue recovery for the period during which vehicles are grounded. This issue has not been that significant for rental car companies in the past because very few recalls actually involve recommendations to not drive the vehicle during the period prior to repair. However, requiring the rental car companies to ground all vehicles subject to any recall would create a new environment regarding this "loss of use" liability.

The Alliance of Automobile Manufacturers has recommended adding a sentence reading, "Compliance by a rental company with this provision shall not give rise to liability under the law of any State or political subdivision thereof for damages related to the commercial loss of use of the covered rental vehicles pending completion of the recall remedy prescribed in the notice to owners". We support the addition of this language.

4. **Technological advances are having a dramatic impact on auto safety. For example, adaptive cruise control adjusts a car's speed relative to the speed of the vehicles nearby and electronic stability control adjusts pressure on individual brakes if a sensor picks up wheel, steering wheel, or brake data that suggests a lack of control. Additional technology includes collision avoidance and lane departure warning systems, adaptive cruise control, and rearview cameras.**
  - a. **Toyota offers lane-departure warning and lane-keeping systems in certain U.S. models.**  
**For each of these two technologies: (1) what do you see as this technology's benefits and drawbacks, from a safety perspective, and (2) do you anticipate extending this technology's availability to other Toyota models available in the United States? Can we expect this safety feature to be included as standard in 100% of Toyota models and if so, when?**
  - b. **Consumer demand, along with government involvement, is driving an increase in safety technology. Consumers can now rapidly compare features and safety ratings of cars online. How does consumer awareness of safety features affect sales and how will this affect future safety innovation?**

Answer: Toyota is committed to the safety of our customers and is currently reviewing these and other potential safety technologies. Based on our testing and evaluations as well as other available studies on the technology, Toyota will consider whether, when, and how to begin installation. The installation rate of technology depends on many factors including: technological viability, market competitiveness and consumer demand.

5. **At the hearing on April 10, 2013, the Subcommittee discussed the importance of a well-educated workforce to the long-term success of the U.S. auto industry.**
  - a. **Does your company have any job openings right now that could be filled if the workers applying were better trained - yes or no? If so, what functions are represented among these job openings, and approximately how many current openings are there for each function?**

**b. Are you currently engaged in a partnership with any community or technical colleges in the United States - yes or no? If so, please list each institution with which you are working and explain the nature of the partnership.**

Answer: Toyota currently has 10 U.S. manufacturing operations located in Alabama, California, Kentucky, Missouri, Mississippi, Tennessee, Texas, and West Virginia. Like most manufacturing operations across the U.S., several Toyota operations have never had a full complement of multi-disciplined Skilled Maintenance Team Members due to the nationwide shortage of trained workers. Across our U.S. operations, we currently have 126 openings for Skilled Maintenance Team Members. We anticipate this same level of demand continuing for the foreseeable future due to retirements, plant refurbishment and industry growth.

Toyota currently has manufacturing training partnerships with seven community & technical colleges and universities connected with the Advanced Manufacturing Technician (AMT) Program. In 2010, Toyota developed an AMT work/study training curriculum in Georgetown, Kentucky with the Bluegrass Community & Technical College. This 18 month/40 hour per week program combines paid manufacturing work experience with classroom study, resulting in an Associate Degree with demonstrated and nationally certified skills. Beginning in 2012, the AMT program has now been successfully replicated in seven states where Toyota has manufacturing plants. Toyota partners with over 40 local manufacturers from various industries across these states to sponsor students in an effort to fill the Skilled Manufacturing Technician shortage. Since the start of the program, AMT graduates have had a 100% placement rate in manufacturing positions. This year, two Kentucky AMT graduates are entering the College of Engineering at the University of Kentucky to continue the Engineering Pathway to a Bachelor of Science Degree. Below is a matrix of the higher education organizations that partner with Toyota through the AMT

**Program:**

<u>Start Date</u>	<u>State</u>	<u>Partner School</u>
2010	KY	Bluegrass Community & Technical College
2012	WV	Bridge Valley Community & Technical College
2013	IN	Vincennes University
2013	MS	Itawamba Community College
2013	TX	Alamo Community College
2014	TN	Jackson State Community College
2014	AL	Calhoun Community College

6. **An August 2012 Department of Commerce report indicated that U.S. subsidiaries of foreign companies are responsible for a disproportionately large share of both U.S. exports and imports. This report also found that imports by these firms, in aggregate, are usually more than twice as high as exports, and that these firms account for more than 45% of the total U.S. trade gap.**
- a. **Your company has established a major manufacturing presence in the United States even as supply chains in the auto industry become increasingly global in nature. I understand that several of your company's models are considered to be among the most "American-made" vehicles, but others incorporate significant numbers of imported parts. Among all models in your U.S. passenger-vehicle fleet, what percentage of their total value comes from imported goods?**

**b. Does your company intend to reduce this percentage and ultimately perform a greater share of the manufacturing for its U.S. passenger-vehicle fleet in the United States? If so, how does your company plan to carry out this goal? Does your company intend to reduce this percentage and ultimately perform a greater share of the manufacturing for its US passenger-vehicle fleet in the United States? If so, how does your company plan to carry out this goal?**

Answer: Toyota continues to invest in the United States for the long term. By building vehicles where we sell them, we support local suppliers and economies increase our overall investment and – most importantly – build better cars and trucks for our customers. Our investment now exceeds \$20 billion, which includes 10 plants in eight states that manufacture cars, trucks and components. Toyota directly employs over 32,000 associates in the U.S. Counting our dealers and suppliers, Toyota is responsible overall for some 365,000 U.S. jobs. Our North American plants built over 70 percent of the vehicles that we sold in the U.S. last year, up from 55 percent in 2008. Our average domestic content has increased to more than 75 percent.

Since November 2011, we've announced 11 expansions to our North American operations, resulting in more than 4,000 new jobs and a total additional investment of over \$2 billion. They include:

- \$28 million at two facilities in Ann Arbor, MI to support powertrain development capability, specifically in the areas of design, evaluation and calibration on new engine and transmission projects;
- \$200 million to boost production of our V6 engine in Huntsville, AL and related casting parts in Troy, MO and Jackson, TN;
- \$30 million to boost production of the Highlander by 15,000 units in Princeton, IN, in order to keep up with consumer demand. The plant will also build the hybrid version of the Highlander, raising total employment to 4,700 and total investment to \$4.2 billion.
- \$360 million to shift Lexus ES 350 production from Japan to Georgetown, KY, generating 750 new jobs and bringing total plant capacity to 550,000;
- \$102 million to increase transmission production capacity at our WV, MO and TN plants, creating 100 new jobs.

Finally, Toyota is well on its way to establishing the U.S. as a global export hub. In 2013, Toyota exported more than 10 percent of its total U.S. vehicle production to 32 countries.