

**U.S. Chamber of Commerce**  
**“Manufacturing in America: A New Cornerstone of Competitiveness”**  
Co-hosted by Chamber Foundation, National Association of Manufacturers (NAM) and  
Manufacturing Alliance for Productivity and Innovation (MAPI)  
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**Why I’m Here**

I thank all of you for being here today and for your interest in and support of American manufacturing. This is a very timely and important topic for all of us and I’d like to share a few thoughts with you today on that topic.

You all know that manufacturing is more than a job. It’s more than a capability. It’s at the very heart of our country’s independence, our economic stability and our national security. Frankly, manufacturing fuels America’s leadership around the globe.

Even though I come at this from an engineering standpoint – I’m an engineer by training – I have a sincere appreciation for manufacturing and what it means to our business and our country.

I understand it’s the skilled machinists and technicians building our products who are really at the frontline of our business. In fact, I was just reflecting that earlier this week when Boeing hosted its annual Investors’ Conference in St. Louis, I had the opportunity to be out on the F/A-18 Super Hornet factory floor talking with some of the machinists, building the best airplanes in the world, providing national security, creating jobs, and creating economic horsepower.

This morning you’ve heard from two panels about some of the specific challenges and opportunities for manufacturing in America. As the closing speaker, I’d like to show you how some of those issues look through the lens of the aerospace industry and one company that has an important role in that industry.

**Aerospace reflects American industry**

I’m proud to represent the aerospace industry here today. Aerospace reflects America’s manufacturing core, its policies – and both its strengths and gaps.

Through our supply chain, we touch companies of every size, from large to small. We fuel a significant piece of the U.S. economy. Boeing itself is one of America’s biggest exporters, and the aerospace industry contributes the biggest balance of trade advantage in the United States – some \$42 billion per year.

So aerospace manufacturing is critical to our economy and to our country. Not only is our impact great economically, we also play a significant role in national security.

**But our manufacturing capability is threatened**

But maintaining our manufacturing capability is not a given. It is threatened in today’s environment. Some of the challenges Boeing is facing are the same ones that affect the broader manufacturing industry and will sound familiar to all of you. They include:

- intensifying competition,
- economic uncertainty,
- environmental constraints,
- technological innovation,
- the rise of emerging markets,
- government regulations,
- talent shortages,
- and mobility.

Those are just a few of the challenges we face in the manufacturing arena.

And those challenges have a big impact:

- Currently, it's 20 percent more expensive to manufacture in the U.S. than among our major trading partners – excluding labor
- We're losing R&D work to other countries that offer better incentives.
- And it now takes us almost twice as long to train someone from the time they come out of high school or vocational training to get them ready to work on our factory floor. Twenty years ago it took about seven weeks. Now it takes 13. Building some of those basic, fundamental skills it takes to be an effective manufacturing worker is an area we all need to work on.

### **Boeing Defense, Space & Security has a strategy. Does America?**

Now those are some significant challenges. We can do things to take on those challenges, but we need a strategy.

Right now, in the defense business, the business I'm in, it's certainly in a challenging environment. We're seeing some dramatic Defense Department budget cuts as part of the ongoing deficit reduction actions, some \$500 billion of budget reductions over the next 10 years, and in the face of that tough environment, we have developed a strategy and developed a game plan for executing that strategy.

Sometimes I wonder, does America have a strategy to maintain our leadership in manufacturing? We need a combined strategy – one that includes government and industry in collaboration. I think that's a fundamental here if we are to achieve the industrial renaissance that we're talking about.

We applaud the president's National Network for Manufacturing Innovation, but I think that is just a start. That is not the end. We've got a long way to go to bolster America's declining manufacturing base.

We need a broad policy that's focused on encouraging manufacturing stability and growth here, or I fear we'll find ourselves facing global competition that takes away our manufacturing jobs, threatening our economy and our national security.

So what do we do about that?

My thesis today is that progress requires partnership and policy in a challenging environment. For America to lead, U.S. manufacturing and American government must collaborate on key areas. Together, we can forge a more competitive posture in the global marketplace. In my business – which includes a lot of government contracting –

we need to re-examine policies to ensure they are doing what they were intended to do and eliminate wasteful or ineffective ones. We can and must collaborate, while at the same time protecting the taxpayer and providing transparency. Government and industry collaboration here is key.

### **Areas I'd like to focus on today**

I'd like to touch on five areas today – very briefly:

1. Research and development,
2. Export controls,
3. Ex-Im bank,
4. Industrial base, and
5. Workforce shortages.

### **Research and development**

Like many of you, Boeing supports a permanent and strengthened R&D tax credit.

Studies have shown that more than half the growth of America's GDP is due to technological innovation. But the trends aren't positive.

In 1999, the U.S. share of global R&D was 38 percent. Ten years later, it had dropped to just 31 percent. That's not a sustainable trend.

U.S. federal government R&D as a percentage of our GDP has fallen by 60 percent since 1964.

Compare that to China, whose annual total investment in R&D as a share of GDP has nearly *tripled* over the most recent decade.

While the U.S. still spends more on R&D in total than China in absolute dollar terms, China has a plan for continued growth.

And it's not clear whether America has a plan for continued growth when it comes to R&D investment.

For America to lead, we need a strong, permanent R&D tax credit or a substantially lower corporate tax rate. We need to reward companies that invest and innovate here at home rather than placing work overseas.

### **Export controls**

We need a more rational approach to export controls. Boeing supports the administration's efforts to reform the export control system, strengthening our national security while advancing U.S. competitiveness.

Eliminating redundancies and streamlining processes will not only reduce the cost of doing business but will enable future business, create jobs and strengthen our economy.

A critical ongoing issue for us in the defense market is restricted technology. An improved system would enable industry to focus resources on items critical to national security and that continue to require protection.

Reviews by the State, Defense and Commerce departments have concluded that many items on the U.S. Munitions List should be under Commerce jurisdiction, including millions of low-level parts and components.

Along these lines, commercial satellite business welcomes the recent report from regulators concluding that communication satellites belong under Commerce rather than State oversight. As in all of these cases, the real work is turning these good suggestions into reality.

Another example of positive change came last year when the State Department streamlined licensing requirements for international customers that purchase U.S. defense products and have dual- or third-country national employees. The new rule bolsters U.S. national security while creating operating efficiencies for U.S. exporters.

We strongly support these reform efforts, and we agree that Congress should exercise its oversight responsibilities on export control. We share a common goal of first and foremost protecting national security interests, while improving U.S. competitiveness.

For America to lead, we've got to re-examine our export controls for redundancies, and create a more predictable, efficient and transparent system.

### **Export-Import Bank**

Another key to America's manufacturing success is the continuation of the Export-Import Bank and the work that it does. The Bank supports thousands of U.S. jobs, for small and large businesses alike. Last year, (FY2011) Ex-Im supported more than \$40 billion in U.S. exports that helped to create or sustain 290,000 U.S. jobs at more than 3,600 companies. Foreign competitors benefit from national industrial policies that include significant export-credit support, and this puts the U.S. at a real disadvantage.

Now that the House and Senate have overwhelmingly reauthorized the Ex-Im Bank, we look forward to the President signing this bill into law. We greatly appreciate the leadership of the Chamber and NAM on this topic. And I want to thank all of you in the room, the many advocates supporting Ex-Im Bank reauthorization.

While the new legislation reauthorizes Ex-Im Bank for three more years, we must continue to educate policymakers and the public on the importance of the program to our global competitiveness.

### **Industrial base**

Another important area – our industrial base. America's aerospace industrial base is the smallest it's been since WWII.

And as hard as it may be to believe, America has no new manned military aircraft in design – the first time in 100 years.

With limited new military programs on the horizon, we risk losing our ability to develop, design and manufacture new products.

This is especially concerning as aerospace contributes billions to our national economy – hundreds of billions of dollars. The industry employs more than one million workers in all 50 states. In addition, aerospace supports more than two million related jobs and 30,000

suppliers. Our supply network is extensive and broad, in every state in the country. Aerospace has a big impact again, on our economy, and on our national security.

The future of our industrial base could be dealt a massive blow if Congress doesn't act to prevent sequestration that's on the horizon. We all see the fog around sequester and the 1 January deadline that's quickly approaching. If sequester is not avoided, it will have a devastating impact on the defense and aerospace industry. This is not only important to Boeing, but to our extensive supply chains around the country that literally depend on this work – and more broadly, I would argue, it would have a devastating impact on manufacturing. It's in all of our best interests that this sequester scenario be avoided.

For America to lead, we must nurture, not take for granted, our defense and aerospace industrial base. We've enjoyed leadership in that area for decades and as a result have gotten comfortable with that. As a nation, we need to reflect on that, understand the importance of that industrial base, not take it for granted, and invest in it for the future.

### **Workforce shortages**

America's workforce is no different than any other element of our industrial base. We need a strategy to preserve what we have and grow what we need for the future.

Many of our manufacturing workers are eligible to retire. That's not just the case at Boeing, it's the case at many, many manufacturing companies at this time. At the same time, our country isn't producing enough graduates with the right kinds of skills to step into these jobs. The pipeline of talent is simply insufficient.

At Boeing – like many of your companies -- we're taking proactive steps. For example, we're partnering with the Community College system in St. Louis to help students develop skills for manufacturing work, and we've had great success in placing these students in our factories.

We're also tapping into a rich source of talent and leadership in hiring military veterans who are returning to civilian life. Currently 16 percent of our employees are veterans – some 25,000 people. These are military veterans who've done the hard work for our country and they deserve good jobs. I think it's important for the manufacturing sector to look for opportunities for those veterans.

I also want to take a moment to recognize the U.S. Chamber's strong effort on this front to promote veteran hiring through the "Hire Our Heroes" program. That's just a great example for our country.

For America to lead, we must have the cooperation and commitment at many levels – business leaders, communities, parents, educators, students – to create an environment for students to learn and be able to compete for jobs.

### **Conclusion**

So those are five topics where I think government and industry collaboration can make a big difference – a big difference in American manufacturing jobs, a significant contribution to our national economy and to our national security. It does require collaboration and partnership across government and industry.

We all know we must compete, and we will continue to compete, but at the same time, there are certain things, like manufacturing base, that require partnership. And these are all areas where we can work together.

I'd like to wrap up with a brief story that reflects on my experience at Boeing.

I have a couple of young children, including a son who is now 10. About a year and a half ago, I took him to his first space shuttle launch. If you've been to a shuttle launch, you know it's an extraordinary event. And this was the last night launch of the shuttle Discovery down at the Cape. For those of you who've never been to a night shuttle launch, it literally lights up the sky.

This was a unique launch because just as the sun had set, you could see the glint off the space station as it came over head. In the night sky, it looks like a bright star that travels rapidly across the sky. And about three minutes after we saw the space station fly overhead, the shuttle launched on a mission to rendezvous with it.

As we watched the shuttle head up into the air, I felt a tug on my sleeve. I looked down at my son, and he looks up at me and says, "Dad – I think I want to be an astronaut."

Now that's an inspiring story for me – one, because I like the fact that my son has an interest in aerospace, but it's also a good reminder of the inspiration behind the work we do. And it's not just the work that Boeing does, it's the work that we do as manufacturers. The kinds of things that we innovate and build, and the difference that makes in the world.

To solve some of the challenges that I outlined today, we need to have that same kind of inspired mindset. Certainly manufacturing is important in terms of the jobs it generates, the capabilities, the supply chain – that's all very important. It's also important because it inspires that next generation. It inspires innovation and allows us to create the products the world needs. And it makes America a leader in the world.

We need to remember that the manufacturing base is about America's position in the world. It's about the future of our country, our citizens, our ability to innovate, our ability to build. To achieve the leadership level that's required, we got to take on the challenges I outlined today. And we need government-industry collaboration to overcome them.

Thank you.

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