TESTIMONY OF ZACH MOTTL, CHIEF ALIGNMENT OFFICER, ATLAS TOOL & DIE WORKS AND CHAIRMAN, TOOLING & MANUFACTURING ASSOCIATION OF ILLINOIS BEFORE THE HOUSE COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY SUB-COMMITTEE ON RESEARCH AND TECHNOLOGY

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Thank you very much Chairman Bucshon and members of the Committee for providing me the opportunity to speak before you today. Manufacturing is a subject very near to my heart. I am the fourth generation of my family, since 1918, to own and operate our business, Atlas Tool & Die Works, where I am Chief Alignment Officer. I am also Vice President and co-owner of Abet Industries as well as Accushim Inc. The businesses are located in Lyons and LaGrange, Illinois, which are Chicago suburbs in Representative Dan Lipinski's district. All three companies are my family's related businesses in precision manufacturing. Our companies make various parts and assemblies for the defense, aerospace, telecom, electronics, medical, industrial, and heavy machinery industries. Together we employ around 80 people. I also serve as Chairman of the Tooling & Manufacturing Association of Illinois. TMA represents nearly 1000 small and medium sized manufacturers in the Midwest who employ almost 30,000 skilled workers.

As an advocate of the critical importance of a healthy and growing manufacturing sector in any national economy, I am here to support passage of the American Manufacturing Competitiveness Act of 2013. I commend Congressman Lipinski and Congressman Kinzinger for their great bi-partisan work on this legislation.

I think it is great that the Administration and Congress are working to advance manufacturing policy. After all, we really haven't had a national manufacturing policy since Alexander Hamilton's "Report on Manufactures" in 1791.

One thing that strikes me about this bill is that it makes no assumptions of the best path forward to ensure America is the global manufacturing leader. That is important because there are so many diverse opinions on what the manufacturing sector needs. Some people feel unfettered free trade is a problem, others say tax policy, others say energy policy, and still others say the industry is strong and nothing is needed. With these varying opinions, all from purported experts, it's very difficult to develop a path forward and a much-needed national manufacturing strategy.

HR 2447 takes a new approach, building on the Administration's successful development of the 2012 National Strategic Plan for Advanced Manufacturing by directing the National Science and Technology Council to develop a national manufacturing competitiveness strategic plan, with consultation with nongovernmental stakeholders. By building on the prior plan, and the expertise and knowledge that was developed through the 2012 report, this legislation intends to develop a more iterative process, with less cost and consistent with prior Administration work and legal authority. Furthermore, by utilizing the NSTC, the

Strategy will benefit from a true across-the-government perspective and bring together the many agencies, and their expertise, that interact with American manufacturing. These changes were the result of broad consultation with various stakeholders in Congress, the manufacturing sector, and the Administration.

This bill creates a system to thoughtfully and methodically evaluate the issues surrounding the industry and then outlines a framework to develop a plan for success. As a business owner, I know planning is critical; Plan, Execute, Review. That is the basic core of any good business model. Unfortunately, when an organization doesn't operate with a plan, what occurs is a plan to fail.

I also support the Administration's efforts in launching the National Network for Manufacturing Innovation. As you know, most of the innovation occurs at the local level and is realized by small and mid-size companies. However, there are some critical components we need from you to be successful. We need predictability and stability, especially in the areas of taxes and regulation. We need research and development tax credits to be made permanent. We need a practical relationship between business and government. Too often, we are moving at different speeds, with government usually moving slower than the pace we require to drive innovation and create jobs. We need these government programs to be easily accessible to small and mid-size manufacturers and to know what tools are available. Large manufacturers can more easily navigate the government juggernaut but small and mid-size companies are often intimidated and overwhelmed. With regard to the much discussed "skills gap" in our workforce, I believe there is a gap in manufacturing and here's why. As a generation of manufacturing shifted overseas, many high schools, technical schools and even community colleges scaled back on hands-on training programs. Today, with manufacturing on the rebound and companies large and small re-shoring their operations, many cannot find the skilled workers needed to run highly complex machinery. Many of the training programs that remain have become fragmented and disconnected. Too often students earn credentials that are not portable and are not nationally recognized.

That said, we are not standing on the sidelines. We have stepped swiftly into the void and offer training for the next generation of Illinois' manufacturing professionals. Our blended learning approach provides potential hires and the employees of our member companies with the flexible and high-quality training they need to maximize their potential. We offer traditional classroom training, including our renowned Related Theory curriculum, the cornerstone of a solid education in manufacturing, as well as online training from leading providers Amatrol and Tooling U to allow our members the flexibility to train whenever and wherever they choose. We also provide certifications from the Manufacturing Skills Standards Council (MSSC) and the National Institute for Metalworking Skills (NIMS) to ensure our students meet the rigorous standards necessary for success in manufacturing.

In the education arena, the key here is to build a set of stackable and transferable credentials that encourage current and potential workers to continue to develop their skills. These credentials should combine training at vocational schools, community colleges and trade associations. Association based training needs to be taken seriously. We were there before all this became popular and we have a proven track record of turning out highly skilled employees. Also, our credentials need to be transferable to community colleges and vice versa. We want our workforce to consider "careers" in manufacturing instead of just "jobs."

There has been a lot of discussion about STEM recently and I would be remiss if I did not address this subject. We fully support STEM and agree with the need in this country for advanced learning. However, I submit that technical training needs to be on par with advanced learning. We need to offer young adults at least two tracks to career success where technical training is valued just as much as a 4-year college degree.

We continue our traditional and non-traditional outreach programs and education efforts. This summer, in addition to our annual Manufacturing Summer Camp, we are launching our "Bridgework and Pathways Initiative" focused on augmenting manufacturing training programs at Illinois' 48 community colleges. Our recent release of a Smartphone app puts job offers and other just-in-time resources in the hands of potential workers. Right now the United States is operating with a plan to fail in the world economy when it comes to manufacturing. This is unacceptable for a global superpower. We simply must be the world leader in manufacturing. Why is the competitiveness of this sector so important? First, manufacturing is a keystone industry in any economy. Most economists agree that for every sales dollar in manufacturing there are \$2-3 dollars of supporting activities required. This is the highest multiplier effect of any industry. In addition, manufacturing creates good jobs that value skills, jobs with healthy benefits and also jobs where you can find a lifelong career. Manufacturing is critical to national defense as well as product innovation. Finally, manufacturing is one of the fastest growing sectors of the world economy. It requires capital investments in land and equipment, it requires many factors of production, and in short is simply one of the fastest ways to jump-start employment, investment, and innovation.

Here are the "Facts of Modern Manufacturing" provided by the National Association for Manufacturing (NAM):

- In 2012, manufacturers contributed \$1.87 trillion to the economy, up from \$1.73 trillion in 2011. This was 11.9 percent of GDP. For every \$1.00 spent in manufacturing, another \$1.48 is added to the economy, the highest multiplier effect of any economic sector.
- Manufacturing supports an estimated 17.2 million jobs in the United States about one in six private-sector jobs. Nearly 12 million Americans (or 9 percent of the workforce) are employed directly in manufacturing.

- In 2011, the average manufacturing worker in the United States earned \$77,060 annually, including pay and benefits. The average worker in all industries earned \$60,168.
- Manufacturers in the United States are the most productive in the world, far surpassing the worker productivity of any other major manufacturing economy, leading to higher wages and living standards.
- Manufacturers in the United States perform two-thirds of all private sector R&D in the nation, driving more innovation than any other sector.
- Taken alone, manufacturing in the United States would be the 10th largest economy in the world.

Many other countries understand these facts. They are constantly and actively working to court manufacturers to locate within their border and not ours. We live in a world with many competitors and they look at our position with envy. They are working to surpass the United States in many areas and if we ignore what they are doing and neglect to create our own national manufacturing strategy I can assure you these competitors will succeed.

Countries like China, Russia, Brazil, Canada, Germany, the UK, and others have a clear and detailed national manufacturing strategy. They have decided what critical industries they want within their borders and are actively working to foster success. They are asking the questions, "What can we do to help you become more competitive? How can we help you sell more product and create more jobs?" Whether its consideration of a VAT vs. an income tax, adding or removing tariffs and import barriers, providing regulatory relief, requiring domestic production, creating low-cost loan and financing programs, or even playing matchmaker between

suppliers and customers, these countries are working in a concentrated and organized effort towards success.

Furthermore, many of these countries already have developed best practices when it comes to supporting their manufacturing sectors. The American Manufacturing Competitiveness Act will not only bring the United States into line with our economic competitors but it will also compel us to study them and learn from them. This type of benchmarking is a standard best practice management technique.

Ultimately the success of any industry depends on many factors. However, our collective will to ensure and achieve success is probably the most important factor. The American Manufacturing Competitiveness Act and ultimately the National Manufacturing Competitiveness Strategy is an important first step to ensure the long-term health and success of our overall economy. I applaud Congressman Lipinski and Congressman Kinzinger for their leadership to develop and sponsor this bill. I urge you all to pass this bill in committee and ultimately the full House. Thank you for your time and consideration of this important legislation, and I look forward to your questions.