



**CATALYST CONNECTION™**  
Your Strategic Partner for Manufacturing Growth

**US Senate Committee on Finance**  
**Testimony of Petra B. Mitchell, President and CEO, Catalyst Connection**

Good morning. My name is Petra Mitchell and I am the President and CEO of Catalyst Connection, an economic development organization, that for over 30 years has been dedicated to serving our region's small and medium sized manufacturers. On behalf of our Board of Directors, our staff and our clients, I assure you we are passionate about manufacturing!

Manufacturing in this country is a \$2 trillion sector, with over 11 million workers and approximately 293,000 establishments. Manufacturing in southwestern Pennsylvania is a \$12 billion sector with 93,000 workers and approximately 3000 establishments. Many of these establishments are closely held, privately owned or family owned businesses, and Catalyst Connection has worked with about half of them since our inception and 153 in the last year.

To enable us to do our work, Catalyst Connection is funded in part by the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP) program and by the Pennsylvania Industrial Resource or IRC program. The IRC program was started by Governor Robert Casey, Senator Casey's father, and was a model for the national MEP program, both of which have been in existence since the late 80's.

This morning I'd like to provide an overview of the MEP program, the challenges that small and medium sized manufacturers are facing, and the role that the MEP program and Catalyst Connection are playing in helping to address those challenges.

**Overview of the MEP Program**

The MEP program is a federal public-private partnership that provides small- and medium-sized manufacturers (SMMs) technology-based services they need to thrive in today's economy and create well-paying manufacturing jobs. MEP is managed by the NIST and implemented through a network of industry-led centers located in every state.

*MEP is a proven partnership that can help President Trump achieve his vision and commitment for American manufacturing and its' workforce.*

SMMs account for nearly 99% of all manufacturing firms in the US and MEP is the only federal program dedicated to serving them. These firms comprise the supply chains of Fortune 500 manufacturers and drive our nation's economy. Due to their need for manageable and customized services, they are often overlooked by for-profit consulting and technology firms – but need those services to compete, grow and create jobs. The MEP centers fill that gap. In 2016 alone, more than 26,000 SMMs utilized the MEP network.

*MEP Returns \$8.70 to the Federal Treasury for every \$1 invested.*

As a public-private partnership, MEP delivers a high return on investment to taxpayers. The Upjohn Institute for Employment Research conducted a study of MEP this past year and found



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that the program generates an 8.7:1 return on investment. Each year, an independent firm surveys manufacturers regarding the impact they have achieved from MEP Center services. In 2017, MEP clients reported \$12.66 billion new and retained sales and the creation or retention of 110,721 jobs. Considering that the average U.S. manufacturing worker earns more than \$82,023 in wages and benefits per year, MEP clients are economic drivers in their communities. MEP clients are also increasing their capacity for the production of goods. MEP clients reported \$3.5 billion in new investments directly attributed to their work with MEP.

*Manufacturers served by MEP make a substantial economic contribution.*

Since 1988, MEP clients reported 884,596 jobs created and retained, high paying jobs that have a large multiplier effect. Each of these jobs create 3.4<sup>1</sup> full-time additional jobs, totaling more than 3 million additional jobs in local communities. The total job impact by the MEP Program generates significant local, state and federal tax revenues.

*Manufacturers pay to utilize MEP--so it's not free!*

SMMs pay for the direct costs of the services they receive. This fee for service meets the federal cost share requirements, requires MEP Centers to offer services that are of value to the manufacturing community, and encourages SMMs to seek a return on their investment, which is more likely to sustain the improvements and generate local economic impact.

*Congress has just reauthorized MEP through the American Innovation & Competitiveness Act.*

By voting unanimously to pass the American Innovation and Competitiveness Act (S. 3084) which was signed into law on January 6, 2017 (P.L. 114-329), Congress has provided a major boost to the nation's economy by encouraging growth in the manufacturing sector through advanced manufacturing initiatives.

### **Southwestern Pennsylvania Job Losses in Manufacturing**

Catalyst Connection has been the MEP of southwestern Pennsylvania since 1994, and has achieved significant results. Companies that work with us are hiring, growing and adding jobs. But we need to do more. Unfortunately manufacturing employment in our region has decreased by almost 5% in the last five years, even though output and productivity is growing. We believe that a majority of the 4500 job losses are coming from plant closures and shut downs of larger companies, such as Aquion Energy and Akers National Roll, but the growth in jobs among smaller companies is just was not enough to make up for these losses. This is particularly concerning for rural communities where downturns in manufacturing impacts rural communities disproportionately to more urban communities. Considering that almost all manufacturing dependent counties in this country are rural, this can have a big impact on people's lives. Back in our region, at least 4 counties (Indiana, Lawrence, Somerset and Greene) are considered rural according to the USDA, while many other communities within the other



counties certainly seem rural. Adding to our concerns is that many of the counties in our region are also coal impacted, making things very difficult in some of our communities.

### **Advanced Manufacturing Technology and Workforce Development Challenges**

To reverse the trends in job losses in our region and around the country, companies will need to accelerate their pace of growth, greater than any productivity gains that they must achieve to remain competitive in global markets. They will have to continue to invest in new products, automation and robotics, and in workforce development.

The technologies of Industry 4.0 are quickly taking shape such that additive manufacturing, big data and analytics, digital manufacturing, Internet of Things (IoT) and smart manufacturing, other similar buzz words are becoming commonly used, yet few manufacturing leaders truly understand the power of these developments, or more importantly the impact that they could have on their businesses.

And while many companies are growing and interested in hiring, the skills gap in manufacturing continues to play a significant role, hampering growth, since many companies just can't find the workers they need to fill critical jobs. According to a Deloitte report, *The Skills Gap In Manufacturing, 2015 and Beyond*, over the next decade, nearly 3.5 million manufacturing jobs will likely need to be filled in the US. The skills gap is expected to result in 2 million of those jobs going unfilled.

In southwestern Pennsylvania, the news is similar. According the Partners4Work Workforce Investment Board, 26% of the approximately 93,000 manufacturing workers in southwestern Pennsylvania are age 55 or over. This identifies the need for 24,000 people to enter into careers in manufacturing over the next 10 years to backfill impending retirements. This is a daunting challenge for one of our most important drivers of regional economic success and could result in many of the job openings going unfilled. Similarly, Brookings, in its recently released report *Capturing the next economy: Pittsburgh's rise as a global innovation city*, writes that "demographic and skills headwinds threaten Pittsburgh's ability to create the broad workforce needed to compete". Brookings notes that this is not a simple issue of supply and demand, or even of addressing the skills gap, as many workforce training programs go unfilled. Brookings notes that many "**job seekers don't see viable pathways to careers in advanced industries, including manufacturing**".

While Brookings report suggests that there are unemployed and underemployed workers available, a recently released report by the Pennsylvania IRC Network, *Advanced Manufacturing Technology Survey Interviews Report*, 60% of small and medium manufacturers (SMMS) report that talent was one of their top three business challenges. Respondents seem to be concerned both with the lack of knowledge and skills due to retirements, as well as a lack of skills needed to support emerging technologies. Companies are being challenged to respond to workforce needs to upskill and prepare for new technology.



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## **The Important Role of Catalyst Connection and the MEP Program**

Manufacturing CEOs are looking to external resources such as the MEP program and Catalyst Connection to provide valuable business process and technology adoption services right sized to meet their needs. Our foundational expertise in helping companies with strategies focused on PRODUCT, PROCESS and PEOPLE are critical to getting ready for new technologies.

*Product* services are those that facilitate manufacturer growth through improved marketing and sales techniques; new product development; exporting; and internal and collaborative innovation. Pennsylvania's research universities are critical partners for product innovation.

*Process* Services are those that reduce operating and product costs through the implementation of operational improvements; achievement of quality objectives; successful pursuit of sustainability and energy/materials efficiencies; and supply chain optimization; And finally, *People* focused services provide assistance in the areas of talent development, training in specialized skills; improvements in hiring, HR management, workforce evaluation and workforce planning processes.

The bottom-line is that products must be innovative, processes must be efficient and globally competitive, while the people must have the skills to program, operate and maintain highly automated equipment. And Employers are in need of assistance in each of these areas.

Catalyst Connection is also engaging in regional workforce development strategies focused on career awareness and exploration at the middle school and high school level, and on Employer-led Apprenticeship programs. Our Middle School Video Contest, "*What's so Cool About Manufacturing*" attracts over 400 students, parents and teachers, and begins the process of changing the image of manufacturing. Our high school *Manufacturing Innovation Challenge* allows students to practice their real world problem solving skills by matching them with local employers and a business challenge. Our Employer Led Apprenticeship program is focused on helping companies register and implement an apprenticeship program that helps to fill their talent pipeline, while giving workers valuable credentials and on the job training. Our region's community colleges are critical partners in our apprenticeship programs.

### **Conclusion**

In 2017, Catalyst Connection clients reported almost \$130 million of new and retained sales, \$8 million of cost savings \$16 million of new investments and 1,164 jobs created and retained. Companies value the work we do, and tell us that our staff technical expertise and experience, the cost of our services and the return on investment, and the reputation for results, are the main reasons they choose to work with us.



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I urge to continue your support for policies and funding that supports our countries small and medium sized manufacturers, that are critical to our nation's supply chains, including the Department of Defense; that provide high paying family sustaining jobs for millions of American families, and the contribute to their local communities and economies. Workforce development resources, including support for Apprenticeship programs is a key factor closing the skills gap in in manufacturing. The MEP program, as the only program dedicated to serving our country's small and medium sized manufacturers, is a critical program, and I would urge you to continue to support funding for this program at modestly increased levels.

Manufacturing businesses create and retain high paying, family sustaining jobs that are building the foundation for national and regional economic growth. Manufacturing job growth also has a significant ripple effect throughout our entire economy, where many firms will prosper.

Respectfully Submitted

Petra Mitchell  
President and CEO

February 13, 2018