



Testimony Submitted to:

**Joint Legislative Budget Committee
Workforce Development**

Submitted By:

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Thank you for the opportunity to report on the continued success of the Manufacturers Intermediary Apprenticeship Program (MIAP). My name is Martha Ponge and I serve as Director of Apprenticeship for the Manufacturers Association of Central New York (MACNY), an organization representing over 300 employers in 26 counties, as well as a representative of the Manufacturers Alliance of New York (the Alliance), representing six regional manufacturing associations and over 2,000 industrial companies and businesses covering all of New York State. MACNY and the Alliance now represent six regional manufacturing associations and over 1000 industrial companies throughout Upstate New York State. We are committed to promoting innovative, effective career pathways that will increase the number of qualified applicants in advanced manufacturing in our region and statewide. To this end, MACNY and the Alliance are actively engaged in creating registered apprenticeship training programs that will increase the number of mid-skill level technician workers in advanced manufacturing throughout our region and state. MACNY would like to thank you for your support of the Manufacturers Intermediary Apprenticeship Program -over the past two years and ask for your continued support today.

In addition to launching a successful pilot and establishing two new intermediary partners in the state, MACNY functions both as an Industry and Equity Partner and as a Subject Matter Expert(SME), for the second year, for Jobs For The Future, a

partner in a Federal Department of Labor Contract which supports apprenticeship and the creation of technical career pathways for underserved and minority populations. We also serve as an SME and as a regional support for the America's Promise Grant with Monroe Community College. Both efforts support the expansion of registered apprenticeship training in the state and nationally. We are also a collaborator in an innovative apprenticeship accelerator program, created for training entry-level employees in advanced manufacturing. MACNY continues to support two Pathways in Technology Early College High School (P-TECH) programs in Syracuse and Auburn, an advocate for alternative Career and Technical Education (CTE) pathways for high school students through our affiliation with Partners for Education & Business. We actively participate in the Central New York STEM Hub, part of the Empire State STEM Learning Network and support career awareness activities for middle school and high school students.

Workforce Needs Continue

- Manufacturing is and will continue to be a vital industry for New York. The 15,441 firms in New York accounted for 450,500 jobs in 2015 and manufacturing remains one of the highest paying industries in the state. Employees within advanced manufacturing make an average annual compensation of over \$71,423. The current median household income in New York State is \$58,687. Manufacturing also remains one of the largest multipliers within the United States economy. For every dollar spent in manufacturing, \$1.37 is added to the U.S. economy, and every 1 job in a manufacturing facility creates an additional 2.5 jobs in other sectors.
- Nationally, the Manufacturing Institute and Deloitte continued their Skills Gap studies (1) that found:
 - *Through 2025, nearly three and a half million manufacturing jobs likely need to be filled, and if we do nothing, 2 million of those jobs could go unfilled.*
 - *An estimated 2.7 million jobs are likely to be needed as a result of retirements of the existing workforce while 700,000 jobs are likely to be created due to natural business growth.*
 - *In addition to retirements and economic expansion, other factors contribute to the shortage of skilled workforce, including loss of embedded knowledge due to movement of experienced workers, a negative image of the manufacturing industry among younger*

generations, lack of STEM skills among workers, and a gradual decline of technical education programs in public high schools.

- *The Public Perception of Manufacturing series conducted over the past seven years by The Manufacturing Institute and Deloitte consistently reveals that while Americans consider manufacturing among one of the most important domestic industries for maintaining a strong national economy, they rank it low as a career choice for their children.*

-Over the past 10 years, workforce development in New York has continued to increase in importance, as the retirements that were put on hold during the recession are now looming large for manufacturers. The majority of our member manufacturing companies report the average age of skilled workers at or above the national average of 56 years. The national problem with the perception of manufacturing, and the lack of interest in manufacturing as a career among young people, is also very real here in New York. Our manufacturers continue to report difficulties with finding skilled workers and they have responded enthusiastically to the MIAP by supporting our work as a business community and by registering actual apprentices in our program.

Replacing skilled workers before they retire is critical to retaining the needed skills sets in the workforce. Most of New York's manufacturing workforce is employed by small and medium sized businesses. These manufacturers do not have the personnel or the resources to adequately train either new or incumbent workers. This program primarily targets entry-level incumbent workers to advance them into more skilled positions within the company and allows smaller companies the ability to participate with others to achieve economies of scale.

MACNY's MIAP program has documented results in three regions of the state and we respectfully request continued funding to sustain and expand the NYS Manufacturers Intermediary Apprenticeship Program into four additional regions of the State: The Capital District, The Southern Tier of Western New York, and the New York City and Long Island Regions.

Apprenticeship programs have been shown to be most successful when designed by employers based upon their own needs. The NYSMIAP and its business-lead approach, is targeted at raising the skill levels of incumbent manufacturing workers and creating distinctive career pathways, while filling a crucial need within the industry. Our program in CNY currently has over 30 companies actively participating in establishing

apprenticeships. We have 49 apprentices at 15 different companies, and we project at least 30 new apprentices this calendar year. Our Alliance partners in Rochester have 25 apprentices in just over 6 months and our partners in the Hudson Valley have similar numbers to date. Both intermediary partners are on target to far exceed their goal of 30 new apprentices in each region this year.

Modern apprenticeship has two basic elements. The first, On-the-Job Training (OJT), consists of a “master,” or “journey-level,” craft person capable and willing to share their experience with a “novice,” or “apprentice,” in a hands-on manner. The second, Related Instruction (RI), consists of learning more theoretical or knowledge-based aspects of a craft. In our pilot program we identified the five traditional occupational groups of CNC Machinist, Electronics Technician, Maintenance Mechanic, Toolmaker and Welder as high demand areas to begin training. We have since added two additional trades – Quality Assurance Auditor (QAA) and Electro-Mechanical Technician, because of local employer requests. In addition, two new trades in advanced manufacturing will be approved in New York State for the first time as result of our efforts to support our manufacturers. Electro-Mechanical Technician and Industrial Manufacturing Technician (IMT). We have, with our companies and our national partner ToolingU, constructed all of the OJT outlines for the seven current trades. With ToolingU and our SUNY Community College partners we are moving to identify all of the related instruction that will be needed for the apprentices and managing class schedules to align with apprentice work schedules. All of the apprentice programs, except QAA and IMT are four years in length.

In the original pilot, MACNY worked with NYSDOL and obtained approval to function as a single “program sponsor” acting on behalf of small and medium sized manufacturers. This has proved to dramatically reduce the administrative burden on CNY manufacturers and greatly streamlined apprenticeship program registration. This program also allows NYSDOL to have a single point of contact for multiple employers, reducing their administrative burden as well. The program has allowed small and medium sized manufacturers to offer registered apprenticeship programs through MACNY and eliminated the need for each manufacturer to go through the registration process on its own. Employers in CNY responded positively, as have employers in Rochester and the Hudson Valley and we want to make this available in other regions in the State as well.

The labor market data continues to show the need for a greater supply of skilled workers throughout the State; and advanced manufacturers have shown a strong interest in developing registered apprenticeship programs as a practical method of meeting this need and building a strong pipeline of future workers. Employers have responded very well to shouldering the major portion of the OJT responsibilities along with contributing a

portion of the related instruction costs.

MACNY continues to leverage federal funding and align the apprenticeship program with other apprenticeship efforts in New York State. In addition to the national contract with Jobs for the Future and the national grant with Monroe Community College we are also working with both American Apprenticeship Initiative grants awarded in NYS. We collaborate with a broad range of partners including NYSDOL, SUNY and its community colleges, Empire State Development and the New York Manufacturing Extension Partnership (NY MEP), local Workforce Investment Boards, the Workforce Development Institute (WDI), the Business Council of New York State; combining resources and further expanding registered apprentice opportunities in New York State.

MACNY proposes continuing our current efforts and expanding the New York State Manufacturers Intermediary Apprenticeship Program into the Capital District, The Southern Tier of Western New York, and the New York City and Long Island Regions in the next budget year. Full expansion across the state, previously projected over five years, is currently one year ahead of schedule and includes mentoring and support of New York City regions not currently affiliated with an existing manufacturing association. In order to sustain and expand MIAP across New York State, we respectfully request \$1,250,000 in funding.

NYS DOL continues to be very supportive of our approach and we have been working with them to address the implementation details. Our manufacturers know us and trust us and we have the ability to bring hundreds of additional small and medium sized businesses to the table and dramatically increase the number of registered apprenticeship programs statewide.

MACNY and its Alliance Partners continue believe that this effort must be industry led to succeed. Because of our unique relationship as a “business intermediary” we enjoy many advantages. We can focus exclusively on manufacturers while other groups often must respond to multiple constituencies, and we can aggregate demand with hundreds of small and medium sized manufactures. We can advocate for “demand driven curricula” aligned with industry need on a statewide basis. We can advocate for related instruction schedules that can accommodate shift work and don’t require multiple trips to campuses. And lastly, we are aligned with multiple national organizations supporting “industry recognized credentials.”

In conclusion, our companies are facing the retirement of the baby boomer generation and could lose between 25% and 40% of their workforce in the next 5-10 years. This shortage of skilled workers will not only cripple our existing manufacturers but will make New York unable to attract new business unless we find ways to get more

young people, job changers, women, and veterans into the manufacturing workforce through registered apprenticeship training opportunities. We must continue this effort.

We have already accomplished much more than anticipated over the past two years and expect to continue executing far above expected outcomes statewide. We ask your support to bring this successful program with proven results to more regions within New York State. What we have learned and accomplished can be replicated throughout the State to rebuild and revitalize their workforce as well.

The Alliance is committed to act now and act boldly to galvanize resources and expertise for New York to realize its full potential in the national and global economy. We extend our hand in partnership to accomplish this vitally important work.

Thank you.

Martha Ponge

On behalf of Randal Wolken, President and CEO, MACNY and the Manufacturers Alliance

(1) The skills gap in US manufacturing website:

<http://www2.deloitte.com/us/en/pages/manufacturing/articles/boiling-point-the-skills-gap-in-us-manufacturing.html>