CLOSE THE SKILLS GAP IN ARIZONA

A Framework to Address the Current and Future Skills and Workforce Development Gaps
Manufacturing is revitalizing our economy and making Arizona strong again. And, when manufacturing investments are strong, a multiplier effect ripples across the economy, creating jobs and growth in other industries.

In fact, every dollar in final sales of manufactured products supports $1.33 in output from other sectors—the largest multiplier of any sector. Manufacturing employs more than 150,000 Arizonans with innovative and rewarding jobs that include salaries and benefits well above the national average, and accounts for 88% of Arizona’s exports.

Yet, remarkably, 80 percent of Arizona’s 4,500 manufacturers still cannot find the skilled workers they need to fill important jobs within their companies. In an industry with a 77% pay premium for salary and benefits, this is simply unnecessary.

The Arizona Manufacturing Partnership, a collaboration of industry groups, educational entities, state agencies, and organizations, in partnership with The Manufacturing Institute, has led the strategic effort to develop a manufacturing workforce and pipeline. Through their research and initiatives, the Partnership has developed an evidence-based framework to close the skills gap.

The Partnership is aggressively addressing the skills gap with initiatives focused on changing the perception of careers in manufacturing; re-establishing the U.S. as the global leader of manufacturing education; and advocating for education and job training policies that strengthen the U.S. manufacturing workforce.

In order to maintain a prosperous economy and increase productivity, U.S. manufacturing must remain globally competitive. We need to be innovative, adaptable, and accountable in order to take control of our future.

The framework laid out in the following pages is the path to do just that.

This is our call to action.

This is how we make Arizona strong.

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To close the manufacturing skills gap in Arizona, AMP must work to promote a world-class image of manufacturing to schools, parents and elected officials in order to reach the young minds of manufacturing’s future.

It is crucial to promote a positive message of the industry throughout communities to showcase the value of manufacturing careers to all potential workforce. We recognize the need to connect with state schools, local parents and community leaders to amplify this message to these influential voices will ultimately help strengthen Arizona manufacturing.

The Arizona Manufacturing Partnership, including its partnering companies, associations and state agencies have worked together to “launch” the Cox Communications/Edge Factor “Launch Point” television series of programs aimed at addressing the manufacturing image issue with students, educators and parents. Click this link http://www.cox7.com/launchpoint/adrenaline-junkie for a view of the first program aired last month.

**WHAT CAN EMPLOYERS DO?**

- Take management control of The Manufacturing Institute’s Dream It. Do It. campaign, which communicates to our young people the many options available for great career opportunities within manufacturing.
- Tell your company story and career opportunities to students, parents, teachers, counselors and the community-- in person and via local media - on October 3, 2014, national Manufacturing Day.
- Form meaningful and long-term partnerships with schools at all levels (K-16): hold open houses, sponsor students and teachers in internships.

**WHAT CAN EDUCATORS DO?**

- Learn about modern manufacturing by visiting plants on Manufacturing Day, participating in externships, etc.
- Promote manufacturing as a viable career choice: emphasize advanced and emerging technologies and stress the high-wage career pathway.

**WHAT CAN COMMUNITY LEADERS DO?**

- Stress the impact of manufacturing on the local and regional economy, including high-wage careers and quality of life.
- Join the Dream It. Do It. network, support Manufacturing Day, promote women in manufacturing, and demonstrate that manufacturing is cool.

**GOAL 1**

Promote a world-class image of manufacturing to Arizona schools, teachers, parents, and elected officials.

**Did you know?** 7 out of 10 parents want manufacturing in their community -- but only 3 out of 10 encourage their children to pursue manufacturing careers. When parents, teachers, and guidance counselors talk, their kids listen.
Encourage Arizona education to utilize nationally recognized, industry validated credentials

Did you know: About 27% of the students in Arizona opt for the tech-ed path, and they are more likely to score higher on the state’s aptitude tests, graduate from high school and go on to higher education than those who don’t.

The Arizona Manufacturing Partnership’s objective is to promote the use of nationally recognized, industry validated credentials by Arizona education institutions in pursuit of a higher skilled more qualified manufacturing workforce. Industry credentials provide an opportunity to clearly articulate a path from student to a career in manufacturing.

There are numerous Arizona schools that enable students to directly control the focus of their career development through certification programs. AMP must bring this approach to scale and align other institutions to support a stronger talent pipeline for the state’s manufacturers.

**WHAT CAN EMPLOYERS DO?**
- Prefer certifications as part of the HR screening process for hiring and promoting workers. Ask your education partners to deliver nationally-certified students.
- Provide work-based learning, co-op, internships and apprenticeship opportunities to give students real-world experience.

**WHAT CAN EDUCATORS DO?**
- Align manufacturing programs with industry-based standards and certifications and employer needs.
- Support faculty development, including certifying instructors.
- Recruit and maintain highly effective teachers and administrators.

**WHAT CAN COMMUNITY LEADERS DO?**
- Promote skills certification as an economic development tool.
- Support the implementation of Arizona’s college and career ready standards with appropriate resources and training.
- Support Joint Technical Education Districts (JTEDs) and Career and Technical Education (CTE).

**SPOTLIGHT**

Desert View High School’s iSTEM Academy houses Precision Machining, Mechanical Drafting, Engineering, AFJROTC and Computer Maintenance and Repair programs.

Precision Machining Students earn the NIMS Machining Level 1: Measurement, Materials, and Safety and CNC Operator Credential.

Maricopa Community Colleges are one of the largest providers of job training in Arizona. MCC is a leading education partner for the Dream It. Do It. Arizona program and offers students credentialing opportunities in welding (AWS) and machining (NIMS).
GOAL 3
The Arizona Manufacturing Partnership will act as an organization that helps education better understand the needs of their local manufacturers and adapt their programs to better fit those needs. In return, AMP will take action and help provide manufacturer’s participation in supporting education activities. Manufacturers will provide resources and assets, establishing opportunities for facility tours and presentations, and will be active with leadership and consultation.

AMP will also support state and local policies that strengthen innovation, educational opportunities in technical fields, and access to a certified manufacturing workforce for employers.

WHAT CAN EMPLOYERS DO?
• Highlight the return on value of internal HR policies that promote certifications.
• Advocate for federal, state, and local policies toward alignment with industry certifications, requiring third-party skills validation.

WHAT CAN EDUCATORS DO?
• Redefine “completion” to include award of industry-certifications.
• Provide extra funding for higher-cost manufacturing programs.

WHAT CAN COMMUNITY LEADERS DO?
• Advocate for performance-based funding for educational institutions.
• Streamline the workforce system; launch manufacturing sector strategies.
• Encourage expansion of quality charter schools.
• Oppose regulations that would undermine student access to post-secondary education.

Serve as the liaison between manufacturing needs and education articulation

DID YOU KNOW
Advanced manufacturing dominates the U.S. industrial sector, creating more wealth than any other industry?

SPOTLIGHT
Working closely with Jim Mize in the “One Stop” state system and with the leadership of Donny Theriault, President of Industrial Tool and Engineering (an ATMA member and AMP industry committee member) this group has created the “Southern Arizona Manufacturing Partnership.”
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