



From the Director ...

NCATC Friends and Colleagues,

It was good to get to spend some quality time with so many of our members during AACC's **2016 Workforce Development Institute** in New Orleans, January 20-23. If you were there, you know that NCATC brought together three National Networks for Manufacturing Innovation (NNMI), *America Makes*, *LIFT*, and *DMDII* along with partners *NIST/MEP* to demonstrate collaborative examples of the good work many of our ATC members are doing for the emerging, disruptive technologies converging on the global workforce. (See article on p. 3 for a recap of our WDI session.)

As an Affiliated Council of the American Association of Community Colleges and active member of their Economic and Workforce Development Commission, you will always find NCATC the go-to source for timely information about workforce activities across the country as well as member benefits, resources, technology news, events, and ever increasing value-added benefits from our Strategic Partners.

The NCATC Board of Directors and Staff look forward to seeing all of you at the **2016 NCATC Events** this year. Our **2016 Summer Workshop** will be hosted by Northeast State Community College in Kingsport, TN, **June 8-10**. And, the **2016 Fall Conference** will be in Chicagoland - hosted by Harper College and in partnership with the **Fabricators & Manufacturers Association (FMA)**, **October 11-14**. This is a *NEW* model for us where we expect to have a strong showing from the manufacturing community as well as our membership.

Until then, we encourage you to stay regularly connected via the NCATC website, social media, and quarterly e-newsletters like this one.



J. Craig McAtee,
NCATC Executive
Director

The Manufacturing Extension Partnership (MEP) and the Re-Competition Process: Setting Direction for the Future

Douglas J. Jensen, Ed.D.
President and CEO

Alabama Technology Network (ATN), Alabama Community College System

The National Institute of Standards and Technology (NIST)/Manufacturing Extension Partnership (MEP) is a state-federal network of 60 centers with over 550 field offices, 1200 staff of manufacturing experts, and 3200 third-party service providers that helps small and medium-sized manufacturers improve their production processes, upgrade their technological capabilities, and bring new products to market. MEP works with state and local partners to help small and medium-sized manufacturers compete, increasing employment and investment in communities across America and generating a high return on public investment.

After nearly thirty (30) years of operation, the MEP program, started in 1988, is undergoing a deliberate and strategic effort to optimize the impact of the federal investment on U.S. manufacturing and to allocate additional funds to areas with higher concentrations of manufacturers. The endeavor also will empower MEP centers to experiment more with new products and services, serving harder-to-serve clients like very small, emerging, and rural companies that have a significant economic impact on their communities but often are overlooked and absent from MEP participation.

The MEP re-competition process will benefit the individual state MEP centers and their ability to serve greater numbers of manufacturers with new and improved products and services and, as a result, improve the future competitiveness of U.S. manufacturers. Administratively, the process will result in optimizing program effectiveness, enhancing administrative efficiency, and providing greater financial accountability. Programmatically, and potentially, a more key benefit of the re-competition is the individual centers' opportunity to re-align their MEP activities with state economic and workforce development strategies to further grow the existing and future manufacturing industry base, including supporting the development of a technically skilled workforce that is so important to states' economies, of which manufacturing is critical.

The MEP re-competition process supports and rewards new and different strategies that enhance and improve individual centers' programs to serve manufacturers based on local needs. The process encourages new partnerships within the state's manufacturing ecosystem. While the process emphasizes exploration into new areas including technology acceleration, supply chain optimization, and job-driven training, centers are encouraged to imagine and create programs and partnerships to address these focus areas, but with a deliberate and purposeful intent to deliver programs that understand and concentrate on local concerns that impact the manufacturing community and the state's economy. The process promotes opportunities to create new programs and relationships that may be outside the box and that align with state and local strategies.

Many of our NCATC member colleges work closely with their MEPs in effective and collaborative ways to meet the needs of their shared small/medium-sized manufacturing organizations' workforce development. In the NCATC network, the workforce development and technical expertise resources that both community/technical colleges and MEPs have may converge for success or compete with varying success. When they collaborate, everybody in the equation wins. Therefore, with the recent announcement of the MEP re-compete process in many of the states where NCATC members flourish in industry-recognized workforce development and advanced technology training, an even tighter collaboration may be appropriate. To learn more about this opportunity, visit <http://nist.gov/mep/ffo-state-competitions-03.cfm>. ♦

President's Message

Manuel's Musings

Welcome to 2016. Another calendar year begins, another Spring Semester starts. Another Snowmageddon. As I sit stranded in New Orleans after WDI (if one is going to be stranded, let me suggest being stranded in New Orleans), several things are on my mind:

- I'm still impressed with the grassroots, grounded approach of NCATC. Many membership organizations are not focused and effective like NCATC.
- With that said, the NCATC board has begun spending more time focusing on long term, strategic issues. Without continually improving and understanding what our partners, members, and students need we could become ineffective.
- Community colleges are being challenged more than ever. While we state we can't be "all things to all people," we continue to do so in many ways.
- We are the solution for the skills gap and the workforce shortage. We have the partnerships, the skill, and the ability to solve those issues. We just need the resources.
- Regardless of the college, the challenges and issues seem very similar. The industry or geographic location may be different, but deep down we are all very similar and face similar challenges.
- Community colleges are remarkably resilient. I attribute that, at least in part, to the fact that they are made up of incredibly dedicated faculty and staff.
- While we need to be on the forefront of the adoption of new technologies (e.g. 3D printing) we can't forget the basic technologies – they aren't going away.
- While we consider ourselves postsecondary institutions of higher learning, in some ways we do more than educate and train students. We save lives. I'm aware of several students whose lives would not have ended well if they would not have made it through our doors. I'm sure that's true of every college.



We have some exciting things happening this year in NCATC: new members, new strategic partners, and the first-ever joint fall conference with one of our corporate partners. We are looking forward to visiting Harper College in the fall with our strategic partner FMA. It promises to be the biggest and best Fall Conference ever.

I'm honored to serve as President of NCATC this year. Working with the board,

the membership, and our partners, I hope we can continue to improve and meet the needs of all our customers.

Here's to a great 2016 – keep up the great work!

Mark Manuel
2016 NCATC President



Construction Update: Bluegrass Community & Technical College

Mark Manuel

Vice President for Workforce and Institutional Development
Bluegrass Community and Technical College

As many of you know, Bluegrass Community and Technical College (BCTC) has intended to build an Advanced Manufacturing Center for quite some time. Funded for design by the Kentucky General Assembly in 2006, the design and construction documents were ready for construction to start in 2008. However, we all know what happened to the economy, and with it, the funding was never approved for construction. Regardless, Toyota, one of our corporate partners, continued to provide space so that the Advanced Manufacturing Technician (AMT) program could continue to grow.

And grow it has. There are now 17 manufacturers in a non-profit named KYFAME (Kentucky Federation for Advanced Manufacturing Education). Each company "sponsors" students each year with the number varying depending on their workforce projections. The sponsorship varies, but always includes providing a paid internship for the three days the students are not in school during the week.

Fast forward to 2014. Again, a bleak year regarding budgets. However, with the support of Toyota and the other members of KYFAME, the Advanced Manufacturing Center was funded for construction. Design and construction documents had to be updated to new building code standards, but construction has now started! In fact, the parking lots are in and steel is erected. BCTC is looking forward to the AMT program having its own home – and also providing a home to the other manufacturing related programs in the college.

Several things can be taken away from our experience so far. Corporate partnerships are essential. They can provide a method to accomplish what needs to be done even in the face of adversity. It's also important to be part of the economic development discussion and solution. The expansion of a plant with a new product line required more trained, highly skilled technicians. Having the private sector partners voice that need is powerful. And of course, perseverance is important. Sometimes, outside factors can negatively influence a timeline. However, as community colleges we are nothing if not flexible, and we always come through in the end.

You are all invited to the dedication of the facility, which should open in January 2017 (details pending). Or email me (mark.manuel@kctcs.edu) if you'd like to stop by for a visit any time! ♦



Strategic Partner Case Study: Madison Area Technical College – A Model for Success

The Client: Madison Area Technical College (Madison College) is one of the largest schools in the Wisconsin Technical College System offering technical degrees and diplomas using traditional, in-class courses and online degree programs. They also have robust contract training and open enrollment programs designed to meet the needs of corporations and individuals interested in building their skills through education.

The Challenge: To meet a growing interest in Lean Six Sigma (LSS) and Process Improvement, Madison College partnered with The Quality Group (TQG) to create an effective, engaging and profitable Process Improvement program. This partnership helped Madison College deal with a shortage of quality instructors and sales professionals with a background in Lean Methodology and provided them with a flexible, customizable program that met the needs of their customers/students. Dennis Wessel, Madison College Client Services Manager explained the challenges:



“First, we needed a bench of strong instructors, and more than that, we needed to overcome resistance to change with our existing instructors. We were proposing a new way of teaching LSS, using a blended classroom to reach a wide variety of learning styles, but we had instructors who were used to traditional teaching methods, creating their own course materials and teaching their own brand of LSS. That made it hard to get consistency of training across different courses. Second, we needed sales people with a good foundation in LSS and Process Improvement. We’re offering a solution product to our clients, but solutions selling on its own won’t help as much as a team that is able to explain the product with some depth and experience. Finally, we really needed courses that weren’t bogged down with information that was irrelevant for our students. You know, a lot of the people we train are front-line employees, and it’s essential that we don’t waste their time with rigid course structures that don’t address their actual concerns.”

The Solution: A partnership between Madison College and TQG lead to the creation of a cost-effective course with flexibility to meet client needs and the development of a strong core of instructors capable of running a sustainable, high quality program. TQG Master Black Belt, John Best, worked closely with the team at Madison to build a roster of instructors and train a sales force versed in Process Improvement. This resulted in a strong curriculum base at Madison – tailored to meet the needs of their students and clients – using the TQG library of content.

Dennis Wessel says, *“Before working with TQG, the LSS Green Belt program was 88 hours – traditional in-class instruction. It was very time-consuming and the course structure was too rigid. We took advantage of the flexibility offered by The Quality Group’s library of modules and were able to focus on the material that was really important, and leave out what wasn’t. Now our courses can be completed with less than half of the traditional instruction and focuses on targeted instruction with a real, measureable ROI.”*

The Results: Madison College did all the right things in starting their new program – mentoring instructors, educating their sales team, and building a strong curriculum. Their approach has paid off. In the year since they launched the open enrollment course, Madison has built an impressive program in both volume and profitability. Nearly 150 students have successfully completed the course, and interest is still growing. Likewise, their contract training client base continues to expand. When Dennis Wessel reflects on their first year with the new program by saying:

“It takes a lot of little things to be successful. Attention to what your clients need, commitment to mentorship and support, and you have to be willing to take risks and try new things. But, if you believe in what you’re offering, you will make it happen.” ♦

NNMI Workforce Development Leaders and NIST MEP a Big Hit at AACC WDI Conference

Tom Crampton
Executive Dean – Regional Tech Initiatives
Mott Community College

NCATC has been partnering with the very first National Network for Manufacturing Innovation (NNMI) – America Makes – for over three years and had the opportunity to collaborate with the Workforce Development Leadership from three of the NNMI centers on a presentation at the AACC Workforce Development Institute. Leanne Gluck, America Makes (Additive Manufacturing), Emily Stover-DeRocco, LIFT (Institute for Lightweight Metals) and Haley Stevens, DMDII (Digital Manufacturing and Design) shared information about the core mission, technology, and workforce talent initiatives at their respective innovation centers. Speaking before a packed room, they shared the importance of building the talent pipeline and explained how community and technical colleges could participate.

If you aren’t familiar with the NNMI initiative, it provides a manufacturing research and implementation infrastructure where U.S. industry, academia, government and other key partners collabo-

rate to solve industry-relevant problems. The NNMI is a network of institutes that each has a unique technology-oriented focus, but a common goal to create, showcase, and deploy new capabilities and new manufacturing processes. NNMI centers are public/private entities created to develop advanced manufacturing technologies that enhance U.S. competitiveness and commercial productivity and to build a pipeline of talent that supports advanced manufacturing. Each of these three centers has a multi-state and/or national footprint and is interested in building a network of college partners to support the development of a technically-capable workforce with the skills to leverage these new cutting-edge tools and technologies.

Leanne highlighted a Supply & Demand model that identified several entry and exit points with increasing levels of technical expertise across areas such as Design, Precision Machining, Welding & Fabrication and Composites and highlighted some successful collaboration with Westmoreland County Community College in PA and with Cuyahoga and Lorain Community Colleges in OH. She also

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pointed to some challenges that college partners could address including proficiency with existing design and analytical tools, knowledge of equipment operation and maintenance, design for additive manufacturing skills and a better understanding of commercial and economic considerations associated with additive.

Emily stressed the LIFT goal to create an educated and skilled workforce that was confident and competent in using new technologies and tools and shared their Strategic Focus areas which include building pathways from K-12 through community college, training teachers, expanding work and learn activities, attracting veterans and creating new modules/curriculum to build design capabilities using lightweight materials. She also shared that LIFT is making investments in these talent development areas and has several projects underway in KY, TN, and OH. Emily stressed her interest in moving to a national scale and encouraged colleges to get involved with the LIFT workforce initiative.

Haley stressed the rapid pace of technology change and highlighted some of the design and analytical tools featured at DMDII. These tools collect and utilize data across the product lifecycle – from creation to end-of-life. They include such things as the integration of smart sensors and controls in manufacturing systems, the cre-

ation of a Digital Manufacturing Commons providing open source resources for data aggregation and analysis and need for data security. Haley provided a roadmap for college involvement that includes work/project-based apprenticeships, the development of flexible and stackable programs that are refined to meet expectations identified by industry, and delivering curriculum in a blended format to facilitate broader distribution.

Mary Ann Pacelli from the National Institute for Standards and Technology's Manufacturing Extension Partnership (NIST MEP) program spoke about the role they play in each of these NNMI centers and the support they provide to small and mid-size manufacturers looking to deploy advanced technology tools within their organizations. As a national network, the NIST MEP system has established MOUs with both the Departments of Defense and Energy to optimize the benefits and results from the NNMI investment. Overall, this activity fits nicely with their mission and history of helping companies define and implement integration strategies.

If you attended the session, you know that NCATC always partners with advanced, high technology experts to share collaborative, best practices that our members can put to work in their communities. Whether you attended our WDI session or not – we have posted the slide deck on the NCATC website for your reference and information. ♦

Save the Dates!

2016 NCATC National Events

Summer Workshop

June 8–10, 2016
Kingsport, Tennessee

Hosted by



Fall Conference

October 12–15, 2016
Chicago, Illinois

Hosted by



In partnership with



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