



An Open Letter from the Executive Director...

NCATC Friends and Colleagues:

As the National Coalition of Advanced Technology Centers (NCATC) winds down 2014 and begins strong in 2015, we encourage you to stay connected, regularly, via the NCATC website, social media, and quarterly e-newsletters like this one. As the leader in advanced technology workforce and economic development, you will find NCATC's resources a go-to source for timely information about workforce activities across the country as well as member benefits, resources, Board of Directors news, events, and value-added benefits from our Strategic Partners.

Be on the lookout for a brief but important NCATC member survey during the first quarter of 2015. The results of this survey will help us establish important baseline metrics that will begin to demonstrate several key elements about the positive impacts Advanced Technology Centers (ATCs) have on the workforce and economic development efforts in every NCATC member community.

NCATC is thankful in 2014 for our incredible member institutions and looks forward to an amazing 2015. Our member network of over 175 community and technical colleges brings together talented professionals who provide a diverse array of technical expertise, best practices, and information that all members benefit from as we provide high quality, responsive, and cost effective technical training and education for our workforce.

As an Affiliated Council for the **American Association of Community Colleges (AACCC)** and active member of their Economic and Workforce Development Commission for over 26 years, NCATC continues to work on many key facets of ATC contributions to our technical workforce ecosystem in the US.

We are very proud of the 26 members of our Strategic Partner Alliance (SPA). You can learn more about them under the **Strategic Partners** tab of the NCATC

website. The two newest SPA members to join our expanding technical workforce development network are: Verisurf and Hampden Engineering.

Happy Holidays!

J. Craig McAtee,
NCATC Executive Director



Strategic Partners in Action: Francis Tuttle Technology Center and Siemens Cooperates with Education



Francis Tuttle Technology Center in Oklahoma City will see nearly 30,000 students come through its doors during the course of a year. Through the Siemens Cooperates with Education program, Francis Tuttle's

Advanced Manufacturing Technician, Compressed Natural Gas Distribution, SCADA Manufacturing, and Instrumentation & Process Control Technician courses all utilize Siemens technologies.

Danny Ware, instructor of advanced manufacturing, instrumentation, and control programs, teaches high school students through adults. Ware works with industry leaders like Siemens to develop the curriculum. Skills like program controls, measuring pressure and temperature, industrial maintenance, and gas chromatography earn students an average starting salary of \$22 to \$27 per hour from a two-year program. Thirteen veterans from different service branches have completed the technical trade programs with starting salaries of \$40k to \$104k a year. Ware uses SCADA trainers and just built a CNG (compressed natural gas) dispensing trainer using Siemens PLCs and HMIs. He uses the equipment to train students for the State License for CNG dispensing and is developing a class for the Oklahoma Corporation Commission to train inspectors who inspect state CNG stations.



Danny Ware, Instrumentation and Controls instructor, points to a gas measurement device equipped with Siemens S7-1200 PLCs.

"Siemens' Cooperates with Education program offers us hardware and software that is easy to use, inexpensive, and, combined with the curriculum offered, very beneficial," said Ware recently.

Ware is joined by colleagues Rex Warr and Matt Maynard, who also serve as instructors in the program.

Francis Tuttle Technology Center, named after Dr. Francis Tuttle, former

See "Siemens," page 2

Lincoln Electric, AACC & NCATC Host Welding Future Education/Training Summit for Community College Educators

Representatives from 34 community colleges across the United States traveled to Cleveland to participate in the Lincoln Electric Welding Future Education and Training Summit on October 23 and 24. The event, developed and co-sponsored by partners Lincoln Electric, NCATC and the American Association of Community Colleges (AACC), targeted community college administrators, economic and workforce development leaders, and welding faculty, with the goal of engaging them in discussions about the future of welding education in a skills-gap era.

The summit kicked off with an evening reception at the Wyndham Hotel in downtown Cleveland, followed by a working dinner at the hotel. The next day, participants were shuttled to nearby Lincoln Electric's headquarters, where they attended breakout sessions examining training and learning programs at community colleges across the country. They also discussed ways that campuses can improve operations and resources in efforts to increase thought leadership and address the skills gap.

"Community colleges provide immense value to the manufacturing and industrial sectors through high-quality workforce training programs," notes Jason Scales, Ph.D., Lincoln Electric's welding education specialist. "Our partnership with NCATC and AACC Workforce and Economic Development and its initiatives are a key part of our mission to help encourage the ongoing growth of the welding industry and its future workforce. We enjoyed having the opportunity to share ideas and best practices, and strategize for the future with this group of noted educators."



The summit's itinerary also included a tour of Lincoln Electric's global headquarters and its adjacent Automation Division facility, giving participants a look at where and how Lincoln Electric's welding equipment and products are developed and manufactured.

"Lincoln Electric's commitment to providing the most innovative, cost-effective, quality welding and cutting solutions is one that has guided the company for more than 100 years. Connecting community colleges to industry partners like Lincoln Electric ensures that the technical training programs stay relevant to industry..." says Jen Worth, director, AACC Workforce and Economic Development. "This event allowed community college representatives to get a first-hand look at Lincoln Electric, what the company does in support of technical education training programs and how the colleges should position their staff, classrooms and hands-on labs for the future."

Lincoln Electric is the world leader in the design, development and manufacture of arc welding products, robotic arc welding systems, plasma and oxy-fuel cutting equipment and has a leading global position in the brazing and soldering alloys market. Headquartered in Cleveland, Ohio, Lincoln has 48 manufacturing locations, including operations and joint ventures in 19 countries and a worldwide network of distributors and sales offices covering more than 160 countries. For more about Lincoln Electric and its products and services, visit <http://www.lincolnelectric.com>.

• "Siemens," continued from page 1 •

Director of the Oklahoma State Department of Vocational and Technical Education, serves high school juniors and seniors who reside in partner school districts, as well as adults, with career-specific training to maintain a quality workforce. Two Academy programs prepare high school sophomores, juniors and seniors for the academic rigor of university-level degree programs. Francis Tuttle also offers complete business and industry training and consulting services, short-term training for career enhancement or leisure activities, and a variety of offerings via its online campus.

Through the Siemens Cooperates with Education initiative, community colleges, universities and nonprofit workforce training centers are afforded the opportunity to partner with Siemens on leading-edge industrial technologies in their classrooms, research projects, and workforce development programs. We offer several levers for building applicable, practical know-how by providing course curriculum, free hands-on instructor workshops and deeply discounted hardware and software.

Hundreds of colleges and universities are actively participating and have Siemens technologies deployed in their classrooms. The program began in the US in 2009 to develop the technical aptitude of technicians and engineers close to the Siemens installed base—not as an internal recruiting tool but as a marketing initiative where there was a lack of Siemens Factory Automation product knowledge in the field. As part of Siemens local support, we conduct "Summer with Siemens" Workshops for Educators providing three days of hands-on training for technical instructors at no-charge to the participants. Instructors gain a thorough understanding of the technologies available through Siemens and are provided the necessary training, course materials, and a practical, industry-driven approach to teaching. Learn more at: www.usa.siemens.com/sce or email: Amanda.Beaton@siemens.com

Michigan Advanced Technician Training Program Demonstrates Power of Collaboration



Conversation about the skills gap and its impact is all the rage these days. Middle skill jobs are becoming more demanding and efforts are underway to design better education and training solutions. Some of the more successful approaches involve multiple partners collaborating to

improve content, link academia and industry, focus on meaningful credentials, and more. The Michigan Advanced Technician Training (MAT²) program is an example of such a collaboration.

MAT² is a collaboration between state government, community colleges, and business/industry to address a skills gap that threatens to stifle growth in the state's advanced manufacturing sector. MAT² is patterned after the German Vocational Education and Training (VET) system and formalizes a partnership between educators and businesses. Michigan's Economic Development Corporation (MEDC) created the program after the governor visited Germany and decided such a program could help meet employer needs. The MEDC manages the program, convenes "developer" schools/companies and provides development dollars to colleges to create/adapt curricula that address those competencies. The MAT² program currently addresses three topical areas – Mechatronics, Technical Product Design, and Information Technology – all areas with strong demand and short supply. Plans call for CNC Machining to be developed in 2015.

Once a program concentration is selected, the state identifies community college partners with strong programs and employers who are willing to participate in program design and "sponsor" students once the program is implemented.

To date, four "developer" colleges – Mott Community College, Macomb Community College, Oakland Community College, and Henry Ford Community College – have been selected to work in partnership with multiple employer partners. The partners conduct a DACUM to identify duties/tasks that should be included in the final program design and that list is compared to existing college program elements to identify gaps. The MEDC provides development funding to address those gaps. Once development is completed, the program utilizes an alternating 8 week school/work schedule that accelerates academic coursework followed by immediate worksite experiences at the "sponsor's" location. At the end of each school period, students complete a practicum that addresses expected progress and proficiency. This ensures that performance shortcomings are identified early where curriculum can be adjusted quickly and also identifies topics that employers can address/reinforce during the upcoming work cycle.

MAT² is designed to allow companies to grow their future workforce. Like the VET system, employers hire candidates at the beginning of the program. Companies pay the tuition for the Associate Degree program, provide their student/employees a \$200 per week stipend during school and pay them an increasing hourly wage for each year of the worksite experience. To qualify, students must test "college-ready," submit a resume to MEDC for inclusion in the candidate pool and participate in company fairs and a full interview process prior to hire. If selected, they agree to work for the company for five years – three to complete the education/work portion of the program plus two additional years, complete the AAS program, and take tests leading to industry certification (determined by the individual company).

For more on the program, visit www.mitalent.org/mat2 or email Tom Crampton, Thomas.Crampton@mcc.edu.

Congratulations to Our Newly Elected Board Members



Marsha Danielson, Dean of Global Outreach and Strategic Partnerships, South Central College

Jeff Wyco, Senior Vice President - Workforce Development and Advanced Technology Center Operations, BridgeValley Community and Technical College

Douglas Jensen, Vice President, Economic Development; Advanced Technology Center CEO, Westmoreland County Community College

Congratulations to Member Institutions Receiving Round 4 TAACCCT Grants

South Central College (MN)

Minnesota Advanced Manufacturing Partnership. South Central is leading a consortium of 13 Minnesota colleges. The MNAMP project focuses on providing career pathways in advanced manufacturing in mechatronics, machining, and welding. Participants will be able to earn stackable, portable, industry-recognized credentials while working in the industry. Participants can enter academic programs at multiple points based on assessment results that match individual skills.

Thomas Nelson Community College (VA)

Rapid Employment in Advanced Integrated Manufacturing. The RE-AIM project is a single college project that will develop and implement an industry-driven, scalable education and training system that will deliver a credentialed workforce in advanced manufacturing in an accelerated timeframe.

Hazard Community and Technical College (KY)

Enhancing Programs for IT Certifications (EPIC). The Hazard Community and Technical College consortium of six Kentucky colleges is working with regional healthcare providers to expand the Enhancing Programs for IT Certification program. Students choose from five degrees and thirteen certificates.

Reports on the Radar

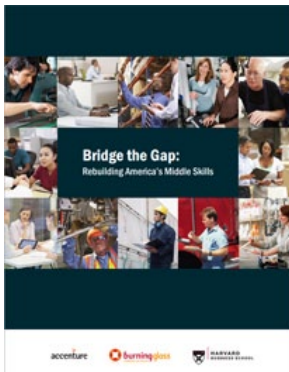


AMP 2.0 Report

On October 27, 2014, the Advanced Manufacturing Partnership (AMP) [report](#), *Accelerating U.S. Advanced Manufacturing*, was released detailing twelve recommendations. The report has been adopted by PCAST, which is led by John P. Holdren, science and technology advisor to the President and Director of the White House Office of Science and Technology Policy, and Eric Lander, President of the Broad Institute of Harvard and MIT.

To ensure a cohesive Federal effort, PCAST recommended that the Executive Office of the President develop and release, within sixty days, a plan for the implementation of the AMP2.0 report's recommendations.

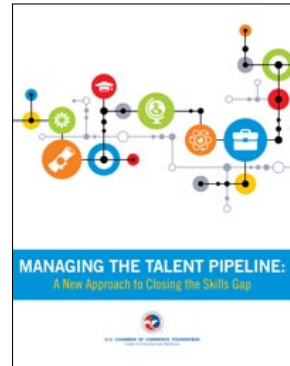
Former NCATC board member Dr. Annette Parker, President of South Central College, serves on the AMP 2.0 Steering Committee and two current board members, Hope Cotner of the Center for Occupational Research and Development, and Marsha Danielson of South Central College, served on AMP 2.0 work streams. The three were part of a U.S. team that presented on Advanced Manufacturing Education at the International Congress on Vocational Education in Spain this past May.



Bridge the Gap: Rebuilding America's Middle Skills

When it comes to middle-skills jobs in the United States—those that require more than a high school diploma but less than a four-year degree—there is a misalignment in the overall system that should move a potential employee smoothly from a relevant educational program to a good job. That's one of the findings of a new [report](#), *Bridge the Gap: Rebuilding America's Middle Skills*, a joint effort of Harvard Business

School, Accenture and Burning Glass Technologies. Businesses worry about their ability to grow and compete because they cannot find workers with the right skills. At the same time, millions of Americans struggle to find full-time, life-long employment at a decent wage. Separating employers from employees is a growing chasm—a mismatch between the demand and supply of skills. What can be done? The report contends that closing the middle-skills gap will depend on actions that go beyond simply improving the efficiency of today's system. Rather, the focus must be on developing a new middle-skills ecosystem that provides employers sufficient access to talent with the skills to fill competitively important jobs. Coordinated work among employers, educators and policymakers will be essential.



Talent Pipeline Management: A New Approach to Closing the Skills Gap

The U.S. Chamber of Commerce Foundation (USCCF) is engaging employers and their partners across the country in developing a new demand-driven approach—talent pipeline management—to close the skills gap. Through extending lessons learned from innovations in supply chain management, this is a call for

employers to play a new and expanded leadership role as “end-customers” of education and workforce partnerships. From there, employers can proactively organize and manage talent supply chain partnerships with measures and incentives tied to performance. Benefits from using talent pipeline management practices are numerous: a reduced skills gap and a better-prepared workforce for employers, improved partnerships, and job placement outcomes for education and workforce partners, increased transparency and opportunity for students and workers, and higher returns on education and workforce investments for policymakers. Case studies show that this approach is already yielding positive results for all parties. Download the [white paper](#), an [infographic](#), and [stakeholder checklists](#).

NCATC Board Member Among Invitees to White House Opportunity Summit



On Thursday, Dec. 4, 2014, President Obama and the first lady joined college presidents and other leaders to mark the second [College Opportunity Day of Action](#). Attendees made new commitments to improve postsecondary degree completion, sustain community collaborations that encourage college-going, train high school counselors (part of the first lady's [Reach Higher Initiative](#)), and produce more STEM graduates with diverse backgrounds. This is part of the administration's commitment to increasing the opportunity for all Americans to enroll in and succeed in college, especially low-income and underrepresented students. Fulfilling this commitment is important, both for the nation's prosperity and for rebuilding a strong middle class. NCATC board member Dr. Karen Wosczyzna-Birch, Executive Director of the [Next Generation Regional Manufacturing Center](#) for the Connecticut State Colleges & Universities system, was among the community college leaders invited to attend and contribute to the discussion on recruiting and retaining diverse students in STEM programs.

The Career Pathways Exchange

The U.S. Department of Education, Office of Career Technical and Adult Education (OCTAE) has launched an information dissemination service known as the [Career Pathways Exchange](#) as part of its *Moving Pathways Forward* project. Anyone interested in Career Pathways is welcome to subscribe to this weekly resource that shares resources, reports, webinars, and events based on your selected career pathways topics of interest.

Welcome New Members

FULL CENTER

BridgeValley CTC (WV)
Clackamas Community College (OR)
Johnston Community College (NC)
Northwestern Michigan College (MI)

ASSOCIATE

Ashland Community & Technical College (KY)
Big Sandy Community & Technical College (KY)
Blackhawk Technical College (WI)
Elizabethtown Community & Technical College (KY)
Gateway Community and Technical College (KY)
Hazard Community and Technical College (KY)
Henderson Community College (KY)
Hopkinsville Community College (KY)
Lakeshore Technical College (WI)
Madison Area Technical College (WI)
Madisonville Community College (KY)
Maysville Community & Technical College (KY)
Mid-State Technical College (WI)
Nicolet Area Technical College (WI)
Northcentral Technical College (WI)
Somerset Community College (KY)
Southeast Kentucky Community & Technical College (KY)
Southwest Wisconsin Technical College (WI)
Western Technical College (WI)

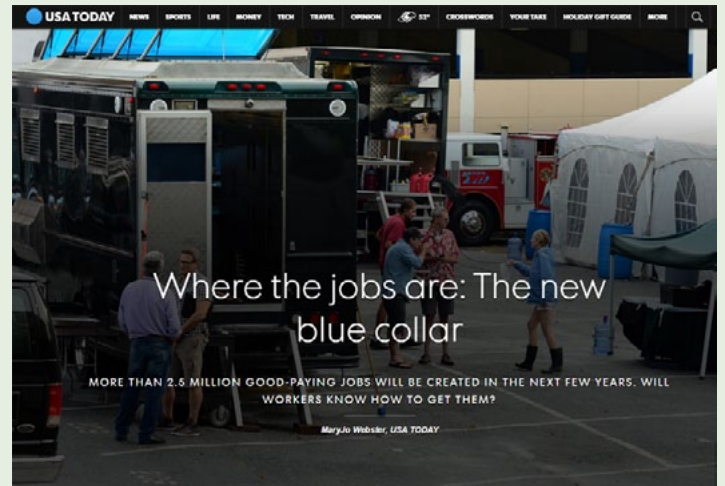
STRATEGIC PARTNERS

Cengage Learning (NY)
Haas Automation (FL)
Hampden Engineering Corporation (MA)
Stratasys (MA)
Verisurf (CA)

Labor Market Presentation Entertains and Informs

Looking for labor market data you can understand and won't lull you to sleep? Attendees at the NCATC Fall conference were lucky enough to experience just that in Thursday night's dinner keynote by Rich Froeschle, former Director, Labor Market and Career Information for the Texas Workforce Commission. Rich's presentation "Aligning Will and Skill in the American Labor Market" puts the changing labor market into perspective. Download the [slide deck](#) and see for yourself.

Members in the News



NCATC Member Anoka Technical College was featured in a special USA Today's report titled "Where the Jobs Are: The New Blue Collar" on September 29. Check out this interesting and informative web-based [article](#).



2015 National Events



**Fall Conference:
October 7-9**



**Summer Workshop:
June 10-12**

Westmoreland County Community College



Highlights of the Fall Conference at Lone Star College College



Representatives from member colleges in Wisconsin strike a pose.



Corporate College Tour, Lone Star College



Scott Murakami, Sid Valentine, and Holly Rolf have fun at the Stratasys booth.



Conference Session



2015 NCATC Board



Incoming Board Pres. Tom Crampton addresses members at the Business Meeting.



ATC Tour, Lone Star College