

Strengthening Florida's Manufacturing Workforce - By Edward Allen

The State of Florida's manufacturing workforce is about to undergo a striking transformation. Less than a year ago, words offered in response to a Workforce Florida, Inc. (WFI) request for proposal declared, "While Florida will continue its contribution to the nation's lead in new technology development, its ability to develop and sustain a skilled manufacturing workforce needs improvement."

Then, in August 2006, WFI contracted with Hillsborough Community College to launch the new "Employ Florida Banner Center for Manufacturing," a consortium of community colleges, regional manufacturers associations, workforce investment boards, and industry partners from a five-county region. This groundbreaking effort put in motion a new statewide initiative of training and system reform to serve the development, sustainability, and expansion of Florida's manufacturing production workforce and the state's diversity of manufacturing industry sectors.



At the unveiling of the Employ Florida Banner Center for Manufacturing, J. A. "Bubba" Turner III, president of Tampa Armature Works, speaks about how the Banner Center will help improve Florida's manufacturing production workforce and the expansion of its manufacturing industries.

Although the Center will measure success during its first year of operation as a result of the development and delivery of a new training curriculum for entry-level manufacturing production technicians," Dr. Eric Roe, Center Principal Investigator, said, "the foundation of our success is based on the enthusiasm and commitment of the Center's partners."

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The partners demonstrated these qualities by working with the Center staff to produce and rollout a list of important deliverables to WFI—all key to the development and upcoming delivery of the new training curriculum. Topping the list was a manufacturing needs assessment that reinforced the facts such as: training resulting in industry-recognized certifications was important to Florida's manufacturers, and that they supported the new "Production Technician Certification" offered by the Manufacturing Skill Standards Council (MSSC). It also revealed the state's manufacturing community was increasingly relying on automation and consolidated job functions to increase productivity.

Next, was a dual-phase, industry-driven focus group effort. The first phase consisted of conducting five focus groups hosted at Hillsborough, Manatee, Pasco-Hernando, and Polk Community Colleges and Florida Community College at Jacksonville. A follow-up phase to the group meetings, which had 157 members of the manufacturing community in attendance, was a statewide online survey.

The survey—a compilation of the predominant groups' findings relating to current and future production workforce needs of the manufacturing community—refined and validated the findings. With regards to certification, the respondents (62%) indicated, "Certification automatically raises the bar for employees compared to non-certified employees." These findings fueled the development of the next major deliverable, the new entry-level production worker curriculum.

Working with the Center's partners to develop the curriculum, a cadre of subject matter experts incorporated several innovative methodologies in the deliverable. Modular in nature, the curriculum afforded flexibility for instructional delivery. Activity-based learning provided the conceptual framework of the curriculum for the student, reflecting the contemporary manufacturing industry environment.

Critical to the need for certified production workers, the curriculum also mapped the MSSC Production Technician Certification competency areas—Manufacturing Process and Production; Quality and Continuous Improvement; Safety; and Maintenance Awareness.

Now that the curriculum is developed, the Center is conducting a comprehensive beta test of the materials at the partner community colleges and Marion Technical Institute in Ocala. After the test is completed, refinements will be made and the first official rollout of the curriculum is scheduled for the late April/early May 2007 timeframe.

Plans call for offering the training to an initial cohort of 150 students at the partner community colleges. Following this, graduates of the training will be afforded the opportunity to take the Production Technician Certification test. Marion Technical Institute is also planning to integrate the curriculum into their Industrial Engineering Technology Program starting in Fall 2007.

Anticipating excellent results, the Center is about to provide Florida's manufacturers with the first wave of its "industrial athletes of the future."

From the Principal Investigator



It is my pleasure to welcome you to the Employ Florida Banner Center for Manufacturing through this first edition of "Manufacturing Connections." The Center—a consortium of community colleges, regional manufacturers associations and workforce investment boards, and industry partners from a five-county region—has been working with a high level of enthusiasm and diligence since August 2006 to fulfill its mission. That mission is to "provide curriculum, training, and certification resources for developing and sustaining Florida's manufacturing production workforce and contributing to the expansion of its diverse manufacturing industries."

Now, the Center has taken its first major step to develop and sustain Florida's manufacturing workforce by launching a host of initiatives. To ensure we offer only the highest quality products to our customers, we are conducting a month-long, full-scale beta test—at Marion Technical Institute and the five founding partner community colleges—of our first training product, the "Entry-level Production Worker" curriculum. Directly aligned with the new MSSC production competencies blueprint, students graduating from our training will be prepared to sit for the MSSC Production Technician Certification examination. The certification is the first-ever nationally and industry-recognized certification that addresses all the portable production knowledge and skills inherent to the 14 manufacturing industry sectors.

Along with providing Florida's manufacturing industries the training tools to advance the state of their production workforce, we are also establishing eight new MSSC Assessment Centers, bringing the total to ten centers throughout Florida. This will afford the graduates of our training a convenient location to take the certification examination.

With the dedication of our partners in full play, I envision the beta test will be a resounding success. Armed with the test results, we will then offer training to our first cohort of 150 students.

The official rollout of the curriculum will take place at the five partner community colleges during the late April/early May timeframe. Certainly, shortly after the completion of the training, everyone in the Center's Consortium anticipates the first major wave of certified production technicians to become part of the state's manufacturing workforce. With their new portable production skills in hand, these certified technicians will not only be entering valued, high-tech, high-paid careers, they will also help increase business for Florida's manufacturing industries.

Using the entry-level curriculum model as a baseline, two important things will also take place. First, April will mark the second phase of curriculum development that entails an incumbent worker curriculum—a "Knowledge and Skills Refresher" course. Both curricula together will provide Florida's manufacturers with the tools they need to develop and sustain their workforce's productivity. Second, we will demonstrate how the model will provide flexibility, allowing training to branch out from the traditional classroom to such areas as the shop floor and self-directed online delivery.

Lastly, the Center is sending a "Strategic Plan for Sustainability" to the Center's funding source, Workforce Florida. The plan provides the details for making the Center a self-sustaining, statewide resource center of choice for the evolving training, education, and support needs of Florida's high-performance manufacturing workforce.

Despite all that we have achieved in the past seven months, we must continue to work together to create a self-sustaining Center. Therefore, I invite your comments, ideas, and willingness to join us in building a cohesive, statewide "Production Technician Certification" culture among the educational-manufacturing community, raising the bar for manufacturing production technician training/education, and contributing to the expansion of Florida's manufacturing industries.

Eric A. Roe, Ph.D.

Statewide Manufacturing Focus Groups A Success - By Edward Allen

"Florida's competitive edge for economic growth depends on the state's ability to deliver a highly skilled workforce," former Governor Jeb Bush said prior to launching the Banner Centers initiative.

Governor Bush's legacy lives on as Dr. Roe mustered the Center's resources to carry out the Governor's important charter. "The Banner Center is charged with developing curricula to satisfy these critical needs," Dr. Roe said. "And the best way to begin to accomplish this task is with the cooperation of industry-based focus groups."

During September-November 2006, the Center conducted five focus groups, hosted by its partner community colleges. More than 150 representatives from the manufacturing community participated in the highly interactive meetings—built around an agenda that included Breakout and General Group discussion formats. The groups identified and discussed manufacturing production workforce needs specific to the MSSC competency areas that would be incorporated into the Center's training curricula development efforts.

"These meetings provide our manufacturers the opportunity to help shape the education system that will determine the caliber of their future employees," Peter Straw, the group facilitator and executive director of the Sarasota-Manatee Area Manufacturers Association, said.



Manufacturing representatives discuss production workforce knowledge/skill sets during a Focus Group Breakout Session

The MSSC Certification System: A Statewide Culture in the Making - By Edward Allen

“Florida’s making a serious commitment to MSSC’s new Production Technician Certification as a key Career and Technical Education system articulation pathway,” Dr. Marilyn Barger, executive director of the Florida Advanced Technological Education Center, said.

The state workforce system has invested in the Banner Center to create and offer curricula to prepare students, workers, and prospective employees for the certification. Since “certification” connotes the need for “testing,” the Banner Center and its academic and industry partners are working with MSSC (Manufacturing Skill Standards Council) to add onto the existing MSSC Assessment Center infrastructure within Florida.

“However, it’s more than just an infrastructure initiative,” Dr. Eric Roe, Principal Investigator for the Banner Center, said. “New assessment centers are only a part of the big picture. Our aim is to build a cohesive, statewide ‘Production Technician Certification’ culture among the educational-manufacturing community.”

MSSC, a national, industry-led organization took the initiative more than ten years ago to identify the foundational knowledge/skill sets requisite to developing and sustaining the nation’s high-performance manufacturing production workforce. This enabled the organization to create the Production Technician Certification System.

Integral to the system is the first-ever Production Technician Certification, which is awarded to those workers who pass the certification’s examination’s four test areas.



MSSC Certification Test Areas



A comprehensive set of tools, MSSC’s system provides several valued benefits to Florida’s manufacturers and production workforce. These include:

- A flexible, trainable, and motivated knowledge-based workforce
- Decreased recruitment costs due to the availability of a credentialed workforce pool
- A dynamic element of the state’s workforce investment system that facilitates recruiting, motivating, and retaining qualified employees
- Knowledge/skill standards that the educational community can use to keep their curricula in line with the evolving needs of industry

“Along with our charter to develop curricula that serves as a development, sustainability, and expansion mechanism for Florida’s manufacturing production workforce and the state’s diversity of manufacturing industry sectors, we must build a statewide culture,” Dr. Roe said. “A vehicle for building such a culture, however, requires more than delivering a new curriculum. Adopting a new culture demands buy-in, and buy-in means that the community has

respect for the initiative.”

That respect not only comes from manufacturing companies for their credentialed employees, but also for the organization that granted the certification.

Currently the Manufacturers Association of Florida and the National Association of Manufacturers (NAM) have both endorsed MSSC certification. “This is a breakthrough with great implications for the future of manufacturing in the United States,” NAM President John Engler said.

Curriculum Beta Testing Begins

- By Sally Burnham -

“We’re as excited as our students about beta testing part of the Banner Center’s new curriculum,” Mark Vianello, Principal of Marion Technical Institute in Ocala, said. “Our district’s Business Advisory Council wants our students trained to better prepare them for entering the high-stakes manufacturing workforce. And we see the Center’s certification-based curriculum as a natural fit for our students.”

During March-April 2007, Marion Technical Institute will join the Banner Center’s founding educational partners (Hillsborough, Manatee, Pasco-Hernando, and Polk Community Colleges and Florida Community College at Jacksonville) in a comprehensive, multi-county effort to beta test the Center’s recently developed entry-level production worker curriculum.

“The beta test will provide valuable insight into the strengths and weaknesses of the entry-level curriculum,” Dr. Roe remarked. “Our beta test plan provides for real-time feedback and assessment of the curriculum performance.”

The assessment tools include instructor and student critiques that focus on what was taught and the students views about what they learned.

With the educational and regional workforce board partners working together to prepare for and conduct the test, this effort will allow the Center to take the first major step in creating a training curriculum that serves Florida’s manufacturing production workforce and the diversity of its manufacturing industries.

**Coming Soon:
Eight New MSSC Assessment Centers**

By March 2007’s end, joining Florida’s only current MSSC assessment centers at Pinellas Technical Education Center and Manatee Technical Institute will be eight new operational centers at the following locations where students and trainees can take the MSSC Production Technician Certification examination:

- Hillsborough Community College
- Florida Community College at Jacksonville
 - Manatee Community College
- Pasco-Hernando Community College
 - Polk Community College
- Central Florida Community College
 - Broward Community College
- Mid Florida Tech, Orange County Public Schools

Founding Partners:

Hillsborough Community College

Bay Area Manufacturers Association
Tampa Bay Workforce Alliance

Florida Community College at Jacksonville

First Coast Manufacturers Association
WorkSource

Manatee Community College

Sarasota-Manatee Area Mfrs. Assoc.
Suncoast Workforce Board

Pasco-Hernando Community College

Pasco County EDC
Hernando County EDC
Pasco-Hernando Jobs and Education
Regional Partnership Board

Polk Community College

Polk Manufacturing Council
Polk Works

Workforce Florida, Inc.

MANUFACTURING CONNECTIONS

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