

MANUFACTURING

PATHWAYS

for Career and Business Success

Director's Report ●

The Manufacturing Institute and Deloitte Consulting recently released the results of an online nationwide survey of 1,000 Americans on their views and perceptions of manufacturing. An overwhelming majority of those surveyed indicated that manufacturing is vital to this nation's economy and national security and a strategy needs to be implemented to develop this nation's manufacturing base.

The survey also showed that fewer respondents from post Baby Boomer generations had positive perceptions on manufacturing, and only about 30% indicated they would encourage their children to pursue a career in manufacturing.

Here is a snapshot of the survey results:

- 71% think that developing a strong manufacturing base should be a national priority.
- 81% feel that this nation's manufacturing base is important to its standard of living.
- 82% indicated that manufacturing is important to this nation's economic prosperity.
- 59% feel that U.S. manufacturers can compete globally.
- 68% believe manufacturing is important to our national security.
- Manufacturing was rated as most important to maintaining a strong national economy, ahead of technology, energy, health care, financial services, retail and communications.
- 74% stated that the U.S. should invest more in its manufacturing industry. However, there was less support in investing in manufacturing among persons in the 18-24 and 25-34 age groups.
- Two-thirds think that manufacturing is high-tech. Again, there tended to be less support in the younger age groups.
- 59% agree that manufacturing requires a well-educated, high-skilled workforce, with the greatest support coming from Baby Boomers and retirees.
- 77% want a strategic approach to developing this nation's manufacturing sector.
- Manufacturing received the highest response to the question, "If you could create 1,000 new jobs in your community by establish-



Doug Durliat ●

*Director,
Manufacturing Pathways*



ing a new facility, what type of facility would you support?" While there were some glowing attitudes on manufacturing, there were some stigmas:

- Only 35% felt that manufacturing paid better than other industries.
- 33% indicated that manufacturing jobs are clean and safe.
- 30% want their children to pursue a manufacturing career; 49% did not.
- 61% indicated that their school system does not encourage students to pursue manufacturing careers.
- Manufacturing ranks only fifth as a career choice, behind technology, health care, energy and communications.

Several of these survey findings are nothing new. It means we must continue communicating with key persons in our school systems to show them the challenges and rewards in manufacturing, as well as engaging the students in manufacturing settings at as early of an age as possible. Studies have shown that retention rates of students in engineering fields increase as you engage them at a younger age. This in turn would address the state's impending shortage of skilled manufacturing workers and its "brain drain" where our state's brightest students leave the state to pursue careers elsewhere.

West Central Ohio
WCOMC
 Manufacturing Consortium

Minster Machine Winner of Training and Education Award ●

WCOMC member Minster Machine Company was a recipient of the 2009 A.R. Hedberg Training and Education Award as part of the Precision Metalforming Association's (PMA's) annual Awards of Excellence in Metalforming.

Minster was honored for its Future Workforce Development Initiative, created in response to the need for a higher-skilled workforce to meet market demands for innovation and technology advances and the need to replace a retiring senior workforce. The initiative targeted two areas of the company: engineering and OEM assembly.

To pursue and develop engineering talent, Minster directed its efforts to programs such as trainee engineering programs (part-time high school), intern opportunities (early college summer work terms) and co-op opportunities (advanced college work terms).

Because of Minster's senior workforce in the OEM assembly area, an apprentice program also was put into place to stop the loss of these

skills and actually increase the overall skills of the OEM assembly area.

The OEM assembly program has become a pilot for other programs within Minster, including service technician, machine-tool builder, welding, precision machinist, mechatronics, remanufacturing and foundry-molding apprentices.

PMA is the full-service trade association representing the \$91-billion metalforming industry of North America—the industry that creates precision metal products using stamping, fabricating and other value-added processes.

More information on PMA's Awards of Excellence in Metalforming is available at www.pma.org.



Governor Strickland (center) recently visited Minster Machine to recognize their staff for their training and education program. To Strickland's right is Dan Schoch and to his left is Dan Keller, both of Minster Machine.

Pathway Student Spotlight – Bob King ●



One person's change in career has opened up a pathway for many.

For 10 years, Bob King had owned and operated trucking companies that employed as many as 19 drivers. Because of changes in regulations stemming from 9/11, he was forced to make a career change. So, in mid-2006, Bob enrolled in Apollo's Multi-Craft Industrial Technology (MIT) program for training in manufacturing maintenance. "When I was coming up to the end of that program (Fall 2007), the Apollo financial aid official indicated I had money left to pursue more education."

With that news, King met with Dave Brown, Dean of Rhodes State College's Division of Information Technology/Engineering Technology to discuss pursuing an associate's degree. "After meeting with him (Brown), he said it was doable after reviewing my transcripts," said King.

In general, a course of study is designed under an ATS in which technical courses are integrated with general and basic studies courses. In Bob's case, his Apollo

MIT courses were counted toward his Rhodes State ATS degree in Industrial Manufacturing Technology.

Brown said there were several factors occurring at the time he met with King. The WCOMC had approved Apollo's request to include its MIT and MET programs in the consortium's intermediate pathway. "At that point, we needed to provide a pathway for those students to the next step, an associate's degree," Brown explained. In addition, Ohio Skills Bank, the state's workforce development program, began emphasizing the creation of stackable certificates among education partners within the state's 12 economic development regions. "We are now being encouraged by the state to validate adult education credentials, not have them being terminal certificates, but having a path to the next level."

Brown said an ATS requires a minimum of 90 credit hours. King's MIT certificate from Apollo articulated to 40 credit hours from Rhodes State. Articulations for ATS degrees for students from other regional institutions will be drafted as demand dictates, Brown said.



AIRCRAFT DYNAMICS®

WCOMC Member Spotlight: Aircraft Dynamics ●

At an Elida facility where they make “a lot of little niche things,” the impact of those products affects thousands of lives around the world, according to the company vice-president.

WCOMC member Aircraft Dynamics was started in the early 1960s when, according to Steven Jones, Bill Glover, a prominent Lima businessman, slipped on some ice at the local airport. Glover asked Steve's father, Jack to draw from his electronics background in the military to develop a battery-powered towbar for his private plane.

Aircraft Dynamics and its signature Robotow were born with Jack serving as the company's president.

Today, Aircraft Dynamics produces a wide range of products for the military, fire and rescue and utility companies.

The field maintenance kits for military vehicles vary by vehicles' needs. A major obstacle, Steve said, is making a tool to withstand the fine sand in the deserts of the Middle East while keeping the tool cool in the desert heat. “You're pushing the limits to make the best tool you can,” Steve said.

Steve said his father made several trips to the desert near Yuma, California for testing equipment during the 1980's, but still does not match the fineness of sand from Iraq and other Middle East countries, which he said is like talcum powder.

Steve said soldiers from recent Middle East conflicts have told of how Aircraft Dynamics tools have saved lives by enabling the soldiers to repair, disassemble or re-assemble Abrams or Bradley tanks, Humvees or other military vehicles and rocket launch systems before enemy snipers can spot them for an attack. “It's like a NASCAR pit crew. They can make these repairs in minutes what used to take them hours,” he said.

Utility and fire-and-rescue workers utilize various A.D. products including cordless impact wrenches, sockets, pole bits, chuck kits, safety lighting and adapters for various tasks. Jones said employees must understand material properties and CAD CAM technology to develop and create such products.

“We make a lot of little niche things. We make a thousand or a couple of thousand at the most,” Jones said.

More information on Aircraft Dynamics and its products can be found on: www.aircraftdynamics.com



Commerce Secretary Locke Visits American Trim ●

U.S. Secretary of Commerce Gary Locke visited American Trim in Lima June 2 to observe the research and development center located at the facility and see advancements by the company in fuel cell technology.

The center is a collaborative effort between American Trim, Rhodes State College, Ohio Northern University, Edison Materials Technology (EMTEC) and the City of Lima.

Also in attendance at the town hall meeting were Ohio Lieutenant Governor Lee Fisher and Lima Mayor Dave Berger. Both officials commented that the facility is an example of the innovative technology the state is focusing on to keep and attract to the state.

More on Secretary Locke's visit can be found on: <http://www.amtrim.com/PDF/News/Gary%20Locke%20Visit%20press%20release.pdf>

Solutions, etc. . . at Rhodes State provides customized workforce training for manufacturers in West Central Ohio in a variety of areas. It is available to WCOMC members. For more information, call 419-995-8406 or check their website: www.solutions-etc.com

Poeppelman Named WCOMC Scholarship Winner ●

Lance Poeppelman, a Ridgemont High School graduate, was named winner of the \$500 WCOMC Endowed Scholarship.

Poeppelman, who will study engineering technology at Rhodes State College this fall, was chosen by a committee last spring.

The scholarship was created in 2007 by the WCOMC Full Board of Directors. It is awarded to a Rhodes State College student pursuing a degree or certificate in a manufacturing-related field.

The consortium's initial investment toward the endowed scholarship was \$5,000. The WCOMC may increase the amount as funds allow.



The foundation was established in 1978 to promote Rhodes State College. One of its purposes is to make quality education more affordable to current and potential students.

Process Operator Curriculum Being Formed for 2009-10 ●

This fall, officials from Rhodes State College, Apollo Career Center and the West Central Ohio Manufacturing Consortium will begin a seamless education and training program for incumbent and future employees of process operations in Lima and Allen County.

Apollo and Rhodes State College received a \$215,000 grant from the City of Lima through the U.S. Department of Commerce Economic Development Division. The grant will be used to modify the current 184-hour Apollo process operator program, create an intermediate certificate and an Associate of Technical Studies (ATS) degree for process operator training from Rhodes State College. Persons completing the Apollo program may apply it toward two of the nine courses in the intermediate certificate. Coursework in the certificate may be applied toward the ATS degree.

A survey of 15 process operations from Allen County was conducted this spring. Data from the survey was used to modify and create the curriculum for the program. A series of meetings has been held with officials from the surveyed companies, Rhodes State College, Apollo and the City of Lima to determine the curriculum and financial assistance available under the program.

