



ADVANCED DIVERSIFIED MANUFACTURING INDUSTRY PARTNERSHIP

As operations manager at The Warren Company, a family owned fabrication and steel service center in Erie, Pennsylvania, Dennis Harris understands the value of technical training for his maintenance employees. He needs his team to be versatile and have a clear knowledge of hydraulics, pneumatics, programming PLCs, and troubleshooting on high-tech equipment.

"Most larger plants have an electrician, plumber, and a mechanic who will fight to solve a problem," Harris explains. "Being a smaller, 70-person facility, I can't afford to have three people do one person's job. I need them to be able to fix just about anything without having to get somebody else involved."

For Harris, it's one of the many reasons the company's participation in the Advanced Diversified Manufacturing Industry Partnership (ADMIP) is so valuable. The Partnership gives manufacturers access to affordable industry driven training programs, such as PLC programming, machining, and industrial maintenance courses that enable them to stay current and competitive.

Harris, an active ADMIP Steering Committee member for the past six years, says the benefits of the Partnership's work-force development programs are substantial, especially for a company such as The Warren Company, which prides itself in its investment in employee training. The company currently has two employees enrolled in the Partnership's three-year industrial maintenance apprenticeship program — a program offered at both the Precision Manufacturing Institute (PMI) in Meadville and the Erie Institute of Technology (EIT) in Greater Erie.

"They've been in the program for a year, so they have at least two more years to go, and I already have seen the benefits," he says. "This training will cut down on our costs, downtime and keep our production up."

The ADMIP has long been an industrial training resource for area manufacturers, previously existing as four separate manufacturing partnerships — plastics, metal, food and electronics. At the end of the

Revitalizing a



2008-2009 fiscal year and to better utilize resources, the partnerships were combined to form the ADMIP.

Today, the Partnership could best be described as a collaboration and communication medium for work-force training and development, serving member companies in northwest Pennsylvania. The ADMIP encompasses six counties — Erie, Crawford, Forest, Clarion, Warren and Venango — and brings together regional employers, economic developers, labor leaders, and educators to improve the competitiveness of businesses and organizations sharing similar products or services.

At its core, the Partnership is committed to developing the work force to best utilize technology and automation by being employer-driven. "The strength of the Partnership is the employers' participation," says Jon DeArment, vice president of Engineering and Manufacturing at Channellock, a manufacturer of high-quality pliers and assorted hand tools, which employs about 400 people in Meadville. "You get out of it what you put into it. The region as a whole has to recognize the fact that if we want to keep our economy strong and vibrant, we need a competitive work force."

One of the greatest values of the Partnership is that it eliminates duplication of training by better coordinating the efforts between training providers. The program also provides a state subsidy of up to 75 percent for training, on a first-come, first-served basis, for eligible employers.

"There is a lot of overlap out there and obviously competition, but there is also a lot of money spent — both public and private — and I think we need to be very efficient in how that money is spent," says DeArment. "When you have employers at the table evaluating a program, whether it be School A or School B, they are going to go with the program that is most economical and provides the best overall value."

For example, "The programs we have developed are a result of assessing all of the employers' common needs. The mechatronics apprenticeship



The mechatronics apprenticeship program has been invaluable to Brett Jastromb (center), an employee at Channellock in Meadville, by giving him the opportunity to further develop his skills and improve his work performance through courses offered at PMI.

Tradition of Excellence



With high-tech equipment and increased automation, manufacturers need their employees to have a strong foundation in technical education.

program was one of the first put together as a result of more than just one company coming to the table saying we have a skills gap in our maintenance areas. We all came together and defined what those gaps were and developed the curriculum."

DeArment understands the advantages of the ADMIP firsthand. His family owned company, where he has worked for the past 17 years, has utilized the ADMIP-sponsored certified production technician (CPT) and mechatronics/industrial maintenance apprenticeship programs, developed in partnership with PMI.

Brett Jastromb, a 28-year Channellock employee and Class 4 maintenance worker for the past four years, says the apprenticeship program has been a good investment for both the company and him. He is already two-and-a-half years into the program and will complete his training this November.

Jastromb says the class allows him to learn in an environment where he can work one-on-one with other students and apply skills and techniques the very next day. "It's a plus for them (Channellock) and a plus for me. I am gaining an education that I need for my job, and they are trusting me to go down and work on their equipment," he says.

Kelly Carr insists the six- to eight-week CPT program was just as valuable. Carr, a five-year robotics cell operator and relief supervisor at Channellock, says the training materials — both literature and e-Learning program — were easy to retain and apply.

"I work with torches and every piece of machinery down there, and the course broke it down and gave you more technical information," he states. "It helped keep me safe and able to perform my job in a better way."

Employers and most anyone involved in industry recognize that the skills required to come into a manufacturing career today are much different than they were 10 years ago. The CPT program helps fill this skills gap by providing a strong foundation for people who are motivated and



The certified production technician program has provided workers, such as Kelly Carr (in yellow hard hat), with a broad, high-level orientation of production and quality systems, safety, and a general understanding of maintenance systems, mechanical systems and drives.

interested in working in a manufacturing career by offering a broad, high-level orientation of production and quality systems, safety, and general understanding of maintenance systems, mechanical systems and drives.

"From there, they can determine if they really like broaching or milling, or whatever the particular type of manufacturing they are interested in," says DeArment. "They can build on that through continued training programs that we provide."

The mechatronics/industrial maintenance apprenticeship program is one example. The apprenticeship program, which came about from a detailed skills gap analysis, combines all the different types of systems into one cohesive program, so that participants gain a clear knowledge of mechanical systems, electronics, PLC programming, troubleshooting, automation and robotics.

"It is no longer just relays and switches; it is a lot more involved and you have to understand how all those systems work together," says DeArment. "The luxury of having duplicate pieces of equipment — >

About: The Advanced Diversified Manufacturing Industry Partnership (ADMIP) is an employer-driven collaborative aimed at advancing the manufacturing industry in the region through work-force development, pipeline enhancement and advocacy initiatives. The ADMIP encompasses six counties in northwest Pennsylvania — Erie, Crawford, Forest, Clarion, Warren and Venango.

History: Prior to the creation of the ADMIP, there existed four separate manufacturing partnerships — plastics, metal, food and electronics. At the end of the 2008-2009 fiscal year, these partnerships were combined to form the ADMIP.

The Partnership helps member employers retain and recruit employees by identifying training needs, developing new career pathways, and aligning educational curricula to industry demands.

Membership: The ADMIP currently has approximately 30 active members, but is encouraging other companies to join. There is no cost for being a member, but a participation rate of 75 percent is required for those that apply and are accepted. Monthly meetings are held the third Friday of the month in Edinboro.

Website: <http://madeinnwpa.org>



ADVANCED DIVERSIFIED
MANUFACTURING
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The ADMIP is planning on rolling out a curriculum that will help industrial employees develop the skills they need to be leaders in their organizations.

Members of the ADMIP's Steering Committee — including, from left, Tami Adams, NWPA Chapter of the National Tooling and Machining Association; Dennis Harris, The Warren Company; Kevin Smith, Vie Associates; and Jon DeArment, Channellock — are focused on the future of manufacturing and getting more companies to participate in the Partnership's strategic initiatives.



because they are cheap, they are manual, and you can run them till they die — those days are gone. To be competitive, you have to be efficient and your equipment has to run.”

Pipeline Development and Strategic Initiatives

Along with work-force development, the ADMIP is equally focused on filling the pipeline with skilled, career-ready individuals.

As part of the Partnership's strategic plan — a regional project funded in collaboration with the National Tooling and Machining Association (NTMA) and the Northwest Commission — the ADMIP is mapping out a structured career lattice that will enable employers to see the different career pathways there are and what resources are available in the region to satisfy for those needs.

Just as important, the ADMIP is planning on rolling out a curriculum that will help employees develop the skills they need to be leaders in these technical organizations.

“To be a leader in a manufacturing facility is different than a leader in other industries,” says Kevin Smith, the Partnership's project manager. “In manufacturing you have to speak a manufacturing language and manage a different set of competencies.”

The Partnership also is taking the lattice one step further, by working on a career pathway so that students, parents, teachers and guidance counselors can see how a certain technical path can lead into such careers as engineering, marketing and sales.

Through programs, such as the CPT and the apprenticeship programs, workers — and even students — can gain college credits to apply toward a degree at Clarion University of Pennsylvania, and soon Edinboro University.

Employers say it is an opportunity for these students to choose a career that doesn't necessarily involve going straight to a four-year college program. “While you are still in high school, you can dual enroll into programs, such as post-secondary technical education schools like PMI, get some credit and graduate high school with a certificate, be highly employable with industry, and start a career,” notes DeArment. “Most companies today are then going to continue to train and develop people.”

Partnership members say recruiting students early and often — at functions such as TechFest, RoboBots and the NTMA's manufacturing student clubs — and getting employers better connected with the technical schools, high schools, and middle schools, is critical to bridging the skills gap in manufacturing careers.

Smith describes the effort as a “systems change” in the way the technical educational system is viewed. The goal of the strategic plan is to get parents and students to embrace the message that technical education is for those who excel and want to pursue a path that prepares them for both gainful employment and a degree-awarding institution.

Smith says the ADMIP is currently working on getting area educators

together for a summit to discuss and implement the initiative. “One of the things in the pipeline development initiative was getting rid of the false dichotomy that you either work in a manufacturing plant or you go to college,” he explains. “You can get a college education and work in manufacturing at the same time and get the credentials that employers find valuable.”

Future Success

The ADMIP is constantly looking toward the future needs of its members and the region. A key component of the Partnership's strategic plan is to establish best practices and a “how to” guide for market expansion.

According to Smith, the development of the Marcellus Shale has game-changing potential, but many businesses don't know how to successfully market their products and services from one industry to another. The Partnership's role is to provide a central list of resources and step-by-step action items for employers that are interested in expanding into new markets.

“We have such a web of different industry support groups that employers often choose not to use any of them,” says Smith. “We will be presenting the information, with a series of seminars and presentations, to help them along.”

Essential to the success of these initiatives — and the future of the ADMIP itself, Steering Committee members say — is getting more employers involved.

“It continues to amaze me how so many companies don't participate that could, and it really would help not only their business but the region as whole by being competitive and effective with work-force development,” says DeArment. “The more employers that you have at the table sharing their needs, identifying common goals and working as a whole, the better.

“We need to get our economic development groups at the table. We need to get more of our education shareholders at the table, and this thing will really start to hum.”

Tami Adams, a member of the ADMIP Steering Committee and executive director of the NWPA Chapter of the NTMA, says it is important to participate and get involved. “Every group is doing great things,” she insists, “but if we don't know what the other is doing, we are wasting resources.”

Adams has been actively involved in the Partnership since its inception and believes it is the best it has been in the past two years by letting industry drive the decisions, not funding streams.

“The synergy is at a point that I have never seen before,” she says. “We have a really good core group on the Steering Committee and we can make things happen.”

It's all part of revitalizing a tradition of excellence — and manufacturing in northwest Pennsylvania. ☆

To learn more about ADMIP, visit <http://madeinnwpa.org>.