

# Success Story: Rockland Manufacturing Invests in Training to Prepare Workforce for Change in Production Flow

written by Lauri Moon | January 15, 2024



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Rockland Manufacturing Co., located in Bedford, PA with approximately 250 employees, is a medium-sized manufacturer of bulldozer blades, loader buckets, beach cleaning equipment, and land clearing equipment. Rockland primarily serves the crushing, aggregate, and log loading markets.

Rockland was beginning to implement a major change to their long-established production methods. In fact, the current flow had been in place for well over 30 years. The major change was to create a combined production method/department from two formally standalone functions. The change required changes in supervision, ERP tracking, production planning and scheduling, and manufacturing engineering processes.

The change is driven by the need to improve efficiency, specifically by reducing the amount of handling and transportation of certain products. By combining production functions for several of their product lines, both assembly and finish welding functions will be accomplished at the same workstation. Formally, a product would be assembled at one location in the plant, then transported by overhead crane to be staged at the second location until that department had capacity to work on it.

Rockland had already conducted experiments to prove that the change to the production flow would be successful in improving efficiency, but since the change

had far-reaching affects throughout most departments within the entire company, management felt that specific training of key stakeholders was needed to help build unified momentum for implementation and asked IMC to provide this training.

The Rockland management team, while in consultation with IMC Business Advisor, Tim Davis, expressed concern about meeting project goals and objectives since the front-line production workers and their direct supervisors were accustomed to years of the current state workflow processes. Many organizations entering significant operational change are very good at getting the proper capital requirements and soft costs calculated and controlled, the weakest link is often underestimating the human side of change. As such, IMC proposed a Change Management training initiative that would complement the capital investment already being made.

Tim Davis expressed, “This training is essential, it is beyond the capital equipment, renovation, and other costs normally associated with significant change, it can make or break the change effort including the need to extend timelines and adjust milestones when employee teams struggle through the transition.”

The IMC team helped Rockland identify key personnel who had responsibility and direct impact on the change requirements. Additionally, the team investigated the organizational requirements compared with the current state of the supervisors and other key personnel to identify gaps and develop a program specifically designed to help the Rockland team navigate a successful transition.

A highly customized change management training initiative was deployed by the IMC. It focused on how to anticipate the implications of change, how to monitor and adapt to change, how to communicate through it, and how to keep changing and improving. This training included interactive exercises to help the participants be more comfortable with the new changes to their workflow, break down potential barriers to implementing change by improving communication, and really focus on the importance of positive changes in production. All customized to align with the requirements for a successful transition to the new process.

Impressed with the results, the Rockland management team reported that the training provided by the IMC was successful in helping their workforce understand the need for change in their production methodology. Particularly, they pointed out

that communication about the change improved. The interactive exercises conducted by IMC in the training helped break down communication barriers and improved teamwork. The momentum for moving forward with the production change was achieved, and since then the new assembly/weld function is established and becoming an accepted part of the company's culture.

"We're very pleased with the results of the training. It was a great way to break the ice regarding a systemic change in one of our oldest and most experience facilities. By training on change management, discussing the benefits of the change, and how to properly communicate the outcomes of the change, we experienced much less of the typical resistance to change that one usually experiences in any business environment. The project was done faster, with less effort, much less drama, and most importantly, we haven't had any trouble with making the change stick over time. We're now building more, more efficiently, together, than ever before." Bo Pratt, President, Rockland Manufacturing Co.



# Attract Your Talent of the Future Today During Manufacturing Day 2023

written by Lauri Moon | January 15, 2024

**Host an Open House During October to Celebrate Manufacturing Day 2023**



Join manufacturers across the United States to showcase modern manufacturing and attract your future workforce.

MFG Day, celebrated the first Friday of October, reshapes perceptions of manufacturing and fosters a robust future workforce. MFG Day is dedicated to diversifying, strengthening, and enhancing the manufacturing workforce, promoting opportunities, and driving industry growth in the United States.

While October 6th is the official MFG Day, events are held all month long so don't let that stop you!

Watch the video overview to see what MFG Day is all about, then contact IMC. We'd love to help promote your event.

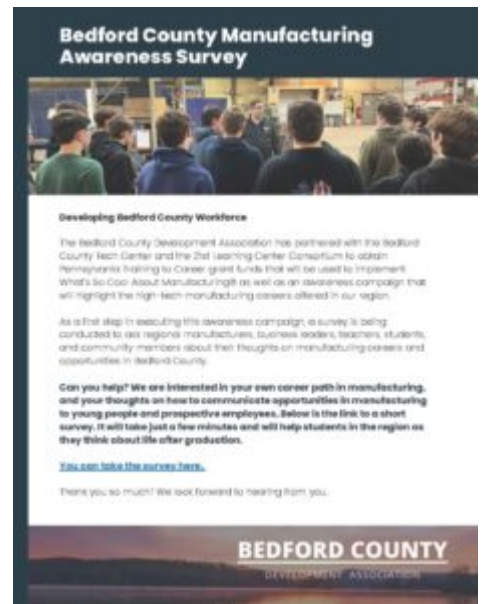


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# Bedford County PA Manufacturing Awareness Survey

written by Lauri Moon | January 15, 2024

Can you help? We are interested in learning about your career path in manufacturing, and your thoughts on how to communicate opportunities in manufacturing to young people and prospective employees. Below is a link to a short survey. It will take just a few minutes and will help students in the region as they think about life after graduation.



[Click here to complete the Bedford County PA Manufacturing Awareness Survey](#)

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# NO COST Electrical Safety Training for General Industry Announced

written by Lauri Moon | January 15, 2024

IMC, in partnership with The Manufacturers' Association, is bringing **No-Cost Electrical Safety Training for General Industry** to Central PA.



**NO COST  
Electrical Safety  
Training for General  
Industry**

**Training Topics:**

- General Electrical Safety Information
- General Electrical Safe Work Practices
- Common Hazards
- Permitted and Non-permitted uses
- Arc Flash
- Energy Control Procedures & Lockout/Tag-out

*Available in Spanish*

**Manufacturers' Association**

*In partnership with:*

**IMC**

The federally-funded grant training for Electrical Safety Training will be offered in Central & South Central PA.

VISIT: [mascpa.org/electricalsafety/](http://mascpa.org/electricalsafety/) or Email: [LauriM@imcpa.com](mailto:LauriM@imcpa.com) for more info & to schedule training

This opportunity is available through a grant provided by the Occupational Safety and Health Administration (OSHA). Open enrollment classes will be offered, and companies are also able to host training sessions onsite with a minimum of 10 participants.

### **Training Topics Include:**

- General Electrical Safety Information
- General Electrical Safe Work Practices
- Common Hazards
- Permitted and Non-permitted uses
- Arc Flash
- Energy Control Procedures (ECPs) & Lockout/Tag-out (LOTO)

This NO COST training is available to workers and employers covered under the OSH Act of 1970, SEC. 4, codified at 29 U.S.C. 653 (Appendix B). This also includes multiple small businesses and temporarily unemployed workers who are planning to reenter the workforce in a position covered by the OSHA Act within the next three months.

The trainer is a CHCM, DSM, CHST, OSHA Consultation Program Consultant. He has been the trainer for over 100 OSHA 10- & 30-Hour training programs.

To schedule Electrical Safety Training at YOUR location or to be added to the list to

receive information on open enrollment classes, please contact Lauri Moon at (570) 329-3200×8085 or by email at [laurim@imcpa.com](mailto:laurim@imcpa.com). You can also visit IMC's Events page for these and all our open enrollment classes.

## Susan Harwood Training Grant Program

This four-hour program honors the late Susan Harwood, former director of OSHA's Office of Risk Assessment, who died in 1996. During her 17-year OSHA career, she helped develop federal standards to protect workers exposed to bloodborne pathogens, cotton dust, benzene, formaldehyde, asbestos and lead in construction.

*The training material was produced under grant number SH-39128-SH2 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.*

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## IMC's Latest e-News

written by Lauri Moon | January 15, 2024

[Click here for the latest IMC e-News!](#)

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**Request                      for                      Information:**

# Manufacturing USA Semiconductor Institutes

written by Lauri Moon | January 15, 2024

NIST is seeking public input on the development of up to three new Manufacturing USA institutes focused on semiconductor manufacturing. The institutes, authorized by the recently passed Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act, will enhance U.S. leadership in semiconductor manufacturing through advanced research, education and workforce development.

NIST requests the public's input into:

- Design of, and requirements for, potential Manufacturing USA institutes to strengthen the semiconductor and microelectronics innovation ecosystem, which could include design, fabrication, advanced test, assembly, and packaging capability.
- How these Manufacturing USA institute(s) would support R&D efforts, infrastructure investments including the establishment of a National Semiconductor Technology Center, investments in advanced packaging, expansion of NIST's metrology R&D in support of semiconductor and microelectronics R&D, as well as education and workforce development.

Responses are requested by 11:59 p.m. Eastern time on Nov. 28, 2022, and should be submitted online [here](#). More information, including registration for public webinars, can be found [here](#).

For questions about this request for information, visit the NIST Office of Advanced Manufacturing FAQ page or send an email to [MfgRFI@nist.gov](mailto:MfgRFI@nist.gov) (cite "Manufacturing USA Semiconductor Institutes — Questions" in all correspondence).

For media inquiries contact NIST's Office of Public Affairs at 301-975-2762.



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# Cyber Attacks: A Growing Threat to the Small Business & U.S. Economy

written by Lauri Moon | January 15, 2024



**FROM THE DESK OF THE REGIONAL ADMINISTRATOR**

## **CYBERATTACKS: A GROWING THREAT TO SMALL BUSINESS & U.S. ECONOMY**

BY: Regional Administrator John Fleming - U.S. Small Business Administration

Last year, cybercrimes targeting small businesses reached a record high of \$2.4 billion. With online sales expected to surpass \$1 trillion, retailers must evaluate their vulnerabilities to cyberattack and protect their systems. Small businesses are especially attractive targets because they typically lack the security infrastructure of large corporations.

Administrator Isabella Casillas Guzman, head of the U.S. Small Business Administration (SBA) and the voice for America's 33 million small businesses in President Biden's Cabinet, earlier this year announced millions in new funding for states to help small businesses develop cybersecurity infrastructure as part of the SBA's Cybersecurity for Small Business Pilot Program. I encourage you to check out our in-person and virtual events as well as the National Cybersecurity Alliance, a public-private partnership providing virtual and in-person cybersecurity events.

There are simple steps business owners can take to mitigate risk. Here are five easy actions business owners can take:

1. **Update your software:** Check regularly for updates or patches to guard

against the latest cyber threats, it's the cheapest and easiest way to prevent online attacks.

2. **Review security protocols:** Ensure your website is protected with a Secure Sockets Layer (SSL) certificate, which authenticates a website's identity and enables an encrypted connection. Also, do not store credit card data on your systems.
3. **Create effective passwords:** Weak passwords are a major reason small retailers are prone to cyberattacks. Unique passwords with at least 12 characters that are a mix of numbers, letters, capital letters, and punctuation are proven most effective. Multi-Factor Authentication provides additional security.
4. **Be aware of social engineering threats:** Hackers bait or trick employees through phishing, baiting, scareware, and incentives that appear to be coming from someone familiar but contain malicious code allowing them access to sensitive information.
5. **Set strict rules on computer use:** Training and guidelines for employees who access your computer systems ensure only activities and data deemed necessary keeps hackers at bay.

Small retailers owe it to themselves, their customers and their employees to ensure online systems are safe. To learn more about SBA's programs and services related to cybersecurity, visit [www.sba.gov/cybersecurity](http://www.sba.gov/cybersecurity).

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# Success Story: IMC Helps Metal Integrity Implement Advanced Robotics & Automation Technology

written by Lauri Moon | January 15, 2024



**Metal Integrity, a sheet metal fabricator and machine shop in State College PA, was having continued workforce issues, leading to challenges to meet customer orders. Through a national Advanced Manufacturing Technology Solutions grant, IMC helped the company implement advanced robotics & automation technology. They quickly realized production improvements with the first job run on the automated system of 200-250%, seeing an increase in production from 180 parts per week to 475 parts per week.**

After attending an AMTS sales training program in Fall 2022, knowing of Metal Integrity's interest in automation, IMC's Dana Gordon reached out to Metal Integrity directly to discuss. The sheet metal fabricator and machine shop was having continued workforce issues, leading to challenges to meet customer orders.

**Support provided; tools utilized**

Upon meeting with Metal Integrity, IMC helped them refine their automation strategy, which consisted not only of robotic machine tending, but also an investment in a new lathe with a bar feeder along with sheet metal quoting automation software. As the client was already progressing down the path toward machine tending, there was no need to complete a full assessment; IMC and the AMTS lead for Pennsylvania instead met with client to validate their robotic machine tending approach.



## **Lessons Learned**

Overall, the project was a success, however the timeline was longer than anticipated. The project hit various challenges during the implementation phase, leading to a longer than desired learning curve. These challenges were primarily related to the inexperience of both the integrator and the robot manufacturer.

The first challenge dealt with the performance of the Productive Robotics OB7 robot once a dual gripper was added. The robot motion became very erratic and was unable to perform the programmed tasks. It was later discovered that the robot programming interface was inadequate for making the needed adjustments for the higher weight of the end effector and the extended tool center point (TCP). It took weeks of troubleshooting by both the integrator, Exact Machine Tool, and the manufacturer, Productive Robotics to make this discovery, further delaying production implementation.

The next major challenge involved the workholding setup. As is common in mill machine tending systems, Exact Machine Tool installed a Airvise AV-T-4 pneumatic vice that was integrated into the robot controller. However, the pneumatic vice was unable to hold the tight tolerances required of the target part. In the end, Metal Integrity found a solution that allowed them to automate their standard Kurt workholding system that already held needed tolerances with a Rapid Design Solutions CNC vise actuator.

An ROI of 4 months was expected prior to launching the project and that will be exceeded, depending on upcoming parts volumes. Metal Integrity has already realized production improvements on the first job run on the automated system of 200-250%, seeing an increase in production rate from 180 parts/week to 475 parts per week. For this part, based on reallocated labor alone, they will see an ROI of 6 months. When the increase in production for parts run off-shift with a conservative value applied to machine runtime is considered, it surpasses a 3-month ROI.

In hindsight, going with an experienced system integrator may have reduced the implementation difficulties experienced in working with an equipment distributor. However, the low price point of the system and the fact that they are now in operation, makes it challenging to determine if that would have been advantageous. Even considering the delays and additional time required of Metal Integrity personnel, the ROI is in an acceptable range.

This project made possible through MEP AMTS grant funds.



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# IMC Celebrates Manufacturing Week

written by Lauri Moon | January 15, 2024

IMC, along with partners across Pennsylvania and the United States, is excited  to celebrate **Manufacturing Week on October 7-14, 2022.**

Governor Tom Wolf has proclaimed the week as **Manufacturing Week in**

**Pennsylvania** to honor our manufacturing industry, our makers, and encourage the next generation of talent to take a closer look at manufacturing careers in the commonwealth.

Today's industry demands experienced problem-solvers and strategists, digital operators, engineers, and others who can blend management and STEM skills. And we're proud that our state is preparing the next generation of talent for careers in manufacturing. We know these careers offer challenging, fulfilling, and stable work — presenting us with the opportunity to bring Pennsylvania's innovation, imagination, and legendary can-do spirit to the industry at the heart of our economy and communities.

## **MANUFACTURING IS AT THE HEART OF PENNSYLVANIA'S ECONOMY.**

*(bea.gov Employment by State 2020; Pennsylvania Manufacturing Advisory Council, PA's Manufacturing Competitiveness Playbook 2022)*

- 6th largest manufacturing industry in the United States by employment
- \$113.2 billion in gross domestic product (GDP) in 2021
- 562,700+ employees (accounting for ~9.5% of all private sector jobs in PA)
- 14,000+ manufacturing establishments

## **MANUFACTURING OFFERS WELL-PAYING, FAMILY-SUSTAINING JOBS.**

*(Pennsylvania Manufacturing Advisory Council, PA's Manufacturing Competitiveness Playbook 2022)*

- Manufacturing workers earn 33% more compared to the average for other nonfarm businesses in the state
- \$86,129 avg. compensation in manufacturing in PA, including benefits

# **U.S. MANUFACTURING JOBS HAVE GREAT EMPLOYEE BENEFITS.**

*(Pennsylvania Manufacturing Advisory Council, PA's Manufacturing Competitiveness Playbook 2022; U.S. Chamber of Commerce)*

- Many manufacturers offer on-the-job training that helps employees expand their skillsets and adapt to new industry needs
- 90% of U.S. manufacturing employees have access to medical benefits through their employer
- 78% of U.S. manufacturing employees have access to retirement benefits from their employer
- U.S. manufacturing workers have the highest job security in the private sector.

# **MANUFACTURERS AND MAKERS COME FROM DIVERSE BACKGROUNDS AND HAVE A VARIETY OF SKILLS AND EDUCATION LEVELS.**

*(bls.gov, Manufacturing Career Outlook, From Prototype to Production: Careers that Bring Ideas into Being, 2018)*

- Entry-level positions have different educational requirements ranging from a high-school diploma (or equivalent), to a bachelor's degree or higher.
- Many manufacturing positions include apprenticeship opportunities and on-the-job training - offering an opportunity to earn income while learning new skills
- Career opportunities abound for those looking for work in the manufacturing industry including:
  - Industrial designers
  - Mechanical and electrical engineers
  - Graphic designers
  - Systems software developers

- Team assemblers
- Electricians
- Computer-controlled machine tool operators (metal and plastic)
- Industrial machinery mechanics

## **Pennsylvania 2022 PARTNER TOOLKIT**

Help us spread the word about modern manufacturing, its positive impact on our economy and communities, and how it benefits existing employees and students who are exploring career options. DCED's digital toolkit will help you get started with suggested social media posts, newsletter content, and digital graphics. Get involved and be sure to share your own manufacturing resources and stories. Be sure to tag IMC in your social media so that we can share your posts all week. IMC's Facebook. IMC's LinkedIn. Download PA's toolkit [here](#). Post your events on the national [mfgday.com](http://mfgday.com) site - Or IMC can for you. National MfgDay Toolkit.

## **Resources**

Check out information about Central Susquehanna's What's So Cool About Manufacturing Video Contest.

For a list of manufacturers who have worked with IMC, check out our [directory](#)!

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## **Volatile Energy Prices Will Impact Bottom Lines**

written by Lauri Moon | January 15, 2024



IMC recently hosted a webinar where our energy partner, APPI Energy, shared what the volatile energy markets will mean with historic increases in the cost of energy for manufacturers in PA for the coming year and beyond. Dan Forgacs, VP of Market Intelligence & Analytics for APPI, presented



both historical data and projected commercial energy costs as well as potential ways to combat its effects on the bottom line. Included were the projected or confirmed commercial energy increases by utility companies in PA:

- PECO: \$.07699/kWh, up from \$.06816, June 1 - August 31
- PPL: \$.11695/kWh, up from \$.09675, June 1 - November 30
- Met Ed: \$.10625/kWh, up from \$.07482, 42% increase, June 1 - August 31
- Penelec: \$.11056/kWh, up from \$.08031 per kWh, 38% increase, June 1 - August 31
- Penn Power, \$.12533/kWh, up from \$.10002 per kWh, 25% increase, June 1 - August 31
- West Penn Power, \$.10115/kWh, up from \$.06542, 55% increase, June 1 - August 31

Key to potential solutions were the reduction in peak demand, the use of alternative energy sources, and increasing energy efficiency in facilities. Also presented were opportunities to explore energy procurement opportunities and potential grants and incentives for energy related improvements.

If you missed the webinar, but are interested in learning more, or would like to connect with an IMC Business Advisor to discuss ways to potentially reduce your energy costs through efficiency measures, process improvement, and/or energy procurement services with APPI Energy, email [info@imcpa.com](mailto:info@imcpa.com).