Attracting and Keeping a Winning Team:

*In 2018, innovative workforce development and retention matters.*

**Inside this issue**

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*THE MFG MEETING 2018:* This year’s highlights. - p.14

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SERVING THE NEEDS OF MANUFACTURING COMPANIES FOR 75 YEARS
2018 EVENTS

NTMA NEWS

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75 YEARS OF MANUFACTURING SUCCESS AND EXCELLENCE

In 2018, the National Tooling and Machining Association is celebrating our 75th Anniversary. We’ll share stories, information and the history of the organization throughout the year. Do you have something that you would like to share? Please contact Kelly LaMarca at klamarca@ntma.org with any stories, photos or ideas. We look forward to celebrating our diamond anniversary together!

LEARNING

Software Bootcamp • Cleveland, OH • May 10–11

Big Hairy Audacious Growth Conference • St. Louis, MO • June 6–8

Emerging Leaders Roundtable • Nashville, TN • August 23

Financial Managers Conference • Dallas, TX • November 7–9

GLOBAL

Japan Tour • Japan • April 22–28

NETWORKING

Chapter Leadership Summit • New Orleans, LA • January 28–30

MFG Meeting • Miami, FL • March 7–10

Emerging Leaders Conference • Pittsburgh, PA • April 30–May 2

Fall Conference • Denver, CO • October 23–26

ADVOCACY

Legislative Conference • Washington, DC • April 16–18

NRL Competition • California, PA • May 18–19

GS ENGINEERING

Western Lake Erie Chapter
Grigoriy Grinberg
6421 Monclova Rd
Maumee, OH 45537-9760

HARRISON-FISCHER, INC.
North Texas Chapter
Salandra Ford
901 North Crowley Road
Crawley, TX 76036-3739

JECK PLASTIC PRODUCTS, LLC
Indiana Chapter
Craig Carson
885 Andico Road
Plainfield, IN 46168-9659

MAUMEE STAMPING & ASSEMBLY
Western Lake Erie Chapter
Jim Young
920 Illinois Ave
Maumee, OH 45537-1716

OHIo BROACH & MACHINE CO., INC.
Cleveland Chapter
Christopher Van De Motter
35264 Topps Industrial Pkwy
Willoughby, OH 44094-4638

PRATT (FORT WORTH CORRUGATING), LLC
North Texas Chapter
Brittany Gilliam
3300 High River Road
Fort Worth, TX 76140-5017

SANKS MACHINE, INC.
St. Louis Chapter
Dustin Sanks
22991 Ranchuap Road
Staunton, IL 62086-4410

SPECIALTY TURN PRODUCTS, INC.
Arizona Chapter
Vincent Vendittelli
3020 S Park Drive
Tempe, AZ 85282-3138

TRUDERS CORPORATION
San Francisco Bay Area Chapter
Frank Schenkhuizen, Jr.
3513 Arden Road
Hayward, CA 94545-3907

W.S. ANDERSON ASSOCIATES
Western Massachusetts Chapter
Rich Shea
303 Washington St #313
Auburn, MA 01501-3245

WAPLES MANUFACTURING
North Texas Chapter
Darryl Smith
8900 Forum Way
Fort Worth, TX 76140-5017

NTMA WELCOMES NEW MEMBERS

SAVE THE DATE!

SOFTWARE BOOTCAMP, CLEVELAND, OH
Experience live demos from experts and get in-depth knowledge on Machine Tool Monitoring and ERP Systems!

SAVE THE DATE FOR THE 75TH ANNIVERSARY NTMA FALL CONFERENCE

LEARNING

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President's Update

Dave Tilstone / NTMA President

This edition of The Record is devoted to workforce development and retention. As many of you know, the mission of the NTMA includes three pillars: Network, Learn and Advocate. Learning is the focus of much that we do at the NTMA and I cannot think of another more pressing issue to our members than having a skilled work force. Our association was founded 75 years ago for this very reason, and it's still true today, as the manufacturing business climate continues to be strong. Although I haven't seen any data to support this comment, my conversations with members indicates that the lack of available skilled labor is, or will shortly be, hampering the ability of U.S. manufacturers to fulfill future demand. This will place increasing pressure on capital utilization and drive members to find ways to increase productivity. This will also put pressure on wages and the supply chain with the latter resulting in higher pricing. Some of the problems can be addressed with new and more productive equipment and automation, but skilled labor is still needed regardless.

Fortunately for NTMA members, we have NTMA-U. The program continues to be one of the most valued member benefits. Many HR policies and procedures have outlived their usefulness. Think about how company tenure has changed — it’s rare to have “lifers” that move incrementally up the ladder. However, succession planning, annual performance reviews and workforce planning are still often based on long time horizons. Agile methodology has worked its way into many aspects at companies of all sizes, and HR is not (and should not be) immune.

Short-term projects with ever-changing team mates and bosses means that more changes at your company.

This program is designed to help members train employees for current and future jobs. The NTMA-U upgrade program is a major undertaking with updates to the production and audio quality, learning objectives, assessments and alignment to key competencies. The intent is to make it easier for the student to learn and utilize some of the best teaching technology offered on an e-learning platform. The NTMA-U business plan is being prepared with the support and input of the Education Team while RFQ’s are being reviewed for some of the most popular courses. It could take about 2 years to fully update all of the courses in NTMA-U but the end product is expected to be worth the wait.

The theme of this issue of The Record is innovative workforce development practices, and I would like to offer that these are part of a broader ecosystem at a company.

Consistent, respectful and intelligent human resources practices and leadership are the foundation for a culture and environment that allows for great training, excellent retention and an empowered workforce that helps drive business results. This article will cover a number of HR topics with perspectives on why they are useful, and how to achieve the changes at your company.

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Dave Tilstone / NTMA President
by 2025, millennials will be three-quarters of one in three American adults. And more and more, every audience is expecting “multitude” – expect the unexpected. Today, digital communication methods such as strong websites and social media are offering new opportunities to connect with customers, engage employees, and promote corporate values.

In recent years, NTMA’s One Voice team has dedicated time and resources to developing the presence of One Voice for Manufacturing and NTMA online. (Look us up on Twitter, Facebook, LinkedIn, YouTube, Instagram and more – an incredibly important part of building and maintaining a successful business.)

A recent survey by NTMA’s One Voice team showed that about 30 percent of manufacturers are taking action, as well. About 35 percent are using social media, while about 30 percent are using blogs or webinars. And, about 20 percent of One Voice members use Twitter for business, and about 35 percent are using Facebook for business. Those numbers grow every year.

To be successful, NTMA’s One Voice team has recognized that social media is necessary to reach working-age Americans. Statistics like these are critically important for an American manufacturing industry facing a serious talent shortage. Advancements in technology have created more high-skill opportunities and retirements are adding more open positions every day.

Millennial job seekers have unique strategies for finding work. As such, it's important to have solid peoples skills. There will always be differences of opinion, conflict, competing priorities and stress. Using specialized interview techniques, personality assessments, and good judgment can help prevent the addition of a candidate that won't be a good fit. The STAR method of interviewing, along with questions designed specifically to tease out a candidate’s emotional intelligence are highly recommended. There are a variety of free or low-cost personality or aptitude assessments available, and don’t neglect calling references and checking out their social network accounts.

Another key enabler of business results is pushing decisions down to the most appropriate level in the organization. By empowering people with the best information and knowledge with the authority to make a decision on a particular topic, the process is streamlined and people feel engaged with their role in the results. Depending on how far of a departure this is from current company culture, it may take many months of leading by example (and not taking punitive action against decisions that didn’t turn out exactly as planned) before employees feel comfortable making decisions. The coaching and feedback skills mentioned above are another key enabler to empowered decision making.

Paying appropriately for performance, location and the role are also critical. People have access to more information than ever before, and some of the norms about sharing salary information are changing. There are plenty of ways to do market research, and the NTMA also offers the Wage and Fringe survey as a member benefit.

There are many vendors and options in the training and development space. I encourage you to think of it as more than a budget line item – use your time, dollars and energy in the most effective way possible. Identify the technical and soft skills that each role needs, assess individuals to determine their gaps, and fill those gaps with a mix of 70 percent on-the-job training, 20 percent coaching and mentoring and 10 percent formal training (classroom or online). If a training provider promises to deliver results without doing an analysis of needs or talking to the individuals and their managers – don’t sign on the dotted line. Like any sort of development, it requires reflection and analysis of the current state before improvement can be achieved.

So, as always, I welcome your feedback and suggestions. Do you have resources that you would like to share on any of these topics? Do you have a success story with some lessons learned that might help other members? Please contact me at sschroeder@ntma.org.

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Imagine picking up your local paper and reading these headlines:

- Manufacturing Industry Helps Young Person Rise Above a Hard Life to Achieve a Skilled Career
- Career as a Machinist Is Challenging, Rewarding for Mother (Father) of Two
- My Success Is Simply a Matter of Working Hard and Grabbing the Breaks When They Come
- Machine Shop President Continues Company’s Legacy of Supporting Local Students
- Machinist Overcomes Fears, Perseveres to Secure a Good Life for Her Family
- Manufacturing Engineer Credits the NRL and Industry Mentor for Success in Industry
- Machinist Apprenticeship Program: My Way to a Post-Secondary Education without the Debt

At the membership luncheon at this year’s MFG Meeting, NTMA’s Chairman Mark Vaughn shared with the audience an inspiring story about an emerging leader at his company. Mark was beaming as he told us about how this employee has risen through ranks into a new management position. He pointed out that this 29-year-old has no college debt, an industry-certified education, a beautiful family and most of all, a bright future.

Later in the conference, I was talking to an NTMA member who was telling me about the vacations that he and his wife have already gone on this year. I wish that I was able to go to the amazing places that they visited. Also, I remember overhearing a spouse of an NTMA member discussing the high-end Cadillac Escalade that she is planning to purchase. On top of that, a new member was telling me that he has gone from growing up in South Central LA to owning a manufacturing company.

Why am I writing about news headlines and personal stories of NTMA members and their employees? It is because we need to communicate them to the students and parents in your community. While people are afraid that manufacturing is being taken over by automation, we all know that the heart of industry is about the humans in it. Human interest stories sell newspapers and increase clicks to a website. And, it will help to engage more students and their parents to consider manufacturing as a viable career option.

Over the next two months, thousands of students will be participating in NRL competitions across the country. These students, their parents and the fans in the stands need to hear your success stories. This is the time to share about an employee that has risen through the ranks and how proud you are of him/her. We know that the story we heard from Mark about his employee at Vaughn Manufacturing Company is one of many. The only reason why we know about it is because he told us and subsequently, inspired the entire audience to be proud of being NTMA members.

The Manufacturing Institute Skills Gap survey stated that a young person would be twice as inclined to pursue a career in manufacturing if his or her parent works in industry. However, most of those parents are not employed by manufacturing companies. Therefore, they do not know first-hand about the benefits of working in manufacturing. The students and parents will only know if you tell them yourself.

Do you have a company video that highlights your employees and the benefits of working at your facility? If yes, then save it to YouTube and send me the link (bpadnos@ntma.org) so we can showcase it at the NRL Competitions. Do you have an amazing story about yourself or your employee? Visit the NRL website at www.gonrl.org and fill out the Tell Us Your Story online form.

Manufacturing is all about the humans, not the machines. People don’t just want to hear about the new 5-axis CNC machine you purchased. People want to also hear about how you were able to gain the technical skills to use it, and your pathway to earning those skills. Share them in person, on video or in writing on the NRL website. It is your choice as to how to share, but not on whether or not you should. That answer to that is “Yes, please.”

SAVE THE DATE!

Big Hairy Audacious Growth Conference
June 6-8, 2018
St. Louis, MO
Contact Brittany Belko to Register:
bbelko@ntma.org or 216-264-2848
Okuma. Where human potential meets machining potential.

At Okuma, we understand that most shops have a simple goal: to multitask as much as possible, ultimately achieving optimum efficiency day in and day out on the shop floor. With our extensive product line, innovative OSP Control, and unrivaled customer support, your operation has the opportunity to realize its full potential. Just ask Dan Olson.

At Okuma, we’ll never stop redefining what’s possible.

www.okuma.com/itspersonal

NTMA NEWS

BACHMAN MACHINE CO.: A FOUNDING DELEGATE OF THE NTMA

Bachman Machine Company, St. Louis, Missouri is celebrating its 90th anniversary. It is proud to be one of the founding member companies of NTMA. The family owned firm has three departments for production metal stamping, tool and die, and production machining. The company is ISO/TS 16949 and ISO 9001 certified. Three generations of the Bachman family have worked at the company with some of the 4th generation just starting. A crew of 70 employees operates in an 83,200-sq.-ft. facility.

A subsidiary, Plastics Molding Machine Company, provides plastic injection molding and is located next door. The Tool & Die Design & Manufacturing department has design engineers and designs and builds dies (up to 48” x 144”) and has been doing this since 1927. Industries served include: automotive, appliance, electrical construction, consumer, aerospace, defense, lawn/ garden and medical. The Production Metal Stamping department has extensive expertise and a wide range of presses. It is committed to quality and has annual DPM’s comfortably in the world class range. It can handle ferrous to non-ferrous metals, and simple to complex metal stampings (including deep-draw) while utilizing twelve punch presses ranging from 60 to 1000 tons.

The Production Machining department’s equipment and crew are best suited for tight tolerance, multi-sided work pieces, yet still provides machining up to 20,000 RPM and maintains extremely tight tolerance variations. Bachman Machine Company’s CNC production machining division is a full service supplier of the highest quality for low, medium, and high-volume production.

The company continually works with four area technical schools and the NTMA to promote career opportunities at Bachman and in the industry. Bachman Machine Company can be contacted at:
4321 N Broadway, St Louis, Missouri 63147
Phone: (314) 231-4221
Fax (314) 231-4571

Contact us for your local Okuma Distributor:

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www.hemag.com

GOSIGER
www.gosiger.com

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www.morrisgroupinc.com

HARTWIG
www.hartwignc.com

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www.thomasaskin.com

THE RECORD — APRIL 2018 / P11
Operating Costs Report

Excel® Dashboard

The NTMA Operating Costs Report provides participating members with detailed financial results of precision machining manufacturers. This management tool is designed to provide the resources that enable NTMA members to evaluate, plan and better manage their business.

**All information is strictly confidential with Mackay Research Group.**

### Performance Scorecard

An executive summary provides a high level overview of a company’s overall performance. The **Performance Scorecard** gives you a quick glance at how your company measures in performance to participating industry peers. Areas of strength and limitations are graphically displayed.

A more detailed examination of the ORR Dashboard allows participating members to compare their data, year-over-year, while measuring their performance against industry benchmarks, in confidence and with total security - all at no cost to NTMA members!

**Personalize Graphs, Benchmark by S’s, ‘What If’ Forecasting...**

Graphs in the Dashboard allow you to choose which ratios or line item benchmarks to graph your performance against. And, again, you can slice and dice specific graphic results in ways that are most useful to you.

The “S Benchmarks” tab demonstrates what typical and high profit dollar amounts in the income statement and balance sheet would be if they were exactly the same sales volume as your company. The “What-if” tab gives you insights into multiple scenarios for sound business planning. It allows you to change certain measurements (sales, units, expenses, etc.) to see how your company could improve.

**Participate in the Operating Costs Survey by May 1st for your customized Dashboard!**

Contact Taylor Mackay with Mackay Research Group, taylor@mackayresearchgroup.com

### Customized Your Report

The Operating Costs Report, delivered in an Excel® Dashboard, provides participating NTMA members with leading edge insights, intelligence and capabilities. The program was designed with maximum flexibility in mind, so manufacturers can slice and dice specific performance results in ways that are most useful to them.

### Performance Scorecard: Your company’s results compared to industry norms

| Year | Percent
|------|----------|
| 1 to 29 | 25 to 49 | 50 to 75 | 75 to 100

- **Profit Margin (Pre-tax)**: 7.1%
- **Asset Turnover**: 1.6
- **Return On Assets (Pre-tax)**: 11.1%
- **Financial Leverage**: 1.5
- **Return On Net Worth (Pre-tax)**: 21.1%

### Income Statement

<table>
<thead>
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<th>Category</th>
<th>Year 2020</th>
<th>Year 2021</th>
<th>Year 2022</th>
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<td>Net Income After Taxes</td>
<td>9.4%</td>
<td>11.5%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

**The NTMA Technology Awards**

The 2018 Technology Award recognizes NTMA members who are working to advance their company and our industry with the implementation of technology and best practices. The technology award is generously supported by the ART through the funding of the Cash Award that is included for the winners.

The NTMA Technology Award has two categories, each with specific criteria to be considered for the nomination.

The award categories are:

- **Technology**
- **Business/Cultural Practices**

The NTMA Technology Team solicited nominations from chapters, technology team members and national associate partners. Applications were reviewed and the merits of each discussed.

**Congratulations to this year’s winners, recognized at the MFG Meeting:**

**Category 1: Technology**

- **Winner:** Fredon Corporation

**Category 2: Business/Cultural Practices**

- **Winner:** Acutec Precision Aerospace

**Royal Quick Grip™ CNC Collet Chucks set a new standard featuring superior design, incredible accuracy and easy, 10-second collet changes.**

- **Ultra-Precision Accuracy**
  - Check and collets guaranteed to 0.0002” TIR or better
  - Total system accuracy guaranteed to 0.0004” TIR or better

- **Outstanding Grip Force**
  - Much greater than three jaw chucks at high rpm
  - Enables much more aggressive chip removal rates, resulting in shorter cycle times and increased throughput

- **Widest Gripping Range**
  - 50% or more of industry range
  - Parallel clamping collet segments remain in contact with the workpiece over their entire length for maximum holding power and accuracy
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- **Most Compact Chucks in the Industry**
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**NTMA Technology Awards**

**The National Tooling and Machining Association**

**www.ntma.org**
The MFG Meeting 2018, Miami, Florida

Special thanks to alliantgroup for hosting our 2nd annual Membership Luncheon and to Royal Products for sponsoring our First Timer’s Reception.

BIG Kaiser presents NRL with a check for $5,150. BIG Kaiser donated 2% of their November and December sales to the NRL. This was BIG Kaiser’s 2nd year providing these donations to the NTMA.

The Franklin partnership presents Mark Vaughn with a letter from Donald Trump, welcoming NTMA to this year’s MFG Meeting.

The Franklin Partnership & Bracewell present to attendees. Thanks to all the attendees that helped us raise over $27,000 in PAC donations.

To register, please contact: Brittany Belko • bbelko@ntma.org

Early Bird Registration ends April 6, 2018

HR Challenges Panel – TBD
Join our moderator Caitlin Andrews as she leads our panelists through an open and honest discussion about your thorniest HR concerns. Be ready to leave this session with ideas and possible solutions to implement in your shop.

Campfire Chats:
You asked for it - quick chats on hot topics with successful leaders – and we’re delivering! You’re sure to walk away from this session with lots of pointers on inspiring others, communication styles and much more!

Finding and Utilizing Mentors – Stacey Schroeder, NTMA
This session will share the key benefits of mentoring programs, clarify characteristics of appropriate mentors and identify key steps in creating a successful mentoring relationship.

Goal Setting and Alignment – Brandon Dempsey, goBRANDgo!
Are you looking to set a strategic plan for both your personal and professional life? Join us to learn about doing just that plus come away with tools to unlock opportunities you didn’t even know existed.

Positioning Yourself for the Robotics Industry – Afshan Khan, Innovation Works
Everyone knows robotics are becoming more prominent in the manufacturing industry. Learn how to position yourself to engage the future of robotics.

Moderated Roundtable Discussion
This is your chance to discuss hot topics that are relevant to you. Bounce ideas, concerns and solutions off your peers as you realize you aren’t alone in the current struggles you might be facing.

NTMA - Emerging Leaders Group
#NTMAEL2018

Pricing:
Members: THROUGH April 6, 2018
1st company attendee - $325
Additional company attendees - $250
AFTER April 6, 2018
1st company attendee - $375
Additional company attendees - $300
Non-Members: $450

Reasons to Attend:
Share best practices with peers
Network with other emerging leaders
Engage with industry experts
Learn new ideas tips and tricks
Invest in yourself and your company
HOW RISING CAPACITY COSTS WILL AFFECT YOUR ENERGY BILL

Submitted by APPI Energy

Capacity costs, which typically are the second highest contributor to the total cost of energy supply, are dramatically increasing throughout much of the United States. In the Pennsylvania-New Jersey-Maryland (PJM) grid, capacity costs are expected to increase roughly 30 percent as of June 2018. This increase is the result of coal generators, which are struggling to remain operational in the modern era, continuing to shut down. Natural gas generation is on the rise, but it is more variable and less easy to transport than coal, meaning that some power grids are finding themselves having to pay more to ensure reliability.

But first, a brief discussion as to what capacity costs are. Essentially, capacity cost is a price paid to ensure that variable availability of power sources will not result in blackouts or brownouts, even on the hottest or coldest days of the year. That’s achieved through a capacity market, or a capacity auction, whereby a capacity rate is established to pay power generators for contributing their power to ensure reliability on the grid. The energy supplier (also known as a Load Serving Entity) charges customers based on their usage and the capacity rate. That fee is then remunerated to the power grid organization, who uses it to pay the generator. Ultimately, this means that the consumer is usually responsible for the cost of capacity, in some form.

Customers can reduce their capacity costs via peak load reduction. Though capacity rates cannot be controlled by a customer, the capacity tag (a measure of total kilowatt-hours used by a facility during the peak hour of the peak day in a region) is possible to adjust. That peak usage sets a customer’s individual capacity tag for future capacity years. By reducing power during peak usage periods (days of extreme cold or heat), capacity costs can be mitigated in the next year.

However, certain energy supply contracts (such as the type APPI Energy negotiates on behalf of its clients) are what’s known as “fixed-all-inclusive contracts.” This kind of contract seeks to create one price for components of energy supply costs, including capacity, transmission, and reliability-must-run (RMR) charges. This kind of product provides the customer with budget certainty, and lowers risk.

There is no question that rising capacity costs might influence a shift in energy usage behavior. Increases in capacity rate are one of several events that suppliers may classify as a “change-in-law,” a standard provision in most energy supply contracts (even fixed, all-inclusive contracts) that establishes a way for suppliers to recoup increased costs by passing through that increase to their customers. It’s unique to each individual supplier to decide whether or not to pass-through these costs, although they have the legal right to do so.

At least one major energy supplier intends to address this quandary by modifying their fixed price product to pass through all capacity, transmission, and RMR charges at market rates. Essentially, this shifts risk back to the customer, while limiting the amount of change-in-law interactions the supplier has to have with the customer. A customer might end up paying more or they may end up paying less, but the end result is an increase in the assumption of risk by the customer, and importantly, provides them with less budget certainty.

APPI Energy is committed to transparency and providing our customers with the data to make informed decisions. Our preference is to present our clients with fixed, all-inclusive products where capacity, transmission, and RMR are established within the one price. Given the variability and wide spread of prices in any given market, we find that having one price to compare is the only way to accurately present a customer with a green-apples-to-green-apples choice. Therefore, if a supplier works with customers to abandon the fixed, all-inclusive product we typically offer, we will make our customers aware during our consulting process.

If you have questions about capacity, and wish to examine how your business may be affected by rising capacity costs, please contact us via our website, or call 800-520-6685 to speak with us directly. We will be happy to analyze your bills and provide expert recommendations at no upfront cost or obligation.

Workforce development. We hear that phrase thrown around a lot. What does it really mean? To a lot of businesses, it simply means training their workforce to efficiently do the tasks that their company needs done. But, in today’s manufacturing environment, I think workforce development has a much broader meaning. I believe it not only refers to the workers that you already have, but also to your future employees. Let’s face it, the skills gap is real, and it is not going away anytime soon.

Manufacturers everywhere are competing for the small number of skilled workers that are in the job market. This is forcing us to get creative in our search for good employees. We at Penn United Technologies have decided to take a very proactive approach when it comes to workforce development. It all started after I attended a business and education meeting. Manufacturers were seated on one side of the table, and educators were seated on the other. Wisely, all sharp objects were left on the table, and educators were seated on the other side of the table in the hallway. OK, I may be exaggerating a little, but not much. The conversation went something like this: Manufacturers said to the schools “you are not teaching our students what we need them to know to be productive and knowledgeable manufacturing employees.” The schools fought back with “we are tied to Common Core standards and state standardized tests, and don’t have the time or budget to teach anything else.” The volume increased as faces reddened.

Currently 70 percent of our pre-apprentice graduates are employed by the end of class. The bottom line is that by thinking outside the box, we were able to create a pipeline of skilled entry-level talent who, as many manufacturers are discovering, are the key to filling the open positions that exist in our company and our community. Through partnerships with all interested parties, our type of program can easily be recreated. While skilled job seekers may be hard to find, there are a lot of good, hard-working people out there hungry for the skills needed to start a new career. Find those people and feed their hunger. Your company and your community partners will reap the benefits.
**CHAPTER NEWS**

**THE INDIANA CHAPTER NTMA HOSTS SUCCESSFUL MACHINING COMPETITION**

*Information Submitted by Alice Overton*

The Indiana Chapter of NTMA held its 15th Annual Machining Competition in February. The chapter hosted 28 contestants: 22 for manual machining and 6 for the CNC competition. There were more than 90 people in attendance, with a dozen Indiana high schools involved.

The top three winners in both categories received tool boxes, tools, scholarships, as well as other items.

**INDIANA CHAPTER**

**MANUFACTURING ADVANCED EXPO**

*Submitted by Tami Adams, Executive Director, Northwest PA Chapter*

The Manufacturing Advanced Expo is coming to Erie May 10 to showcase the latest manufacturing technology for regional manufacturers. More than 30 exhibits will feature and demonstrate the latest innovations, including collaborative robots, machine safety, energy saving solutions and more. The day will also include educational sessions on technology solutions to improve processes and operations. This free event is scheduled for May 10 from 12:00-5:00pm at the Ambassador Conference Center in Erie, Pennsylvania. Hosted by the Northwestern PA Chapter of National Tooling and Machining Association (NWPA-NTMA), Northwest Industrial Resource Center (NWIRC), with NEFF as the Premier Sponsor. To register or get more info, please visit www.nwpa-ntma.com/expo.

**PITTSBURGH CHAPTER ENHANCES APPRENTICESHIP PROGRAM**

*By Neil Ashbaugh, New Century Careers*

Through a generous grant from the Pennsylvania Department of Labor and Industry, the Pittsburgh Chapter NTMA has introduced hands-on training for each of the Year 1 and Year 2 portions of the course "Technology of Machine Tools" for all three training sites in Southwestern PA.

This effort began as survey results by apprentices and instructors suggested that early in an apprentice’s education, a heavier introduction to various machines such as mills, lathes and surface grinders, is key to enriching the basic knowledge and skills needed by today’s apprentice.

“Each year, our Steering Committee conducts surveys of students and instructors to monitor and support enhancements to our program,” stated Phyllis Miller, HR Manager for Hamill Manufacturing and Apprenticeship Steering Committee Chair for the Pittsburgh Chapter. “We received feedback that we needed to provide additional opportunities for apprentices to get a better understanding of various pieces of equipment they will encounter in their careers. For years our program focused on providing the theory portion of related instruction, and companies provided the hands-on portion. We listened to our students and felt that by adding hands-on demonstrations and exercises, in addition to what they are learning on-the-job at their employers, we could enhance the educational experience for them.”

Working with a Pittsburgh-based nonprofit workforce development agency, New Century Careers, and the Westmoreland-Fayette Workforce Investment Board, a grant was written, submitted, and awarded. The awarded monies were then used to create new curriculum, purchase needed tooling, consumables, inspection equipment and raw materials, and implement the new programming for the 2017-2018 instruction year at all three sites including Northern and Central Westmoreland CTC’s, along with New Century Career’s Training Innovation Center.

“We think we’ll see a variety of positive outcomes in the future as a result of these program enhancements,” said Paul Anselmo, President and CEO of New Century Careers. “We’ve been testing the inclusion of hands-on training at our Training Innovation Center for the past two years. Our apprentices and instructors have appreciated this more blended learning approach as it allows for a more efficient comprehension of the theoretical concepts presented in the classroom. We believe, in the long run this curricular enhancement will be a direct benefit to the apprentices as well as their employers.”

Another goal of the enhanced curriculum is to support apprentices in achieving additional National Institute for Metalworking Skills (NIMS) credentials during their time in the four-year apprenticeship program. The Pittsburgh Chapter currently covers registration and credentialing fees for all apprentices with NIMS.

**PITTSBURGH CHAPTER HOSTS SUCCESSFUL MACHINING COMPETITION**

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H. Reid Graybill Remembered

On February 15, H. Reid Graybill, 80, passed away. Born in Lancaster, Pa., he was the son of the late H. Roy and Stella Hollinger Graybill. He was the loving husband of Inda Buch Graybill and they would have observed their 60th wedding anniversary on February 22nd. Reid was a 1955 graduate of Manheim High School. In 1958 Reid founded Graybill’s Tool and Die Incorporated, Manheim, and was president of the corporation until 2012 when he officially retired and turned the leadership of the company over to two of his sons. He was a member of the National Tooling and Machining Association, served on the Administrative Board and was the Chairman of the Apprenticehip Training School. Reid was a member of the Society of Manufacturing Engineers.

According to his obituary, Reid was a Vietnam veteran and a devoted member of his community. He served on the Borough Council, Borough Authority, Civil Service Commission, Manheim Area Economic Development Corporation. He was one of the founders for Manheim Central Foundation for Educational Enrichment, and also served on the Administrative Board for Fulton Bank. Other member-
Many people never spend 50 years in the workforce, let alone at the same company. Indiana manufacturer Major Tool & Machine has a tradition of recognizing their long-time employees, making sure they get the credit they deserve. For years, workers with more than 20 years of service for the company have been treated to a steak dinner at a variety of Indianapolis steakhouses. But in 2010, the company started a new tradition for employees who reach the 50-year milestone—a brand new car. And not just any new car, a Cadillac CTS.

This year, Gene Davis became the second employee to reach the milestone, and get the special gift. Please join us in congratulating Gene on his milestone, and Major Tool & Machine for their excellent company culture!
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ing, reaming, threading, and burnishing
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Whether our customers are working with
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Association. This group re-
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Our Ohio company was started by
Harold and Lucille Stokey in 1941. We
includes brands such as Wohlhaupter,
Ravenna, Ohio to a global company that
innovation over the years and have ac-
over the last 76 years, Allied has devel-
carriers and tanks during World War II.
At the beginning, Allied manufactured lock
nuts and taper sleeve adapters for troop
WHo ARE YOuR ClienTS? WHAT
TYPE of WOrK SHouLD a
COMpanY cONTACT YOu ABOUT?
While we are proud to
serve a wide range of busi-
esses such as high produc-
tion manufacturing facilities, a
lot of our customers are
hard-working, blue collar
mastechinists from independent
job shops. It is not unusual for
them to face new challenges
with each job as they often
owned, three generations later. In the
beginning, Allied manufactured lock
nuts and taper sleeve adapters for troop
carriers and tanks during World War II.
Over the last 76 years, Allied has devel-
oped the spade drill, invented the Blade-
Loc, and patented the T-A® system. In
fact, we have continued our tradition of
innovation over the years and have ac-
cumulated over 40 U.S. patents. Allied
has grown from our founder’s garage in
Ravenna, Ohio to a global company that
includes brands such as Wohlhaupeter,
contract orders from various industry
manufacturers. When the application en-
tails holemaking or hole finishing, that’s
where we shine. Whether its deep hole
drilling, threading difficult-to-machine
materials, boring tight tolerances, or
creating mirror-like finishes, our pre-
cision engineering and expert application
support make Allied the first and best
choice for solving complex holemaking
challenges.

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contributed to the history of holemaking
& hole finishing solutions. It is a legacy
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continue to be competitive we cannot
rest on our laurels. That is why Allied has
built lean processes and quality control
The Record — April 2018 / P25

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- NO-ADJUSTMENTS
- NO-TOOL REMOVAL

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### ABRASIVES

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<td>3M, DEWALT, Marit, Norton, Weiler</td>
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<td>Portable Bonded</td>
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<td>3M, DEWALT, Norton, United Abrasives-SAIT</td>
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<tr>
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<td>ALC, Alooxglass, Ballotini, Econoline, Grainger Approved, Westward</td>
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### WELDING

### WELDING CONT’D.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>RANGE OF PRODUCTS</th>
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<tbody>
<tr>
<td>MIG Welding</td>
<td>Machines and Wire Feeders, Guns and Consumables, MIG Wire</td>
<td>American Torch Tip, Bernard, Hobart, Lincoln, Miller, Tweco, Westward</td>
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<tr>
<td>Stick Welding</td>
<td>Machines, Electrode Holders, Stick Electrodes, Electrode Ovens</td>
<td>Hobart, Lincoln, Miller, Phoenix International, Tweco, Westward</td>
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<tr>
<td>TIG Welding</td>
<td>Machines, TIG Torches and Consumables, Tungsten Electrodes, Tungsten Grinders, TIG Rod</td>
<td>Diamond Ground, Lincoln, Miller, Miler-Weldcraft, OhioTulm, Tweco</td>
</tr>
<tr>
<td>Engine Driven &amp; Multiprocess</td>
<td>Machines and Accessories</td>
<td>Hobart, Lincoln, Miller, Westward</td>
</tr>
<tr>
<td>Filler Metals</td>
<td>Stick Electrodes, TIG Rods, MIG/Flux Core Wire, SMAW Wire and Flux</td>
<td>Hobart Brothers, Lincoln, McKay, Westward</td>
</tr>
<tr>
<td>Plasma Cutting</td>
<td>Plasma Cutters, Torches, Consumables</td>
<td>American Torch Tip, Miller, Victor-Thermal Dynamics</td>
</tr>
<tr>
<td>Gas Welding Equipment</td>
<td>Outfits, Torches and Torch Handles, Cutting, Welding and Heating Nozzles</td>
<td>Harris, Smith, Turbotorch, Victor, Uniweld</td>
</tr>
<tr>
<td>PPE &amp; Welding Protection</td>
<td>Welding Helmets, Gloves, Jactets, Chaps, Welding Blankets, Curtains and Screens, Fume Extraction</td>
<td>3M, Carman, Condor, Hi Temp, Ironcat, Jackson, Lincoln Electric, Miller, Optrel, Save Phace, Sellstrom, Steiner, Tillman, Ventboos by Roboverit, Westward</td>
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<tr>
<td>Chemicals &amp; Support Equipment</td>
<td>Non Destructive Testing (NDT), Anti Splatter, Welding Tables, Pipe Stands and Vises, Welding Cable, Grounding Clamps</td>
<td>Buildpro, Jackson, Mag-Mate, Magnaflux, Miller, Summar, Weldaid, Westward</td>
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### MACHINING

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<tr>
<th>CATEGORY</th>
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<tbody>
<tr>
<td>Machinery</td>
<td>Band Saws, Drill Presses, Bench Grinders, Metal Forming Machines, Belt/Disc Sanders, Lathes, Table Saws, Dust Collectors, Hydraulic Presses and Vertical Milling Machines, Machine Vises</td>
<td>Chicago-Latrobe, Emuge, Gyrering, Micro 100, Monster, OGSD, Sandvik Coromant, Walter, Wida</td>
</tr>
<tr>
<td>Inserts &amp; Toolholders</td>
<td>Turning, Milling, Drilling, Threading, Parting/Grooving, Boring</td>
<td>Camex, Dorian, Sandvik Coromant, Sumitomo, Walter</td>
</tr>
<tr>
<td>Toolholding</td>
<td>Collet Chucks, Collets, End Mill Holders, Shrink Fit Holders</td>
<td>Lynxfeed-Hikken, Parlec, Techmiks</td>
</tr>
<tr>
<td>Workholding</td>
<td>Clamps and Clamping Kits, Toggle Clamps, Scroll Chucks, Knobs</td>
<td>De-Sta-Co, Kipp, Mitte-Bite, Suburban Tool, Te-Co</td>
</tr>
<tr>
<td>Precision Measuring</td>
<td>Calipers, Micrometers, Indicators, Height Gages, Pin Gages, Plug Gages</td>
<td>Brown &amp; Sharpe, INSIZE, LS Starrett, Mahr, Mitutoyo, Vermont Gage</td>
</tr>
<tr>
<td>Coolants &amp; Cutting Fluids</td>
<td>Coolants, Cutting Oils, Specialty Fluids</td>
<td>Master, Ruststick, Tap-Magic, Trin, Valcool</td>
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