



NTMA FALL CONFERENCE PREVIEW EDITION

- Keynote by Leif Babin, #1 Best Selling Author of "Extreme Ownership"
- NTMA "Member Only" Healthcare Launch
- Cybersecurity Workshop
- Washington Update
- Veteran Workforce Briefing
- Laurie Harbour's Economic Update
- The Journey to becoming a GE Additive Leader: Lessons from Greg Morris

APPRENTICESHIP: THE STRENGTH OF MANUFACTURING'S FUTURE

Inside this issue

EUROPEAN-STYLE APPRENTICE PROGRAM:

See how this NTMA member is "Growing their Own" skilled professionals. - pp.14-15

FALL CONFERENCE:

Make plans now for the NTMA's biggest event of the year. - pp.18-21

FOUR DECADES OF APPRENTICESHIP:

How one chapter's program evolved and grew into a region's workforce solution. - pp.23-24

PROFESSIONAL DEVELOPMENT:

Articulating the value. - p.40

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LOOK FOR THIS SYMBOL THROUGHOUT THE ISSUE FOR STORIES
RELATED TO THIS MONTH'S FEATURED TOPIC.



2017 NATIONAL EVENTS AND TECHNICAL SEMINARS

August 23

Emerging Leaders Roundtable: Financial
Management for Non-Financial Managers - St. Louis, MO

August 24

How To Be A Top Shop Seminar - St. Louis, MO

September 5-7

MMS Top Shops Conference - Indianapolis, IN

September 13

Financial Managers' Roundtable - Philadelphia, PA

September 17-22

EMO, Hannover, Germany

September 26-27

PMA Sales & Marketing Summit - Milwaukee, WI

September 28

PMA Sourcing Solutions - Milwaukee, WI

October 24-27

Fall Conference - San Antonio, TX

November 9

Plant Managers' Roundtable - Detroit, MI



REGISTER NOW! 08.23.17 St. Louis, MO



FINANCIAL MANAGERS ROUNDTABLE for Non-FINANCIAL MANAGERS St. Louis, MO

Wednesday, August 23rd, 2017

- Financial Management 101
What does a financially healthy machine shop look like?
 - Capital & Financing - How to justify buying a new machine
 - Job Costing and Pricing
 - Reading financial statements and relating the important numbers to your employees
 - Lean and how it can improve your bottom line
 - Education on using predictive data vs. historical information to improve performance
- Topics subject to change.

REGISTRATION

Member	Member	Non-Member
Early Bird \$300 (Deadline 8/2/17)	\$375	\$500

HOSTED BY: CliftonLarsonAllen 600 Washington Ave. Suite 1800
St. Louis, MO 63101

For registration information or questions contact:
Kristen Hrusch • khrusch@ntma.org • 216-264-2845 • ntma.org



PRESIDENT'S UPDATE

DAVE TILSTONE / NTMA PRESIDENT



Having an issue focused on apprenticeships is very fitting for an edition of the Record. After all, the NTMA was established almost 75 years ago to help member companies with the shortage of skilled labor in the market place...sound familiar? During my travels to member shops, a discussion usually leads to the challenges of finding, educating and retaining workers. In most cases members also need to educate their current workforce to keep up with the new technologies they have purchased. Apprenticeship programs throughout the U.S. are still far and few between. I applaud the many members and our chapters that have lead the way with establishing apprenticeship programs and provided funding as well as opened their doors to provide on the job training for students. Although momentum is building for the trades, the burden remains on our association and members to provide the training needs of our industry. As an NTMA member, you have access to some very significant programs designed to educate current and future employees. In addition, the National Robotics League (NRL) is designed to advocate on behalf of our industry to help increase awareness of the great career opportunities offered in precision manufacturing.

Fortunately, NTMA-U has filled the gap with most apprenticeship train-

ing needs. Many members also use the Mechanical Aptitude Test to evaluate the skill set of potential employees as well as those already employed in their shops. Stacey Schroeder, our workforce development director recently updated the NTMA-U and Mechanical Aptitude Test brochures. If you haven't seen them or aren't aware of the updates, here's the link: <http://www.ntma.org/initiatives/education/>. It's important to note that NTMA-U is a Department of Labor approved apprenticeship program in all 50 states. If you want to establish an apprenticeship program at your company or your chapter, NTMA-U offers you a great option. You also have the flexibility with NTMA-U to select individual courses or modules without committing to the semester based apprenticeship program. Stacey is also working with NIMS and the Department of Labor so that the NTMA can facilitate the establishment and approval of apprenticeship programs. This sponsorship program will offer NTMA members assistance with Department of Labor approval. We will communicate out details once approval is received.

Last year we introduced NTMA-U portals for member companies and chapters. The portals provide access to all of the NTMA-U courses (modules) and Mechanical Aptitude Test. I'm pleased to report that we have a record number of chapters that have purchased an NTMA-U portal for their local members. To make it affordable for

every chapter to have their own portal, the NTMF approved funding for \$2,500 through March 31, 2018. If you or your chapter is interested in learning more about NTMA-U portals or the funding available, please contact Stacey. Portals can be implemented within a few days and are easy to administer and manage with user friendly and valuable progress reporting available. If you chose to have NTMA administer the portal, that option is available, as well. To view a brief demo, here's a link that introduces NTMA-U and all it offers. (<http://www.ntma.org/initiatives/education>)

I'll conclude my update with the excitement and enthusiasm exhibited at the NRL national competition held in May. The exposure that the NRL provides to students is remarkable and unmatched in our industry. These young people are bright, energetic, creative thinkers and the future of our industry. I cannot over emphasize the importance of the NRL. More and more chapters are establishing NRL competitions and therefore expanding the regional NRL competitions. Thanks to their efforts and the support by the chapter members, the pipeline for future apprentices is growing. If you haven't been to a competition, here's a taste of what you've been missing: [Click Here](#). When you walk through the pits of the competitions, the teamwork and engagement of the students is unlike any other experience.

With 250 schools and 5,000 students

CONTINUED ON NEXT PAGE

THE RECORD

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Volume 38 / No 7



annually involved, this is a truly an important and integral part of the mission of NTMA by providing exposure to our next generation and their parents. With the success of these events and the efforts by the NRL team and NTMA staff, the financial support is also growing. In 2016 a separate 501c3 was created for Workforce Development to attract sponsors and funding to expand our efforts with the NRL. Special thanks to Craftsman, Grainger, DS Solidworks, Big Kaiser, Homeyer, Boston Centerless, Vaughn Manufacturing, and Moseys' Production Machinists for being some of the first to support the NRL and the Workforce

Development entity. Special recognition and thanks to Steve Tamasi who has lead the NRL team for the past several years. Under his guidance and management, the NRL continued to grow and expand throughout the U.S.

DAVE TILSTONE / NTMA PRESIDENT



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CONGRATULATIONS GRADUATES!



The NTMA would like to recognize all of the graduates of the entire NTMA-U program! In May 2017, there were 11 graduates, joining the ranks of 78 previous graduates since the program's inception.



Please join us in congratulating

Richard Scott of Butech Bliss, Kenneth Grennawalt of D&R Machine, Nick Bryant of DPI, Jacob Stainfield of Fenton Manufacturing, Cory Hull of Indiana Tool & Die Co, LLC, Scott Williams of Malony Machine & Plastics, Dustin Duckworth of Micro Plastics, Brad Bennett of Overton Industries, Joseph Haas of Samtec, Daniel Richards of

"LEARNING IS NOT ATTAINED BY CHANCE, IT MUST BE SOUGHT FOR WITH ARDOR AND ATTENDED TO WITH DILIGENCE"

Abigail Adams

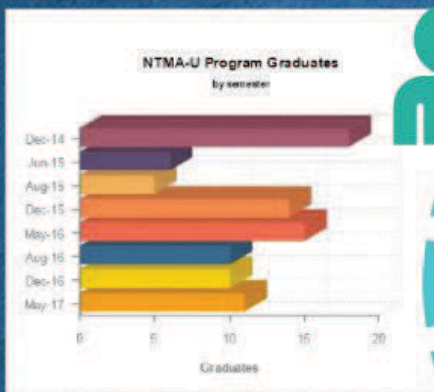
Skamar and Preston Richter of Van-AM Tool & Engineering. These 11 individuals completed a rigorous series of 19 online courses, totaling over 700 hours of learning, across key competencies in the precision machining field.

We would also like to recognize Colonial Machine, Micro Plastics, Overton Industries, R.F. Cook Manufacturing, Vaughn Manufacturing, Sattler Machine, D&R Machine, Kosmo Machine, Homeyer Tool & Die and the Mercury Machine Company for sending at least three employees through the program since its inception.

Please consider signing up for the NTMA-U online program to further your skills, or grow your company's talent pipeline. Please check out www.ntma.org/initiatives/education/ for more information or contact Stacey Schroeder, director of Workforce Development, at ssschroeder@ntma.org.



Please join us in congratulating the 89 graduates of NTMA-U's program since its inception!



2+ Years

19 Courses

Over 700 Hours

51 Member Companies

Valuable Knowledge



WELCOMES NEW MEMBERS

ALEXANDRIA INDUSTRIES

North Texas Chapter
Chris Flemming
1305 West Crosby Road
Carrollton, TX 75006

ALTERNATIVE DESIGN & FABRICATION

Akron Chapter
Jordan Owens
9175 Wohlgamuth Rd
West Salem, OH 44287

ANITA MACHINE & TOOL, INC.

Indiana Chapter
Lester Williams
510 Elston Road
Lafayette, IN 47909

FARMER MOLD & MACHINE WORKS

Florida West Coast Chapter
James Gilmour
2904 44th Avenue North
St. Petersburg, FL 33714

ITAL-TECH MACHINED PRODUCTS LLC

Boston Chapter
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3 Federal Way
Groveland, MA 01834

LMC WORKHOLDING

Indiana Chapter
Pat Klein
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Logansport, IN 46947

MCD MACHINE, INC.

Indiana Chapter
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2345 W Industrial Park Drive
Bloomington, IN 47404

MID KANSAS MACHINE, INC.

Kansas City Chapter
Eric Schulz
801 North Hwy 81 Bypass
McPherson, KS 67460

QUANTUM DESIGN, INC.

Rock River Valley Chapter
Danny Pearse
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Loves Park, IL 61111

TECH FIVE MACHINING LLC

Arizona Chapter
Wes Thomas
2123 S Priest Dr, Ste 201
Tempe, AZ 85282

TOOLCRAFT COMPANY, INC.

Milwaukee Chapter
Kathy Pfannerstill
W194 N11092 Klienmann Drive
Germantown, WI 53022-3802

UNIVERSAL MACHINING INDUSTRIES, INC.

North Texas Chapter
Lisa Miller
810 East Division Street
Muenster, TX 76252

IF YOU DIDN'T ATTEND THE 2017 SALES AND MARKETING CONFERENCE IN PITTSBURGH, HERE'S WHAT YOU MISSED!

They came from down the street and as far as California for this year's Sales and Marketing Conference hosted in Pittsburgh, PA.

From June 7-9, manufacturing professionals gathered to share ideas and information about things like market segmentation for machining businesses and starting new business models and channels to market to get to targeted customers. The conference was also not only a great opportunity to expand attendees' knowledge base, but also an opportunity to connect with peers in the Steel City.

The event kicked off with a welcome reception sponsored by Walter. Here, attendees received a warm welcome and took advantage of the time to catch up with colleagues.

On Thursday, conference goers were invited to tour the new \$40 million GE Center for Additive Technology Advancement. This tour was sponsored by Makino and was well received by all attendees. The GE Center has been open for less than a year and has piqued the interest of people

across the nation. Cutting-edge technology and production make it a place of inspiration. The evening capped off with a Networking Dinner hosted by the NTMA's Pittsburgh Chapter at the Smallman Galley—a launch pad for the best new restaurant concepts in the city.

The conference closed with a half day on Friday morning where great conversations continued on topics such as making

money with your data, marketing to youth and young adults and more.

All of the content discussed during the conference was superb and provided by world-

class speakers representing the following organizations:

- Oberg Industries
- GE
- velocityHUB
- Carnegie Mellon University
- Modern Machine Shop
- Xometry
- Walter
- Kennametal
- National Fluid Power Association
- Strategic Ink
- Mastercam
- MEMEX
- FANUC
- NRL

A special thank you to all who presented, attended and sponsored the 2017 Sales and Marketing Conference—an event for motivating and encouraging business growth.



Dan Bagley, moderator for the conference, giving the first presentation



Above: Howie Choset, Carnegie Mellon University speaking on Opportunities in Applied Robotics. Lower Left: Dave Tilstone opening the conference with welcome remarks. Lower Right: Pete Zelinski from Modern Machine Shop and Dan Bagley (left) moderating the roundtable discussion





Geoff Dawson, FANUC speaking on Competitive Investments in Automation

David McPhail, MEMEX speaking on Making Money with Your Data



REGISTER NOW! 09.13.17 Philadelphia, PA



FINANCIAL MANAGERS ROUNDTABLE

Philadelphia, PA

Wednesday, September 13th, 2017

Join NTMA members from around the country as we discuss R&D Tax Credit, Revenue Recognition on Contracts, Tax and Compliance Updates, How to Manage Banking Relationships and ERP Systems. This event is perfect for anyone involved in making financial decisions for a company.

Topics subject to change.

REGISTRATION

Member	Member	Non-Member
Early Bird \$300 (Deadline 8/23/17)	\$375	\$500

HOSTED BY:  CBIZ: 401 Plymouth Road, Suite 200
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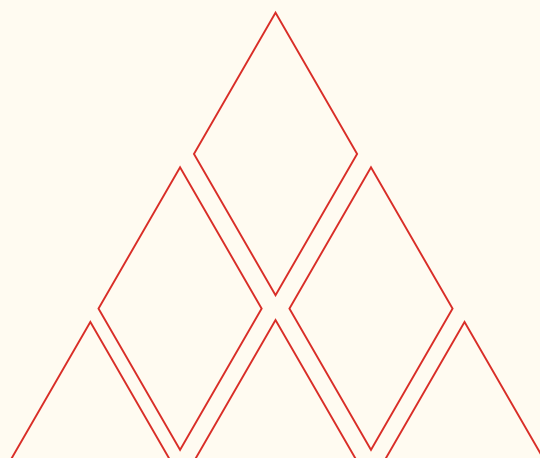
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8.24.17

St. Louis, MO



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Additional topic information to include:

- Financial Management
- Human Resources
- Shop Floor Management
- Machining Technology

8.24.17 - St. Louis, MO

Hosted By:



5711 West Park Ave.

St. Louis, MO 63110

Time: 9:00am-5:00pm

Lead Sponsor:



**Speakers Provided By
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REGISTRATION

Member - \$200

Non-Member - \$300

Each Top Shop Seminar includes breakfast and lunch, educational sessions, plant tour and closing cocktails and networking.

For registration information or questions contact: Kristen Hrusch • khrusch@ntma.org • 216-264-2845

NARROWING THE SKILLS GAP, ONE ROBOT AT A TIME

BY: MICHEL CONKLIN, PROGRAM MANAGER,
NATIONAL ROBOTICS LEAGUE AND SWPA
BOTS IQ



1st Place Competition - Roulette West Bend

From networking and training opportunities to market research and discount programs, NTMA offers a magnitude of resources and benefits to their members. One program that addresses a major concern is the National Robotics League (NRL). This educational program is providing high school students with the opportunity to immerse in the total manufacturing process and gain the essential skills necessary to be successful in the industry.

Through the hands-on learning experience of the NRL, schools or youth organi-

zations partner with manufacturers to gain a better understanding about manufacturing, including technical expertise in designing, machining, and building a gladiator-style bot, career possibilities and pathways to enter the workforce, as well as valuable connections to industry professionals.

With an estimated 40 percent of the manufacturing workforce reaching retirement age by 2020, the pressure is on for companies to find qualified workers to fill their open positions. The National Robotics

SEE "NRL" PAGE 12



1st Place Documentation - Samaritan Slinger

2nd Place Competition - Omega Slinger



3rd Place Competition - Nebula Slinger





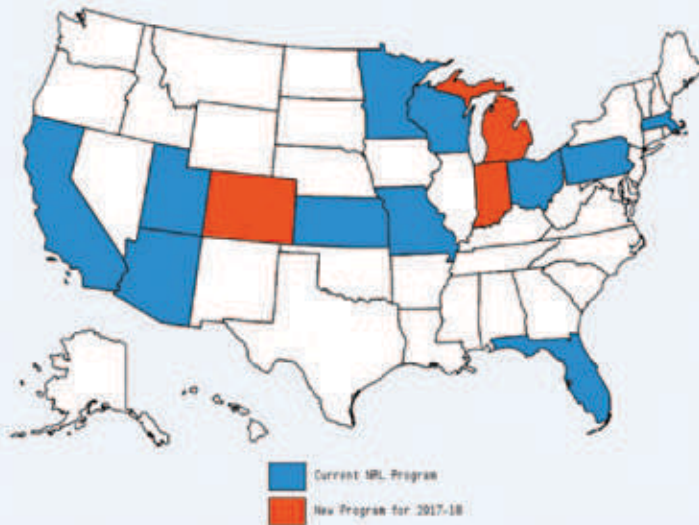
"NRL" CONTINUED

League engages 1000s of students across the United States each year. These experienced students are the future of the manufacturing industry and are entering the workforce in the next few years.

With regional NRL programs in Southern California, Utah, Arizona, Wisconsin, Southern Florida, Kansas, Missouri, Massachusetts, Minnesota, Ohio and Pennsylvania, we are spanning the U.S. and growing each year. If you would like to learn more about the National Robotics League, please contact Bill Padnos, director of Youth Engagement, at bpadnos@ntma.org.



1000s of SKILLED high school students waiting to be HIRED



90+ number of days it takes to recruit highly skilled workers *

72% of executives cite involvement with schools and community colleges as an effective skilled production workforce development strategy *

* Data taken from The Manufacturing Institute 2015 Skills Gap Report

Arizona	ATMA - Arizona Tooling and Machining Company - Phoenix	Ken Jacox Kjacox.az@gmail.com
California	NRL of Southern California - Los Angeles	////
Florida	NRL of Southern Florida - Tampa	////
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Wisconsin	BotsIQ Wisconsin - Milwaukee	Erin Gudeyon botsiq.wi@gmail.com

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Michigan - Indiana -
Kristi Aubrey
mcntma@outlook.com

Philadelphia - Delaware Cty -
Michelle Martin
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Hydromat Apprentices participate in teambuilding exercises such as this event at the Go Ape Zipline and Treetop Adventure park in Creve Coeur, MO.

HYDROMAT OFFERS EUROPEAN STYLE APPRENTICE PROGRAM THAT CONTINUES TO “GROW THEIR OWN” SKILLED PROFESSIONALS

BY KEVIN SHULTS, HYDROMAT, INC.



In the precision machining sector there is an issue concerning all employers; a lack of skilled people to fill the open positions within their ranks. This industry is both capital and skill intensive, with the technologies of today becoming more sophisticated. The shortfall of skilled workers can hobble companies large and small.

Bruno Schmitter, President & CEO, made a commitment for Hydromat Inc. to “grow their own” skilled professionals long ago. Founded in 1983, the Hydromat Machinist Apprenticeship Program is a benchmark for employer-based job related training programs. He continues to make the necessary investment in people coming

out of local community colleges and technical schools. Hydromat searches for, and offers a program to, the very best prospects from these institutions to ensure they have skilled professionals for decades to come.

The apprenticeship approach still works well in Europe, but it is rare to find companies in the U.S. with the long-term view to commit to a \$50,000 training program in exchange for a two-year work commitment from the candidate. Hydromat’s Apprentice Program is modeled after this European style apprenticeship system with its rigorous, highly structured, and extremely disciplined curriculum. The program consists of 8,000 hours of hands-on training that runs parallel with 576 hours of theoretical class-

room training.

Hydromat Inc. offers a unique opportunity for individuals that possess an enthusiasm for machining technology. Hydromat skims the elite from the local kids who apply. They search for technical aptitude, but it also looks for the unusual students with drive to go with their skills. They are looking for long-term employees who can make a lasting difference within the company, not just fill a temporary slot. These people benefit from a four-year in-house apprentice program that gives them the opportunity to climb within the ranks of Hydromat.

To qualify for a position in Hydromat’s apprenticeship program students need a strong work ethic, high school diploma /

equivalent, and NIMS level I credentials or equivalent basic machining knowledge.

Students start out in the machine shop using manual and CNC equipment and then move on to the grind shop for three months. Then they move to assembly and electrical. Rebuilding is the next stop, which enables the trainees to tear a machine down and physically see the wear points of a rotary transfer. Accompanying technicians on service calls acquaints them with real-world issues Hydromat clients face each day in the high production high precision world.

Hydromat's apprenticeship program produces competent, literate and well-trained machinist (tool makers) who have the skills to join Hydromat associates in building the industries' finest precision transfer machines. During the program associates will learn proficient operations of milling machines (manual and CNC), lathes (manual and CNC), grinding, CMM operation and programming, heat treat, basic engineering techniques, fundamental electrical knowledge, basic electronics, quality assurance, welding, fabrication, paint, mechanical assembly, and customer service operations associated with the Hydromat® machines.

Participation as a team member who is focused on process and production improvement goals is mandatory. Basic hand tool use, drawing interpretation, computer design programs, fundamental tool making, inspection, machine maintenance, and mechanical drafting are integral parts of the overall apprenticeship program curriculum. Apprentice associates have the opportunity to train in a program focused on achieving a Journeyman Machinist card (fully accredited by the DOL and NTMA) and earn

Success Stories.

During the 2003 Final presentation Apprentice Rob Luth (right, pointing) explains the team's project to the Executive Panel while Apprentice Robert Payne looks on. Today, Rob Luth is Hydromat's V.P. of Engineering and Robert Payne is the engineering manager at a production machining facility that runs many full CNC Hydromat machines.



NIMS credentials for machining Levels I & II.

Hydromat encourages and continually supports its apprenticeship program. Additionally, the formal apprenticeship program is supported by local college affiliates and is complemented by shop floor expertise at Hydromat Inc. The program offers challenging and varied work, honing skills that are invaluable, through continuous and versatile learning opportunities. Hydromat has also endowed large sums of money annually to fund seats at these local trade and technical colleges for qualified but financially disadvantaged students who wish to pursue careers in this industry.

Apprentice finalists are required to develop and execute a project that is a benefit to the company in a real world scenario. The apprentices then give a presentation with drawings and justification to the Executive Panel for judging before graduation. These projects are implemented at Hydromat Inc. to speed production, saving time and money.

When students get an opportunity to work for a world leader that recognizes and rewards their best efforts, they can expect the best for their career. There are exceptional opportunities within the apprenticeship program available at Hydromat, Inc., the leader in precision transfer machine technology where they provide a state-of-the-art environment and challenges and growth go hand-in-hand.



2016 Apprentice Graduate Holden Callum explains the process devised by the team for their final project to the Executive Panel; (L to R) Kevin Meehan, Bruno Schmitter, and Dan Ammons.

Martin Weber, chief technical officer, Hydromat Inc. asks a question while examining the final project piece. Bruno Schmitter, President & CEO, and Dan Ammons, vice president of manufacturing, look on.



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EMO Executive Technology Tour Hannover, Germany

SEPTEMBER 17-22, 2017

Pre-arranged booth visits to some of the world's technology leaders will take place Tuesday 9/19 - Thursday 9/21. Confirmed 2017 booths include (with more to come):



Trip Details

- All NTMA members are invited to participate in the EMO Executive Technology Tour in Hannover, Germany this September 17-22. Attendees should plan to arrive on September 17th and depart on September 22nd. A limited number of hotel rooms will be available for check-in on September 16th. These are available on a first come first served basis.
- Hotel accommodations are not included in the administrative fee and the cost of hotel accommodations will be the responsibility of the participant. We have reserved a limited number of hotel rooms in Hannover for our members and these are available on a first come first served basis.
 - A non-refundable deposit of \$2165 for single rooms (5 nights); Or \$2390 for check-in on September 16th (6 nights)
 - A non-refundable deposit of \$2495 for double rooms (5 nights); Or \$3080 for check-in on September 16th (6 nights)
- You will be responsible for making and paying for your own air transportation. Please do not make any travel arrangements until you are confirmed for the tour.

Registration deadline: August 15th

To register or for questions, contact Brittany Belko at bbelko@ntma.org or 216-264-2848

PRICING INFO:

EMO Executive Technology Tour Administrative Fee

\$1,395 - NTMA Member Rate

This fee includes:

- EMO show pass
- World Expo pass
- Ground transportation in Hannover
- Daily breakfast buffet
- Five group dinners
- NTMA staff tour guide for booth visits

\$495 - NTMA Member Spouse Rate

This fee includes:

- Five group dinners



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October 24-27, 2017 • San Antonio, TX



LEIF BABIN

- Former US Navy Commander and Best-Selling Author
- Co-author of the #1 New York Best Seller: "Extreme Ownership: How U.S. Navy SEALs Lead and Win,"
- Co-Founder of Echelon Front LLC

**BREAKING
NEWS**

Leif Babin Confirmed as Keynote Speaker

TOP 5 REASONS TO ATTEND

1 Network, Network, Network.

2 Learn about the NTMA Members Only Healthcare Program.
An easy solution for a tough problem!

3 Tech Issues? We've got IGNITE! Sessions. Learn what's coming down the pike and hear first-hand from members who are using these technologies.

4 Get REAL IDEAS that work in the REAL WORLD. We take it beyond theory & give you solutions you can implement for success NOW.

5 Make business connections that can streamline the way you get things done in your own company.

*Fall Conference offers great balance between conference time and social time.
After all, networking is one of NTMA's greatest values.*

~ Jared Veteto, President of Cogitic Corporation

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Speakers & General Sessions

Featured Speaker



Leif Babin

What: Opening Keynote

Who: Former Navy SEAL; Co-author of #1 New York Best Seller: "Extreme Ownership: How U.S. Navy SEALs Lead and Win"; Co-founder of Echelon Front LLC, a leadership consulting company

Co-author of the #1 New York Times best selling book, Extreme Ownership: How U.S. Navy SEALs Lead and Win. A former Navy SEAL officer, he deployed three times to Iraq earning a Silver Star, two Bronze Stars and a Purple Heart. Leif was a SEAL platoon commander in the Battle of Ramadi in 2006, taught leadership to the next generation of SEAL leaders and served in senior management positions at a SEAL Team. He left active duty in 2011 and launched a leadership and management consulting company, Echelon Front, to teach others how to build, train and lead high-performance, winning teams.



Jim Dustin

What: NTMA Benefits Program Highlights

Who: Managing Director at NFP

We heard our members challenges with healthcare and we took action! Designed to help you manage healthcare costs and reduce premiums, hear about the efforts and progress to offer a benefits program through NTMA.

- Quantify cost savings potential
- Deliver stability for healthcare, dental and ancillary services
- Explore free HR technology

NTMA Members Only Healthcare Program Introduced – A Must Attend!



Tim Dimoff

What: Basic Cybersecurity Pitfalls Prevention

Who: CEO/President, SACS Consulting and Investigative Services

Protect Yourself from Online Threats

Tim Dimoff's presentation discusses how to effectively address basic cybersecurity to safeguard your internet practices to protect you from scams, viruses, identity loss and more

- Understand the most common threats
- Learn the definitions of cybersecurity
- Identify the characteristics of money-wiring traps
- Discuss spyware, phishing and SMiShing
- Learn the best practices to protect your PC, email, social media, iCloud and more

Speakers & General Sessions

John Guzik, Omar Nashashibi, & Paul Nathanson

What: The New Washington: One Year Later

The election that shook the world will be nearly one year behind us during the NTMA Fall Conference and Washington is a very different place. Voters demanded change in the nation's capital and the new administration has certainly shaken up business as usual. This is your chance to hear directly from NTMA's lobbying firm, The Franklin Partnership, and Public Relations consultants at Bracewell, about what is really happening behind the scenes and beyond the spin of the media. Lawmakers continue to work towards tax reform and this year has already seen a flurry of activity on trade negotiations, tariff considerations and the potential for trade disputes with our partners. Meanwhile, the administration has made profound changes at the EPA and undone a number of harmful regulations. Don't miss this insider's opportunity to learn what is really happening in Washington and how it affects your business.



Brig. Gen. (ret) Marianne Watson

What: Closing the Gap - Helping to Solve Workforce Development Issues of Today and Tomorrow

Who: Director of Outreach for Center for America (CFA) and Vice Chair of the Campaign Advisory Council of American Jobs for American Heroes (AJAH)

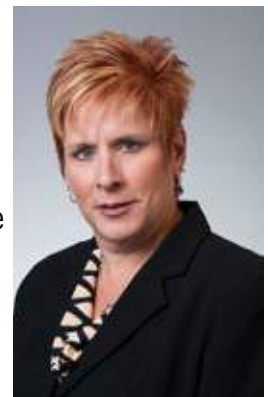
In her role as Director of Outreach and one of CFA's senior leaders, General Watson works with business associations, military organizations, nonprofits, state and federal agencies to develop ways to expand our collaboration in support of increased employment opportunities for veterans, National Guard members and Reservists. General Watson will be discussing Workforce Development Issues and the how to's and importance of hiring veterans.

Laurie Harbour

What: Economic Update

Who: President and CEO of Harbour Results Inc.

Ms. Harbour works closely with manufacturing companies and their suppliers, analyzing their strengths and weaknesses, identifying existing gaps and risks and developing a tactical transformation to achieve sustainable improvements. In 2013, Harbour Results, Inc. published the 2013 Automotive Vendor Tooling Study and through their work in the automotive tooling industry, Laurie has become an expert in this area of manufacturing. Ms. Harbour is a regular speaker to companies and forums on numerous topics and she is regularly quoted in local and national publications as an experienced auto and operational analyst.



Greg Morris

What: Closing Keynote

Who: Growth and Strategy Leader, GE Additive

My journey from a family business to Fortune 100 acquisition...lessons lived and learned

Greg Morris joined GE Aviation in late 2012 with the acquisition of his two companies Morris Technologies and Rapid Quality Manufacturing. In his initial roles, Greg was one of the leaders of additive technologies within GE Aviation. With the formation of GE Additive in late 2016, he has moved into the Growth and Strategy Leader role for the integration team. Greg has been involved in the Additive Manufacturing industry since 1994 and has written numerous articles and has presented at a variety of trade shows throughout the world.

New this year!

IGNITE! Sessions

What: Ignite. Real. Honest. Conversation.

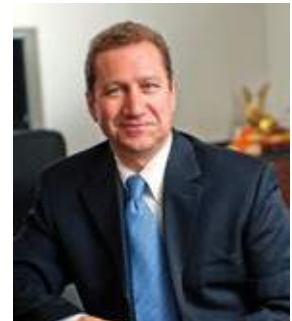
Come join an intimate conversation with industry leaders and your peers. Let's harness our collective power to spark ideas, share best practices and learn about customers' changing expectations for your processes, technologies and people.

Kindle the Discussion and Light Up Your Future: Engage, Tell Your Story, Bring Your Challenges.

1. Switch on the Ignition: Where to start with your Culture?
2. Journey to Lean & 6S: Beyond the Labeling, Philosophy and Method
3. Machine Tool Technology: Learn About the Heart of Your Machine Tool
4. Job Shops of the Future: Present vs. Future - Expectations of the Job Shop
5. Top Shops: What is a Top Shop and Why Should I Be One?

Moderated by: Randy Harland, Regional Director of DMG MORI

Randy Harland has been in the machine tool industry for 29 years. He has a master's degree in international management and has spent nine years living abroad in four countries. He enjoys facilitating group conversation about issues and trends in U.S. manufacturing.



Knowledge Bars

GRAB A DRINK & NEW IDEAS!

Take a break between sessions with some industry experts at our Knowledge Bars! These social stations are perfect for reenergizing with a beverage and snack while taking advantage of one of NTMA's greatest values – networking!

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LA NTMA CELEBRATES APPRENTICES

BY KAITY ROSENGREN, EXECUTIVE DIRECTOR LA/NTMA



On Friday, June 2, 2017 the Los Angeles Chapter of NTMA along with the NTMA Training Centers of Southern California hosted the annual Apprenticeship Graduation Banquet at Angelo & Vinci's Ristorante in Fullerton, California.

The banquet is hosted once a year to honor the graduating apprentices from the two-year and four-year programs. This year's graduates included apprentices from Caco Pacific, H&S Enterprises, NC Dynamics, Ramko, Precision Stampings and Prestige Mold. The importance of the apprenticeship program is clear at these companies - their apprentices traveled thirty-minutes to two hours to the NTMA Training Centers each week for class.

This year's graduating class included 14 apprentices and brought together the family and friends of the graduates along with their sponsoring companies to celebrate their achievement. The LA/NTMA Chapter President Lee Norton, Committee Chair Eddie Buehler, Co-Chair Milt Thomas,

Committee Member Thom Williams and Apprenticeship Coordinator Bree Higgins were also present at graduation.

Apprentices received certificates of completion issued by the State of California and the U.S. Department of Labor. In addition to recognizing its graduates, the apprenticeship committee awards a special recognition to a selected graduate who had the best overall record in grade point average and attendance. This year, Nicholas Metsers from H & S Enterprises was honored with the Board Award.

LA/NTMA has been essential in the success of the program and helps the apprenticeship committee and coordinator from NTMA Training Centers in any way they can. LA/NTMA even holds a silent auction each year at their golf tournament, with proceeds benefitting the apprenticeship program.

This year, much like the previous years, a generous voluntary cash donation from various members of the LA/NTMA board of directors was included with the Board

Award. This year's generous donors included Axxis Corporation, Bergsen Metals Drinker Biddle & Reath LLP, Edward Jones Investments, PMIS Precision Manufacturing Insurance, Q-Mark Manufacturing, Shaffer Grinding, Treppann Specialties, Wells Fargo Business Development and Wire Cut Company, Inc. These companies are long-standing supporters of LA/NTMA and the apprenticeship program.

Currently hosted at the Santa Fe Springs campus of the NTMA Training Centers, the program consists of 53 apprentices indenturing each fall and spring. For more information regarding LA/NTMA's Southern California Apprenticeship program or how you and your company can benefit from the program, contact the apprenticeship coordinator, Bree Higgins at 562-921-3722 or via email bree.higgins@trainingcenters.org.



WESTERN LAKE ERIE CHAPTER VISITS GROB

BY HOLLY ELLERBUSH, CHAPTER EXECUTIVE, WESTERN LAKE ERIE NTMA



Members of the Western Lake Erie Chapter enjoyed a wonderful tour provided by national associate GROB. The attendees were welcomed with a light breakfast and an overview of GROB and its history in manufacturing. Apprentices from GROB guided the attendees on an in depth one-and-a-half-

hour tour of the facility.

Highlights of the tour included complete vertical manufacturing of machining centers, production lines and custom automation solutions. The final stop on the tour was the demonstration area where test cuts were performed on 5-axis universal machining centers.

The tour concluded with a networking

lunch and discussion. Everyone thoroughly enjoyed themselves and had nothing but great feedback after the event. The Western Lake Erie Chapter would like to extend a special thank you to Mark Schem and Dana Super for coordinating the event.



40 YEARS OF TRAINING APPRENTICES: THE IMPORTANCE OF ADAPTATION AND PARTNERSHIP

BY KEVIN J. HARTFORD, PAST PRESIDENT AND CURRENT BOARD MEMBER PITTSBURGH CHAPTER NTMA



Since 1976, the Pittsburgh Chapter NTMA has provided regional manufacturers with a proven apprenticeship training program for individuals seeking metalworking educational opportunities with standards focused on world-class tooling and machining. The purpose was then what it still is today, TRAINING. Initially the program was led by William Truxall, founder of Penn State Tool & Die and manufacturing educator, Jim Gilmore. The Chapter, at the time, was in desperate need of well-trained machinists to meet the demand.

The program grew and developed over the years, and by the late 1990s, NTMA was operating eight sites with approximately 400 students. At that time, there was very little administrative function other than the chapter

executive role (which was not as engaged as you know it to be now). The program carried the NTMA flag but ran independently at each site. At this time, the text books were not even the same between sites. Bob Kettering, who was also actively involved with another successful regional workforce development organizations, Manufacturing 2000, (which would later evolve into New Century Careers) and World Class Industrial Network (WIN), stepped up to be the committee chair for the Pittsburgh chapter's newly developed apprentice program steering committee.

"One of the common complaints by manufacturers during this period was that the journeyman status did not carry a level of measurement that had value. The old-line example apprentice development programs of U.S. Steel and Westinghouse which fed the smaller manufacturers for many, many years

had gone away and the new journeyman were coming out of smaller manufacturers without a full path of skill development," Kettering remembers. "A machinist or toolmaker was no longer as well versed and cross trained as they once were. The journeyman status

was losing its value as a measurement of skill which was the driver behind the early steering committee initiatives."

One of the goals of the newly started steering committee was to bring a common system to all of our training sites. Early on, many of the program site administrators sat on the committee as well as manufacturing representatives in a highly collaborative effort. From this, there developed an intense review and break down of the curriculum. The end result was a common path for classroom instructional plans.

There were growing pains as the Pittsburgh Chapter worked to get a grip on programs running independently at multiple sites, especially during this changing economic time as manufacturing faced a downturn in employment and enrollment in 2000.

Kettering saw an opportunity to bring the regional workforce development initiatives (Pittsburgh Chapter NTMA and New Century Careers) together. The Pittsburgh Chapter could focus on educational efforts as New Century Careers (NCC), an organization that understood manufacturing workforce development, could help manage the administrative functions of the program.

"I had some thought that perhaps we could partner and brought the two groups together at an NTMA board meeting without the prelude of introduction. I would have to say it was met initially with a cold reception by some board members who felt offended that these two outsiders were invited into our forum unannounced. However, it did not take long for most to see the value of the partnership from not only the initial program administrative potential, but also from the perspective of program awareness in the manufacturing-driven economic development initiatives at the state and federal levels," Kettering said.

As the relationship between NTMA and NCC



"PITTSBURGH" CONTINUED

blossomed, the Pittsburgh Chapter NTMA apprentice training also gained recognition on the national level as a premier program. Additionally, the NTMA has enjoyed the benefits of the grant writing opportunities brought in by WIN and NCC. NTMA with NCC became a local manufacturing spotlight bringing a wider range of manufacturers together and bringing several national apprentice competitions to Pittsburgh initially held at Penn United Light Center and at the NCC training site.

The basic concepts are still in place with our training. Apprentices complete 144 hours of classroom training and 2000 hours of hands-on application at his or her job site annually. While the instruction is open to anyone who would like to register for the program, apprentices who would like to earn their journeyman's papers must also be registered with his or her employer's qualified Pennsylvania apprenticeship program for on-the-job training.

BENEFITS:

- Apprentices typically earn pay-for-skills promotions during their apprenticeship training. Entry-level apprentices earn an average of \$27,000 in wages and benefits in

their first year of training. Apprentices who have completed the program typically earn between \$35,000 and \$40,000 per year.

- The NTMA offers the training component to complement the on-the-job training necessary to achieve Journeyman certification. Apprentices can also earn NIMS (National Institute for Metalworking Skills) credentials in specialty areas.

- The NTMA Apprenticeship program is an affordable solution for both employers and students. Companies can combine the NTMA Apprenticeship program with structured OJT hours and avoid the cost and time of managing self-run apprenticeship instruction courses.

- Many of our students are sponsored by their companies. Special financing opportunities are available for students paying for the apprenticeship program out of their own pocket, including those who have been laid-off.

- Classes are offered at convenient locations in Allegheny and Westmoreland county.

As Bob Kettering noted, no program runs by itself. We continue to have a dedicated, hands-on steering committee led by Phyllis Miller, manager of HR at Hamill

Manufacturing Company. Phyllis has done a remarkable job over the past 10-15 years. Not only does the committee oversee the curriculum, but they also now observe and supervise the instructors, direct four training centers throughout the Pittsburgh area and meet with the apprentices to ensure their educational needs are being met. Phyllis and her committee have been invaluable to our apprenticeship program. Additionally, Paul Anselmo and his team at NCC have been instrumental in the administration and implementation of the committee's intent. It truly is a workforce development partnership. In 2017, 154 apprentices were enrolled in the program. This past spring, the Pittsburgh Chapter NTMA graduated 39 new journeymen from our apprentice training.

Personally speaking, Alle-Kiski Industries has graduated five apprentices over the past four years. These young men who began, literally on the ground floor, are now making the average industry wage and have become a key part of our company's success.

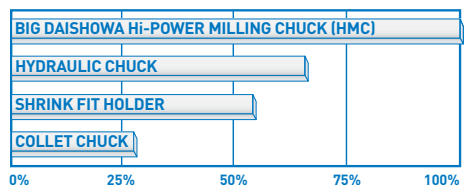
For more information, visit: <http://pghntma.com/programs/apprenticeship-program/>



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CELEBRATING APPRENTICES IN THE ROCK RIVER VALLEY

BY DON WILLIAMS, APPRENTICE
COORDINATOR



The Rock River Valley Tooling and Machining Association (RRVTMA) has just concluded another successful apprenticeship year. The year concludes, as it does every year, with an Apprentice Appreciation and Awards Dinner this year held on April 24 with about 180 attendees. We were pleased to have as our speaker Mark Vaughn, President of Vaughn Manufacturing Co. Inc., Nashville, TN and current chairman of the National Tooling and Machining Association.

While we recognize the progress of all apprentices, we truly honor those apprentices completing their apprenticeships and have achieved Journeyman status in their chosen occupation. The association offers six occupational tracks: tool & die maker, mold maker, CNC precision machinist, gear cutting machinist, machine builder and metal fabricator/welder. The CNC precision machinist apprentice track also has two areas of emphasis; turning and milling. These apprenticeships consist of



Apprentices at 2017 Apprentice Appreciation and Awards Dinner

10,000 on the job hours for tool & die and mold maker, and 8,000 hours for the other apprenticeship occupations. The apprenticeship also includes classes over four years at RVC that total 640 hours of classroom time, resulting in a 30 credit hour certificate. Classes are conducted at night and on Saturday mornings; with apprentices taking one or two classes per semester.

This year we presented Journeyman certificates to 21 apprentices; 17 as CNC Precision Machinists and four as Gear Cutting Machinists. Each also receives a Rock Valley College certificate as presented by a college dean signifying completion of the 30 credit hours of related education. For those Illinois companies registered with the



Mark Vaughn, NTMA Chairman, RRVTMA 2017 Apprentice Appreciation and Awards Dinner Speaker

Matt Brick, Forest City Gear, Journeyman Gear Cutting Machinist with (from left) Jim Riley, RRVTMA Apprenticeship Director, Shafer Industries of Roscoe; Gina Caronna, Dean, Rock Valley College; Matt Brick, Tom Busse, RRVTMA President, Rockford Toolcraft; Ronda Kliman, U.S. Department of Labor Office of Apprenticeship



U.S. Department of Labor, our local Office of Apprenticeship representative presented DOL Journeyman certificates to 15 completing apprentices. Since we serve companies in both Illinois and Wisconsin, we have a number of apprentices with sponsoring companies located in Wisconsin. Our Wisconsin-based completing apprentices also receive a Journeyman certificate from the Wisconsin Bureau of Apprenticeship rather than the Department of Labor.

The RRVTMA provides rewards to those apprentices that have excelled in their related education classes. Our apprentices are working long hours, many 40-55 hours a week, and then taking a class or two at night and/or Saturday morning. To achieve a grade point average (GPA) of 4.0 or to have perfect attendance in the classes at Rock Valley College is a major accomplishment. In recognition of these achievements, the association provides a monetary award of \$200 for perfect attendance and \$200 for a 4.0 GPA. This year, the association was very pleased to recognize four apprentices with 4.0 GPA, two with perfect attendance and three apprentices that achieved both a 4.0 GPA and perfect attendance.

SEE "ROCK RIVER" PAGE 26

IF YOU'RE NOT INVESTING IN YOUR PEOPLE, WHO WILL?

BY STACEY SCHRÖEDER, DIRECTOR OF WORKFORCE DEVELOPMENT



Did you learn everything you needed to do your job in school? Did you learn it all at one time? Do you believe you can continue to be successful in your role without ever learning anything new?

I'm hoping that you gave a resounding "no" to each of those questions!

Since we agree that learning must continue to happen, why are there so few people attending webinars, conferences, technical seminars, peer learning groups, and continuing education events? Why are so few active members of local, national, or global organizations that exist to provide those opportunities for networking, education, sharing best practices and advocacy?

I would like to suggest that it's a few things. Everyone is busy. Distracted. Budgets are 'fixed.' Would you accept any of those answers from your children, your partners or your suppliers if you challenged them about why they weren't improving? I bet you would continue to push until you saw the change you wanted.

Professional development is critically important. Everyone at your company is the outward face of your company's brand to your customers and your community. It's important they are competent, passionate, and believe in the company.

While learning through experience is valuable, it often leads to the creation of well-worn paths of decision-making, be-



haviors and results. A refreshing injection of new ideas through carefully curated speakers, content and networking opportunities can lead to a step change in motivation and performance.

Highly motivated and talented people continually look for opportunities to learn, grow and improve. If your company does not cultivate and allow that through funding attendance at events, providing time away from work to attend, and recognizing the skills gained, your top talent will go elsewhere, and other employees will notice. It doesn't need to be expensive! It can be a free webinar, a brainstorming lunch with peers in the area from different companies, a professional development course at a local college, or a membership to the local chapter of a professional organization.

Developing employees is a solid investment. That investment creates a pride and gratitude - people will work harder, be more engaged, and stay longer when they know

"ROCK RIVER" CONTINUED

The Rock River Valley Tooling and Machining Association has supported an apprenticeship program for over 50 years. We currently have about 100 apprentices, including this year's graduating class. The apprentices are working fulltime at one of 34 sponsoring companies. The apprentices range in age from 18 to one that completed this year at the age of 56. The average age is 29.3 and the median age is 27.

The RRVMTMA has offered scholarships to graduating high school seniors for the past five years and, with this year's awards, has granted \$22,000 through this program. This offering supports a focus of our association's mission, namely, "promoting and encouraging education." It is our hope that awarding scholarships to high school seniors pursuing a manufacturing related degree program will encourage more young people to pursue careers in manufacturing and engineering. At this year's event, we were pleased and honored to award \$1,000 scholarships to five well deserving high school seniors from our region.



you see their potential and will partner with them to achieve. Their enthusiasm and inspiration can help push others to new levels of performance also. Even when employees do leave, they will be more competent and productive while they're with you, and are more likely to speak positively of your company to their family, friends and neighbors - all of which are your potential employees or customers. In a time when 70 percent of the workforce is disengaged, you can't afford not to invest in the personal and professional development of everyone in your organization.

Your company is built on the collective energy and efforts of the people working there. To improve your company, invest in your people. This sentiment rings especially true for small, private or family-owned businesses. Value your people, strengthen your company, and set the path for continued success. We hope to see you and your employees at future NTMA events, and I encourage you to reach out to me at sschroeder@ntma.org for suggestions for other ways to develop your team!



CFO asks CEO: "What happens if we invest in developing our people and then they leave us?"

CEO: "What happens if we don't, and they stay?"

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The Colorado Employer Support of the Guard and Reserve conducts a Boss Lift for executive level employer members, with a tour of the CW5 David R. Carter Aviation Support Facility and a helicopter flight to the High Altitude Army National Guard Training Site in Gypsum, Colorado, July 28, 2016. (Air National Guard Photo by Maj. Darin Overstreet)

SHOULD WE HIRE THIS VETERAN?

BY STEVE NOWLAN, PRESIDENT, CENTER FOR AMERICA

In coordinating the American Jobs for America's Heroes campaign, one of the comments we hear often from the 2,100 participating employers is how confusing military credentials can be to those trying to figure out whether the veteran or service member is a good match for the job.

Help is readily available from our team at Center for America and from our nonprofit partners, Corporate America Supports You (CASY), one of the preeminent teams in the U.S. that has placed more than 6,500 military candidates with employers in 2016.

You're welcome to send me your candidate's resume at SteveNowlan@CenterForAmerica.org or call me at 201-513-0379. I'll enlist my colleagues to help if appropriate.

A major sticking point for some recruiters is whether the candidate's "Military Occupational Specialty" (MOS) training provides an appropriate skills foundation for the industry. This can be a valid question, but a person's MOS training can take on greater importance than it should.

As you probably know, each military branch provides a curriculum of initial training programs for people entering the military. Enrollment in these courses typically is based on an initial aptitude test which helps counselors to steer new service members into the training that is most likely to engage their full interests and background. In the National Guard, for

example, there are 107 MOS training programs, each of which is 14 to 20+ weeks. The courses in each military branch are tailored to the skills they need.

While these MOS courses are rigorous, they are intended only as foundation learning. It is assumed that when a student graduates, the student will become a junior member of a team utilizing the skills learned. For example, a 14 week MOS training program to provide maintenance for Blackhawk helicopters includes an introduction to all the components of the Blackhawk. However, it is the on-the-job experience of being on a Blackhawk helicopter maintenance team that advances a tech from basic to expert level.

As you can easily imagine, the service member with 5+ years of Blackhawk maintenance experience has gained substantial experience well beyond that of someone who has just recently completed the MOS training. Additionally, a high-performing service member who starts out on maintaining Blackhawks may transfer to other teams during his or her service providing maintenance and tech services on a wide range of other aircraft and service vehicles. The point is that an MOS is only the first layer of training and experience for a service member.

Sometimes, recruiters miss the opportunity to fully explore the value of the training and experience that a candidate has beyond

their MOS training. Many high-performing veterans I've talked with have told me how they have had 10 or even 20 interviews with employers, none of whom did a good job of discussing the skill attainment and experiences of the candidate beyond the MOS. In some cases, these veterans have finally been identified as high-value candidates and been hired with signing bonuses.

A key asset in the review of resumes or candidate interviews is a specific list of the skills required for the job. Ideally, this list of skills should be the result of collaboration between the recruiter and the person who is going to supervise the new hire so as to be completely certain that no "mandatory" skills are left off the list. Also, the skill list needs to be as specific as possible so that the resume review, telephone and in-person interviews can focus on whether the candidate has one, some or all of the skills required.

This skills list sets the stage for a more objective and definitive evaluation of the candidate. It becomes easy for the recruiter to ask the candidate to, "Tell me about the training and experience you have had in using computer systems to program machine diagnostics and operation" instead of asking, "Tell me about how you use computers." Resume reviews and interviews that are too general can easily wind up in rejecting applicants who are highly attuned if not already prepared to excel in a position.

Keep in mind that service members do not have “job interviews” while in the military. Their familiarity with how they should perform in civilian job interview is usually very limited and they are not accustomed to offering information that is not asked for by supervisors. So, if your questions need to be formulated to bring out the experience of the candidate that is most important in your evaluation of him or her.

A key point is that there will be an estimated 200,000 service members leaving the military every year for the next five years. These veterans are among the most highly training and proven prospective employees any company can hire. They have had highly demanding experiences that push them to learn and improve continually. Their potential as team leaders and future management is very high.

President Trump has made it clear that he is looking to the private sector to take the laboring oar in meeting the skills shortage through more apprenticeships, more partnerships with community colleges and more internal training for veterans and civilians alike. The Federal government is not budgeting to provide companies with supplemental resources to fill their open jobs.

President Trump’s signal to business that filling the six million open jobs is “our problem” not “his problem” gives us another reason to re-think and re-commit to hiring veterans who have a wealth of experience in keeping the world’s most sophisticated military up and running 24/7 in a troubled world.

Brig. Gen. (ret) Marianne Watson, who leads our veterans initiative team after serving as the chief human resources officer of the Army and Air National Guard before retirement, and I would be glad to talk with you in confidence about your veteran recruiting program. Perhaps our ideas, networking contacts and experience will help you identify ways to hire veterans faster and easier. Give me a call at 201-513-0379 or send an email to SteveNowlan@CenterForAmerica.org.

Steve Nowlan is president of Center for America, a nonprofit 501(c)(3) organization that provides free resources on hiring veterans to employers and trade associations across America. Steve is based in Mendham, NJ. You can sign up at no cost for the American Jobs for America’s Heroes campaign to post your jobs for veterans and service members at <http://www.CenterForAmerica.org/register.html>



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JOB DESCRIPTION CREATION AND THE JOB POSTING PROCESS

Tuesday, July 11 - 2:00pm (EST)

Presented by Doug DeRose, Stacey Schroeder, & PRG Group

- This session will explain the job description creation process, and its linkage to the job posting process.
- Attendees will review a simple job description template, and hear examples of how job descriptions were created within an organization.
- Participants will learn about key components to include in job descriptions, as well as guidance on job titles and job families.

RECRUITING AND CANDIDATE SOURCING

Tuesday, August 8 - 2:00pm (EST)

- This session will provide techniques for finding appropriate candidates for the main job roles / functional areas within your company.
- Attendees will learn how to utilize different sources to find and communicate with candidates, and how review resumes and profiles to determine if a candidate should proceed to the interview stage.

INTERVIEWING TECHNIQUES AND SPOTTING A GOOD FIT

Tuesday, September 12 - 2:00pm (EST)

- This session will provide specific interviewing methods and approaches to identify candidates that would be a good fit for your company - both in terms of skills, and cultural fit.
- Attendees will go beyond the antiquated interview process to learn a framework that provides better outcomes through more targeted efforts up-front.

ONBOARDING AND TRAINING & DEVELOPMENT PROGRAMS

Tuesday, October 10 - 2:00pm (EST)

Presented by Stacey Schroeder

- This session will detail the elements needed in a successful onboarding program, including who needs to be involved in the process for your organization.
- Attendees will also learn the features of a productive training and development program structure, as well as the roles that should be involved in that program.
- Participants will learn the basics of identifying skills or competency gaps in employees, and will hear numerous strategies for filling the gaps.

PERFORMANCE MANAGEMENT PROCESS

Tuesday, November 14 - 2:00pm (EST)

Presented by Stacey Schroeder

- This session will explain a streamlined approach to managing performance that relies on four areas - results, operational excellence, relationship management, and leadership / team membership.
- Attendees will learn how to articulate “what good looks like” in the four areas, for the roles in their organizations.
- Participants will also receive guidance on how to communicate the process and intent to employees, as well as recommendations on how to conduct performance ‘touch-points’ throughout the year.

To register, contact:

Kristen Hrusch at khrusch@ntma.org or Brittany Belko at bbelko@ntma.org



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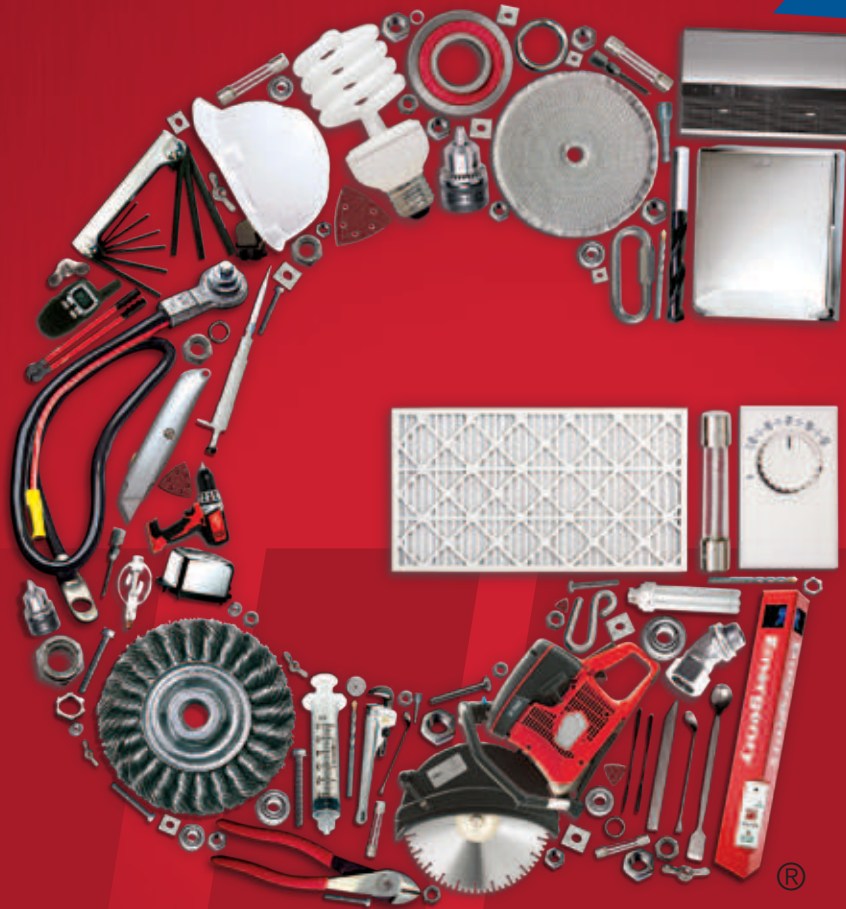
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Adhesives, Sealants & Tape	Caulk, Concrete & Asphalt, Dispensing Guns, Glues & Cements, Putties, Tapes, Thread & Gasket Sealants	
Cleaning & Janitorial	Cleaning Chemicals & Supplies, Dispensers, Deodorizers, Paper Products & Dispensers, Personal Care, Restroom Equipment, Trash & Recycling	
Electrical	Industrial Controls, Automation & Machine Safety, Motor Controls, Power Management, Voice & Data, Wire, Cable, Carrier Systems	
Electronics, Appliances & Batteries	Dishwashers, Dryers, Ranges, Refrigerators, Freezers, Ice Dispensers, Communications, Electronics, Intercoms & Speakers	
Fasteners	Anchors, Bolts, Hardware, Hooks, Lanyards, Manuals, Measuring Equipment, Nails, Nuts, Retaining Rings, Rivets, Screws, Spacers, Staples, Washers	
Fleet & Vehicle Maintenance	Auto Body Tools, Chemicals, Diagnostics, Automotive Exterior & Interior, Lifting Tools, Lubricants, Maintenance Tools, Towing, Storage	
Furniture, Hospitality & Food Service	Flooring, Food Processing, Beds, Office & Outdoor Furniture, Guest Room Amenities, Uniforms, Laundry Supplies, Sports & Recreational Equipment	
HVAC & Refrigeration	A/C Refrigeration, Air Filters, Air Treatment, Cooling Fans & Air Circulators, Heaters, HVAC Controls, Test Instruments, Replacement Parts, Ventilation Supplies	
Hand Tools	Benders, Clamps, Cutting Tools, Drywall Tools, Electrical Tools, Files, Hammers, Hand Saws, Pliers, Pullers, Punches, Screwdrivers, Sockets, Wrenches	
Hardware	Braces, Brackets, Door Hardware, Cabinet Hardware, Hooks, Springs, Window Hardware	
Hydraulics	Filtration, Hoses & Fittings, Motors, Seals, System Components, Tools, Oil Coolers, Pumps, Valves	
Lab Supplies	Testing Equipment, Chemicals, Consumables, Diagnostics, Filtration, Fume Hoods, Lab Ovens, Utensils, Labware, Soil Testing, Water Quality	
Lighting	Bulbs & Lamps, Ballasts, Flashlights, Exit & Emergency Lighting, Indoor & Outdoor Lighting	
Lubrication	Fittings & Hose Systems, Grease Guns, Greases, Lubricants, Oilers, Oils, Storage & Dispensing Systems	
Machining	Drilling Tools, Finishing Supplies, Indexable Tools, Fluids, Milling, Precision Measuring, Threading	

Note: Yellow highlight indicates key categories.

CATEGORY	RANGE OF PRODUCTS	
Material Handling	Cabinets, Carts & Trucks, Casters, Conveyors, Cranes, Dock Equipment, Dollies, Drum Handling, Forklifts, Hoists, Ladders, Packaging & Shipping, Pallet Jacks	
Motors	DC Motors, Definite-Purpose AC Motors, General-Purpose AC Motors, HVAC Motors, Motor Supplies, Pump Motors, Replacement Parts	
Office Supplies	Audio Visual Equipment, Binders, Clipboards, Easels, Calendars, File Folders, Ink & Toner, Cleaners, Office Machines, Office Paper & Notebooks, Staplers	
Outdoor Equipment	Cutting & Pruning Tools, Fencing, Generators, Hoses & Sprinkler Systems, Landscaping, Mowers & Trimmers, Pressure Washers, Rakes, Shovels, Snow & Ice Removal	
Paint, Equipment & Supplies	Automotive Paints, Brushes & Rollers, Exterior & Interior Paints, Paint Mixers, Sprayers, Spray Paints, Primers	
Plumbing	Bathroom Hardware, Drains, Faucets, Filtration, Fixtures, Garbage Disposals, Gaskets, Insulation, Pipe, Tubing, Fittings, Valves, Sinks, Toilets, Water Heaters	
Pneumatics	Air Compressors, Compressed Air Treatment, Hose Clamps, Hose Reels, Pneumatic Hoses & Motors, Pneumatic Tools, Replacement Parts, Valves	
Power Tools	Cordless Tools, Demolition Tools, Finishing Tools, Heat Guns, Masonry, Pipe Threading, Drills, Saws, Shears, Power Tool Storage, Replacement Parts, Routers	
Power Transmission	Bearings, Belts, Brakes & Clutches, Bushings, Chain, Couplings, Gearing, Gearmotors, Speed Reducers, Sprockets, Tensioners, Vibrators	
Pumps	Aeration, Centrifugal Pumps, Chemical Pumps, Coolant Pumps, Drum & Barrel Pumps, Filtration, Fuel Pumps, Pool & Spa Pumps, Rotary Pumps	
Raw Materials	Alloy Steel, Aluminum, Brass, Bronze, Carbon Steel, Cast Iron, Ceramic, Copper, Cork, Felt, Fiberglass, Foam, Plastics, Rubber, Stainless Steel, Tin, Vinyl	
Reference & Learning Supplies	Books, Classroom Supplies, Decoration, Games, Incentives, Toys	
Safety	Arc Flash, Eye Wash & Showers, Eye & Face Protection, Fall Protection, First Aid, Gloves, Lockout/Tagout, Signs, Spill Control, Traffic Safety, Workwear	
Security	Barriers & Crowd Control, Detectors, Key Control, Mailboxes, Padlocks, Safes, Security Alarms, Specialty Locks, Two-Way Radios, Video Surveillance	
Test Instruments	Air Movement, Automotive Testing, Data Recording, Electrical Power Testing, Indoor Air Quality, Pressure Measuring, Temperature & Humidity Measuring	
Welding	Arc Cutting & Gouging, Filler Metals, Gas Welding, MIG Welding, Plasma Cutting, Soldering, Spot Welding, Stick Welding, TIG Welding, Helmets	

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WHY GRAINGER?

Time-Saving Solutions to Get the Products and Services You Need

This guide can be used to understand how to leverage the NTMA and Grainger national contract. It is designed to help you maximize NTMA sales opportunities and support local promotional efforts for the NTMA discount offered through Grainger.



WHO IS GRAINGER?

Grainger is a business-to-business distributor of products used to help maintain, repair and operate facilities. Approximately 3 million businesses and institutions worldwide rely on Grainger for products such as safety supplies, ladders, motors and janitorial products, along with services like inventory management and technical support.

These customers represent a broad collection of industries including healthcare, manufacturing, government and hospitality. They place orders online, with mobile devices, over the phone and at local branches. More than 4,800 key manufacturers supply Grainger with 1.5 million products stocked in Grainger's nationwide network of distribution centers and branches.

THE VALUE OF GRAINGER

Grainger serves to help customers take costs out of their operations while managing their facilities by focusing on four key areas:

- **How you purchase supplies:** It starts with purchasing less, buying only what you need, when you need it. Standardizing products and reducing suppliers also help improve the purchasing process.
- **How you manage inventory:** Grainger can help you determine what's the right amount of critical inventory items so you have what you need, when and where you need it, saving you money, time and space. Having the right supplies helps you maintain a productive environment, avoid costly downtime from stock-outs and reduce expensive overstock.

- **How you manage safety:** Grainger has the products, services and resources to help keep your people and facilities safe. Get the safety solutions you need to help reduce injuries, facilitate compliance, manage risk and increase productivity.
- **How you operate sustainably:** Grainger offers environmentally preferable solutions to help you manage your energy consumption, conserve water, reduce waste and improve air quality.

Driving costs out of these four areas helps Grainger customers put their resources toward managing and growing their business.

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- **eProcurement Connections:** Manage your spend, help ensure procurement compliance and automate processes.

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MEET OUR NATIONAL ASSOCIATE: MACHINE METRICS

An interview with Eric Fogg, COO and Co-Founder



WHAT IS YOUR COMPANY SPECIALTY?

Improving data transparency and communication on the shop floor through real time dashboards, reports, and alerts.

WHAT IS YOUR COMPANY HISTORY? WHEN/HOW DID YOU START?

While working in machine shops and manufacturing facilities, the founders of the company identified a large need for increased data transparency on the shop floor. We found that most decisions were being made reactively instead of proactively which makes shops less nimble and slower to solve problems. We presented our concept to many machine shop and manufacturing facility owners and asked them what they wished to see in in shop floor monitoring/communication software. We took their requirements and suggestions and built a prototype. We've been quickly growing our team and developing the product ever since.

WHO ARE YOUR CLIENTS? WHAT TYPE OF WORK SHOULD A COMPANY CONTACT YOU ABOUT?

We work with any manufacturing facility that produces goods in any quantity. Any manufacturer looking to monitor their machines for increased visibility into their process and better communication with their shop floor should check out MachineMetrics.

WHAT COMPANY ACCOMPLISHMENT ARE YOU MOST PROUD OF?

Our customers are more competitive because they have MachineMetrics. Manufacturing can be a tough industry, and we are so proud to be a part of our customer's growth, job creation, and amazing products.

WHAT SETS YOUR COMPANY APART?

We are hungry, fast moving and dedicated to building beautiful, simple software that people love to use. Many machine monitoring system on the market have far less capabilities (currently and in their product road map) than MachineMetrics. We've converted a fair amount of clients that were previously underwhelmed with their current machine monitoring platform's capabilities. Our dashboards/tablets are easier to read and interact with. MachineMetrics is a cloud based application with cloud hosting. MachineMetrics tracks OEE, OOE, and TEEP, whereas

most others track just OEE. We have dedicated customer success managers that ensure our customers get up and running as fast and efficiently as possible, and work with customers throughout the process to get the most out of our software.

If someone is looking for the barest/ cheapest solution, then perhaps MachineMetrics is not the right choice for them, but if they are looking to take a truly functional step toward better understanding their process inefficiencies and add human context to their data, then MachineMetrics would be a perfect fit.

WHAT IS YOUR COMPANY MOTTO?

"Manufacture with Confidence"

WHAT ELSE WOULD YOU LIKE OUR READERS TO KNOW?

We guarantee MachineMetrics will have a huge positive impact on your shop or your money back. Give us a call for more details and to find out if your shop is a good fit



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TRI-CRAFT RECOGNIZED FOR 50 YEARS OF BUSINESS

NTMA member, Tri-Craft was recognized by the mayor of Middleberg, Ohio, Gary Starr, for 50 years of service.

In 1967, Tri-Craft Inc. was founded by Stephen Pilhartz as a small machine shop in a garage in Cleveland; and in 1977 the business was relocated to its current location in Middleburg Heights to expand its business operations to include production of plastic injection molding and assemblies. In August, 2007, Stephen Pilhartz entrusted the business to his daughters, Kathleen Byrnes and Monica Hargis, to continue his legacy and family business.

Under the leadership of Kathleen Byrnes as President and Monica Hargis as Vice-President, the business has grown to over 40 permanent employees running three production shifts, 24 hours a day, five days a week. The business is now a contract manufacturer of injection molded parts and assemblies for the lawn and garden industry, automotive

industry, mining industry and other miscellaneous industries around the world.

Tri-Craft Inc. has earned the reputable ISO Certification from ISO Quality Services Ltd. and has earned the Women's Business

Enterprise National Council (WBENC) certification for women-owned businesses, which is one of the most widely recognized and respected certifications in the nation.



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SMT WINS FLORIDA STERLING MANUFACTURING BUSINESS EXCELLENCE AWARD

Southern Manufacturing Technologies (SMT) is the recipient of the first Florida Sterling Manufacturing Business Excellence Award, a collaborative statewide honor that recognizes high performing manufacturers. The award is presented by the Governor of Florida and organized by FloridaMakes and the Florida Sterling Council. SMT won the award in the category of companies with up to 200 employees. The Sterling Awards are presented to both public and private role-model organizations who exhibit superior management and high quality results in their respective industry. For the new Florida Sterling Manufacturing Business Excellence

Award, FloridaMakes and the Florida Sterling Council judged participants based on six criteria: leadership, strategic planning, customer and market focus, measurement, analysis and knowledge management, and workforce and operations.

SMT President Roy Sweatman and members of his executive team accepted the award at the 2017 Governor's Sterling Awards Banquet on June 2 in Orlando. "We thank FloridaMakes and the Florida Sterling Council for this honor. This award is a tribute to all the men and women who work at SMT and I accept this award on their behalf, said Sweatman. The award is a reflection of

the values of our company. SMT was built on customer service and providing these customers with the latest technology, cost savings and just-in-time delivery." SMT President Roy Sweatman (middle) accepting the Sterling Award with staff.

To learn more about SMT and their dedication to excellence in manufacturing, professional service, and customer focus, visit www.smt-tampa.com.



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Contact Christie at (585)486.8724.



MAKEmore**HAPPEN**

ARTICULATING THE VALUE OF PROFESSIONAL DEVELOPMENT

BY STACEY SCHROEDER, NTMA WORKFORCE DEVELOPMENT



It's important that the right questions get asked and answered before an attending an event. This ensures that expectations are set and agreed upon, and progress can easily be measured afterwards.

I encourage you to read this article, and share it with everyone at your company, along with the template available by [clicking here](#), that addresses all the key areas to discuss for any major professional development activity. I guarantee that you will have richer conversations with your employees about their continued growth and development, and you will see a greater ROI from events and activities that your employees (and you) attend.

Since conferences, technical seminars and other live events require the most investment, we will focus our approach to creating a solid value proposition to that type of development activity. Webinars, local events and self-directed learning will also have greater efficacy if these questions are considered in advance.

For any event, it's important to gather information on the agenda and speaker(s). If it's a live event with multiple options, consider which ones best align with the company's objectives and your short- and long-term goals.

A great next step is the creation of a sample agenda with the list of sessions and workshops you would like to attend. Be specific. If it's a roundtable on machine tools sponsored by Company X, you could say, "I will determine if our peers have had better results with Tool A or Tool B, and get a date scheduled for a meeting on-site with a Company X rep to present a proposal to us on the best tool within 45 days." Another approach is to research the speakers and identify five you would like to talk to in-depth. Then, develop a list of specific, relevant

questions you will ask them.

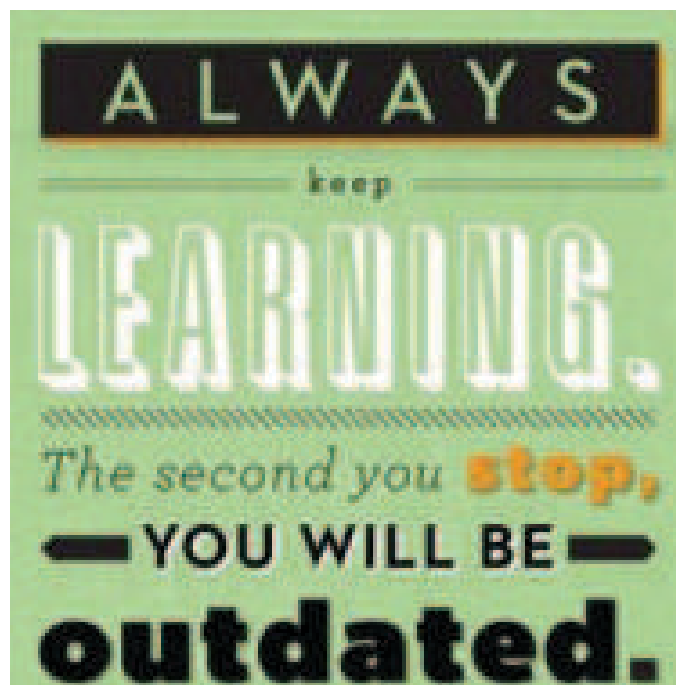
Then it's time to clearly state your top three reasons for attending. Be crisp and clear. For example, "I will learn practical skills for deploying visual factory techniques, which aligns with our value of continuous improvement." Or, "hearing real success and failure stories on ERP systems will allow me to present the top two that we should investigate as partners." Or, "the world's leading experts in machine learning will be attending, and capitalizing on that opportunity before our competitors will give us a major advantage."

State clear actionable commitments that you will complete before the event. An excellent multifaceted example is: "Prior to attending, I will meet with the team to determine a few sessions that they feel are critical. I will attend those sessions. Upon my return, I will create a one-page summary of each session, with links to additional resources. I will share this with the team, and also do a live debrief within one week of my return. After the debrief, I will host discussion groups on one of the session topics once a month until we achieve the related company goal."

Break down the estimated cost – registration, airfare, car rental, lodging, per diem expenses, etc.

Pull together the information above into a summary proposal (feel free to use the linked template!), choose the right time to discuss with leaders, and be enthusiastic about the opportunity and the potential impact on you and the business! You know your leader best – use the ideas above to guide the conversation, but format it to best suit his or her tastes.

Best of luck, and please feel free to reach out to me at sschroeder@ntma.org with ideas and questions.



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