

THE RECORD

Published by the National Tooling and Machining Association

The Next Generation of Manufacturing

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**Emerging Leaders Rising
in 2020 - p 14**

**Meet Your New Competitor:
The Millennial Entrepreneur - p 19**

**The Biggest Threat to Manufacturing?
Cybersecurity - p 20**

and so much more...



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THE RECORD

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Upcoming NTMA National Events



Spring Conference

March 9-11, 2020

Cleveland, OH



International Tech Tour

April 18-25, 2020

Japan



Emerging Leaders Conference

April 27-29, 2019

Kansas City, MO



PRESIDENT'S UPDATE

As the new year has begun, what a better monthly Record theme for me to start my tenure as NTMA's President than the "Next Generation of Manufacturing."

As a second generation NTMA member, let me say how great an honor it is for me to be chosen to lead an association of my lifelong peers. A very humbling opportunity and responsibility, one that I take extremely seriously. I believe having been a long time member, a past chairman, and now President of NTMA, uniquely positions me to serve and support you, our members, our national associates, and our affinity partners. I do realize that for some of you, it may seem as if NTMA lost its way a little over this past year; but what I can tell you today is that we are back and committed to serve, support, and have your back in this world of contract manufacturing. Our vision is the future and not the past.

Interestingly, my message today is the same message I had as chairman in 2012 and that is "you, as individual companies, should not go it alone." The growing disruptions of our industry from technology, workforce and training, political advocacy, and other factors is a full-time job for which most members and privately held/entrepreneurial based companies do not have time or resources to do. Frankly, that is where NTMA's value and role comes in - leading the way and breaking through these disruptors for you, our members, so that you are not overwhelmed by these

issues while being assured that you have an association available to you and advocating on your behalf.

As I take over the helm of NTMA, you might ask me "what do you see for our association and for our industry?" On behalf of our association, I see that for us to truly make an impact and to most effectively lead and support our members through the disruptions facing our industry, we desperately need to increase the critical mass of U.S. contract manufacturing companies to gain the greatest influence and impact on behalf of our members. Bottom line, we need more member companies committed to representing the contract manufacturing community in our related industries.

Having a critical mass of members would enable NTMA to have a seat at the table with the OEM's, government entities, and others on your behalf. As to the industry at large, I see industries that have been changing for years and will continue to change even more as time goes on. I believe the OEM's have changed faster than we, the suppliers, widening the gap between us and them. Their ability and willingness to change without input from their supplier base has caused many of the challenges we face today. The sales process of how we sell to our customers in most cases has changed drastically. We used to depend on relationship selling where we devel-

oped relationships with OEM's so we could best service their needs. Today, it has become a transactional selling process where relationships are no longer valued and the OEM's control pricing, performance metrics, and limit relationships and, in many cases, any face-to-face contact. Many OEM's have worked to commoditize our services, having no idea the impact it has on their own businesses. Thus, my reason and commitment to accept the challenge to serve NTMA as President. My goal is to lead the association through the disruptors of the day, while providing all our members exceptional service and constantly advocating on your behalf, allowing you to stay focused on running your business.

My, and the NTMA staff's, immediate focus is on you our MEMBERS, our CHAPTERS, and our NATIONAL ASSOCIATES/AFFINITY PARTNERS. It is these groups working together that can make a real difference for our members and the entire contract manufacturing community. I hope you will join with NTMA as we look forward to a bright future. Let's lead the industry as individual companies and as an association of companies. You have my commitment to lead us through the "Next Generation of Manufacturing." It is OUR TIME!!!

Roger Atkins, President - NTMA

NTMA MEMBERS

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NAM - Health Care that Addresses Member Health Coverage Needs

National Tooling and Machining Association offers an association health plan to its members, extending affordable health care to small and medium-sized manufacturing companies in approved states.

In states where the association health plan is not available, the NTMA will connect manufacturers with available small group options.

The plan, called NAM Health Care (www.namhealth-care.com), was developed to meet the unique health care needs of manufacturers. It will offer a portfolio of health benefits options provided by UnitedHealthcare®. In states where these plans are available, businesses with 2 to 99 employees will be able to choose from a variety of PPO (Preferred Provider Organization) and HSA (Health Savings Account) health plans.

Members will also have access to UnitedHealthcare's Choice Plus care provider network of more than 1.3

million physicians and healthcare professionals, 6,000 hospitals, and other care facilities nationwide. Under NAM Health Care, eligible member companies also will have access to supplemental benefits including dental, vision, and life. UnitedHealthcare® will work with any licensed and appointed agents who want to sell NAM Health Care.

Mercer will provide NTMA small business members that elect Mercer as their agent of record with consulting services regarding health benefit offerings and contribution strategies, marketing support to sign up and enroll their employees, plan administration, and compliance consulting services.

The Mercer Affinity 365+SM platform will provide members technology for obtaining quotes for employee benefits, facilitating enrollment, and providing ongoing benefit administration to help drive cost efficiencies and employee engagement.

Member employer groups may continue to work with their current agents and consultants to obtain quotes through the NAM Health Care offering.

National Tooling and Machining Association has been providing quotes for these plans since November 2019. To request a quote for these plans, where available, interested businesses may visit ntma.namhealth.com

NAM Health Care is an industry-based Association Health Plan (AHP) that's fully ACA-compliant, administered by Mercer and sponsored by The National Association of Manufacturers (NAM), of which NTMA is an affiliate member. Medical, Dental, Vision, and Life insurance are underwritten by UnitedHealthcare®. Plans are not available to member employers in all states.

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2020

NTMA CALENDAR OF EVENTS



NATIONAL TOOLING AND MACHINING ASSOCIATION

Spring Conference

March 9-11 – Cleveland, OH

Strategize, revitalize, and let NTMA equip you and your business with the tools you'll need to succeed. Join NTMA during our Spring Conference offering business development sessions, educational speakers, and our highly rated roundtable discussions and networking events – these are conferences not to miss!

International Tech Tour

April 18-25 – Japan

Take this opportunity to learn and observe global best practices that can be applied in your own company. We've scheduled strategic stops and tours to highlight some of Japan's most successful manufacturing companies.

Emerging Leaders Conference

April 27-29 – Kansas City, MO

To ensure the future success of our businesses and our industry, we have to build the future today. NTMA gathers the best and brightest up-and-coming industry leaders to network, share knowledge, and brainstorm about tomorrow's manufacturing industry.

NRL Competition

May 14-16 – California, PA

Crunching metal, flying sparks — it's a gladiator-style competition between robots designed and built by students. Come witness tomorrow's workforce in action today. It's a battle of epic proportions that truly is a win for both students and industry.

Summer Conference

June 15-17 – Phoenix, AZ

Strategize, revitalize, and let NTMA equip you and your business with the tools you'll need to succeed. Join NTMA during our Summer Conference offering business development sessions, educational speakers, and our highly rated roundtable discussions and networking events – these are conferences not to miss!

Legislative Conference

September 21-23 – Washington, D.C

There's power in our collective voice. Join NTMA member companies from across the country as we converge in Washington to meet with legislators and policy makers.

Annual Fall Conference

October 27-30 – Kansas City, MO

NTMA's signature event is not to be missed! Our annual conference pulls together all that is great about NTMA into three days packed with networking, advocacy, and learning. You'll enjoy nationally acclaimed speakers, roundtable discussions, social events, and sessions designed to educate and inspire — consider it an opportunity to recharge both personally and professionally.

**Please contact Kristen Hrusch,
our Events Manager for more information
and to register::**

**Kristen Hrusch khrusch@ntma.org
216-264-2845 or visit:
www.ntma.org/upcoming-events**

Engaging, Inspiring & Preparing America's Precision Manufacturing Workforce

Contributed by Bill Padnos

The above headline is the mission statement of AMPED (Advanced Manufacturing Practices & Education Development), but what does that really mean?

About five months ago, we reintroduced AMPED to the NTMA membership. This is what Steve Tamasi, the AMPED Board Chairperson had to say:

"The advanced manufacturing industry has been in dire need of a unified effort to Engage, Inspire and Prepare America's Precision Manufacturing Workforce. I am excited to say that AMPED was formed to address this exactly. We have assembled a highly motivated and diverse group of professionals to attack this mission with vigor. We are focused on promotion and recruitment activities, as well as directing interested parties to education and training programs across the country."

Our efforts include expanding the NRL to engage youth in manufacturing related activities and education, expanding and enhancing NTMA-U and on-line training, and developing a catalog of regional promotional, training, and educational programs.

Over the past five months, we have been working hard to deliver on the AMPED board's promise to the entire precision manufacturing community. This spring, NRL programs in Houston and Sacramento will be holding their first ever competitions and the program in Central Florida is being revitalized with their first competition in three years. This provides us with the opportunity to build new talent pipelines for our members in those areas. We are also working to start a program in the Chicago area around IMTS.

Manufacturing companies of all sizes are utilizing NTMA-U for the related instruction for their machinist apprenticeship programs and additional incumbent worker training opportunities. We are proud of the quality of training that NTMA-U is able to provide to precision metalworking companies. We do understand



the need to create partnerships with other organizations to provide member companies with easy access to education and training programs that are not currently covered by NTMA-U.

In 2019, we experienced an increase in the number of companies and organizations that are utilizing the Mechanical Aptitude Test and we expect even better sales in 2020. With more people understanding the value of a career as a machinist, we are seeing a much needed uptick in individuals seeking those positions. This is when the Mechanical Aptitude Test is an ideal tool to deploy in finding the "diamond in the rough" or a current employee who is ready to take the next step.

Our Pre-Apprenticeship Program provides our members or communities opportunities to engage, inspire, and prepare the next precision manufacturing workforce. Through this program, you have the ability to educate students or disengaged youths directly about machining basics. These students complete the first year of an apprenticeship program, 3 NTMA-U courses, and are then prepared to earn 2 NIMS credentials. Imagine the benefit to your company if one of those quality individuals came to work for you.

We are also very excited to announce that NTMA and AMPED has hired Brandi Walsh to serve as our new Program Analyst Coordinator. For AMPED, Brandi is tasked to search and catalog all of the manufacturing workforce development resources and materials that are available to you. Our goal is for the AMPED section of the NTMA website to be a one-stop shop for you to access this information.

We understand that you do not have the time to spend searching hundreds of sites for the best options for GD&T training. Leave that to us. We want to be able to provide the link to that information and so much more. This is why we created this position, to help you achieve your workforce development needs easier and faster.

Manufacturing is at a critical time right now. Demand for workers is at all time high with 100% of you experiencing hardship in filling skilled positions. Smaller companies do not have the resources to do this work on their own and that is why we want you to consider AMPED as your workforce development partner. We are not able to hire your next generation or directly enroll them in a training class. We are able to be a resource for you in your efforts to engage, inspire, and prepare them.

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Create a Smart IT Budget for 2020

Contributed by Calyx

How self-aware are you when it comes to IT spend? One of the most important elements of budgeting for 2020 is getting clarity on what you'll be spending—and why. Too many times, companies don't even know their total IT costs, which puts them at a disadvantage when it comes to budgeting for a new year. Line items aren't captured. Locations and users aren't incorporated. Cloud charges stack up unnecessarily. Vendors sometimes don't reveal all charges upfront and expenses continue to trickle in. And on and on.

Businesses today recognize that IT expenses rise as businesses grow and incorporate new technologies. This is especially true for those companies that understand that IT is no longer just a few line items on a spreadsheet, but a driver for the enterprise.

Creating a smart IT budget for 2020 may sound like a daunting proposition, but it can be gratifying, especially when the results are smart spends that move the business forward.

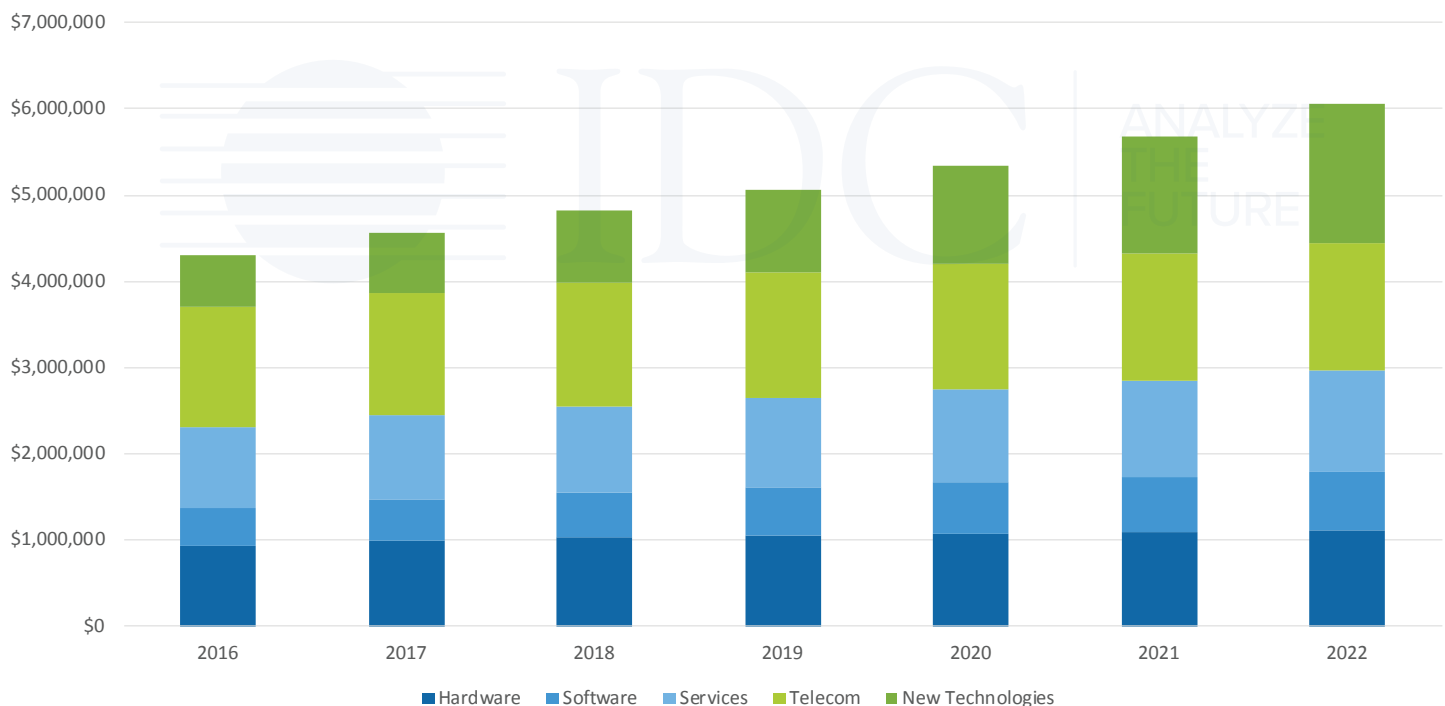
Strategic considerations when planning

Below are a few strategic considerations you should consider in the context of allocating an appropriate IT budget for the coming year:

- *One in four enterprises (1,000+ employees) are increasing 2020 IT spending due to a recent security incident*
- *Business adoption of AI-powered technologies is expected to triple by 2021, while the adoption of edge computing is expected to double*
- *Two-thirds of large enterprises (5,000+ employees) plan to deploy 5G technology by 2021*
- *IT budgets will rise as businesses replace outdated technology: 44% of businesses plan to increase tech spending in 2020, up from 38% in 2019*

Businesses are incorporating the fundamentals like hardware and software as well as new technologies such as AI, machine learning, and IoT. Security issues remain prevalent and moving to the cloud is standard operating procedure these days. Worldwide, the projected expenditures echo this upward trend.

Worldwide ICT Spending 2016-2022 (\$Million, Constant Currency)



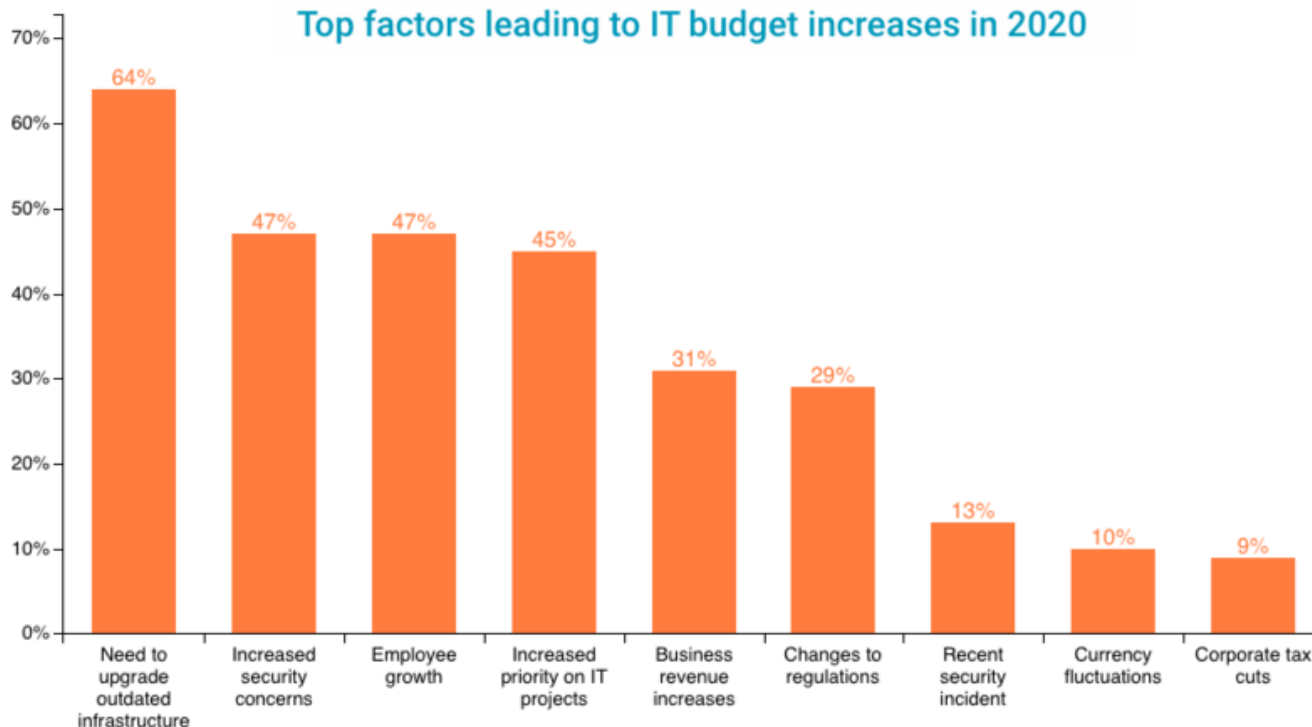
And while it's interesting to see what's happening on a global scale—and know that you're a part of that big picture—it's critical that you determine the best budget and allocations in order for your business to prosper. However, building that budget can be challenging when there are so many aspects to incorporate. We get that. That's why we provide some guideposts for customers to make sure they are taking full advantage of their technology assets while keeping costs down.

Factors to consider for building your 2020 budget

Technology operations don't exist in a vacuum. There are so many touchpoints across the enterprise that need to be considered. We've identified some points that will help guide you by asking critical questions:

- *Who needs to be involved in budget development?*
- *How do you find accurate and full pricing?*
- *Where are you on your technology life cycle?*
- *Do you have legacy systems that could be restricting you?*
- *What new technologies interest you?*
- *What upgrades will you need?*
- *Are there compliance issues that need to be addressed?*
- *Are your cloud expenditures more than you expected?*
- *Where is the business most vulnerable based on an IT risk assessment?*
- *How secure are your security initiatives?*
- *Do you have the tech talent to take your business where you want to go?*

Top factors leading to IT budget increases in 2020



According to research conducted with 1,000 IT professionals, the most important factor in increased spending for 2020 will be updating outdated infrastructure. Other elements that will push spending are security, employee growth, and priority of IT projects.

Your IT challenges and goals will obviously be specific to your situation and where you are on your IT road-map, but there are some business size issues to serve

as guideposts. For example, small companies seem to require more support when it comes to best practices for security and disaster recovery.

Large enterprises, on the other hand, tend to adopt emerging technologies quicker and need help integrating new technology into their infrastructure. These differentiators will help create more relevant budgeting and your tech partner can help you allocate

appropriately. We believe in transparency, especially when it comes to budgets.

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Emerging Leaders Rising in 2020

Contributed by Kristen Hrusch and Doug DeRose

In 2019, NTMA launched a new program called 30 Under 30 which recognized Emerging Leaders within our member companies and industry.

The program was very successful and to enhance it and assure its continuation, we have made a few changes. The revised program will be called EL Rising 2020, a name that directly links to our Emerging Leaders program. This program is designed to “highlight and celebrate those employees working at your company, 30 years old or younger that are the future of our association and our industry.”

We are now welcoming nominations from managers and supervisors of talented manufacturing professionals who show leadership promise for the future of the manufacturing industry to be selected for the EL Rising 2020 class. Up to 15 individuals will be selected to join EL Rising 2020 class, offering them an opportunity to connect with one another, gain valuable recognition, and develop their skills and knowledge throughout the year.

The selected individuals will be recognized in the July issue of The Record, with their photo, professional information, and their accomplishments. Individuals selected for the EL Rising 2020 class will be invited to attend the Fall Conference at a special rate and will be recognized on stage during the awards ceremony. They will also be invited to attend the 2021 Emerging Leaders Conference, where they can continue to grow and learn in this great profession.

The upcoming 2020 Emerging Leaders Conference will be held in Kansas City, MO from April 27-29. This annual conference allows NTMA to gather the best and brightest future industry leaders to network, share knowledge, and brainstorm about tomorrow's precision manufacturing industry. All rising managers looking to advance their careers within your company need to attend. In addition, NTMA is extending a personal invitation to all of the 2019 “30 Under 30” participants who were honored last year in The Record and at the Fall Conference in Austin.

More details on the Emerging Leaders Conference will be coming soon. We look forward to seeing you this

spring. As a leader for your company who is focused on the future, you have already identified your future leaders. Now you need to make sure they have the opportunity to participate in an event specifically for them.

Nominations for the EL Rising 2020 class are open to all regular members, including our National Associates.

THE PROCESS TO NOMINATE IS SIMPLE:

Email Kristen Hrusch (khrusch@ntma.org) with the following information by Friday, May 15, 2020.

- *Name of nominee*
- *Company name*
- *Contact information for nominee*
- *Achievements and contributions*
- *Any additional information that is pertinent*

The group will be notified by the first week in June, in order to obtain more details for the July issue of The Record. Please do not delay; enter your outstanding Emerging Leaders today!

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Now in its 9th year, AMT's annual MFG Meeting has become a tradition for AMT members to network with their peers and learn from industry thought leaders about the most important issues and trends in the market today—transformational technology, economic predictions, business leadership, and industry best practices.

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NTMA Members attending MFG will keep Member Rate!

NTMA Has Teamed Up With the Podcast - The Job Shop Show

Contributed by Jay Jacobs

NTMA is pleased to announce we have teamed up with a podcast - The Job Shop Show - as our partner. The Job Shop Show podcast focuses on custom part manufacturing and, in particular, the issues relevant to owners and managers of Job Shops, helping you go from good to great to awesome! Hosted by a former large shop owner, it is a conversation with peers in the industry.

Topics include the operating philosophies of high growth shops, shop best practices, current technology trends and tool implementations, ownership transitions, financing, finding talent, growth mindsets and increasing profitability. The Job Shop Show has already recorded two podcasts with NTMA members and is excited to extend an opportunity to other NTMA shop owners to share their stories with the custom manufacturing community.

The host of the Job Shop Show, Jay Jacobs, has a passion for custom part manufacturing and has been immersed in the job shop community since 1987. Jay has owned job shops, sold to job shops, worked for job shops, and been a customer of job shops. Process-

es he has been involved with include machining, sheet metal, injection molding, 3D printing, additive manufacturing, metal and plastic castings, springs, and stampings. As the founder and former owner of RAPID, he grew his team from 5 to 300+ strong while creating the world's largest sheet metal prototype company.

Acquired by ProtoLabs in 2017, RAPID was quoting over 100,000 unique part numbers and manufacturing over 30,000 unique part numbers per year out of facilities in Nashua, NH, and grew 32% PER YEAR from 2010 to 2017. eRAPID, a SolidWorks plug-in, was a totally automated tool enabling RAPID to instantly quote and accept orders of sheet metal prototypes within SolidWorks. Jay is currently a co-founder at Paperless Parts, a job shop focused software platform helping custom manufacturers modernize their shops to better compete in the increasingly web-based manufacturing world.

Justin Quinn, of Focused on Machining, NTMA member in Denver, CO, was a guest on the custom manufacturing-focused podcast, The Job Shop Show.



Justin spoke with host Jay Jacobs on a wide variety of topics, including his journey from commercial banker to purchasing and now owning a job shop. His perspective, based on his years of banking, on how to determine the value of a job shop might surprise you. You can listen on most of the popular podcast platforms or directly at www.thejobshopshow.com (Episode 7).

Peter Doyle of Hirsch Precision Products, NTMA member from Utah, was also a featured guest on the custom manufacturing-focused podcast. Peter spoke with host Jay Jacobs on a wide variety of topics, including being a 2018 Modern Machine Shop magazine Top Shop, buying a shop, and how deploying advanced manufacturing technology has given Hirsch a strategic advantage over the years. Peter is a former Air Force officer and reflects on how military service positions a person for success. His podcast is Episode 11.

How Do You Benchmark Your Business?

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Meet Your New Competitor: The Millennial Entrepreneur

Contributed by Jason Ray, CEO, Paperless Parts

There is a lot written about the so-called “millennial generation” – some truths and some stereotypes. One thing is for sure, they are taking over family businesses – starting new ones, or purchasing them, and they are applying their own approach to business ownership. So, who are these people and how are they impacting the manufacturing industry?

There are about 80 million millennials (born between 1981-1996) in the U.S., which makes them a larger group than the baby boomers, and they are now the primary workforce. One truth about millennials is that they are the most educated generation in history. In the past, manufacturing employees learned the trade while working in the family shop, but this generation of business owners often works in several companies before deciding to try their hand at owning their own. They are a diverse group in gender and race, are optimistic about the future, and are early adopters of technology.

Millennials are 2.5 times more likely to be early adopters of technology than older generations. 56% report that they are one of the first groups to try new technology.

- AMERICAN MILLENNIALS, Barkley

These “digital natives” grew up surrounded by technological innovation: gaming, smartphones, the internet, and social media...digital everything! Not only are they comfortable with technology and a rapid pace of change, they believe technology is inherent. As they think about their business, they naturally seek to incorporate new technology into their processes, in both the front and back offices.

As millennial entrepreneurs embrace technological innovation, they are improving manufacturing processes through production automation and digitized supply chains, leading to a higher quality product. In the front office, they take advantage of technology for customer communication and collaboration, improving customer experience, and

winning more business. They are using analytics to devise a more data-focused business strategy that yields higher profits.

Many manufacturers experience a skills gap and struggle to find reliable labor. Millennials are building companies that offer the experience that they sought – growth opportunities, innovative, tech-minded, and work/life balanced cultures, allowing them to attract more of their generation than their competitors.

Millennials even influence buying behavior when it comes to industrial buyers. The 2019 UPS Industrial Buyers Dynamics Study showed an increase in millennial buyers of almost 36% from 2017 to 2019. The study showed that these buyers expect consumer-like buying experiences, faster service, and post-sale support. They prefer to buy directly from manufacturers who they believe will meet their buying needs.

It's not too late

You may be thinking about how you can remain competitive against this growing tide of millennial entrepreneurs, or how you might attract them to take over your business when that time comes. It's not too late – you can start taking steps now to remain a competitive and attractive option for millennial employees, possible owners, and even buyers.

100%

of millennial business owners with \$1 million to \$10 million in revenue believe artificial intelligence and machine learning are already impacting or will impact their industry in the next five years.

- Gabriel Marketing

37%

of Millennials see manufacturing as a high-tech career choice compared to 23% of baby boomers.

- 2015 survey, Protolabs

One of your biggest advantages is your years of experience, your tribal knowledge, if you will. As you or your employees start to retire, they are taking that expertise and experience with them. Incorporating that knowledge and expertise into your business processes through technology can safeguard it and mitigate the risk of losing it as seasoned employees leave the company.

A simple yet fast return on your investment would be to start with the front office. You can modernize the selling process by using technology to quote faster and more accurately and provide customers with a simple way to request, review, and accept a quote (using a digital quote). You can collaborate online with your engineers or vendors on any questions and have a centralized repository of all your data, making it easier to create your next quote. If you incorporate your tribal knowledge into the automated process, you can train anyone to quote!

Technology can reduce the risk of losing expertise as employees leave; it streamlines the process, allowing you to better compete by offering a superior customer experience, helps you to attract and retain employees, and ultimately win more business.

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The Biggest Threat to Manufacturing? Cybersecurity

Contributed by Omar Nashashibi, The Franklin Partnership, LLP

I am often asked what is the greatest long term threat to downstream manufacturers, to which I always have a swift and often baffling response — cybersecurity. You cannot blame the person for immediately thinking about that “prince in Africa” sending an urgent plea for funds and to “click here.” The cybersecurity threat has since evolved into a daily struggle to protect a company's network, intellectual property, and ability to continue manufacturing operations.

Each week, we read about cyber-attacks and data breaches affecting large corporations, banks and even government agencies. However, the global marketplace and the internet continue to change the way business is conducted both online, and offline, for companies of all sizes.

Despite these headlines, we believe downstream middle market manufacturers are the most vulnerable to an attack. Hackers are working daily to infiltrate networks, not just to steal information but also for industrial sabotage. A cybersecurity breach could lead to the attackers making minor changes to part or tooling designs that go undetected. Manufacturers will unknowingly produce a faulty product or one that no longer meets the customer's specifications, leading to a loss of business and disruptions in critical supply chains.

Imagine if an NTMA member is infiltrated and sends faulty tooling or an altered die to a customer in the defense, aerospace, or medical device industries. This threat is very real.

A recent survey by the Small Business Administration found that “88 percent of small business owners felt their business was vulnerable to a cyber-attack.” Companies are also increasingly receiving requests from their customers to show they have cybersecurity systems and protocols in place. While defense suppliers have long had certain compliance requirements, increasingly manufacturers are reporting additional mandates in customer contracts. With 43 percent of data breaches targeting small

businesses, according to a 2019 Verizon report, yet only 14 percent of responders said it is critically important that small and medium-sized manufacturers adopt strategies now to fight cyber threats.

This is why at the NTMA Spring Conference on March 11 in Cleveland, the Association secured an important speaker who will speak about what manufacturers need to know about cybersecurity, especially with the new Department of Defense requirements we expect to spread to the private sector.

The Department of Defense is moving forward to adopt a framework for cybersecurity to better assess and enhance the cybersecurity posture of the Defense Industrial Base (DIB). The Cybersecurity Maturity Model Certification (CMMC) will review and combine various cybersecurity standards, as well as best practices and map these controls and processes across several maturity levels that range from “basic cyber hygiene” to “advanced.”

CMMC adds a verification component to the cybersecurity requirements under the Defense Federal Acquisition Regulation Supplement (DFARS) for Controlled Unclassified Information (CUI) and establishes a model framework with 17 different domains including access control, configuration management, identification and authentication, incident response, risk assessment, and system and information integrity. Each domain covers a key set of cybersecurity capabilities, and these capabilities contain practices and processes that are mapped to five numbered levels.

The CMMC model has five defined levels, each with a set of supporting practices and processes. Practices range from Level 1 (basic cyber hygiene) to proactive and advanced Levels 4 and 5. To meet a specific CMMC level, an organization must meet the practices and processes within that level and below. In general, starting in October 2020, the federal government will require contractors to become certified by a DoD-accredited third-party auditor

prior to bidding on new work. All companies conducting business with the DoD, including subcontractors, must receive a certification. If your business falls anywhere within the defense supply chain, you must have appropriate systems in place to meet the certification requirements.

DoD planned to release Version 1.0 of the CMMC framework in January 2020 and while the requirements right now will only apply to businesses within the DIB, sources in Washington expect a broader role for this model beyond DoD and could soon apply to any contracts, grants, or funding awards in every part of the federal government. As is the case with a multitude of other requirements to expand with contractors, we expect the cybersecurity requirements expand throughout the private sector supply whether through government regulation or larger customers pushing standards throughout their supply chain.

Not every company may currently be contracting with the DoD and need to comply with CMMC, but businesses need to act now to ensure at least basic cyber hygiene to protect information. To help you prepare and learn additional information on how CMMC could impact your business, join NTMA during the Spring Conference. With cybersecurity provisions becoming more common in contracts, both in the public and private sectors, now is a critical time for all businesses to implement comprehensive cybersecurity practices and processes.

The most significant threat today and in the future is only growing and the March 11 session is a must attend to learn how to protect your business and place your company above the competition.

Omar Nashashibi is a Founding Partner at The Franklin Partnership, LLC, a bipartisan government relations firm retained by the National Tooling and Machining Association in Washington, D.C.

NTMA

SUMMER CONFERENCE

June 15-17 – Phoenix, AZ
The Kimpton Hotel Palomar

Strategize, revitalize, and let NTMA equip you and your business with the tools you'll need to succeed. Join NTMA during our Summer Conference offering business development sessions, educational speakers, and our highly rated roundtable discussions and networking events – these are conferences not to miss!

Questions? Contact Kristen Hrusch - khrusch@ntma.org or 216-264-2845

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R&D TAX CREDITS FOR THE MANUFACTURING INDUSTRY

DID YOU KNOW?

- Certain product development and process improvement activities performed by manufacturing companies may qualify for sizable federal and state R&D tax credits.
- Federal credits are dollar-for-dollar reducers of tax of up to 6.5% of qualified expenses and over 40 states offer similar R&D tax incentives that can double benefits in some cases.

EXAMPLE QUALIFIED ACTIVITIES:

- Product Design & Testing
- First-Article Runs
- CNC Programming
- Tooling Development
- Equipment Development
- Process Design & Development
- Quality Assurance

MANUFACTURING FIRM CASE STUDY:

Item	Average Annual Amount
Gross Revenues	\$ 50,000,000
Total Payroll	\$ 28,800,000
Qualified Research Expenses (QREs)	\$ 1,760,000
Net Federal Credits	\$ 110,000
Net State Credits	\$ 54,000
Total Net Federal and State Credits 1-Year	\$ 164,000

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~President/CEO, Heateflex

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Did you Know you Might Qualify For State or Federal Grants to Help you Train Your Employees?

Contributed by Bill Padnos

Though a skilled workforce is critical to success, budget constraints can require companies to find cost-effective solutions to provide high-quality training for their employees. The Franklin Partnership has assembled a list of national, regional, and state level funding sources to help NTMA member companies offset the costs to develop and retain skilled workers.

In the member-only section of the NTMA Resource Center, you will be able to access this list and see if

you qualify for financial support of your worker training. NTMA understands the importance of a skilled and trained workforce. We are committed to helping our members fill the manufacturing skills gap through a wide range of training programs for entry-level workers to future leaders through our online NTMA-U courses and other conferences and events.

Before you make the final decision not to enroll your employees into NTMA-U courses or start an apprenticeship program, check the NTMA Resource

Center (<https://ntma.org/resources/>) to see if you qualify for funds to support your efforts.

The Franklin Partnership funding sources list is a benefit for NTMA members that will enable you to secure the necessary funding to invest in your workforce which will improve your bottom-line performance.



EMERGING LEADERS CONFERENCE

April 27-29 – Kansas City, MO

To ensure the future success of our businesses and our industry, we have to build the future today. NTMA gathers the best and brightest up-and-coming industry leaders to network, share knowledge, and brainstorm about tomorrow's manufacturing industry.

Your emerging leaders are your rising managers and leaders in the making. If you have someone who exhibits these five traits, the Emerging Leaders Conference is the key to their success.

1. Achiever 2. Change Agent 3. Developer
4. Team Player 5. Business-Savvy

Questions? Contact Kristen Hrusch - khrusch@ntma.org or 216-264-2845



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APPI Energy, NTMA's Preferred Provider of Energy Procurement

Contributed by:

APPI Energy, a trusted name in energy consulting for 24 years, is NTMA's preferred provider of energy procurement for their members. Through our program, members have access to a full suite of valuable services, designed to save time and create budget certainty. Our holistic energy management services include negotiating and procuring electricity and natural gas from trusted suppliers as well as efficiency and sustainability consulting related to demand-side management and renewable energy projects.

Through the process of a facility assessment, a qualified energy expert can identify ways to modernize old systems and equipment and improve the environmental impact of your facility with a goal to reduce operational expenses. Facility energy optimizations could include HVAC upgrades, LED lighting retrofits, advanced metering technology, and peak load scheduling. By having a qualified expert analyze your energy profile and facilities, you will receive personalized recommendations that are designed to help you do more while consuming less power.

LED projects have helped members across the country reduce consumption, reduce maintenance cost, improve lighting quality, and experience a great ROI. LED lighting provides cleaner, brighter lighting at a fraction of the cost of older fluorescents and metal halides. LEDs also offer improved color rendering, causing less fatigue for employees. The opportunities across North America vary regarding rebates and other financial incentives; however some projects have received up to 70% funding from the utility. For some qualified members, on bill financing has allowed them to have no upfront capital expenditures. If you have retrofitted to LEDs over five to six years ago, you may want to consider doing it again as the cost and technology continue to improve.

Advanced innovations in solar energy have resulted in solar power being one of the cleanest and most abundant forms of renewable energy available.

Recent developments in higher density solar panels allow for the requirement of lower installation costs, less space required, and higher performing systems. Currently, an estimated two million solar energy systems are operating in the United States and that number is growing every day.

Our holistic energy services provide financially and functionally vetted solutions to decrease energy costs, reduce demand, and improve resiliency and sustainability. To learn more about any of these solution systems listed above or our procurement services, contact one of our energy consultants at appienergy.com or call 800-520-6685.



New Talking with One Voice Podcast

Contributed by: Caitlyn Sickles, Policy Resolution Group



Podcasts are an increasingly popular method for sharing news and information. Today, some 90 million Americans regularly tune in to podcasts. This month, NTMA took to the microphone when we launched the first NTMA-backed manufacturing industry advocacy podcast, "Talking with One Voice." The podcast is produced by NTMA and the Precision Metalforming Association (PMA), together known as One Voice for Manufacturing.

Each week, the One Voice advocacy team in Washington, DC – Paul Nathanson and Caitlin Sickles from the Policy Resolution Group at Bracewell LLP and John Guzik and Omar Nashashibi from the Franklin Partnership – will break down how the latest news from Washington impacts manufacturing businesses across the country. Hot topics will include workforce development, taxes, trade, health care and regulation. And, you can expect plenty of real-time reaction and analysis as we head toward Election 2020.

Find new episodes on all podcast platforms including Apple Podcasts, Spotify, Stitcher, Google Podcasts, and Soundcloud.

Or, visit the link on the NTMA website at: <https://ntma.org/programs/advocacy/talking-with-one-voice/>

Ask your policy and politics questions – and get answers on upcoming episodes – by e-mailing onevoice@policyres.com.



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Manufacturing America's Future

Have an interesting story you would like to
share with other NTMA members?

Each issue of The Record will feature one or more stories
from members that fit the month's theme.

The submission deadline will be the first
of the month prior to the publication date.

Email to Kelly LaMarca at kلامarca@ntma.org.

Upcoming Record Themes:

March

Government and Manufacturing: How to Get Involved

April

Data Driven Manufacturing

May

Skilling up The Workforce

What's Your Story?

