

# MANUFACTURING MATTERS

2022 - Issue #1

Helping New Jersey Manufacture Success

[www.njmep.org](http://www.njmep.org)

## 2021: A YEAR OF CHANGE, CHALLENGE, AND PROGRESS

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# 2021

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# ‘MADE IN NEW JERSEY’ MANUFACTURING DAY 2021: A HUGE SUCCESS!

‘MADE in New Jersey’ Manufacturing Day 2021 was a massive success with hundreds of industry professionals all coming together to celebrate with the New Jersey Manufacturing Extension Program, Inc at the Marigold in Somerset, New Jersey on October 1st.

This is New Jersey's largest manufacturing networking event of the year and after a virtual year in 2020, the event was back in-person with an optional virtual attendance aspect. With ‘MADE in New Jersey’ Manufacturing Day being back in-person, the Manufacturing Awards also made a comeback. Six manufacturers in six unique categories were recognized for their stand-out achievements and brought home the title of ‘Manufacturer of the Year’! In 2020, all New Jersey manufacturers were recognized as Manufacturing Heroes for their work during the pandemic. Now with the world returning to relative normal, it was once again time to highlight select businesses for being true pioneers and thought leaders.

## Celebrating ‘MADE in New Jersey’ Manufacturing Day Both In-Person and Online

To give everyone the option to attend, regardless of any COVID restrictions, ‘MADE in New Jersey’ Manufacturing Day 2021 was a hybrid event. People could purchase tickets for either the in-person or virtual event. The virtual event would give people access to follow along with the in-person celebration. Virtual attendees even had access to exclusive breakout sessions to make up for them missing out on breakfast, lunch, and cocktails. A hybrid event is a new concept for NJMEP but it was exactly what was needed to make sure the entire industry could celebrate together.

## The Never-Ending Value

Over the past 2 years the true value of manufacturing was made apparent. Relying on overseas production caused the supply chain to fracture when the pandemic closed borders and interrupted production. New Jersey saw many businesses retool and pivot to help alleviate these disruptions. The Garden State is also known



as the Medicine Chest of the world, home to many of the top life-science manufacturing companies like Sanofi, Novartis, J&J, and more. The world took notice when New Jersey answered the call to combat COVID-19 in a variety of ways. Whether it was producing hand sanitizer, masks, or working to develop a life-saving vaccine, this amazing state was ready to support.

During a normal year, ‘MADE in New Jersey’ Manufacturing Day hosts some amazing keynote speeches. This year in particular brought together the most impressive line-up of speakers, ever. Rallying around the amazing work accomplished over the past 2 years, prominent federal and state legislators came out to share a few words with the attendees; thought leaders like Kevin Depew, Deputy Chief Economic, RSM US LLP shared invaluable insight into the current and future status of the industry; and even the global CEO of Sanofi, Paul Hudson took the time to address all those that joined the celebration. All the Keynote Speeches and opening remarks are available on-demand for anyone that purchased a ticket. Those recordings can be found right here.

Never before has ‘MADE in New Jersey’ Manufacturing Day brought together so many prominent industry leaders. The industry garnered an unprecedented amount of support and attention by working day and night for 2 years to combat this global pandemic.

Manufacturing businesses are all unique and require specific resources, support, and skills to succeed. Each year, the industry is reviewed and break-out sessions are designed around topics that are having a direct impact on these organizations. 2021 was no different.

### Breakout sessions were offered on the following topics:

- Advanced Manufacturing Technology in Today's Facilities
- Cyber Threats & Cyber Solutions
- Diversifying Workforce Development: Encouraging & Retaining Women in Manufacturing
- Resiliency always matters, Pre-and Post-Pandemic: Cash Flow (Virtual Only)
- If you are in the Department of Defense Supply Chain are you CMMC compliant?
- Overcoming Common Hurdles in Food Manufacturing
- Real Workforce Solutions: Recruitment, Retention, & Upskilling
- Resiliency always matters, Pre-and Post-Pandemic: Digital Marketing (Virtual Only)

There was even a special lunchtime conversation with the Manufacturing Caucus. Senator Michael Testa, Senator Vin Gopal, and Assemblyman Eric Houghtaling came together to discuss some of the most disruptive challenges the industry was facing today. This hour-long discussion was an insightful and productive conversation aimed at getting to the root cause of issues holding back New Jersey manufacturing.

Of course, this celebration wouldn't be complete without the endless supply of food and drinks for all those that attended in person. Every year 'MADE in New Jersey' Manufacturing Day includes breakfast, lunch, and a specialty cocktail. This year's cocktail was 'MEAD in New Jersey'. Mead was provided by a local New Jersey manufacturer, Beach Bee Meadery. Not only was this unique cocktail a hit, but it also gave a local business the opportunity to show off its product and introduce more people to this specialty beverage.



## Celebrating All the 'Manufacturer of the Year' Award Winners

'MADE in New Jersey' Manufacturing Day hosts the Manufacturing Awards every year except during the pandemic in 2020. The Awards ceremony made a comeback this year which sets out to honor select manufacturing businesses that went above and beyond in their service to customers and the local community. All the New Jersey businesses that took home a Manufacturer of the Year award can be found below:

- Innovators of the Year: CompoSecure, LLC
- Manufacturing Cares: Carl Stahl Sava Industries, Inc.
- Start-Up: Bellus, LLC
- Large: Keystone Industries, LLC
- Medium: Norwalt Design, Inc.
- Small: Groezinger Provisions, Inc.

Each of these businesses are the perfect example of stand-out manufacturing operations. To learn more about each one, be sure to review the latest edition of Manufacturing Matters magazine!



## Welcoming the Latest Members of the Manufacturing Honor Roll

Each year NJMEP thanks stand-out supporters of the industry by inducting them into the 'Manufacturing Honor Roll'. These individuals can be industry professionals, legislators, organizations, or anyone else that shows unwavering support to New Jersey manufacturing. In 2021, seven new names have been added to the Manufacturing Honor Roll. Find them all, below:

- Senator Robert Menendez
- Congressman Josh Gottheimer
- State Senator Tom Kean, Jr.
- Peter Connolly, ShockTech President, Chairman of the Board of Directors, NJMEP
- Morris-Sussex-Warren Workforce Development Board
- SETC
- Port Authority of New York & New Jersey



Just because 'MADE in New Jersey' Manufacturing Day is over doesn't mean the industry has to fade away. Every manufacturer in the state needs to leverage this momentum and continue engaging with the local community. To explore more ways to drive a 'MADE in New Jersey' Manufacturing Day business forward, contact NJMEP today to get involved. Without speaking up for the industry, manufacturing will continue to be overlooked. National MFG Day 21 is the perfect excuse to bring the industry together to celebrate all its accomplishments and economic impact. 🏭

## Special Thanks to These Manufacturing Allies

'MADE in New Jersey' Manufacturing Day is not held to generate profit. 100% of any proceeds are donated directly to local community foodbanks. Without the amazing businesses that sponsor the event, there would be no way NJMEP could host such a grand celebration. Each of the businesses listed below played an essential role in making New Jersey's largest manufacturing networking event of the year possible.

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## A YEAR IN REVIEW

'MADE in New Jersey' Manufacturing with NJMEP

There was no way to guess what kind of year 2021 would be for the manufacturing industry. At the start of the year, hopes were high that COVID-19 would fade away into a distant memory, supply chain challenges would slowly resolve, and business would return to relative normal. An unbelievable amount of progress was made but at the end of 2021, there is still a long road ahead. New Jersey manufacturing has been transforming. A new focus on local manufacturing allowed the industry to make tremendous headway toward strengthening its voice, highlighting the true face of modern manufacturing, and garnering support from communities, educators, and the general public.

2021 brought with it unexpected triumphs, upsetting disruptions, as well as hope for the future. Come walk through the year in review and relive all the ups, downs, and notable achievements achieved by the 'MADE in New Jersey' manufacturing industry this past year.



## ADVOCATING FOR THE FUTURE OF 'MADE IN NEW JERSEY'

New Jersey is home to a highly-skilled workforce and access to an amazing variety of transportation networks but manufacturing was forgotten by the public and state for decades. Many believed New Jersey didn't manufacture and all production moved overseas in pursuit of cheap labor. However, New Jersey never stopped. Businesses were keeping their head down, focusing on making their products, and dealing with the fallout from years of being forgotten by the local government. 2021 marked a major milestone in reversing this damaging trend. Years of advocating for the industry by business owners, business associations like New Jersey Business and Industry Association (NJBIA), Commerce and Industry Association of New Jersey (CIANJ), New Jersey Food Processors Association (NJFPA), chambers of commerce, like Statewide Hispanic Chamber of Commerce of NJ (SHCCNJ), African American Chamber of Commerce of NJ (AACCNJ), NJ Chamber of Commerce (NJCC), Chamber of Commerce Southern NJ (CCSNJ), organizations like NJMEP, and so many other partners are leading to tremendous progress.

NJMEP hosted and participated in a series of events in 2021 that brought manufacturers together to have their voices heard. Hill Day and three separate geographically focused State-of-the-State of Manufacturing events took place throughout the year. Hill Day takes place in Washington DC focused on highlighting the importance of manufacturing and presenting the value of the Manufacturing Extension Program. This federal-focused event has a nationwide impact, advocating for the entire national manufacturing industry and the benefit of supporting these incredible businesses. State-of-the-State of Manufacturing brought together New Jersey manufacturing business leaders and local legislators to discuss their biggest challenges of doing business in the state and to hear about how New Jersey plans to address these issues. State-of-the-State of Manufacturing even brought about the creation of the bipartisan, bicameral Legislative Manufacturing Caucus. NJMEP collaborated with local legislators to create a group to hear and address the specific concerns of the local manufacturing industry.

Over the past 10 years, organizations and events that give the industry a chance to come together and speak up together have dramatically increased the visibility

of New Jersey manufacturing. More policymakers both locally and federally are beginning to rediscover one of our nation's most important assets, United States manufacturing businesses. Especially in New Jersey where the industry was thought to have disappeared, there is a renewed understanding of its importance as well as its size. There are over 11,000 manufacturing and STEM firms in the state of New Jersey. Only by these organizations coming together at every opportunity will be the only way to drive progress. New Jersey went from not knowing the state still had manufacturing businesses to having legislators that are actively working to connect and engage with the industry. The industry made incredible progress in 2021 and set up 2022 to be an even more important year. All the attention and progress that was made in 2021 will only continue to benefit New Jersey manufacturing if the efforts by local industry leaders continue. 2022 will be ripe with opportunities to join forces with organizations like NJMEP to speak up and highlight the importance of these businesses.

## NEW JERSEY INDUSTRY COLLABORATES TO ACHIEVE SUCCESS

### 'MADE in New Jersey' Manufacturing Day

Industry progress is only possible if the business community comes together. Beyond advocating for manufacturing, 2021 hosted 'MADE in New Jersey' Manufacturing Day. This business-focused event brought together over 500 manufacturing business leaders and industry partners together at the Marigold in Somerset, New Jersey. It was the first in-person 'MADE in New Jersey' Manufacturing Day in over 2 years. Businesses that were separated for so long had the opportunity to meet, exchange ideas, participate in industry-critical Breakout Session discussions and educational seminars as well as meet new partners. 'MADE in New Jersey' manufacturing businesses were even nominated throughout the year for a chance to take home the title, 'MADE in New Jersey' Manufacturer of the Year in one of 5 categories.

This event is New Jersey's largest manufacturing networking event of the year and businesses from all over the state come together to connect, collaborate, learn, and grow. Being part of an industry that's so

often forgotten, 'MADE in New Jersey' Manufacturing Day plays a critical role. Not only does it highlight select manufacturing businesses through their participation in the Manufacturing Awards, but it is also a catalyst for new business connections. Additionally, the breakout sessions bring together experts from throughout the industry and related sectors to share information on topics ranging from strategies aimed at strengthening cash flow to digital marketing techniques and technologies. Businesses walk away from 'MADE in New Jersey' Manufacturing Day with an immense amount of value.

### State-of-the-State of Manufacturing

New Jersey is a notoriously expensive state to conduct business, especially when it comes to industrial work. Manufacturing has a strong legacy of manufacturing but many in the state legislature were under the impression that most of the industry moved overseas. It's easy to overlook the over 11,000 manufacturing, engineering, and STEM businesses that still call New Jersey, home. These organizations are usually too busy to get involved with politics and keep their heads down to ensure production moves forward and they can continue to pay the over 300,000 individuals that work in the industry. However, when an industry is too quiet, they're forgotten. When the state government forgets about an industry, they develop legislation that could be potentially harmful or damaging to a space like manufacturing. That is exactly what has happened over the past few decades. State-of-the-State of Manufacturing was developed as a way to connect manufacturers with legislators and provide a platform for these business leaders to speak up and be noticed.

State-of-the-State of Manufacturing in 2021 was a little different than years past. It was hosted completely virtually and there were also three events instead of one which took place throughout the year. Each event was focused on a specific geographic region of New Jersey but all manufacturers were welcome. The focus was specifically to engage a small group of legislators from each of the included counties so businesses and legislators had a chance to connect and collaborate. Manufacturers were invited to speak directly to the panel of legislators, explain their largest challenge, and ask the legislators how they plan on addressing these shortcomings by the state. Open and honest dialog rather than a "complaining session" was the goal and it was a goal that was achieved.

State-of-the-State of Manufacturing takes place every year and since its inception has dramatically changed the perception of the industry in New Jersey. 7 years ago if an individual were to ask a legislator about the size and scope of the manufacturing, answers would vary wildly. From some thinking New Jersey didn't manufacture at all to those that would call out a Johnson & Johnson or some local union shops, there was very little understanding about the true breadth of New Jersey manufacturing. Fast forward 7 years, the advocacy efforts by NJMEP more legislators are aware and active proponents of the industry. The State-of-the-State efforts even brought about the creation of the Bipartisan, Bicameral Legislative Manufacturing Caucus. The individuals that sit on the Caucus are committed to the industry, putting forth legislation to support manufacturing, and being advocates within the state government to ensure the 'MADE in New Jersey' manufacturing is never overlooked again.

In 2021, over 560 manufacturing leaders took part throughout the year. Dozens of legislators participated by either sitting on a panel or attending to learn more about the industry. After years of disruptions brought on by the COVID pandemic and manufacturing once again getting its time in the limelight, the State-of-the-State of Manufacturing 2021 allowed the industry to take another impressive step forward toward progress.

## 'MANUFACTURING CARES'

Manufacturers tend to support their local communities through charitable giving. 'Manufacturing Cares' is an initiative spearheaded by NJMEP that allows manufacturers to combine their donations to make a massive impact. When manufacturers join forces, they can amplify their impact massively. In 2021 'Manufacturing Cares' reached the impressive 1 Million Meal milestone. Since its inception, over 1 million meals have been donated or funded through this charitable initiative. However, that's not the only good that came from 'Manufacturing Cares' in 2021.

## Team Eagle Foundation

NJMEP works together with the Team Eagle Foundation (TEF), a charitable organization that distributes scholarships and sponsors young adult leadership programs throughout New Jersey. TEF

couldn't run its leadership camp because of the pandemic but this allowed the organization to use those funds to provide even more scholarships and even invest in some new initiatives.

In 2021 TEF had to get creative. There were funds set aside to host leadership and mentoring camps that had to be put on hold because of the pandemic. This allowed TEF to allocate those funds to one exciting new initiative, the sponsorship of a robotics competition. TEF and NJMEP sponsored an event for the Clifton Robotics Team, the "Mechanical Mustangs." Developing the workforce begins by providing opportunities for students to experience engineering and mathematics. Robotics competitions are excellent at giving students hands-on experience while also making the education practical and engaging. Beyond robotics, competition TEF gave out thousands of dollars in scholarships to NJMEP interns, military families, and local students that met pre-defined criteria. Without TEF, 'Manufacturing Cares' would be limited in the way it can give back to future manufacturing leaders.

## 'Jersey Guys' Golf Outing

Every year NJMEP hosts the 'Jersey Guys' golf outing. This fun day on the course is open to everyone, not just Jersey Guys. It gets its name from the two "Jersey Guys" it commemorates, Anthony DeSantis and Bob Beaman. Both of these individuals were active philanthropists and gave back as much as they could to their local community. The annual 'Jersey Guys' golf outing was developed to carry on their legacy and raise funds for the scholarships that bear their name. There are opportunities for golfers to contribute to the 'Manufacturing Cares' food drive as well. 'Jersey Guys' is so much more than a fun day out on the course. It's a way to support these amazing programs and raises funds to support the countless charitable events and scholarships awarded all year long.

The sixth annual 'Jersey Guys' golf outing broke every record in the book! From total golfers to total funds raised, the entire manufacturing community came out in force. The event took place on July 23rd where over 130 golfers joined the NJMEP at the Minebrooke Golf Club. Every cent of the proceeds goes directly to the different charitable initiatives. Special thanks are deserved for Minebrook Golf Club who provides a massive discount on hosting the event.

In 2022, 'Jersey Guys' raised over \$19,000 and those funds helped support community food banks and each one of the scholarships available through the TEF and 'Manufacturing Cares.' A full recap is available on NJMEP.org to see all the highlights from the day. 'Jersey Guys' golf outing is about having fun and raising funds for great causes.

## Food Drive

The Food Drive is the backbone of the 'Manufacturing Cares' initiative. According to the Community Foodbank of New Jersey, about 800,000 New Jersey residents face hunger every day. 200,000 of those food insecure are made up of children. 'Manufacturing Cares' provides a means for manufacturers to contribute to one entity with the confidence their funds will be pooled together with other contributions to make the largest possible impact to the two main food banks in New Jersey, CFBNJ and Fulfill NJ.

'Manufacturing Cares' food drive broke records once again in 2021. In total, NJMEP and all its partners raised a staggering \$164,571 and 147,424 pounds of food. This brings the 8-year total to over 1,400,000 meals provided through the 'Manufacturing Cares' food drive. Every dollar donated equates to 3 meals provided to a food-insecure New Jersey resident. These kinds of milestones would not have been possible to achieve individually. Only through collaboration under the 'Manufacturing Cares' umbrella could the industry provide such a substantial impact. New Jersey manufacturing cares and actively gives back to those in need. The 'Manufacturing Cares' food drive is a testament to this fact.

## Manufacturing Support Evolves

Working under the 'Manufacturing Cares' initiative also provides flexibility when it comes to charitable giving. A long-time NJMEP team member, Kathleen Baldwin discovered an opportunity to help support the New Jersey Veterans Network. She was able to work with the 'Manufacturing Cares' team to coordinate a massive donation of 12 pallets of toys. In total, the 12 pallets of toys equated to over \$7,000 of merchandise donated to New Jersey veterans. These toys were donated by a client, Custom Picture Frames. Anthony Fontana, CEO of Custom Picture Frames approached NJMEP with this opportunity



and Kathleen was able to coordinate the logistics by relying on the 'Manufacturing Cares' network.

The above example inspired even more NJMEP team members to think about how they can give back during the holiday season. Instead of purchasing a gift for each NJMEP team member, the idea was to pool that money and purchase toys that would be donated to Toys for Tots. \$1,200 was divvied out to different NJMEP teams to purchase as many toys as possible. These toys were donated to the amazing organization all thanks to the foundation 'Manufacturing Cares' provided.

## MAINTAINING MOMENTUM AND ACCELERATING PROGRESS

Manufacturing is an industry that will never stop evolving. New processes, technologies, legislation, and disruptions will always force manufacturing to remain agile and continue advancing. 2021 was the perfect example of businesses working to fill the void caused by international supply chain issues while also working to maintain our way of life. As manufacturing was thrust into the spotlight and demand surged, financial pressures arose, and new laws came to fruition, businesses turned

to their local Manufacturing Extension Program to weather the storm and learn how to thrive in an uncertain and often turbulent environment.

New service areas that support a manufacturer's vision of automating a production line to free up staff to work on more complex tasks, architecture and permitting assistance to help circumnavigate bureaucratic red tape, general contracting support, and so much more is now available to New Jersey manufacturers. Businesses that are looking to bring their operation into the 21st century or are interested in the ROI of investing in new technologies or even a new building have a partner within NJMEP. The NJMEP expanded and brought on new Subject Matter Experts and Resources to provide expert support in these areas. To maintain growth or continue expanding, these opportunities must be explored thoroughly. Now New Jersey manufacturers have a way to make any automation, engineering, or facility needs more manageable.

Businesses in search of strategies to improve cash flow, acquire a business, sell their business, secure tax credits, or any other means of improving their bottom line can now access the robust group of services included within the Business Growth Suite. New Jersey is an expensive state, so an NJMEP team has been assembled to assist

manufacturers in bolstering their organization through a variety of growth-focused actions.

Staying engaged is the best way to ensure New Jersey manufacturing will continue to be supported. Events like 'MADE in New Jersey' Manufacturing Day, State-of-the-State of Manufacturing, and Legislative Manufacturing Caucus meetings are vital. Participation and collaboration are key because showing up in numbers is the only way to capture the attention of the state legislature. Without being an active member of the local manufacturing industry any hope of having the industry supported will go by the wayside. Only when manufacturing businesses come together can their voice be heard. NJMEP will continue to provide platforms to stay engaged with the local industry well into 2022 and beyond. The only caveat is the industry needs to show up, speak up, and advocate for themselves by taking full advantage of the platforms and foundation provided by New Jersey's MEP. 

*To stay engaged, learn more about the events and services mentioned above, connect with NJMEP on NJMEP.org. Follow along with all the latest updates on Twitter, LinkedIn, YouTube, and Facebook @NJMEP. For immediate assistance to learn more about the opportunities available to 'MADE in New Jersey' manufacturers of all sizes, call now at 973-998-9801 or email [info@njmep.org](mailto:info@njmep.org) and stay engaged.*



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# NJMEP

Helping New Jersey Manufacture Success

[NJMEP.org](http://NJMEP.org) | [info@njmep.org](mailto:info@njmep.org) | (973) 998-9801



in new jersey,



**1<sup>IN</sup>6**

**households  
spend half or more of  
their income on housing**

Even before the coronavirus pandemic, nearly one-third of households in the United States faced housing cost burdens — paying either 30% of their income for housing (cost-burdened) or 50% of their income on housing (severely cost-burdened) – due to increased housing costs and growing income inequality.

25% of renter households in NJ (301,776 renters) are extremely low income, meaning they earn less than 30% of the average median income for their area. (National Low-Income Housing Coalition Out of Reach Report 2021)

85% of extremely low- income (ELI) renters in NJ are housing cost burdened (spending over 30% of their income on housing costs), and 71% (over 7.5 million) of ELI renters are severely housing cost burdened, spending over half of their income on housing. This leads to extreme housing instability and homelessness. (National Low-Income Housing Coalition Out of Reach Report 2021)



Elisa Marte closes on her new 3-bedroom home in Plainfield, NJ August 2021

The Davis Family celebrates the dedication of their 4-bedroom home in Jefferson Township. Sept 2021



## what's ahead



Bennett Avenue, Randolph, NJ  
Phase 1- 25- units

We have over 40 new home starts in our pipeline for 2022:

- **Summit** – 12-unit condominium project- 146 Morris Avenue, our first modular construction
- **Randolph** – 25-units total, Phase 1 12-unit condominiums at Bennett Avenue
- **Morris and Middlesex counties** – single family homes in Washington Twp. (Long Valley), Roxbury Twp. and Old Bridge

Additionally, we will also make critical repairs to 100 homes of lower-income seniors and persons with disabilities ranging from roof repairs and replacements to ramp installations, basic plumbing, handrails, grab bars and more..

## 3 ways to help

### VOLUNTEER

Construction experience is not necessary. Our staff and Faithful Volunteers provide all the training and guidance needed.

### DONATE

Your donation or sponsorship will help families access affordable homes while rents and affordable home process continue to rise.

### GIFTS-IN-KIND

Supplies, materials, and services keep costs down and help us to build more affordable homes.

## about Morris Habitat

Since 1985, Morris Habitat for Humanity (MHfH) has been the areas leading advocate and builder of affordable housing. MHfH serves low - and moderate -income families in Morris, Middlesex and portions of Union and Somerset counties. With the support of local municipalities, donors and volunteers, we build homes in partnership with the essential service workers living in our communities. In addition, our Home Repair and Aging in Place Neighborhood Revitalization programs target lower-income, disabled and senior households to improve the accessibility, safety and energy efficiency of their homes.

For additional information, please visit our website at **MorrisHabitat.org** or contact:

### Paul Boudreau

Paul.Boudreau@MorrisHabitat.org  
(908) 745-9517

### Stephanie Bounarota

Stephanie.Bounarota@MorrisHabitat.org  
(908) 591-2589

### Christopher Palazzi

Christopher.Palazzi@MorrisHabitat.org  
(973) 632-9680



274 South Salem Street  
Randolph, NJ 07869  
973-891-1934  
[www.MorrisHabitat.org](http://www.MorrisHabitat.org)  
[info@MorrisHabitat.org](mailto:info@MorrisHabitat.org)



Hours: Tues- Sat. 10 am-6pm  
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Photo Source: GEMCO, Advanced Powder Solutions

# NJ PERSEVERANCE PREVAILING IN MIDDLESEX

Manufacturing worldwide has experienced great challenges since March 2020, from supply chain logjams and securing of raw materials to skilled labor workforce returning to work to servicing unprecedented pent-up product demand that was essentially paused through much of the COVID-19 global pandemic.

Closer to home here in New Jersey, Advanced Powder Solutions (APS) specializes in the testing, tolling, development and optimization of all things powder for the pharmaceutical, cosmetics, and flavor & fragrances industries.

APS's sister company, GEMCO®, is a 100-year-old, fourth generation family owned and operated manufacturer of industrial tumble mixers and vacuum dryers that services similar industries.

Collectively, APS and GEMCO have operated from an 80,000-square foot plant in Middlesex, NJ for many decades.

Were it not for its ideal, easy-access location situated between New York City and Philadelphia, APS and GEMCO may not have been able to continue servicing its customers and manufacturing world-class machines throughout the global pandemic as it has accomplished.

Advised CEO and President of both GEMCO and APS, Casey Muench Bickhardt, "COVID presented many challenges to us and yes, some challenges remain. In my estimation, our investments in technology, our employees and the strategic partnerships we maintain helped us mitigate most challenges presented to our operations in the past 18 months. Our Middlesex, NJ location has us situated close to major ports and thoroughways and we are blessed with a highly-skilled area workforce that has allowed us to continue to manufacture our award-winning industrial mixing and drying systems, as well as help our east coast powder clients achieve their business goals."



As many raw materials have been sparse, we have all experienced both B2B and consumer prices increasing, especially through more recent months. APS and GEMCO have been able to combat this, in part, by being geographically closer to more raw material resources and skilled employees, thus New Jersey is an even more important competitive advantage than ever before.

"Our engineering and manufacturing are respected worldwide and in great demand. Yet, if it weren't for our regional technology and manufacturing partners, who knows how this challenging time may have treated us. Our New Jersey and Mid-Atlantic business friends and colleagues are more than just that, as we all aligned strategic goals and all ships rose together this past year. We've definitely experienced one of the most collaborative and resourceful times in our careers," commented GEMCO VP of Sales and Marketing, Gregg Muench.

Founded in New Jersey in 1916, GEMCO has survived the Great Depression, the Great Recession, two World Wars, the global pandemic and a 100-year list of business challenges. Its location and resilience of all that is New Jersey and its people continue to make the difference for GEMCO and Advanced Powder Solutions.

*OKGEMCO.com • AdvancedPowderSolutions.com • 800.654.3626 • sales@OKGEMCO.com*



*New Jersey manufacturing is **Built to Last**. Come discover some of the featured manufacturers in this edition of Manufacturing Matters.*

## MAINGEAR & Edmund Optics

### MAINGEAR

When looking for high-performance PC systems the 'MADE in New Jersey' manufacturer, MAINGEAR is a top choice. Based in Warren, New Jersey they have grown into an industry leader, building some of the most powerful PC systems for numerous high-end applications. Established in 2002, Wallace Santos set out to combine his passions for custom cars and PCs to create a full-service manufacturing operation. The company is dedicated to exceeding customer expectations by building PCs to be not only powerful but also beautiful works of art. MAINGEAR has grown considerably since its inception due in large part to leadership's willingness to innovate, improve, and understand customers' needs. These principles have allowed this 'MADE in New Jersey' manufacturing business to make a name for itself in an extraordinarily competitive industry.

New Jersey is home to a wide variety of manufacturers. High-end PC manufacturing is not often associated with the Garden State. MAINGEAR is the perfect example of a small business in a high-tech field that makes a significant impact right here in New Jersey. They have even been awarded multiple Editors' Choice awards from publications including PC World, Maximum PC, and Computer Shopper to name a few. However, leadership was not satisfied. They wanted to continue improving their operations and production line to create a more efficient manufacturing operation. To support their growth, the manufacturer reached out to NJMEP to optimize their workflow. A "huge increase in overall productivity" is only one way they were able to gain. Read the full success story on PAGE 15 to see how else they were able to improve and maintain their position as an industry leader.

### EDMUND OPTICS

Family-owned Edmund Optics Inc. is a spectacular example of a 'MADE in New Jersey' manufacturing business that sustains growth by improving its operations and investing in its employees. Based in the same location since its inception 79 years ago, the manufacturer produces optical components for nearly every industry as more technologies continue to rely on optics in a variety of forms. Through a commitment to quality and process improvements, they have been able to service the Automotive, Medical Device, and Aerospace industries along with countless others. Edmund Optics has driven itself forward by focusing on quality, efficiency, and workforce development.

Even though it is a leader in the optics space, Edmund Optics is never content. This 'MADE in New Jersey' manufacturer is always looking to improve or secure a competitive advantage. Leadership was seeking a way to bring their company to the next level. Working closely with NJMEP and conducting a thorough no-cost Business Assessment, it was identified that becoming ISO 14000 certified was a great next step forward for the organization. Lean manufacturing training and consulting would also be taking place in tandem. Not only did they work to upskill the workforce, improve the production line, and obtain their ISO 14000 certification, they remained consistent and committed to the process and the systems they implemented. See their entire success story and the results they were able to achieve by turning to PAGE 16.

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*New Jersey manufacturing is Built to Last. These businesses and the employees that make it all possible are truly, 'Unsung Heroes.'*

*Check back in Manufacturing Matters every quarter to see the Built to Last manufacturing list.*

*To be included, contact Mike Womack at [mwomack@njmep.org](mailto:mwomack@njmep.org) and show the world your company is Built to Last.* 



# MAINGEAR IMPROVES OPERATIONS TO SUSTAIN ACCELERATED GROWTH WITH HELP FROM NJMEP'S OPERATIONAL MANAGEMENT RESOURCES



## SUCCESS STORY: OPERATIONAL EXCELLENCE

### BACKGROUND

MAINGEAR was founded in 2002 by Wallace Santos who wanted to turn his passion for building high-performance PCs into a business. Located in Kenilworth, New Jersey, the manufacturer is a leader in this highly competitive space and this success is credited to the exceptional quality of the product and their customer service.

This 'MADE in New Jersey' manufacturing business cultivated a reputation for building some of the world's most powerful, fastest, best-crafted gaming PCs. Providing an incredible pre-sales experience with knowledgeable employees as well as the care and detail that goes into assembling their products is a driving force behind their fantastic reputation. Obsessed with quality, the company controls every aspect of the assembly process from the components, to the look and feel, so every customer receives exactly what they purchased.

### CHALLENGE

Businesses experiencing rapid growth must manage the challenges that come along with accelerated expansion. MAINGEAR produces some of the best gaming PCs available on the market. This attention to quality and a holistic approach to the sales cycle thrust them into the spotlight. As the business grew, leadership identified a need to ensure their operational processes were given the same amount of care and attention as the products they sold.

"As a growing company that's manufacturing hard to manufacture goods that are hand built, we wanted to reach out to [NJMEP] for help with optimizing our workflow," said Ron Reed, Managing Director.

### SOLUTION

MAINGEAR's leadership understood they needed a partner that could help them fundamentally improve their operation from the inside. They reached out to NJMEP to explore what services and training would be available to overcome the identified challenge.

After connecting with the Account Manager, a complimentary assessment was conducted. It gathered, reviewed, and analyzed the company from the ground up to understand its current situation. The next step was to gain a deeper understanding of the company goals, current business strategies, uncover growth options, and future financial needs. It is critical that NJMEP thoroughly understands the clients' needs in order to make actionable recommendations from the information-gathering stage. MAINGEAR's Account Manager worked together with NJMEP's team of expert resources to review exactly what the company will need to reach its goals and uncover the best possible path toward success. The discovery process allowed NJMEP to provide recommendations focused on providing optimal financing and financial management strategies.

Training and hands-on guidance were provided to key MAINGEAR stakeholders. NJMEP's resource worked with the organization to take a detailed dive into every step of their processes, from start to finish, and found ways to improve and allow for additional growth without sacrificing quality. The project took place over 10 months, between February of 2020 to December of 2020, where training and consultative support was provided by one of NJMEP's Operations and Management resources. Acting as an Outsourced CFO, the resource trained the organization to manage their growth so MAINGEAR can continue to expand without interruption.

### RESULTS

"We saw a huge increase in overall productivity. It has been key for us to be able to sustain our growth," Managing Director, Rod Reed explained. He continued, "Because it was such a detailed process, and we're a very data-driven company, [the project] was easy to implement and then evaluate the effects on our production. It was very clear the effort made a difference."

The MAINGEAR organization took the NJMEP engagement process seriously and it paid off massively. By committing to the strategies shared and learning from the data uncovered, their business achieved impressive results. Not only did their business improve, but the project was received well by the entire organization and it has led to a dedicated transformative local manufacturing business.

MAINGEAR contributed the following as a result to engaging with NJMEP:

INCREASED SALES:	\$5,000,000
EMPLOYEE CREATION:	10
RETAINED SALES:	\$5,000,000
EMPLOYEES RETAINED:	10
COST SAVINGS:	\$150,000
SAVINGS INVESTED:	\$1,500,000

**"[Working with NJMEP] has been such a positive experience. From working with our reps to all the individual projects we've had, it's been so positive overall."**

Rod Reed, Managing Director, MAINGEAR

# DETECTION AND DISTANCING DURING COVID-19 / 6S WORKPLACE ORGANIZATION



## SUCCESS STORY: OPERATIONAL EXCELLENCE

### BACKGROUND

Edmund Optics Inc. is a family-owned business and has been in the same location since it opened over 79 years ago. This "MADE in New Jersey" manufacturer produces a dizzying array of optics and optical components. Edmund Optics provides its manufactured components to nearly every industry as more and more products include optics in a variety of forms. Serving the Automotive, Medical Device, Aerospace industries along with so many others, this manufacturer is prepared to handle sensitive components and incredibly high-quality standards their customers demand. Through a commitment to quality, efficiency, and workforce development, this manufacturing business can overcome nearly any obstacle.

### CHALLENGE

NJMEP approached Edmund Optics Inc. and offered a no-cost Business Assessment. The needs of the company were clear.

"We got involved with NJMEP because we were looking for some training that would help us get to that next level," Jay Budd, Director of Compliance explained.

Embarking on an ISO journey alone can be difficult for a small-medium-sized manufacturing business. Edmund Optics Inc. was working to become ISO 14000 certified and needed a partner to make the project run smoothly and efficiently.

ISO wasn't their only need. Edmund Optics Inc. was actively working to drive its business forward in every way possible. They were looking for new ways to increase throughput, maintain quality, and eliminate waste. Through previous engagements with NJMEP, Lean Manufacturing was not a new concept. However, they needed the right team to ensure these practices and these techniques would be utilized and sustainably.

### SOLUTION

To ensure this MADE in New Jersey manufacturing business has all the resources and their employees have all the skills needed to succeed, they partnered with NJMEP for training in several focus areas. The project with Edmund Optics included ISO, Lean manufacturing, and more specifically, 6S Workplace Organization training.

Thorough ISO training was conducted to help the employees learn about this certification process, what it means to be compliant, and their roles and responsibility for maintaining compliance. Edmund Optics employees also were provided with critical lean manufacturing and 6S Workplace Organization training. These programs were initiated throughout the year to keep the workforce engaged and continuously improving as the company.

#### 6S WORKPLACE ORGANIZATION TRAINING INCLUDED...

1. The core concept of 6S in the Workplace
2. Identifying the difference in workplace appearance and functionally before and after the 6S process
3. Employees learned out to perform an in-depth audit of workplace organization and standardization
4. Learning how to organize a workplace by applying the 6S Concepts
5. Participants learned how to standardize procedures to maintain and control an organized workplace

"[NJMEP] gave us the tools to maintain this progress. This is an ongoing effort. This is not a one-and-done program. You continuously look at your success and how you're performing. We now have monthly meetings to check on our success and conduct internal audits to make sure we're meeting all our requirements," said Jay Budd, Director of Compliance.

ISO training and the Remaining Training Focused on the areas listed below:

- Engineering – Design of Experimentation
- Data Process Technology/Tech
- Metrology GD&T

### RESULTS

NJMEP facilitated over 180 hours of training with Edmund Optics Inc. Training was chosen based on the information provided by a comprehensive business assessment and close collaboration with the 'MADE in New Jersey' manufacturing operation.

Over the past year, Edmund Optics Inc. reported the following benefits from engaging with NJMEP.

INCREASED SALES:	\$500,000
RETAINED SALES:	\$300,000
COST SAVINGS:	\$200,000
JOBS CREATED:	3

"I'm impressed by the trainers NJMEP provided and that we can call them at any time if we have a question. Another thing I do love about NJMEP is that we're a global organization and we have facilities all over the United States. I can reach out to NJMEP for a contact in a specific state and they can connect us with the MEP National Network. NJMEP is like one-stop shopping"

Jay Budd, Director of Compliance,  
Edmund Optics



# Celebrating 'MADE in New Jersey' Manufacturing

Highlighting Essential 'MADE in New Jersey' Manufacturers That Drive NJ Forward

## ZAGO MANUFACTURING CO. IS MAKING WAVES WITH BLUE OCEAN GEAR

### Preventing Lost Fishing Gear in Harsh Waters Possible with Smart Farallon Buoy & ZAGO Sustainable Sealing Screws

LOST FISHING GEAR HURTS LIVELIHOODS,  
POLLUTES OCEANWATERS

Did you know approximately 640,000 metric tons of fishing gear is lost every year, polluting oceanwaters and devastating marine ecosystems? For fishers and fisheries, replacing lost fishing gear is costly and income lost to "ghost fishing" is irreplaceable. The smart Farallon Buoy by Blue Ocean Gear eliminates these issues, providing real-time tracking and monitoring of deployed fishing gear to anywhere in the world - land or sea - via mobile app or web interface.

#### FARALLON BUOY: SOUND & STURDY

Armed with sensors, the Farallon Buoy recognizes when it is in or out of the water and alerts the user to anything unusual - equipment being dragged by a trawler, moved by a storm, or entangled. It sits atop of the water, attaches to a range



of subsea fishing equipment, and works even when pulled underwater by strong currents.

"Our buoy is small and light enough to be stored inside a Dungeness crab or lobster pot, but durable enough to be bounced off the deck or whipped around by 20-foot Arctic seas," says Peter Macy, Chief Business Officer, Blue Ocean Gear. "It must be reliable, durable and perform in the harshest environments."


#### ZAGO SEAL SCREWS - KEY TO DURABILITY

To ensure reliability and durability, and optimize performance, Blue Ocean Gear's Farallon Buoy is sealed with ZAGO Phillips pan head seal screws in titanium, engineered with Buna O-ring technology. ZAGO sealing screws differ from standard screws. They feature a custom groove under the head; when combined with a rubber O-ring and tightened forms a 360-degree

leak-proof, waterproof seal that will not break or crack under treacherous conditions. They are pollutant-free and prevent contaminants, i.e., precipitation, oil, bacteria, sand, dust, from leaking into and damaging equipment or leaking out into the environment.

#### CORROSION-RESISTANCE REQUIRED

"We chose a Titanium seal screw because of its high-resistance to saltwater corrosion, and it's lightweight yet strong," says Macy. "We chose a Buna O-ring because of its resistance to saltwater and its vast temperature range, hot and cold. In addition to pressure-resistance, we like that ZAGO seal screws are sustainable, reusable and can be unscrewed and retightened multiple times for end-of-season maintenance."

"As a sustainable manufacturer making sustainable sealing solutions for a sustainable world, we appreciate Blue Ocean Gear and its mission to create solutions benefitting people and planet," says Gail Friedberg Rottenstrich, co-founder and CEO, Newark, NJ-based ZAGO Manufacturing Co. "We're excited to see what comes next." 



Citrine Power is a developer and investor of solar and storage renewable power plants with a focus on commercial & industrial systems. We can transition your manufacturing business in NJ to renewable energy at no cost to you. We can use your roof or other available property at no cost to you and provide your business with deeply discounted renewable power or a long-term property lease payment. Your business can reach sustainability while saving on operating expenses with no capital expenditure. [www.citrinepower.com](http://www.citrinepower.com)



## EXOTHERMIC REDEFINES WORKFORCE DIVERSITY



Kenilworth, NJ- Exothermic Molding Inc. celebrates its fiftieth anniversary this year. This small independent specialty plastics fabricator has weathered the many changes in both the nation's economy and shifting technologies. At the end of the day, according to Exothermic's President, Paul K. Steck, "It's still all about people. Without the right well trained workforce, you will not succeed."

Steck should know. He and his staff have hand-picked a highly motivated workforce all the way from the shop floor to each department head. Exothermic prides itself on its commitment to hiring a diverse workforce. Its staff includes Latinos, African Americans, Asian Americans and Caucasians. But it goes beyond that.

Exothermic has also embraced reentry programs, inviting the formerly incarcerated to join its workforce in cooperation with organizations like the Urban League of Union County. According to Steck, "This has proven to be a win-win. We have offered a fresh start and a second chance to these individuals, and they

have contributed to our growth." Cathy Waters, head of the 10-year-old Reconnections Program at the Urban League screens candidates for employment, matching them with the company's needs. "This saves companies time and money," she noted. "Paul Steck's company sought those with a good work ethic desiring long-term employment with advancement opportunities."


Over the course of four years, the Urban League Reconnections program has placed more than 10 formerly incarcerated individuals on staff at Exothermic Molding. Prior to placing her clients, Ms. Waters conducted an on-site visit and toured the company. Her impressions were very favorable. She remarked on Exothermic's concern for safety and "Was impressed with how motivated the employees were," along with Paul Steck's commitment to giving people a second chance—even when they made mistakes."

"It's all about creating opportunity for your people," relates Steck. "The company has a long history of promoting from within its ranks with on-job-training of soft and hard skills."

Eric Scott has worked with Exothermic continuously since his HS graduation in 1979 (42 years) and is our Shop Foreman. James Patnaude is our Operations Manager and started

with the company as a Spray Painter.

Most recently, Exothermic conducted a top to bottom review of its pay scales as part of a Focal Point Review conducted by Creative Workforce Solutions in Florham Park, NJ. Susan Brocaglia, President of Creative Workforce Solutions explains, "We looked at everyone in the company, comparing them to the market and brought them up to the prevailing market wage. We also switched everyone's review date to the same date. We further standardized their reviews, so everyone gets reviewed with the same set of criteria. Pay increases are therefore not tied to fluctuations of the business. This levels the playing field." The result: across the board wage increases for all of the company's non-management staff. The company's entry level employees now receive \$15 per hour. Paul Steck asserts, "Having a good HR advisor (like Susan Brocaglia) is extremely valuable during these difficult times for finding and retaining a productive workforce."

In addition, Exothermic continues its committed to promoting from within and has a growth track for talented, motivated new hires. According to Steck, "Next steps will include a path to career progress, with financial incentives for employees that perform well." 

*Manufacturing is a critical part of the New Jersey economy. These businesses play a critical role in their local community and have proven to be essential to the state and nation. 'MADE in New Jersey' is a complimentary program that helps highlight these businesses which are incredible economic stimulators and providers of competitive employment opportunities. With over 11,000 manufacturers that make their products right here in New Jersey, be sure to check back every week for the latest 'MADE in New Jersey' manufacturer shoutouts!*

Sign up to become a MADE in NJ member by contacting [mwomack@njmep.org](mailto:mwomack@njmep.org). 

## 'MADE IN NEW JERSEY' BENEFITS:

### ALL NEW 'MINJ' MEMBERS ARE LISTED IN MANUFACTURING MATTERS MAGAZINE

Manufacturing Matters is distributed to over 14,000 business leaders throughout New Jersey.

### HAVE A CHANCE TO BE SELECTED AS "MANUFACTURER OF THE WEEK"

One MINJ member is highlighted and shared via all of NJMEP social media networks each week.

### A PROFILE PAGE ON NJMEP'S WEBSITE SHOWCASING YOUR COMPANY

Improve your company's brand awareness and search engine ranking.

### DISPLAY THE MADE IN NEW JERSEY LOGO ON YOUR WEBSITE

Show businesses and customers visiting your website that you manufacture products here in NJ.

### RECEIVE AN OFFICIAL 'MADE IN NEW JERSEY' PLAQUE TO DISPLAY ON SITE

Showcase your New Jersey pride by displaying an official MINJ plaque at your manufacturing facility. Available upon request.

Sign up to become a 'MADE in NJ' member by contacting [mwomack@njmep.org](mailto:mwomack@njmep.org).

# TRENTON



# TALK

Manufacturing has a greater impact on the state's economic growth than many people realize. New Jersey is home to 11,000 manufacturing companies, and we have a lot to be grateful for because of the work they do. It has been an honor of a lifetime to be a member of the Manufacturing Caucus in the New Jersey Legislature, and I am so thankful for each and every individual I have met throughout the years that have taught me so much about the importance of manufacturers in this State.

Throughout my time in the Legislature, I have tirelessly advocated for manufacturers and the incredible work they do. I felt celebrating manufacturers for one day in October for National Manufacturing Day just didn't seem like enough, so I created a resolution that has been signed into law by Governor Murphy to designate the first week of October of each year, "Manufacturing Week" in the state of New Jersey.

Manufacturing Week is a time to commemorate their work, and to bring awareness to the next generation so they can be inspired by this industry, and realize the importance manufacturers have on all of our day-to-day lives and our economy, contributing \$47 billion a year and employing about 245,600 people.

New Jersey has one of the most educated and skilled workforces in the nation, making New Jersey particularly desirable to manufacturing companies. The U.S. Bureau of Labor Statistics ranks our state first in the US for employed biochemists and biophysicists.

That's why I introduced legislation requiring the NJ Department of State to develop a "Made in New Jersey" designation with a logo that tells buyers of products and parts made in NJ where they came from. A state brand showcases the variety of goods and products

made right here in New Jersey. We can celebrate and raise awareness of New Jersey's manufacturing sector by promoting state production to anywhere the product is sold in the world. That's just good business. And I am proud Governor Murphy signed this legislation into law on September 28 of 2021.

New Jersey holds a special place in manufacturing history, as we are the birthplace of the Industrial Revolution, and we have evolved with the times by relying on high-tech solutions and niche markets to maintain a competitive edge. This is a forever changing and evolving business, and will only continue to grow in our consumer-driven world.

That's why I sponsored bill A4315 which appropriated \$250,000 to support the New Jersey Manufacturing Extension Program, the manufacturing extension program dedicated to supporting New Jersey manufacturers. NJMEP is now the leading nationally rated manufacturing extension program. This funding expanded our apprenticeship programs within the critical advanced manufacturing /STEM/TLD sectors. NJMEP was able to expand its current pilot programs that are helping to create more production technicians, logistics technicians and technical salespeople.

It has been an incredible journey working alongside manufacturers up and down the state of New Jersey. We have manufacturers to thank for stocking our stores with products we use, for creating an economy for affordable goods, and for creating a world where direct-to-consumer companies thrive. I celebrate and support the manufacturers that make our retail ecosystem come to life, and from the bottom of my heart, I thank you. 🧡



**ASSEMBLYMAN ERIC HOUGHTALING, DISTRICT 11**

**MEMBER, NEW JERSEY BIPARTISAN LEGISLATIVE MANUFACTURING CAUCUS**



**NATIONAL MANUFACTURING  
EXTENSION PARTNERSHIP  
(MEP) SUPPLY CHAIN  
DATABASE ACT ADDRESS  
CURRENT SUPPLY CHAIN  
DISRUPTIONS AND AVOIDING  
FUTURE BREAKDOWNS**





There is a widespread need to understand what manufacturing capabilities are available right here in the United States. Never before has the nation experienced such a breakdown of the supply chain as it experienced throughout the COVID-19 pandemic. From toilet paper to medical supplies, the nation struggled with massive shortages and unmanageable delays. Action had to be taken. Senators Robert Menendez (D-N.J.) and Marsha Blackburn (R-Tenn.), along with US Representatives Norma Torres (D-Calif.-35) and Chuck Fleischmann (R-Tenn.-03) introduced the bipartisan, bicameral National Manufacturing Extension Partnership (MEP) Supply Chain Database Act to rectify this massive oversight.

"The COVID-19 pandemic exposed deep vulnerabilities in our own national supply chains that we are still dealing with as a country and that make us susceptible during moments of crisis," said Sen. Menendez. "Future pandemics, natural disasters, cyber-attacks, raw material shortages, and even trade disputes could cripple our supply chains right when we need to engage them most in order to deliver critical goods to the American public. That's why I'm proud to introduce this bipartisan, bicameral bill to ensure the federal government has a critical tool that could give us reliable information about American manufacturers' capabilities and inventories in order to prevent future disruptions should a future crisis arise."

COVID is only one example of why it is critical to understand our nation's manufacturing capabilities. The country as a whole will benefit from a more transparent national supply chain, and a database of the capabilities and capacity of our local manufacturing businesses. It doesn't take a worldwide crisis to derive value from a deeper understanding of the supply chain. Cost savings, new partnerships, and mitigating the control foreign nations have over the U.S. are just some ways businesses, the economy, and the country can benefit.

"Many people are now just coming to the realization that our U.S. supply chain is compromised, but NJMEP's discussions on this topic with Senator Menendez began 5-years ago," said John Kennedy, CEO of the New Jersey Manufacturing Extension Program. "Over this time, a viable plan to map and control our supply chain nationally has been developed, which would implement a robust database that draws on the considerable strength brought forward by the MEP National Network. Again, this has been a long journey, and without the

leadership and vision of Senators Menendez and Blackburn, as well as Representatives Torres and Fleischmann, we do not get to a place where 'The National Supply Chain Database Act of 2021' becomes a reality with bipartisan and bicameral support. There is no 'immediate fix,' but this is a great step forward."

Senator Menendez has worked closely with John Kennedy, CEO, NJMEP and the American Small Manufacturers Coalition to investigate our local and national manufacturing capabilities. Many assume all manufacturing went overseas but that can't be further from the truth. In New Jersey alone there are over 11,000 manufacturing and STEM firms that produce a myriad of products. When looking at the entire nation, according to IBISWorld there are over 635,000 manufacturing businesses that call the United States, home<sup>1</sup>. Each provides a plethora of knowledge, expertise, and capabilities that extend far beyond what the general public might imagine. The National MEP Supply Chain Database Act plans to capture this information and provide a means to unlock all this hidden value.


"The National Supply Chain Database bill will allow manufacturers to better understand their supply chains to potentially mitigate the risks they are experiencing now due to the pandemic," said Carrie Hines, President and CEO of the American Small Manufacturers Coalition. "We are exceptionally thankful for the leadership of Senators Menendez and Blackburn and Representatives Torres and Fleischmann for not only recognizing the need but also establishing the database within the one public/private program that can bring it to fruition – the Manufacturing Extension Partnership (MEP)."

Addressing current disruptions and creating a solution to avoid future catastrophic breakdowns of the complex global supply chain is an issue nearly everyone can agree on. This bicameral, bipartisan bill is a testament to this fact.

"We've all seen how the supply chain crisis is hurting businesses and consumers across the country, from product shortages to rapidly rising prices and job loss," said Sen. Blackburn. "This legislation will help bring needed transparency to manufacturers and businesses struggling to get their supply chains back on track. It will also keep states at the forefront of the conversation to ensure that states like Tennessee that lead the nation in manufacturing have the data they need to make critical operational decisions."

"At the beginning of the COVID-19 pandemic, we saw to a devastating degree how vulnerable our supply chains are, especially for crucial goods like personal protective equipment. We also saw the good that was done when local businesses and small manufacturers stepped up to meet the challenge. This legislation will help patch those holes, prevent similar breakdowns, and create infrastructure for American small manufacturers to play a key role in future crises," said Congresswoman Torres. "And while a global public health crisis is an acute example of why strong supply chains are so critical, this isn't just important for times of emergency. When we can spot supply chain weaknesses before they reach American consumers, our entire economy is more stable. The database will greatly help the day-to-day operations for American manufacturers by better connecting them with opportunities and needs, which means more jobs and better pay in our communities."

"Over the last year, Tennesseans and Americans across our country have seen the fragility of our nation's supply chain. I am proud to help introduce this bipartisan, bicameral piece of legislation that will provide increased visibility into our domestic manufacturing supply chain system," said Congressman Fleischmann.

Progress is being made in the fight against supply chain disruptions. The Hollings MEP program is going to play a critical role in building a more transparent national supply chain. Only with federal and local support can this program continue to work and strengthen small/medium-sized manufacturing businesses and the nation. The legislators that developed this bill and the allies that came together to provide their insight and expertise have helped the entire manufacturing industry take a collective step forward. Manufacturing is beginning to garner the attention it deserves. The National Manufacturing Extension Partnership (MEP) Supply Chain Database Act will allow the full breadth of US manufacturing to capture the public's attention while at the same time building a network of businesses that can help the nation become more self-reliant. 

<sup>1</sup> <https://www.ibisworld.com/industry-statistics/number-of-businesses/manufacturing-united-states/#:~:text=There%20are%20638%2C583%20Manufacturing%20businesses,over%20the%20past%205%20years%3F>



# HELPING NEW JERSEY BUSINESSES

In a normal economic period, the New Jersey Economic Development Authority (NJEDA) provides guidance and programmatic support to approximately 800 companies per year.

During the height of the pandemic we provided support to more than 60,000 New Jersey businesses and organizations. Yes, sixty thousand of them: public companies, not-for profits, long-time family-owned businesses, one-person service providers. And, of course, many of those were part of the state's manufacturing industry, numbering more than 10,000 companies of all shapes and sizes.

That is the business of EDA: helping New Jersey businesses. And more. In fact, our mission statement gives us a pretty broad charge:

...to grow the state's economy and increase equitable access to opportunity by supporting high-quality job creation, catalyzing investment, and fostering vibrant, inclusive community development.

NJEDA works in partnership with a diverse range of stakeholders to implement programs and initiatives that improve the quality of life, enhance economic vitality and strengthen New Jersey's economic competitiveness.

The bad news is that it took a global pandemic to introduce many of NJ's manufacturers – essentials of our economy – to the organization that is here to help them. The good news is that a lot more companies now know of and have tapped into NJEDA than ever before. We want you – the manufacturers of New Jersey to know us because we want to help you succeed.

Companies that know EDA from years past may think of the authority as a lender or a provider of funds or tax credits. This view is very much still correct, but it tells only part of the story today.

Two important refinements of our operation grew out of Governor Murphy's overall economic plan:

- NJEDA has now focused on nine "strategic sectors," areas of the New Jersey economy where the state has the skills and resources to generate outsized economic vitality and job growth. Advanced manufacturing is one of those strategic sectors.
- We have broadened our approach to economic development beyond the mere provision of capital to include support for a wide array of factors that create a complete and solid foundation for economic growth.



**DOUG YORKE**

**DIRECTOR AND SECTOR LEAD –  
ADVANCED MANUFACTURING, NJEDA**

## *What is a State Authority?*

NJEDA is an independent authority of the State of New Jersey. While we are part of state government, we have our own balance sheet and most of our activities are funded from our own revenues. We are led by a CEO who reports to our independent board of directors. All these conditions lead NJEDA to think and act like a business. And we think of the manufacturers of New Jersey – each a separate engine of the state's economy – as our customers. We exist to help those customers blossom and grow here in the Garden State.

### WHAT DOES ALL THAT MEAN FOR NEW JERSEY MANUFACTURERS?

First, it means that NJEDA is focused on advanced manufacturing. It has a dedicated team charged with understanding and meeting the needs of the state's manufacturers (and that team engages with NJMEP practically every day of the week). And in areas that overlap other strategic sector (for example, pharma/ life sciences or food and beverage manufacturing) we have a keen understanding of both companies' industry-related and production issues. NJEDA is eager to manufacturers' opportunities and issues and, wherever possible, to help with them

### WHAT DOES THAT HELP LOOK LIKE?

NJEDA offers a wide variety of programs and services to support New Jersey manufacturers. They range from financing tools, to programs aimed at encouraging investment in certain locations or technologies, to the organizing industry working groups or collaborations, to the creation of industry innovation centers. And if there are other steps that we should be taking or programs that we should be launching, we are eager to hear those suggestions. That's the goal: to build a stronger and fairer New Jersey 🏡

*Doug Yorke is the Director and Sector Lead — Advanced Manufacturing at NJEDA, [www.NJEDA.com](http://www.NJEDA.com)*







# NEW JERSEY EMPLOYMENT - COMMUNITY, CREATIVITY, AND COLLABORATION

## Employment Horizons Shares Their Story

Throughout the state there are stand-out organizations working to elevate the community while at the same time actively supporting local industry. NJMEP connected with one of these spectacular companies for a quick interview to explore exactly what they do and the value they offer New Jersey.

Experience the story of Employment Horizons as told by Lisa Montalbano, Director of Development. See for yourself what makes this business so incredibly unique as well as necessary. Understanding the variety of workforce options that are available to businesses throughout New Jersey is one way to circumvent the ever-present skills gap, especially in manufacturing. Beyond being a partner to the 'Manufacturing Cares' food drive, Montalbano explains how the work done by Employment Horizons directly benefits the state and its residents.

## WHAT IS EMPLOYMENT HORIZONS AND WHEN WAS IT FOUNDED?

Employment Horizons is a unique company providing the highest quality of services to our business partners across Northern NJ while implementing a social business model that provides meaningful and paid employment for hundreds of people with disabilities each year. We opened the doors of our first location, in Morristown, during 1957 when a group of forward-thinking parents of adult children with disabilities founded our organization.

## WHAT IS THE COMPANY'S MISSION?

We provide job training and placement services to people with disabilities and other barriers to employment in greater Morris County, NJ.

## WHAT ARE YOUR MAJOR PROGRAMS?

For the individual, we provide assistance with vocational identification and evaluation, job placement and on the job training services in addition to follow up support. If someone chooses, vocational counseling and paid work skills training within our fulfillment center. This is our manufacturing, packaging and assembly division located just steps away from the NJMEP office on Ridgedale Avenue in Cedar Knolls.

This division was the first program and business unit founded way back in the 50s and remains successful today, constantly evolving with use of technology meeting the needs of the incoming work flow of our business partners who choose to outsource parts of their operation to our fulfillment center-keeping sustainability and responsibility in the forefront of their practices.

## HOW DO YOU HELP WORKERS WITH DISABILITIES?

Our work helps the people we support to thrive at the jobs of their choice. We assist 450 people with disabilities each year providing individualized employment services from the beginning of the job searching process, through training if necessary and follow up support throughout the span of employment. This later part is key in assisting with any workplace challenges-just like we all experience. The connectivity that we provide for the individual and the employer is an essential part of our services because into every worklife, challenges arise, and we're maintaining regular communication so we're able to help or when that promotion comes and the person we're supporting may need to talk through some of their nerves, we are here for them. If they need brush up training or they are learning a new role at work, our support provides extra confidence for the participant and their employer.

## HOW DOES YOUR WORK COMPLEMENT THE WORK OF NJMEP?


We both support the manufacturing community of NJ giving our partners that unique edge or advantage. Employment Horizons and NJMEP work really well together in many ways. It's a great day when I get a phone call or email from a company owner who heard about our workforce through NJMEP and is interested in hiring an applicant

from EH or someone who would like more information about outsourcing kit or part assembly, quality inspection or even re-work to our fulfillment division. We've teamed up for years assisting NJMEP's "Manufacturing Cares" program helping to collect food items for donations to those in need. We also provide services and partner with several "Made in NJ" companies like B&M Machine, WHM-Brewster Washers, and Seabreeze.

## WHAT IMPACT/RESULTS HAVE YOU BEEN ABLE TO ACCOMPLISH?

We are so fortunate to see the impact of our mission in the lives of the people we support and serve! Thousands of people with disabilities have had the opportunity to land that job offer or achieve that learning curve in their jobs, get promoted to management positions or relocate with a job in the geographic region

of their choice through our services. As a company, we are very fortunate and blessed that our business units are busy and like most throughout the past year plus, made decisions in the ways we implement certain processes and am pleased to say that Employment Horizons had growth and expansion even during this challenging business climate. We actually increased our customer base within our fulfillment center adding on new partners who experienced an increase in sales because of COVID. Our commercial cleaning division also remains busy and actively servicing our partners in the federal government, state, county and private sectors frequently picking up new opportunities that employ people with disabilities.

Employment Horizons is an incredible business that solves a critical need in New Jersey. As manufacturers continue struggling with finding workers to fill their ranks, uncovering alternative hiring opportunities will be vital. Learn more about Employment Horizons and use this information to expand the talent pool. 

*To learn more about Employment Horizons or to see if there's value in engaging, reach out at (973) 538-8822 or visit them at [ehorizons.org](http://ehorizons.org).*



# CELEBRATING *National* APPRENTICESHIP WEEK IN NEW JERSEY

## NJMEP Engages Local Schools and Manufacturers to Bridge the Skills Gap



National Apprenticeship Week (NAW) is celebrated from coast to coast with the intention of highlighting alternative career paths, pre-apprenticeship programs, and registered apprenticeships. Manufacturing has long relied on the apprenticeship model but it fell out of practice in recent decades. To reignite an interest for industrial careers and begin to bridge the skills gap, the US DOL designates a week in November to celebrate the apprenticeship model. The workforce development team at NJMEP hosted an exclusive event for local entities in honor of National Apprenticeship Week (NAW).

On November 18th, the Pro-Action Education Network™ hosted representatives from over 15 school districts and manufacturing businesses at the Bellmawr, NJ-based Training Center. Any interested party was able to register for a personal invitation to experience how industry-focused education takes place in the 21st century.

### MODERN MANUFACTURING EMPLOYMENT – JOB SEEKERS AND EDUCATIONAL PARTNERSHIPS ENCOURAGED

Manufacturing looks extremely different than many people may imagine. Facilities are cleaner, safer, and more technologically driven than ever before in history. These businesses are offering competitive benefits packages, professional



development opportunities, and the annual manufacturing salary in New Jersey is over \$94,000.

To take a step forward toward bridging the skills gap, schools and employers from all over the local area signed up for a one-on-one appointment to see firsthand how the industry is evolving and how the workforce is being rebuilt. Food and drinks were served, and the participants were able to enjoy a hands-on experience with manufacturing training technology that is poised to revolutionize pre-apprenticeship, apprenticeship, and professional development.

Educators saw what it really is like to be a pre-apprentice learning how to program a HAAS CNC mill or weld high-carbon steel with the Miller Augmented Reality Arc Welding machine. Manufacturers were able to understand how an entry level worker could quickly be upskilled by participating in nationally recognized Registered Apprenticeships programs. National Apprenticeship Week (NAW) is the perfect time to engage with these two separate audiences to highlight the importance of working together.

#### EDUCATING STUDENTS FOR THE CAREERS AVAILABLE

Schools need to feel confident that any curriculum being absorbed by a student during a pre-apprenticeship program is substantial and can lead to a fruitful career. The Pro-Action Education Network™ team was able to show both manufacturers and educators the equipment and explain the curriculum during these personal meetings. Manufacturing businesses that will be employing pre-apprentices and investing in their Registered Apprenticeship journey need to trust that these entry level workers will be able to produce and contribute to their organization.

Close collaboration between educational institutions, manufacturing businesses, and training providers like NJMEP is essential in order to rebuild a workforce that has been withering away. Bringing industry back to the USA requires a workforce. Solving the workforce challenge requires all the entities involved to get engaged and collaborate. Schools have a unique set of performance indicators when compared to the employer. Schools need to place people in colleagues or make sure their students can find work once they graduate. This goal requires the schools to provide a curriculum that is conducive to either of those two paths. When it comes to finding jobs after school, the education provided must match up with the



needs of the local employers. Manufacturers must engage with schools or third parties like NJMEP that are already engaging with educators to make sure school administration has access to the correct curriculum that aligns with the current job market. Manufacturing businesses want to engage with high schools and recent graduates, but job seekers need a foundational understanding of manufacturing which is exactly what pre-apprenticeship programs offer. Employers want to cultivate a workforce but it requires an investment of time and money. Job seekers that are


trained to add value to a manufacturing organization are much more attractive to a business. Job seekers on the other hand are looking for a company that will pay them fairly, offer competitive benefits, and many people look for an employer that will support their professional development. Manufacturing, specifically a manufacturing business that invests in Registered Apprenticeship offers all three.

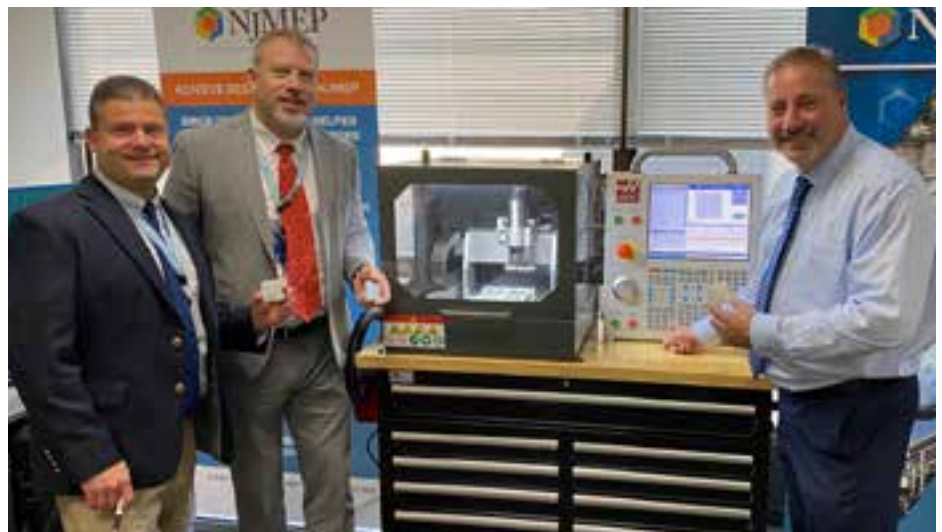
#### MANUFACTURING IS ESSENTIAL

Manufacturing is a critical industry. During the early days of the pandemic, New Jersey declared all manufacturing essential. This goes to show just how vital the industry is to our way of life. Without the right people, there will be no more local manufacturing. National Apprenticeship Week (NAW) is actively working to address the most damaging workforce challenge, the lack of people.

National Apprenticeship Week (NAW) is the perfect time for organizations, educators, manufacturers, or anyone else to get engaged and highlight the value of manufacturing and promote the countless on-ramps to get involved. NJMEP connected educators and manufacturers by inviting them to get hands-on with equipment that is actively being used to bridge the skills gap. This opportunity to experience modern training equipment and hear about the pre-apprenticeship and apprenticeship curriculum is a step forward for everyone.

#### HOW TO ENGAGE

Whether you're from a school, a manufacturing business, or a person seeking employment/education, contact us today! Get in touch with a member of the Workforce Development team here at NJMEP. 



# Is Manufacturing Making Progress?

## Exploring the Current State of the Workforce Skills Gap

Employment challenges have been capitalizing headlines since the pandemic caused one of the most turbulent job markets in recent history. Manufacturing businesses had a whole different experience with the pandemic since the workforce challenge is not a new concept for them. US manufacturers had to step up to overcome global delays for critical products. These businesses began retooling or were being approached by customers they've never worked with in the past because foreign suppliers couldn't meet deadlines. However, the workforce challenge is an issue manufacturing businesses understand extremely well. For decades manufacturers have struggled to attract and retain new talent. The skills gap continues to cause massive disruptions for these businesses but for the first time, real workforce solutions are here.

### Understanding the Manufacturing Skills Gap to Bridge the Skills Chasm

'Skills Gap' was the name given to the massive separation between baby boomers that have an unmatched wealth of manufacturing experience and the rest of the public that has little to no hands-on experience with the industry or industrial processes. Manufacturing businesses have struggled to find new employees with the proper training and education to make them productive members of their teams. In 2011, the average age of a high-skilled manufacturing worker was 56<sup>1</sup>. Fast forward 10 years later and these individuals are approaching retirement age. With more manufacturers retiring, the Skills Gap has turned into the Skills Chasm.

The Bureau of Labor Statistics reported in December of 2022 that there are over 424,000 manufacturing job openings<sup>2</sup>. Open positions are common. Businesses can't seem to find applicants that have any experience, certifications, education, or training that will allow them to safely step into manufacturing roles. As schools stepped away from developing these skills and media pushed college as the only path toward a career, interest faded and the talent dried up. A 2021 study conducted by Deloitte and the Manufacturing Institute (MI) paints a troubling picture. The study explained that 2.1 million manufacturing positions will be unfilled by 2023<sup>3</sup>. It is expected that these open positions come with a hefty price tag. Deloitte and MI expect this inability to fill manufacturing jobs could cost the U.S. a loss of upwards of \$1 trillion in GDP.

Cheap labor outside the United States allowed the nation to feel comfortable about the erosion of skilled tradespeople. Expectations that this was the new face of manufacturing caused schools to eliminate shop classes and any encouragement from parents or mentors to pursue industrial careers seized almost entirely. Millennials were a lost generation to manufacturing but this is not the end. Workforce solutions are presenting themselves. Workforce

development, professional growth opportunities, and incredible hands-on manufacturing training technology are beginning to bridge the disruptive skills gap.

### Setting the Stage for Modern Manufacturing

When most people think about the industry, they imagine an outdated picture of what manufacturing looked like decades ago. No safety procedures, no digital technologies, no respect for the career, but the world is changing. Modern manufacturing looks extraordinarily different than it did in the early 1900s. Even businesses that work mainly by hand, creating massive metal structures or classic textile operations take safety extremely seriously. Most utilize incredible digital technologies that connect the shop floor with their ERPs and supply chain partners. Along with progress inside shops, public perception is changing. A newfound respect for industrial careers is beginning to form. People are starting to pay attention to the high school graduate that developed a skill and put it to work. Students that followed today's conventional path of college directly after high school struggle to find a job that will pay the bills while young manufacturing professionals are thriving.

The general public may assume that these careers are low-paying. This could not be further from the truth. New Jersey Manufacturing Extension Program (NJMEP) produces the 'Manufacturing Industry Report' each year which compiles data from highly reputable sources including the Bureau of Labor Statistics. In 2020, the average annual compensation for a manufacturing employee was over \$94,000. The industry also provides highly competitive benefits package when compared to service careers. Along with competitive pay and benefits, job security is leaps and bounds beyond most industries. During the COVID-19 pandemic when most organizations were laying off millions, many manufacturers were looking for more



people to help offset the shortage of foreign-produced goods. These businesses need people and when the individuals they hire have skills that are incredibly hard to come by, they are respected and nurtured since they are a critical asset to that company.

Higher education is a goal of many. People often assume that once a person finds a job after high school instead of going directly to college it will mean the possibility of getting a diploma is out of the question. This isn't true. There is no "right" path. Seeking trade skills and employment after high school is a fantastic way to begin a journey toward higher education. Manufacturing businesses often provide tuition reimbursement or will even pay for relevant credentials. Individuals that work in an industrial setting are potentially even better set up to succeed in a higher education environment. People that work, gain life experience, and earn a living before going to college have a high chance of taking education more seriously. Additionally, these individuals might even be able to graduate without any student debt by combining tuition reimbursement and having the funds to pay for their education. Choosing a career doesn't mean a person has to stop improving themselves.

## Manufacturing Employment Solutions and Current Progress

Manufacturing Extension Programs are located throughout the nation. There is at least one MEP center in every state including Puerto Rico. Each act independently but with workforce challenges cited as a primary issue among manufacturers, many provide workforce development and recruiting opportunities for local manufacturers.

In New Jersey, NJMEP has a strong workforce focus. Their workforce division, the Pro-Action Education Network™ works to address the skills gap from all levels; high school curriculum and engagement,

USDOL Registered Apprenticeships, educating the manufacturing industry on retention best-practices, and low barrier-to-entry hands-on training.

Progress is being made. The average age of an employed factory worker dropped dramatically to 37, from 56 in just 10 years<sup>4</sup>. Working together will be the only way to continue this trend and steadily reverse the skills gap. Local high schools, community colleges, local workforce programs, state and federal governments, manufacturers, MEP centers, close collaboration is proving itself beneficial.

Pre-Apprenticeship programs start in high schools. Funded through the NJ DOL's Pre-Apprentice in Career Education (PACE) grant, a program was created that brings together manufacturing workforce programs like NJMEP, and local high schools to develop and deliver industry-relevant curriculum to students all over New Jersey. These students are educated on manufacturing safety, industrial processes, and can get hands-on with the most advanced training equipment available. NJMEP works closely with manufacturers, providing training and consulting services. This connection to both a pool of young adults with manufacturing skills and 'MADE in New Jersey' manufacturing business leaders directly and actively refills the talent pool, steadily closing the skills gap.

US DOL Registered Apprenticeship programs are structured curriculum delivered to incumbent workers; individuals that have been employed by a manufacturer for at least 90 days. An apprenticeship can take on many different forms but the core concept is the delivery of hands-on training hours, coupled with substantial and highly structured classroom course material. Apprentices must pass a series of tests and are held to a higher responsibility standard as they are being upskilled. Participants pass through safety, manufacturing process, quality, and maintenance training all the while working with a mentor to hone a skill for a specific manufacturing operation. This employee is given the opportunities

to advance their career, develop professionally, and the manufacturer gains a loyal, productive employee. Apprenticeship programs are a proven model but just now regaining popularity in the United States. The effectiveness of US DOL Registered apprenticeship programs improves exponentially when coupled with the Pre-Apprenticeship program developed by New Jersey's MEP.

Collaborative partnerships are the only way to make progress and continue closing the manufacturing skills gap. An investment of time and energy is required by all parties to succeed. Private businesses, academia, governments, organizations of all kinds need to work together and break down the stigma while building up communities. NJMEP's example is just one of many opportunities all over the nation. Connecting with local partners, workforce networks, high schools, and nationwide communities will foster a stronger pool of highly qualified, highly productive manufacturing professionals. Having this refreshed workforce allows the entire nation to benefit by ensuring it does not miss out on that estimated \$1 trillion lost GDP because of the current state of the skills chasm.

So whether you're a business who's looking to attract, retain or upskill your workforce or an individual that's interested in learning more about our Apprenticeship Programs NJMEP is here to help. Please contact us today....email/phone etc. 📞

### Citation

1 <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/4-13%20Skills%20Gap%20Briefing.pdf>

2 <https://www.bls.gov/news.release/pdf/jolts.pdf>

3 <https://www.nam.org/2-1-million-manufacturing-jobs-could-go-unfilled-by-2030-13743/?stream=workforce>

4 <https://www.zippia.com/factory-worker-jobs/demographics/>





## HOW NJMEP'S PRO-ACTION EDUCATION NETWORK™ PROVES TO BE THE FUTURE ENTREPRENEURS GREATEST ASSET

Let's talk about the NJMEP Pro-Action Education Network™ (PEN). Since 2012, The New Jersey Manufacturing Extension Program, Inc. (NJMEP), has been operating a statewide, industry-driven education and training platform – The Pro-Action Education Network™ (PEN). PEN supports the workforce development needs of the state's 11,000 manufacturers and STEM firms. PEN uses a statewide operating model designed to coordinate and deliver industry-valued training in response to market needs and informed by NJMEP's role as a leading manufacturing intermediary and leader across diverse initiatives.



**ROBERT MAZZUCA**

**BUSINESS DEVELOPMENT  
LEAD, NJMEP - PRO-ACTION  
EDUCATION NETWORK™**



## Certified education for entry level, students and those who want to pivot in the manufacturing industry:

### CERTIFIED PRODUCTION TECHNICIAN (CPT)

The purpose of the Certified Production Technician (CPT) program is to recognize through certification, individuals who demonstrate mastery of the foundational, core competencies of advanced manufacturing production at the entry-level to front-line supervisor through successful completion of the certification assessments. The length of this self-paced program is about 100-120 hours.

### CERTIFIED LOGISTICS TECHNICIAN (CLT)

The purpose of the Certified Logistics Technician (CLT) program is to provide a certification to individuals who achieve the core proficiencies of material handling at the front-line (entry-level to front-line supervisor). This is accomplished through successful completion of the certification assessments. The length of this self-paced program is about 80 hours.

### THE CERTIFIED MANUFACTURING ASSOCIATE (CMFGA)

This training program prepares individuals for high-demand, entry-level careers including assemblers, manufacturing associates, and production laborers. The Certified Manufacturing Associate (CMfgA) credential demonstrates that an individual has foundational manufacturing knowledge and may be an ideal candidate for entry-level employment. It is the first step toward a lifelong career in an industry where there is opportunity for advancement and well-paying jobs. The length of this self-paced program is about 25 hours.

## Why a career in manufacturing?

Manufacturing is not what it was 30 years ago. Today manufacturing is very technology driven with the industry on the verge of a new 4th Industrial Revolution. The focus of this new manufacturing has been on the technology required to connect machines and systems together. The Internet-of-Things (IoT) will involve digital solutions that use the data to optimize production, maintenance and related activities. A simple phrase "build to order with mass production efficiency" is often used to summarize this so-called 4th Industrial Revolution. Manufacturing today is fruitful with an average salary of \$94,000 per year.

## So how exactly can specialized training make you a successful entrepreneur?

You may be thinking "I can see how skill development is a good thing, but I don't understand how that leads to becoming an entrepreneur?" Being an employee is the opposite of an entrepreneur. Entrepreneurs work for themselves and start companies, they hire employees. This article will show how manufacturing learned skills translates to a virtual Entrepreneurs Doctorate. This learned process and journey can be described in 3 Phases.

**Phase 1 - The NJMEP pathway.** It all starts with enrollment in one of the Pro-Action Education Network™ apprenticeship programs. These courses will prepare you for a career in a field known for its technical ingenuity. Manufacturing is an industry that is the fabric

of our nation and has allowed us to achieve some of our greatest accomplishments. One example would have to be the moon landing. We are still the only nation with footprints on the moon. It was advanced manufacturing that helped to place those footprints. Upon completion in your chosen course, you are now ready to embark in your career in manufacturing.

**Phase 2 - You start your career working for a manufacturing company.** You begin to learn product flow and assembly techniques. Product quality is realized and over time you will develop a new and unique perspective. Your optics will become fine-tuned. This is because manufacturers see things differently. Advanced problem-solving skills become second nature. The listing below shows 5 skills that I personally learned in the aerospace manufacturing sector.

1. Manufacturers learn the process of how things go from a raw material into an actual tangible product.
2. Manufacturers understand the quality of the components used, the build quality of all items becomes apparent (the gauge and type of the material, how it is assembled, the quality of hardware or plastics).
3. Manufacturers learn abilities with regards to product design and problem solving.
4. Manufacturers think differently and dissect everything.
5. Manufacturers understand product lifecycles, how an item will perform and how long it will truly last.

Now let's review history and discuss a few entrepreneurs that changed the rules, life as we know it. These individuals had a vision and executed their plan. What you may find interesting is that the first 3 individuals were indeed manufacturers.

The following listing is from an article titled "Top 30 Influential Entrepreneurs Of All Time".<sup>1</sup> Perhaps after reading you will start to see the correlation of a manufacturer & entrepreneur.



### 1. ANDREW CARNEGIE

Industry: Steel Manufacturing  
Influence: Pioneered many manufacturing processes  
Net Worth: Around \$309 billion by today's standards



Andrew Carnegie was born into a typical lower-class family in Scotland and lived in a weaver's cottage, a tiny house. His family was suffering from near starvation and

poverty when William; his father emigrated the family to Allegheny, Pennsylvania in the USA. His first job was that of a bobbin boy, paid \$1.20-a-week, where he helped change spools for 12hrs each day. He eventually started the Carnegie Steel Company. In the 1870's Carnegie's new company built the first steel plants in the United States to use the new Bessemer steelmaking process. Other innovations followed, including detailed cost- and production-accounting procedures that enabled the company to achieve greater efficiencies. It was the innovation in manufacturing that allowed him to become one of our greatest entrepreneurs.

### 2. STEVE JOBS

Industry: Computer and software manufacturing  
Influence: Advancement in computers and media devices  
Net Worth: \$6.1 billion



Steve Jobs shows off the iPhone 4 at the 2010 Worldwide Developers Conference. Matthew Yohe

When Steve Jobs graduated from high school in 1972, one of his first jobs out of high school was as a technician for the computer company Atari. This was a big turning point for Steve. In 1974, the same year Jobs first worked

with Atari, jobs went into business with his old friend Steve Wozniak. Jobs had convinced Steve Wozniak that it would be a good idea to assemble computers and sell them on for a profit. It seemed a decent idea as they soon started making a profit from the computers they were making, and on April 1, 1976, Apple Computer company was founded as a partnership with Steven Jobs and Steve Wozniak as the co-founders. Within just 4 years of the Apple Computer Company being founded, Apple became a publicly traded corporation. Jobs went on in leaps and bounds, and in 1984 on January 26th jobs introduced the first Apple Macintosh. Steve Jobs is a model entrepreneur. Personally, Steve was on a never ending quest to deliver new exciting technology, innovation and the ultimate user experience.

### 3. HENRY FORD

Industry: Auto Manufacturer  
Influence: Modern Transport Pioneer  
Net Worth: \$1.1 billion



Henry Ford, one of the few men that made mainstream automobiles a reality. He was born into a family of farmers who originated from England and Ireland.

Henry was a dyslexic entrepreneur. Because of this, he would repeat certain actions over and over, until he mastered them. In his teenage years, his father had given him a timepiece which he later took to pieces just to see if he could piece it together again successfully, which he did. He then did the same with other people's timepieces and eventually, he repaired them too. Even though Henry Ford had Dyslexia he did not allow this "hurdle" to be a reason to give up.

He completed an apprenticeship with James F. Flower & Bros, and also with the Detroit Dry Dock Company. In 1891 he met with Thomas Edison, who liked his concept of an automobile, so he allowed him to use his warehouses to manufacture two vehicles. Ford was grateful but later built his own company so he could build the cars on his own terms backed by William H. Murphy and in 1899 he founded the Detroit Automobile Company.

This was short-lived, however, as the vehicles produced lacked the quality and precision Ford wanted and were horribly expensive. The business went under, but it didn't stop him. Ford went on to build the Cadillac Automobile company. After almost failing a second time because of lack of sales and high debts, more partners came into the business and the name was changed to the Ford Motor Company. Henry created innovations in manufacturing such as the modern assembly line. Despite his failures he never gave up. In 2019 the Ford Motor Company generated around 156 billion U.S. dollars in revenue.

### 4. MARK ZUCKERBERG

Industry: Social Media Mogul  
Influence: Revolutionized Online Social Media and Networking  
Net Worth: About \$68 billion (August 2019)



Facebook CEO Mark Zuckerberg announces the plan to make Facebook more private at Facebook's Developer Conference on April 30, 2019: Anthony Quintano from Westminster, United States

Mark Zuckerberg, is known for co-founding Facebook, Inc. and serves as its chairman, chief executive officer, and controlling shareholder. This

entrepreneur has become one of the richest men on the planet. Zuckerberg launched Facebook from his dormitory room, on February 4, 2004, whilst attending Harvard University. Mark and the co-founders of Facebook dropped out of the Harvard University to pursue Facebook full time. In 2004 Facebook had received over 1 million users for the website.

In 2005, the capital venture firm Accel Partners invested \$12.7 million into the business to help them evolve further. Soon Facebook was being approached by massive brands and companies who wanted to buy out Mark. However, we know that Mark didn't sell Facebook, and he still is CEO of it although his some of his venture partners have moved on. According to Forbes magazine, Mark Zuckerberg is worth approximately \$68 billion (August 2019).

### 5. JEFF BEZOS

Industry: Online retail  
Influence: Revolutionized E-Commerce  
Net Worth: \$117.2 billion (April 2020)



Jeff Bezos at Amazon Spheres Grand Opening in Seattle. Seattle City Council from Seattle - <https://www.flickr.com/photos/seattlecitycouncil/39074799225/>

Jeff Bezos is the founder, the president and the chief executive officer and the Chairman of the board for one of the most popular and well-known websites/e-commerce sites in the world, Amazon.com. He is also according to Forbes the richest Billionaire in the world.

Jeff was very interested in STEM and scientific projects at an early age and got into a lot of trouble by setting small electric alarms to keep his siblings out of his bedroom. He persuaded




his parents to convert their garage into his own personal laboratory, which suited him just fine. In 1994 after having an idea on a cross-country trip from New York to Seattle Jeff Bezos came up with a business plan for what would be called, Amazon.

Amazon.com was started as an online bookstore by Jeff Bezos in 1994 from his garage, where he along with a few employees started developing the software for the site. Jeff Bezos personally delivered books in his car when he started Amazon. That is what entrepreneurs do, anything and everything. He got some financial backing and grew the business that year – which as we know it is now one of the most successful e-commerce sites in the world. Amazon.com has a revenue of around \$280.52 billion. That's not bad, for an idea he came up with, in the back of a car on a road trip. Jeff has transformed every segment of the logistics industry and continues to innovate. Amazon is currently testing advanced drone delivery in select markets. If Amazon continues to grow, Jeff Bezos could become the world's first trillionaire by 2026.

The story of these five entrepreneurs demonstrates numerous connections between entrepreneurship and manufacturing. Many of these individuals failed at their first or second attempts at business. Some even had to overcome learning disabilities or drop out of school. Education and apprenticeship provided a pathway. The common principle was, they never gave up on their vision. An entrepreneur's life is never easy; there are hurdles all the way. But the real entrepreneur is a go-getter and wills to see nothing but success.

**Phase 3 - This is the final phase.** Fast forward and you now have working career in manufacturing (3 - 5 years). This real world industrial education you learned on the manufacturing floor has provided you with unique troubleshooting and problem solving skills. You now view problems as opportunities to improve and overcome. When you feel the time is right, you may now be ready to try your hand at becoming an entrepreneur and starting your own business. Your business idea may include making a new product, improving an existing one, or offering

a new service (non-product related). It does not matter which direction your business leads you. You can rest assured knowing "The University of Manufacturing" has provided you with a unique skillset, to be used throughout your life as needed. It will be there, always helping you progress.

Best of luck to you, in your journey. 

*About the Author: Robert is a Business Development Executive and Strategist for the Pro-Action Education Network™ under the New Jersey Manufacturing Extension Program. He is passionate about helping the manufacturing industry grow. His personal manufacturing background is in the Aerospace & Defense Industry with over 20 years of experience with: RCA & GE Aerospace, Martin Marietta Missiles & Defense and Lockheed Martin Missiles & Space. Roberts most recently served as Chairman with a Science & Technology Congressional Research Caucus created by The Presidents' Science Advisor/ Director of the White House Office of S&T Policy (OSTP).*

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Sergey Kohl - stock.adobe.com

# CMMC 2.0 IS COMING – CYBERSECURITY GUIDELINES FOR DOD MANUFACTURERS NATIONWIDE

## THE WHO, WHAT, WHEN, AND HOW

In early November 2021, the Department of Defense announced a massive update to the Cybersecurity Maturity Model Certification (CMMC) program. Manufacturers or suppliers that handle any Controlled Unclassified Information (CUI) or those within the Defense Industrial Base (DIB) will need to pay attention. The latest update to the CMMC, “CMMC 2.0” marks the completion of an internal program assessment spearheaded by Department of Defense (DoD) leadership. CMMC 2.0 condenses the original 5 CMMC maturity levels into 3 levels and applicable manufacturers will need to know where they stand, what is changing, which maturity level they need to meet, and the penalties for non-compliance.



**MICHAEL WOMACK**  
MARKETING & COMMUNICATIONS  
MANAGER, NJMEP



## What is Changing in CMMC 2.0?

CMMC began as a way to protect CUI held by DoD contractors and subcontractors on any non-federal contractor information system. As manufacturers comply with their appropriate maturity level, it will safeguard this critical information from evolving cybersecurity threats which supports and enables the U.S. military. The original CMMC comprised five maturity levels, but this is changing.

The DoD conducted an internal assessment of the CMMC program in March of 2021 which took into consideration direct feedback from the more than 850 public comments in response to the interim DFARS rule. It led to the development of "CMMC 2.0", an upgrade to the program's critical structure and changes in its maturity levels. Streamlining and improving the implementation was the main goal of updating the program, however, manufacturers will need to be acutely aware of these changes to make sure they remain compliant or risk losing current and future DoD contracts.

### MODIFICATIONS INCLUDED IN CMMC VERSION 2.0 ARE LISTED BELOW:

- Eliminating levels 2 and 4 and removing CMMC – unique practices and all maturity processes from the CMMC Model
- Allowing annual self-assessment with an annual affirmation by DIB company leadership for CMMC level 1
- Bifurcating CMMC level 3 requirements to identify prioritized acquisitions that would require annual self-assessment and annual company affirmation
- CMMC level 5 requirements are still under development
- Development of a time-bound and enforceable Plan of Action and Milestone Process
- Development of a selective, time-bound waiver process, if needed and approved.

## Who/What Does This Impact?

No business is completely safe from cybersecurity threats. Manufacturers are particularly at risk. These organizations often supply the largest, most powerful corporations and governments with critical parts vital to our national security and way of life. Cybercrimes understand this fact and actively seek to steal information or cause disruptions. Every company can benefit by investing in cybersecurity since a cyber breach could cost manufacturers millions but manufacturers working with the DoD need to go beyond just ensuring they're up-to-date with the latest cybersecurity best practices.

Manufacturers in the DIB are going to be held accountable to safeguard sensitive information and must comply with CMMC 2.0. Any supplier, sub-contractor, or manufacturer that conducts business with the DoD, no matter how minuscule will need some level of CMMC. Identifying the appropriate CMMC maturity level will either be determined by a prime DoD contractor or uncovered through a CMMC gap analysis. Determining which maturity level a manufacturing business must maintain is the critical first step toward compliance. Businesses that do not comply with these new DoD cybersecurity regulations will be at risk of losing their government contracts. Now, with this update, manufacturers must ensure they fall within one of the updated three maturity levels.

## CMMC Model Structure



## When Do Manufacturers Need to Start Compiling?

Proactive action is always recommended. Deadlines from the federal government are issued swiftly and with little warning. CMMC 2.0 will be implemented through DoD rulemaking process 32 of the Code of Federal Regulations (CFR). Title 48 CFR will follow title 32 which will establish the contractual requirements. The DoD stated "The CMMC program team will work through the rulemaking processes as expeditiously as possible."

CMMC 2.0 requirements will be mandatory however an official deadline has not been set as of 12/27/21. Once title 32 CFR rulemaking is complete, and the requirements have been implemented as needed into acquisition regulation through title 48, warnings will be issued to the DIB through DoD prime contractors. Manufacturers that do not comply



with their designated maturity level will be at risk of losing contracts once a deadline has been established.

Manufacturers that handle CUI will still be responsible for implementing the cybersecurity requirements in NIST SP 800-171. Any manufacturer that has FCI, will still need to implement the basic cybersecurity requirements in FAR 52.204-21. Even though at this moment the federal government will not be auditing businesses, they are creating a means to prosecute contractors under the False Claims Act. The government can pursue a false claims case against businesses in the DIB that are not taking cybersecurity seriously. Manufacturers will need to be prepared because the government can decide contracts need independent assessments without any notice if a company states they are compliant.

### How Can Manufacturing Business Prepare?

Manufacturers are in a challenging spot. The absence of a CMMC 2.0 deadline and the promise by the government to strictly enforce the new cybersecurity certification make it difficult to plan for the future. Some estimate the rulemaking can take between 9-24 months but there is no word if there will be a grace period once the rules are established. Manufacturing businesses may be required to comply with their newly designated CMMC maturity level immediately. Without building CMMC 2.0 into a manufacturers business plan today, they might not have the resources to take action once the certification comes into effect

Even though manufacturers are facing this imposing disruption, there is help available. Each state, including Puerto Rico, has some form of a Manufacturing Extension Partnership (MEP). These independent organizations work through a cooperative agreement with NIST and are the tip of the spear when it comes to helping manufacturers ensure they meet NIST SP 800-171 regulations as well as identifying the appropriate CMMC 2.0 maturity level. Many may even offer support to become compliant within a specific maturity level. Depending on the state, MEPs often offer general cybersecurity support for manufacturers outside the DIB since every business will feel the pressure of cyberthreats well into 2022 and beyond.

As stated above, manufacturers handling CUI will still need to implement NIST SP 800-171. Those that engage with FCI will need to comply with FAR 52.204-21 guidelines. CMMC 2.0 deadlines are not an "if" but a "when". Businesses must prepare immediately to ensure their operation is not interrupted and no contracts are lost. Manufacturing businesses in the DIB must take action and protect their business. Cyberthreats have matured and now it's time to ensure cybersecurity and regulations follow suit. 🧩



# 5 Cyber Security Best Practices for Small & Medium Manufacturing Companies

**BY: JEANETTE STEVENS; MARKETING & OUTREACH MANAGER, GENEDGE**

## IS CYBER SECURITY AND BREACH PREPAREDNESS A PRIORITY FOR YOUR COMPANY?

In 2022 if you are considering top key areas to focus on to keep your small or medium manufacturing business running smoothly and safe from potential cyber-attacks, then having a strong cyber security plan in place should rank at #1.

Cybercrime alone will cost the world \$6 trillion annually by 2021. (Cybersecurity Ventures) and with that 77% of industrial companies rank cybersecurity as a major priority. (Kaspersky Labs)

Keeping your company data safe from attacks will take vigilance and action. Every single day of failed cybersecurity planning tactics is a vulnerability that your manufacturing company may not recover from should a data breach take place.

To help you safeguard your company from cyber threats here are 5 simple best practices that can be implemented today:

1

**PROTECT IMPORTANT DATA:** There is great vulnerability with information passing from server to server. Your company's most critical assets should be protected. Think about the kind of intelligence that is held within company databases and servers: social security numbers, payroll and benefits, bank account information, personal emails, addresses – any of this information could cause devastating consequences should there be a cyber-attack. Create a system to determine who within the organization can have access to important company data. It is important to take inventory of the types of data your company stores, and to make a list of the personnel who are authorized to access each specific type of data.

2

**MAKE SURE TO INCLUDE A PRIVACY POLICY** – There are many challenges small and medium manufacturers face when protecting the privacy of its employee base. Online usage makes it even harder for companies to safeguard themselves against potential attacks. For example, visiting unsecure websites, opening, or communicating with emails phishing for information, also new threats like social media and mobile. Create a strong privacy policy by training staff to maintain safe procedures while on and offline, install a VPN, "Virtual private networks, or VPNs, protect users from the prying eyes of hackers as they browse online. Robert Siciliano explains that a VPN "routes data coming from your computer through servers in another location and scrambles it to make it unreadable." (source: Project Spectrum)

3

**IDENTIFY WHICH DATA IS HIGHLY SENSITIVE** - and protect it: It is no longer enough to simply be compliant with privacy requirements or technical safeguards to the minimum extent possible. Protection of personal information requires giving effect to all privacy principles and practicing privacy compliance throughout the lifespan of the information, including demonstrating accountability, being transparent, practicing data minimization, ensuring appropriate use and disclosure, implementing effective access controls, and abiding by reasonable retention periods and safe destruction methods. (Source: <https://gesrepair.com/cybersecurity-manufacturing/>)


4

**RANSOMWARE ATTACKS** - Ransomware is the No. 1 threat to SMBs with 1 in 5 reporting that they have fallen victim to a ransomware attack. (Datto) Ransomware attacks often occur on weekends or holidays, allowing as much damage as possible before an attack is even recognized. Defending against ransomware requires a holistic, all-hands-on-deck approach that brings together your entire organization. Developing plans and policies, while maintaining a system for backing up data will sustain your company preparedness and safety.

5

**UPDATE ANTIVIRUS AND SYSTEMS PROGRAMS REGULARLY** - computers are constantly at risk of getting a new virus, implementing a sound anti-virus program, and updating it regularly helps minimize the risk. "The frequency of updating your antivirus software can vary depending on how you use your computer, but most manufacturers recommend updating it quite regularly, sometimes even every day. You might need to update your antivirus software daily." (Source: <https://www.nstec.com/why-is-it-important-to-update-anti-virus-software-regularly/>)

In conclusion, for small and medium manufacturing companies, MEP centers across the country are equipped with the resources and assistance needed when creating a robust cyber security plan. In Virginia, GENEDGE has created an assessment tool intended to allow manufacturers to gain deeper insight into the current state of their security system, and to highlight where they may need to focus to increase the cybersecurity posture.

For questions about implementing cybersecurity planning in your business contact Nathan Sable; IT and Cybersecurity Practice Manager GENEDGE. 







# THE TRUE FACE OF MANUFACTURING IN THE GARDEN STATE

## EXPLORING THE VALUE OF INDUSTRY

This article originally appeared in NJBIZ, authored by NJMEP Marketing & Communications Manager, Mike Womack.

Manufacturing is often misunderstood. NJBIZ is helping shine a light on modern manufacturing by inviting industry professionals to share stories about their careers, companies, and impact on local communities. These local businesses are overlooked, and their successes celebrated too quietly. The general public believed that all manufacturing moved overseas and the fruitful career paths that came along with the industry disappeared. NJBIZ and the New Jersey Manufacturing Extension Program (NJMEP) are working together to show how common misconceptions do not represent the 'MADE in New Jersey' manufacturing industry. Manufacturing in New Jersey and throughout the nation is alive and growing.

### 'MADE in New Jersey' Manufacturing

New Jersey is home to more than 11,000 manufacturing and STEM<sup>1</sup> (Science, Technology, Engineering, and Mathematics) firms. These businesses produce a staggering variety of products and have unimaginable capabilities. So much so, that businesses like BlueTrack in Clifton, New Jersey that manufactured stress balls before the pandemic, retooled and pivoted to producing KN95 masks. 'MADE in New Jersey' manufacturers produce complex automation systems for brand name consumer products and the state is home to national brands like Seabreeze Fruit Flavors, the makers of the famous 'Bosco' chocolate syrup. New Jersey is even known as the Medicine Chest of the World because of its position as a massive hub for medical device, pharmaceutical, and life science companies that span the gamut in terms of the products, chemicals, and ingredients they make. 'MADE in New Jersey' represents all the manufacturers that make their products, transport their goods, or support the complex supply chain here in the Garden State.

Many are surprised to learn about the true scale and scope of the New Jersey manufacturing industry. The Bureau of Labor Statistics reported in December of 2021 that there are over 424,000 manufacturing job openings<sup>2</sup>. Manufacturing contributes over \$54 billion to the state's GDP and the products they manufacture allow every other industry to continue producing. It's easy to forget when a person looks

around the room, each object must come from somewhere. Having the ability to turn raw materials into useful tools, furniture, technologies, is critical to the modern way of life. A strong manufacturing base is essential to progress as a society. New Jersey manufacturers and the contributions they've made to the local community and national economy in recent history cannot be understated.

### Misunderstanding of Modern Manufacturing - 'MADE in New Jersey'

Modern manufacturing, especially in New Jersey has undergone a massive technological transformation. Businesses have continued to refine their production process, utilize new tools, and explore partnerships to survive and thrive. Technology adoption among manufacturers is massively underestimated. Additionally, the variety of the industry, especially in New Jersey isn't accurately showcased. From small job shops to the most advanced medical device manufacturers, these businesses in our backyard produce the products that keep the country moving.


Investments in new Industry 4.0 technologies have exploded in the manufacturing space. According to ISG, a global technology research and advisory firm, investments in new-age tools could exceed \$400 billion by 2025<sup>3</sup>. There has been an adoption acceleration when it comes to new robotics and automation systems in facilities. Advancements like these open new possibilities for the modern workforce. 'MADE in New Jersey' manufacturers are undergoing a technological revolution and need people to help support this incredible advancement.

Manufacturing has struggled with a skills gap for quite some time. Automation was first viewed as a way to overcome these workforce struggles. It was soon realized that new technologies don't eliminate the need for people, they create new opportunities to support a modern industry. New Jersey manufacturers need more people than ever before. The lack of vocational training in schools has led to the creation of a gap in skills that are just now being addressed. The average age of an employed factory worker

dropped dramatically to 37, from 56 in just 10 years<sup>4</sup>. The industry is beginning to rebuild itself and develop new manufacturing professionals who can fill the shoes of those that are preparing to retire. A mix of new technologies, a growing workforce, and the need for a robust local manufacturing industry creates new opportunities for entrepreneurs, business leaders, and those seeking a fruitful career path.

### What to Expect from 'MADE in New Jersey' Manufacturing in 2022

Readers in search of a deeper understanding of the global supply chain, the small/medium that make up the local manufacturing industry, and the people that make it all possible should keep a lookout for more 'MADE in New Jersey' articles being shared right here on NJBIZ throughout 2022. Articles will consist of Q&As with local business leaders, insight into industry developments from experts, and personal stories from the people who built these operations from the ground, up. This is an industry that impacts countless organizations up and down stream of the supply chain. Millions of jobs, billions in GDP, countless technological advancements, all have been made directly or indirectly possible because of the manufacturing industry. Bringing local business leaders together to share their experiences, advancements, and perspectives will allow all this hidden value to surface.

The goal of the series is to give manufacturers a platform to tell their stories and show the public how the industry has developed. More individuals need to understand the variety of options available to them by considering alternative educational and career paths. New Jersey and all its residents gain when the manufacturing industry is supported. That value needs to be shared. 

If a manufacturer is interested in telling their story, please reach out to Jeffrey Kanige at [jkanige@njbiz.com](mailto:jkanige@njbiz.com).

1. <https://www.njmep.org/download/njmep-new-jersey-manufacturing-industry-report/>
2. <https://www.bls.gov/news.release/pdf/jolts.pdf>
3. <https://www.manufacturing.net/technology/blog/21427699/the-unrelenting-growth-of-technology-in-manufacturing>
4. <https://www.zipppia.com/factory-worker-jobs/demographics/>



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