

MANUFACTURING MATTERS

SUMMER 2020

Helping New Jersey Manufacture Success































































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Workforce Development

RECRUITING TALENTED MANUFACTURING WORKERS

> Success Story: C.B. Kaupp & Sons

Success Story: 25 PowerTech



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MANUFACTURING MONTHLY THEMES

KEEP PACE WITH A TRANSFORMING INDUSTRY

Manufacturing is comprised of an array of concentrations. Engineering, research and development, business development, sales and marketing, logistics and transportation, the list goes on. The manufacturing industry is unique. Workforce challenges, training, upskilling efforts, and process improvements are always on the mind of any business leader. To ensure New Jersey manufacturers can keep up with all these complexities, NJMEP is highlighting a new manufacturing theme every month! The second quarter of the year showcased Apprenticeships, Human Resources in industrial environments, and Lean Manufacturing.

APRIL - APPRENTICESHIPS

Apprenticeship as a concept is not new. This was the standard way to learn a trade for centuries. In the United States, apprenticeships have become far and few between. With nearly every manufacturer in the country struggling to recruit and retain new talent, this is an ideal solution to the widening skills gap.



Manufacturers continue to struggle with workforce challenges. Finding people with decades of experience that can walk onto a shop floor and start producing is becoming nearly impossible. Retaining new hires is another immense challenge for industrial companies of all kinds. Apprenticeships solve both of these problems. By training workers, business leaders cultivate their own talent. Providina professional development opportunities encourages employees to engage with the company and, in turn, increases retention. April was a month drowned out by COVID-19, but it's never too late to learn about local apprenticeship



programs like those part of NJMEP's Pro-Action Education Network™.

MAY - HUMAN RESOURCES

Industrial environments provide a challenge for Human Resource professionals. Human Resources play a vital role in any manufacturing or logistics operation. Without the workforce, there would be no business. This monthly theme was chosen to highlight these individuals for the work they do to ensure any business can continue forward.

Human Resource professionals face unique challenges when working with manufacturing or logistics companies. Many of these situations are unique to industrial environments. It requires a unique approach to training and education to improve the impact these individuals can have on an organization. A strong Human Resources manager or team will have a direct impact on retention efforts and the quality of new hires.

JUNE - LEAN MANUFACTURING

Continuous improvement is a constant journey. There is never a "perfect' production line. Waste can always be mitigated and efficiency can always be improved. Small incremental improvements that add up to a large impact on the bottom line is a fundamental principle of Lean Manufacturing.



Lean Manufacturing continues to be a staple of NJMEPs suite of services. The value provided to clients is undeniable. Nearly every manufacturer that practices the principles of Lean and takes their continuous improvement journey seriously will experience a hefty return on investment. This practice has so much to offer any manufacturing organization that it deserved to be highlighted.

Each month NJMEP will continue to celebrate one of the many themes and topics that embody manufacturing. Follow along with the Manufacturing Monthly Theme on Twitter, Facebook, and LinkedIn by following @NJMEP. Share your thoughts about the topic or ask questions on how these topics may impact your business. It's vital the manufacturing community continues to collaborate and move forward as a whole.

UNSUING SPOTLIGHT ON NEW JERSEY MANUFACTURING

One of my favorite shows is called 'Unsung' on TV-One. The focus is on music from many R&B and Soul artists... their tragedies and triumphs. Funny, that even though I know many of them already, I find myself rooting for a positive outcome. However, I always celebrate their talents and what they overcame in their lives. To me – this show inspires me, as they deserve the accolades timely or not.

During the COVID-19 pandemic we have a similar situation, as we are currently stopping to recognize so many people that tend to (just) pass through our lives. While the loss of so many good people is difficult to fathom on any level...I am heartened to see that we are actually stopping to recognize the 1st Responders, Medical Staffs, Home Health Aides, Store Clerks, and Truck Drivers...to name just a few. Even with a mask on, we now 'see' them clearly.

It is about time.

That brings me to another episode on Unsung...a Made in New Jersey episode. Our 11,000 manufacturers and their 380,000+ employees who have quietly gone to work every day and kept making the items that we cannot live without for long. Those that protect us / medicate us / feed us / sustain us. They have done so without fanfare, and they (too) understand fully the risks they are taking to help others.

I do think that our Governor, Phil Murphy has done a solid job overall, because dealing with a pandemic is not an easy lift. It is difficult to foretell how any of us would perform in such a situation, and it is so easy to 'Monday Morning Quarterback' his decision to keep 100% of manufacturing open in NJ. It put us ahead of many other States and showed that he understands of the value in a healthy Supply Chain. I (also) appreciate how he does 'shout outs' to various groups during his briefings...well-deserved. I was especially moved when he cited NJMEP (New Jersey Manufacturing Extension Program) for its work with the industry and state on Critical Supply Chain (CSC). It was motivational to our team that had been going 24/7 for about 8-weeks at the time.

While some of you may know me...I'd like to take a moment and unmask a few others here that have stood up. People like Rob Stramara, Lynore DeSantis, Peter Okun, Sally White, Kathleen Baldwin, Stacy Cooke, Chris DePace, Laura Fisher, Kia Sanders, and about 30 others that have decided that

they needed to make a positive difference every day during this crisis. Individuals that I am proud to work with at NJMEP. If you add in the (70+) experts that make up our Resource Team – and – the Professional Affiliates (many of both have work for no fee) – then you get to see the real picture.

That being said – I would like to strongly suggest to Governor Murphy and so many others across the state to make sure that you include our Made in NJ Manufacturers in your 'shout outs' for what they have done – and – what they will do to drive us out of the inevitable financial downturn that will ensue. We will ignore this critical sector at our own peril, as COVID-19 has taught us several major 'new' tenets:

- Being Prepared is not just a pithy motto for Scouts
- We need to invest in and rebuild portions of our Supply Chain in NJ and nationally
- Everyone on Earth needs 'stuff' so let's make it here in NJ
- Diversity means all of us...together. We need everyone to succeed

Let me end by doing my own shout-out to a few amazing NJ-Based manufacturing firms. This list is by no means all-inclusive, but if you don't know these companies...you should:

- Shocktech
- Zago
- QPSI
- Unionwear
- Unex
- Suuchi
- General A&E

- Lamatek
- GEMCO
- Triangle
 Manufacturing
- Inrad Optics
- LPS Industries
- Tektite
- Case Medical

- Weiss-Aug
- K&S Industries
- Kuehne Chemical
- City Theatrical
- Marotta Controls
- Opex
- DSM

...and so many more.

Unsung •





BY JOHN W. KENNEDY, PH.D., CHIEF EXECUTIVE OFFICER NEW JERSEY MANUFACTURING EXTENSION PROGRAM, INC. (NJMEP)

TRENTON



A MESSAGE TO NEW JERSEY'S MANUFACTURING COMMUNITY





BY: SENATOR LINDA R. GREENSTEIN, DISTRICT 14 CHAIR, NJ BIPARTISAN LEGISLATIVE MANUFACTURING CAUCUS

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SENATOR STEVE OROHO, DISTRICT 24 CO-CHAIR, NJ BIPARTISAN LEGISLATIVE MANUFACTURING CAUCUS

Manufacturing has been one of the strongest and most adaptable industries in New Jersey throughout the COVID-19 pandemic. On Wednesday, the New Jersey Legislative Manufacturing Caucus held a roundtable with ten of New Jersey's manufacturers to hear about how they have adapted their businesses and to ascertain the issues that they faced in doing so, as well as those facing their businesses as the state begins its reopening. From companies like Unionwear in Newark, which switched from making baseball caps for Census Trackers to shields and gowns for our frontline healthcare workers, to GEMCO in Middlesex, which faced issues with needing to furlough workers due to a sharp decline in sales, to City Theatrical in Carlstadt, who is staring down the possibility of Broadway not opening again until 2021, the issues faced by Manufacturers in the state of New Jersey are real.

As we have been told time and time again by New Jersey's manufacturing community, NJMEP is an essential resource to keeping many of your businesses running, whether it be through their consulting and other resources or John Kennedy's emails that have been waking you up at five in the morning. Besides the companies that NJMEP helps, there is no one that recognizes their importance more than we do. That is why in February we introduced S-1957, a bill that would dedicate \$1.5 million annually from the New Jersey Workforce Development Partnership Fund to the NJMEP. Along with Manufacturing Caucus members Senators Bucco and Singleton (both co-sponsors on our Senate Bill) and Assemblymen DePhillips and Zwicker (sponsors of the bill in New Jersey's General Assembly), this bill awaits a committee hearing in both houses of the New Jersey legislature. Additionally, there is a bill in the final stages of being drafted that we are very excited about. The bill would give tax incentives to New Jersey businesses

if they use, purchase, or sell products that are Made in New Jersey.

Economically, this is an easy time for no one in New Jersey, but the road to recovery in the Garden State runs through the manufacturing industry. We hear your concerns, and we are here to help. We would like to thank Peter Connolly, Mitch Cahn, Amy Eskilson, Gary Fails, Gail Freiberg, Patrick Marotta, Howard McIlvaine, Casey Bickhardt, Dax Strohmeyer, and Dieter Weissenrieder for providing us with a wealth of information to work from at the roundtable discussion. We would also like to thank John Kennedy, Constantina Meis, and the rest of the hard-working NJMEP team, Chrissy Buteas and Chris Emigholz from NJBIA, and everyone else who helped plan, execute, or participated in the discussion. We look forward to continuing this conversation with the manufacturing community as New Jersey's recovery progresses and to finding new ways to help our great state's manufacturing community prosper.

EVERY NEW JERSEY MANUFACTURER IS FSSFNTIAL

SMALL & MEDIUM-SIZED MANUFACTURERS PLAY A CRITICAL ROLF IN RECOVERY

Manufacturing has been largely ignored or brushed off all across the country over the past few decades. It took a global pandemic to open up the eyes of the general public and many policymakers.

As New Jersey businesses began to shut their doors, manufacturers wondered when the call would come to board up and cease production. Instead, the opposite happened. New Jersey deemed all manufacturing essential. Every single manufacturing enterprise throughout the state would not be forced to close.

"To be a strong state, New Jersey must be a manufacturing state. Thanks to the resilience of the workforce, we kept manufacturing open throughout the pandemic - the unsung heroes. Products are being manufactured every day by the over 11,000 New Jersey manufacturing facilities - no option to work from home - no option to cease manufacturing for 3 months," Sally White, Senior Director Business Development, NJMEP stated.

Every New Jersey manufacturer plays an essential role in the state economy. The products these businesses produce are a direct contributor to essential supply chains. States that did not follow New Jersey's lead experienced massive disruptions.

Countless manufacturers stepped up to the challenge, retooling their facilities, and producing Personal Protection Equipment (PPE) for those on the front line in the fight against COVID-19. These manufacturers are being hailed as manufacturing heroes here in New Jersey.



The Empire State Manufacturing Index plummeted to -78.2 in April (JeffCoxCNBCcom, 2020)1, the worst reading in the history of the index. It is more than twice as bad now compared to the Great Recession. The industry experienced huge drops in employment, new orders, and shipments. NJMEP engaged with hundreds of New Jersey manufacturers throughout the COVID-19 crisis and the opposite took place. Some manufacturers saw their business boom as they increased production to fulfill an increase in orders. Employment fell, but it was not as severe because manufacturers can continue fulfilling orders and generating revenue.

NJMEP fought for the industry. It was vital decision makers understood the value and complexity of the industry. This initiative didn't just start once COVID-19 was declared a pandemic. Constant engagement with legislators and manufacturers has been the norm for the past 7+ years. NJMEP's John W. Kennedy, CEO, Ph.D made sure the

industry wouldn't be overlooked in the midst of the chaos the pandemic brought. Between the efforts of John Kennedy and the entire NJMEP team, it made it much easier for Governor Phil Murphy to justify his decision to keep all New Jersey manufacturing open.

Textile manufacturers that don't normally produce personal protection equipment (PPE) before the pandemic would have been considered non-essential in many states. Closing manufacturers like Unionwear in Newark would have proved disastrous. Unionwear began manufacturing Face Shields for healthcare workers on the front line in the fight against COVID-19. Absolute Green, a manufacturer of natural cleaning products, began manufacturing hand sanitizer while the world was running dry. Closing packaging companies like QPSI would have caused a massive disruption downstream in the pharmaceutical supply chain. Medication can't ship without being packaged.

ONE MANUFACTURER -MASSIVE DOWNSTREAM DISRUPTIONS

There's an incredible amount to consider when a single manufacturing facility closes its doors. Manufacturing is a community-centric industry. One business needs to source components from another, that manufacturer needs to source raw materials, those raw materials need to be produced, shipped, sorted. A single manufacturing facility is connected to a complex weave of other entities, sectors, and businesses of all kinds. Closing New Jersey manufacturing would have caused an unimaginable economic void.

Every manufacturing company in New Jersey is essential. Many business leaders reacted by retooling their facilities to produce PPE to ensure the United States of America could protect its healthcare workers as they put their lives on the line to save their patients. Companies like Top Safety Products help ensure first aid squads and security personnel have the proper first aid kits stocked and serviced. Manufacturers like Modern Materiel stood ready to keep our local police armed and able to protect. Proximate Concepts and iNPLANT, LLC converted their medical device facility to produce face shields for those on the front line.

Without keeping all manufacturing open in New Jersey, the state and the entire country would have experienced even more severe supply chain disruptions and economic pressures. The local community and New Jersey's small - mediumsized manufacturing companies proved why this industry is essential. During times of crisis, extraordinary people rise to the challenge. COVID-19 was no different. Manufacturing businesses and the workers that make it all possible stood tall and continued forward.



MANUFACTURING HEROES

Absolute Green

Proximate Concepts

ADM Tronics

Puratos

Akers

Biosciences

Push Beverages

Allentown Inc Andrews Glass **QPSI**

RR

AutoDrill

Saint Gobain Sandvik

AZCO Corp

Coromant

Carl Stahl Sava Industries, Inc

Sanofi

Cosmetics & Perfumes Filling

ShockTech, Inc.

& Packaging Inc.

Spex Certiprep

Disk Makers

Super Stud **Building Products**

Distek, Inc

Flagship Surgical

Superior Trademark Inc.

Glebar

Suuchi

Gova

Tailors Wife

Hatteras Press

Tektite

JAKTOOL

The Knotts Co.

Kuehne Chemical Company

LAMATEK

Trinity

Thorlabs

Tri-Tech Tool

MAINGEAR

Unionwear

Marotta Controls Inc.

VLV Associates

Mitch Gambert

Weiss-Aug

from Mel **Gambert Shirts**

Westlock Controls

Neta Scientific

ZAGO

Inc

Norwalt

Manufacturing

Patwin Plastics

Zero Surge Inc.

Phillips Medicraft

ZEUS Scientific

Pro Tapes &

Specialties

... and so many

more.

^{1.} JeffCoxCNBCcom. (2020, April 15). New York manufacturing hits record low reading of -78.2 amid coronavirus collapse. Retrieved May 31, 2020, from https://www.cnbc.com/2020/04/15/new-york-manufacturing-hitsrecord-low-reading-of--78point2-amid-coronavirus-collapse.html



NEW JERSEY MANUFACTURERS FIGHT BACK AGAINST COVID-19

Manufacturing must be resilient even at the most uncertain of times. The world depends on the products these businesses produce. New Jersey manufacturing is the embodiment of resilience. The industry's perseverance in the face of the COVID-19 disaster is a testament to this fact.

Through the efforts of NJMEP and the entire New Jersey manufacturing community, every manufacturer in the state is considered essential. Manufacturers can remain open despite other businesses being forced to close. This is to ensure the country can continue to receive essential products people need to weather the fight against the coronavirus.

A few New Jersey manufacturers and educators stand out.

Read on to be introduced to incredible companies and people making a difference.

MITCH CAHN, CEO UNIONWEAR

Mitch Cahn, CEO Unionwear jumped at the opportunity to help. The company started manufacturing and providing a critical service. His facility manufactures apparel and custom promotional materials in Newark, New Jersey. Being in the textile field, Unionwear was at a unique advantage to begin manufacturing PPE equipment. Unionwear is now manufacturing face shields and isolation gowns alongside their regular products.

"We are still getting orders for our regular products from businesses," Cahn said in an interview with NJMEP. He believes this is happening because nobody else is available



to manufacture their core set of products in the USA. Customers are hesitant to turn to China. He continued by saying, "NJMEP pulling for the manufacturing industry is going to be huge. Unemployment will be a bigger problem in New Jersey, the smartest thing the state has done in a while is listening to NJMEP about maintaining the manufacturing base."

Unionwear made a massive discovery amidst this pandemic. They thought it would be impossible to allow manufacturers to work from home. However, about 40 out of their 180 employees have access to sewing machines. This allows the company to inform its employees about what work needs to be done and then they work from home to produce the products. Their workforce drops off the completed products at the facility at the end of the day. This is an incredibly innovative way to keep production moving forward while going above and beyond to abide by social distancing measures to keep their workforce safe and healthy.

For a more in-depth look at Unionwear's effort, Mitch Cahn spoke at length about the experience on the podcast, The Righteous Capitalists. Find the full episode, here.

NEWTON HIGH SCHOOL ROBOTICS TEAM COACH AND THORLABS, INC.

Jim Hofmann, STEM teacher at Newton NJ High school, and the coach of the Varsity Robotics Team answered a call from a Rutgers New Jersey Medical School student to make Personal Protective Equipment (PPE). Specifically, they needed face shields for healthcare workers. Jim Hofmann took on the challenge and the NJ high school robotics team began to collaborate with private and public sectors and incorporated 3D printing technology to help ease the face shield shortage due to the COVID-19 pandemic.

"In this crisis, it's all hands on deck, and great to see everyone come together in the effort" Hofmann stated. He continued, "If any business or school has spare 3D printing capacity, we could sure use your help." Hofmann explained.

Hofmann's efforts are supported by his daughter Samantha, wife Mandy, and sister Christine. This team continues to support Jim to provide 24/7 support to ensure this initiative is successful. Mark Maruska & Adam Zuidema have both played essential roles, providing materials and laser etcher expertise. With so many different partners and volunteers, it would be impossible for him to keep up on his own.



The effort has been named "PPE Made in the USA," and its goal is to locally manufacture 1,000 face shields. Hofmann and his team reached out to his network of STEM partners describing the initiative and the materials that were needed. Alex Cable, CEO of Thorlabs, Inc, Newton-based optical equipment company was the first to respond. Cable committed his engineering staff to prototype headband samples, and then output the headbands on his company's 3D printers. Thorlabs even helped source PETG .02, a sheet of tough plastic material that is used to complete the face shields.

"In the days ahead as we put this pandemic behind us; I hope our legislators truly seriously consider, with some measure, a way to partner with the public schools to foster startups that add value such as our varsity robotics teams that FIRST engages all year long."

"Collaborating with a global supply network and sharing it with my online student learning platform are teaching the Newton, NJ students how we can utilize cutting edge technology to solve a real-world problem," Hofmann continues, "If nothing else; its crystal clear that we need to bring back those offshore jobs in making things. Robotics can help do that. Developing an automated supply chain and sharing it nationally as we do during our robotics competitive season is the way we need to go."

To learn more about the "PPE Made in the USA" initiative or to see all those involved in this effort, you can read the official press release, here.

MIKE SEITEL, CEO NORWALT DESIGN

No manufacturer can avoid the pressures and constraints of the COVID-19 pandemic. Norwalt Design is limiting the number of people they allow into the facility and everyone that can work remotely is staying home. Mike Seitel explained that a lot of engineering depends on collaboration. When engineers are separated from each other, it eliminates much of that collaboration potential. Orders are slowing but they're not sitting back waiting for these trends to reverse themselves. They want to be part of the solution.

Markforge reached out to Norwalt to see if they'd be interested in helping fight back against the COVID-19 threat. Healthcare workers are in serious need of critical PPE and Mike Seitel was excited to help. Combining resources between Norwalt Design and Markforge, the company can now produce face shields to help protect healthcare workers as they battle COVID-19.

"I'd like to thank all of our employees that are pitching in in the effort to help. We are a small player so hopefully, if all of us small players do our part we can help support our medical staff in a big way." Seitel stated.

They have every available staff member helping assemble the face shields. Efforts like these will ensure the country has enough PPE to make it through this deadly disruption. Without keeping manufacturers like Norwalt Design open, there would be little hope of producing these kinds of essential products.

NEW JERSEY MANUFACTURING CARES

This is only three examples of people going above to help in a time of crisis. Every day more and more manufacturers are coming out in support of their local community and helping support their country as a whole. Without these businesses, healthcare workers wouldn't have the PPE they need, food wouldn't continue to flow through the supply chain, life-saving medicine would dry up, and countless other devastating disruptions would take place across the nation and around the globe.

Do you have a story to tell?

To have your company highlighted, reach out to Michael Womack, NJMEP Marketing Outreach Coordinator, mwomack@njmep.org / 973-747-5491.





FOOD . HELP . HOP



Manufacturing Cares: Kuehne Company Helping Feed Hungry New Jersey Residents

This Manufacturer Donates \$5,000 to the Community FoodBank of New Jersey

Since the first case of COVID-19 was confirmed in the United States, news became grim. Manufacturers in New Jersey were able to remain open, but only through the combined efforts of the entire industry and the New Jersey Manufacturing Extension Program (NJMEP). Besides the bit of good news that New Jersey would consider all manufacturing "essential", there haven't been many stories highlighting the resilience of the industry and the kindness of the community.

Kuehne Company, a manufacturer in New Jersey was able to add some beauty to an ugly situation. They produce industrial chemicals like bleach, caustic soda, and chlorine. This manufacturer gave back in an amazing way. The company raised \$5,000 for the Community FoodBank of New Jersey through the 'Manufacturing Cares' food drive. Every dollar donated equals three meals. Over 15,000 meals will be able to be distributed through the Community Food-Bank of New Jersey because of their efforts.

There are thousands of New Jersey residents that go hungry each day. Many of which are children. During times of crisis, it's easy to forget about this underserved community. When companies like Kuehne and NJMEP combine efforts, incredible contributions are possible.

NJMEP spoke with William Paulin, Co-President of Kuehne to see why the company felt so strongly about giving back to their local community.

Q: What made your company want to put in so much effort behind this initiative?

A: Kuehne has always been in the community servicing industry. Our products ensure that New Jersey, as well as Mid-Atlantic and southern New England regions residents, have clean drinking water. Therefore, when NJMEP let us know that there was a substantial need at the New Jersey Food Bank we felt compelled to provide financial assistance.

Q: Do you want to highlight any efforts from individuals on your team?

A: Kuehne has always been very proud to be part of the first responders for hazardous spills in Region 1 vis Chlorep Emergencies. Annually our emergency response team sends trainers as well as receives training at the Mississippi Fire Academy. Kuehne is chair of the Chlorine Institutes packaging committee as well as being part of its board of directors. Kuehne wants to thank all of the mission-critical workers for continuing to come to work every day to produce and deliver the products to the region ensuring that there is uninterrupted healthy drinking water.

Kuehne is not a stranger to giving back. Paulin stated, "Kuehne has provided financial assistance to the local police and fire department for a rescue boat and to assist with funding a new fire engine. Kuehne has adopted a section of a highway in New Castle Delaware. Last year, for Kuehne's 100 Year Celebration, we packaged personal care bags for the military. Beyond what Kuehne has done in the past, currently, there appears to be a need for disinfectant cleaners at hospitals. Kuehne was approached by a CCNJ member to provide bleach and they would package it to distribute to hospitals at no cost. Kuehne is reaching out to other partners in CT and DE to see if there is a need as well."

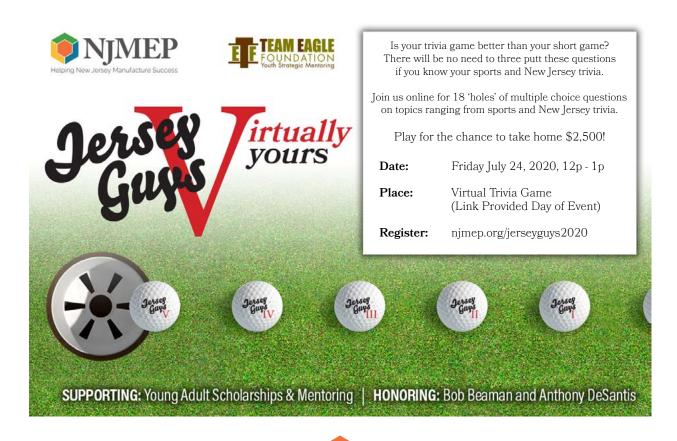
Up to this point, this Manufacturing Hero committed \$5,000 to NJMEP Manufacturing Cares Food Drive. They have hopes of making another contribution in May for the same amount. These contributions are invaluable. The Community FoodBank of New Jersey equates every \$1 donated to 3 meals for a person in need. Through this donation Kuehne alone was able to contribute 15,000 meals to food insecure New Jerseyeans.

Paulin's passion for helping support his local community was evident. He explained that this is not the first nor the last charitable contribution the company would make. "Kuehne has been a family-owned, New Jersey-based company for 100 years and has always believed in community and family. Knowing that community and family are most important, it

is the civic duty of Kuehne to provide assistance to our local communities when there is a need. Kuehne will continue to do its part through this unprecedented need,".

Manufacturing businesses all throughout New Jersey are stepping up in a variety of ways. Some are retooling to manufacture Personal Protection Equipment (PPE) for the healthcare industry, others are contributing to their local food pantries, and all are working to keep their business open ensuring that the economy continues forward. New Jersey manufacturers, especially those part of the complimentary 'Made in New Jersey' program have been highlighted as MFG Heroes since the pandemic began. Kuehne is the embodiment of what makes up a MFG Hero and NJMEP is grateful for the work they continue to do.

Over the past year, the Manufacturing Cares Food Drive has raised over \$21,000 in support of the Community FoodBank of New Jersey. These funds have provided tens of thousands of meals for hungry New Jersey residents, many of whom are children. Anyone can contribute to the Virtual Food Drive. For more information on how to help, visit this link and get started.



Returning to Work Safely is the Goal



2020 RETURN TO WORK & RECOVERY GUIDE

MITIGATION PLAN POST-COVID-19
JUNE 23, 2020 — v5

Included Inside: Return to Work and Recovery & Self Audit Checklist!

Keep the workforce safe – Protect employees and keep business moving.

The 2020 Return to Work & Recovery Guide is here to help businesses protect their employees. This guide provides recommendations, suggestions, and best practices being used to mitigate the spread of COVID-19 as people return to work as the world moves to reopen.

Download a copy at no cost, today!

NJMEP.org/ReturnToWork



8 tips to help Essential Manufacturers Keep Facilities COVID-19 Free

Manufacturing is an essential industry. It was a treacherous battle to keep manufacturers operational amidst the COVID-19 closure of non-essential businesses. Through the support of New Jersey's manufacturing community, local legislators and Governor Phil Murphy took NJMEP's advice and allowed these businesses to remain open as other businesses were forced to close their doors. (cont. on next page)





1. BACK-OFFICE, WORK FROM HOME

Any office employees that can work remotely, should be working from home. Sales, marketing, finance, operations, and the back-office should be staying out of the facility. Technology and connectivity allow people that work behind a computer to work from anywhere around the world. Manufacturing professionals don't have that option. Allowing people that can work remotely to stay home will greatly reduce the chance of the manufacturing workforce from contracting COVID-19 and help keep a facility up and running.

3. REDUCE TOUCHABLE SURFACES

Eliminate as many communal surfaces as possible to stem the spread of COVID-19. Keep doors open wherever possible to avoid employees from touching the handles. Switch to no-touch disposal trash cans or remove lids. Most importantly, be vigilant when it comes to cleaning practices. Disinfect all touched surfaces between each shift. This might be the ideal time to develop a committee responsible for the facility's cleanliness.





2. SOCIAL DISTANCING

Take social distancing seriously. Everyone in a manufacturing facility should stay at least 6 feet apart. Manufacturers' facilities may not be currently conducive to this new standard of personal space i.e. social distancing. It may take a manufacturer rearranging some of their equipment to accommodate the 6 feet rule. However, this may become the new standard even after the COVID-19 pandemic subsides. By ensuring employees have more space in between them, an employer can expect less sick days in general.

4. INCREASE VENTILATION

Ensure that you increase the percentage of outdoor air circulating through a facility. Increase ventilation rates and/ or open windows when weather permits. Keeping fresh air in a facility will help reduce the chance of the Coronavirus from being passed around a manufacturing operation.





5. VIRTUAL MEETINGS

Eliminate in-person meetings. Compile critical information into an email or utilize virtual meeting rooms like Zoom. Using virtual meeting services can eliminate the need to cram people into a confined area which can further spread of COVID-19.

7. SPECIAL PROTECTIONS ON KEY PERSONNEL

Personnel that are essential to keep a facility open such as boiler operators, wastewater treatment engineers, lead electricians, maintenance technicians, etc. must be isolated. Instruct the rest of the workforce to keep their distance from these individuals. Keep sections of the facility roped off to protect this essential staff. Speak with this group about the importance of keeping 6 feet of separation between them and the rest of the workforce. Encourage all staff to do the same, however, extra precautions should be taken to isolate essential personnel.





Manufacturers have been staggering the start and stop times of their 1st, 2nd, and 3rd shift to avoid overlap. This will take some experimenting to enact. Communication with the workforce will be key to implement this strategy successfully. Find what system works best for a specific manufacturing business, ideally a manufacturer will want to avoid as much downtime as possible.

ThomasNet created a list of Northern New Jersey industrial cleaning services. If a member of the staff is found to be infected with COVID-19, follow this link. Cleanliness and hygiene are the two best ways to combat COVID-19. Be sure to communicate with the workforce about best practices when it comes to maintaining proper hygiene. Use the CDC cleaning and disinfection recommendations to keep a manufacturing operation Coronavirus-free.

This pandemic has stretched manufacturers to their limits. Uncertainty and misinformation are both prevalent. Turning to trusted sources will be invaluable to help keep business moving forward. Be sure to turn to NJMEP's COVID-19 Resource Page for any questions or to locate critical New Jersey manufacturing resources. Don't hesitate to Contact NJMEP with any questions about relief available or to learn more about services designed to help manufacturers overcome supply chain and business disruptions.



NIST MEP created the Emergency Assistance Program to support US small and medium-sized manufacturers (SME) as a response to the COVID-19 pandemic. This program was made possible by the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). NJMEP jumped at the opportunity to secure additional funds for NJ manufacturers. These funds are being used to prevent, prepare, and help businesses respond to the numerous disruptions caused by Coronavirus.

By concentrating on Workforce Development, providing Technical Resources, and Supply Chain Support, NJMEP developed a comprehensive suite of services to support manufacturers' specific needs during this time. Businesses all over New Jersey have struggled. New Jersey manufacturers were able to remain open but still could not avoid all the pressures COVID-19 put on their operations. As the workforce became even more turbulent, training and professional development opportunities dried up, and a fractured supply chain caused issues up and downstream, NJMEP responded.



Project 160

A dwindling manufacturing workforce was an issue long before Coronavirus. However, the pandemic accentuated these challenges. Skilled labor is nearly impossible to come by and when a person does have the knowledge and experience, those individuals are often nearing retirement.

Now is the ideal time to get to the root of the workforce problem in New Jersey. NJMEP received support to partner with Manpower and the Manufacturing Skill Standards Council (MSSC) to train 160 unemployed or underemployed individuals from Newark, Camden, Trenton, Paterson and surrounding areas.

These 'employees-to-be' will earn industry-valued and nationally recognized credentials from MSSC, including the Certified Production Technician (CPT) certification. Training will reduce onboarding time, improve employee performance and retention, and provide reduced recruitment and training costs.

New Jersey manufacturers can save their business a spot to secure their share of these 160 individuals. Visit njmep.org/project160 to learn more today.

In-depth Strategic Virtual Course Offerings

Professional development provides so much value to businesses and employees. Investing in employee's growth improves company loyalty, moral, and gives people the skills to do better work for their employer. In-person training was eliminated when the pandemic struck.

Social distancing removed the option to provide many professional development opportunities. Additionally, the expense of training employees was unjustifiable during such uncertain times. NJMEP created the solution with the COVID-19 Virtual Training Opportunities.

From business recovery strategies to virtual lean or digital marketing training, COVID-19 Virtual Training provides manufacturers the professional development opportunities they need. To take part, contact your NJMEP account manager. Or, email info@njmep.org with the subject line CARES ACT for more information today.





Supply Chain Support

COVID-19 was close to shattering every link in the domestic and international supply chain. No sector was safe. Concerns over food manufacturing facilities being forced to close, manufacturers producing essential infrastructure were on the brink of closing shop, and businesses that produce sanitizers and cleaning agents were worried they would have to cease production. New Jersey was one of the only states that considered all manufacturing essential and allowed these businesses to remain operational if they followed safety guidelines to reduce the spread of Coronavirus.

NJMEP fought for a month straight to ensure the manufacturing industry was protected. To learn more about that fight and the potential disaster that was avoided, turn to page 5 and read the story titled, "Essential Manufacturing".

Part of NJMEP's mission during the height of the pandemic was to create a comprehensive supply chain database composed of manufacturers and distributors from all around the state. This list captured critical information such as capabilities, challenges, and immediate needs. Using this information, as well as collaborating with state and federal leadership, NJMEP was able to connect manufacturers with other businesses that could either provide solutions to their immediate challenges or identify companies in need of their products. Not only did this drum up business for manufacturers on the list, but the information was also used to ensure critical supply chains were unimpeded and were provided vital support from private entities such as NJMEP or the state and the federal government.

The information captured and the partnerships created as a result of developing the supply chain database had and will continue to have a lasting impact on the rigidity and reliability of that United States supply chain.

There is no avoiding the impact of COVID-19.

New Jersey was one of the hardest-hit states, but the resiliency of manufacturing helped lessen the economic impact. Manufacturers in New Jersey have a partner they can trust. NJMEP is here to ensure these businesses have the people, training, and supply chain support they need to continue forward.

Manufacturing Training and Upskilling in a Post-COVID World

Upskilling the manufacturing workforce is an essential pillar of NJMEP's mission. Through on-site training, workshops, and complimentary seminars, manufacturers throughout New Jersey can upskill their employees to produce higher quality products or become more effective managers.

Once COVID-19 hit, this in-person training stopped due to social distancing measures. However, manufacturers haven't lost out on the ability to train and upskill the workforce. NJMEP shifted from in-person training to webinars.

Online Upskilling Opportunities for New Jersey Manufacturers

There's a host of online webinars available to manufacturers through NJMEP. Problem Solving, Time Management, and Goal Setting courses are ideal for anyone in an organization. These kinds of workshops provide actionable advice for production workers or the C-Suite.

Additionally, Human Resource teams can turn to NJMEP webinars to advance their skillset. HR in an industrial environment presents its own set of challenges. A host of HR focused training has been made available and is especially helpful in a post-COVID business environment.

Along with the upskilling opportunities mentioned above, NJMEP is hosting more specific webinars. Take a closer look at some of the other virtual training available.



ISO Certification Training

Manufacturers will be able to attend webinars like the ISO 9001-2015 Internal Auditor Training Class and the ISO AS 9100 Internal Auditor Training Class while social distancing. These webinars train personnel so they can conduct internal audits. It provides them with the necessary knowledge to become qualified and confident to do so in a positive, constructive manner, consistent with the objectives of a manufacturer's management system. The class teaches the fundamentals of conducting an end to end process audit.

Upskilling the workforce to possess these new skills adds immediate value to any business. Just because it has become more difficult to attend inperson workshops, doesn't mean a New Jersey manufacturing company has to suffer. Business leaders can now take advantage of online training options.

Management and Supervisory Skills

Moving into a position of authority means meeting new challenges, taking on new responsibilities, and mastering new skills. It may also mean learning to manage across cultural and linguistic differences. New managers can often be overwhelmed by new responsibilities and anxious about the transition from "coworker" to "boss."

To create a smoother transition and a more capable management team, management and supervisory skills courses are available online. These comprehensive webinars provide real-world examples that ensure participants retain the critical information being shared. An organization is only as effective as their leaders. It is absolutely vital that manufacturers provide these professional development opportunities to supervisors and managers.

Food Manufacturing

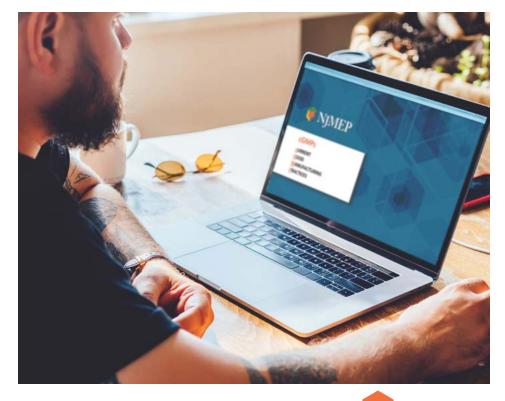
Food manufacturers can choose from a wide range of online training courses. There are 5 self-paced online training options as well as a variety of live webinars. These businesses face a unique set of challenges and must abide by strict regulations. Food manufacturers must continue upskilling staff and provide training even if inperson training isn't available. Online training options are the ideal solution.

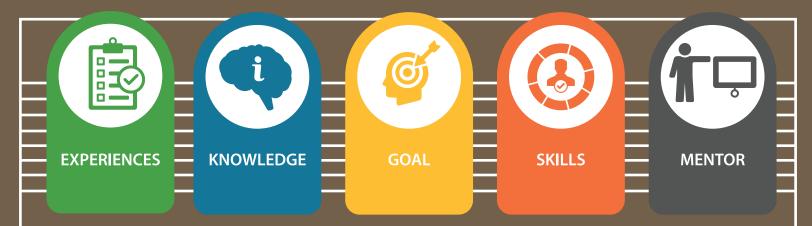
The list below provides a look at some of the food manufacturing online courses currently available.

- Current Good Manufacturing Practices (cGMP)
- Food Allergens
- Food Defense
- Food Recalls and Withdrawals
- Hazard Analysis and Critical Control Points (HACCP)
- And Much, Much More!

As 2020 continues, more webinars that cover more of the critical topics that embody manufacturing will be made available. Training and education are essential in this industry. The more proficient and efficient the workforce becomes, the better a business's bottom line will look. Coronavirus may have disrupted the industry but it did not bring it to a stand-still. NJMEP and the entire manufacturing community is resilient. To ensure the success of all New Jersey manufacturers, NJMEP will continue providing the highestquality instruction and training to these essential businesses.

For an up-to-date look at all the online training available, visit NJMEP.org/events.





WORKFORCE DEVELOPMENT

NJMEP's Comprehensive Solution to New Jersey's Manufacturing & Logistics Skills Gap





RECRUITING TALENTED MANUFACTURING WORKERS

Project 160 Bridges the New Jersey Manufacturing Skills Gap

Recruiting talented manufacturing workers continues to be a struggle. In New Jersey and nationwide, there is a lack of skilled workers ready to take on manufacturing roles. Project 160 is the solution.

NJMEP has worked tirelessly to address the skills gap in New Jersey. From training workshops to our apprenticeship program, services were primarily geared toward upskilling incumbent workers. Now, Project 160 takes workforce development one step further.

Project 160 is bringing together 160 unemployed or underemployed individuals from Newark, Paterson, Camden, Trenton, and surrounding areas and providing them with essential manufacturing training. Individuals that participate in the program will receive training and acquire industry valued and nationally recognized credentials from the Manufacturing Skill Standards Council (MSSC). This program makes it easier for New Jersey businesses to recruit qualified manufacturing workers.



RECRUITING MANUFACTURING WORKERS

Any professional working in the manufacturing industry understands that it's not just about finding a person, it's about finding people with the right talent. Many roles in a manufacturing facility are higher-skilled positions. People work for years to hone their skills to produce quality products, parts, and components.

NJMEP is creating a New Jersey talent pipeline to help manufacturers find the right people with the right skills. By providing 160 individuals with the essential skills manufacturers need, it gives New Jersey businesses nearly instant access to a strong pool of qualified candidates.

REDUCED ONBOARDING

Manufacturers have their own unique production process. Even experienced, highly skilled manufacturing workers will need some onboarding support after they're hired. Businesses are unique and have different processes and procedures. However, bringing in an untrained and inexperienced worker requires a much lengthier onboarding process. Project 160 is reducing this onboarding time.

Project 160-trained individuals come preloaded with the manufacturing basics. Measurement, blueprint reading, a foundational understanding of manufacturing, and more critical skills are all focuses of the Project 160 training program. Proving New Jersey manufacturing businesses with a more effective way to recruit qualified individuals allows them to focus on showing the new hires their unique processes without having to spend as much time on training.

PARTNERS YOU TRUST

Recruiters and job boards are effective for many industries, but manufacturing is unique. The work requires skills that are hard to come by, especially now that high schools are eliminating shop classes. NJMEP is a trusted partner to New Jersey manufacturers. The industry is our business. Project 160 is designed to bridge the skills gap from the very foundation.

Working with NJMEP gives manufacturers an advantage. Manufacturing and logistics are NJMEP's focus. Manufacturers can rely on the industry expertise of the team and trust that NJMEP is tuned into the needs of the New Jersey manufacturing industry.

To learn more about Project 160, visit NJMEP.org/project160



Reasons Your Company Should Consider Apprenticeship



- Apprenticeship programs create lower worker turnover due to the fostering of greater worker loyalty and productivity.
- Apprenticeship programs enable companies to improve their existing workforce by improving the skills of their employees if they participate in apprenticeship programs as incumbents.
- Apprentices can fill necessary positions while completing apprenticeship.
- Apprenticeship programs enable companies to have a workforce that is highly-skilled.
- Training apprentices can help a company accommodate an aging workforce.
- Apprenticeship programs provide companies with a way to keep employees up-to-date with industry trends, changes and skills, as well as new technologies.
- Apprenticeship programs provide companies with hire-ready employees upon program completion.
- Businesses can customize apprenticeship programs to address the needs and challenges they face.
- On-the-job training is customizable to meet your company's needs, ensuring that apprentices are proficient in the positions they will fill.
- Apprenticeship programs offer companies the ability 10 to customize an incoming group of employees.

Contact NJMEP today to learn more about the ProAction Education Network™

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CB Kaupp & Sons Apprenticeship Success

Background

C.B. Kaupp & Sons is an ISO 9001:2008 + AS9100:2009 Rev C certified manufacturer and leader in the Hydro Forming, and Precision CNC Machining space. They are experts in sheet metal hydro forming. Hydro forming allows C.B. Kaupp & Sons to provide both prototype and production quantities. To maintain their impressive reputation and to continue servicing clients, they need employees with an extremely specific skill set.

Challenge

"Our biggest challenge is getting people but we can train new people and train them," John Buchanan an Engineer for C.B. Kaupp & Sons stated.

This New Jersey manufacturer is not alone. Manufacturers all over the country are facing the same workforce pressures as C.B. Kaupp & Sons. Finding new workers with the right skills to contribute to a manufacturing operation is proving to be extraordinarily challenging. Manufacturers are posting wanted advertisements but there are so few individuals with the qualifications that these ads continue to go unanswered.

Solution

John Buchanan is now a mentor for the company's apprentices. He stated, "It's hard to find people these days, so this training is valuable."

C.B. Kaupp & Sons recognized that there's a talent shortage and that there were too few people with the skills they need. To continue moving their business forward and bolster their workforce, they turned to the NJMEP Pro-Action Education Network $^{\text{\tiny TM}}$.

The Pro-Action Education Network[™] is a state-wide work-force development program spearheaded by NJMEP. This program provides New Jersey manufacturers with a variety of solutions to bridge the skills gap.

Five United States Department of Labor Registered Apprenticeship programs are part of the Pro-Action Education Network™. C.B. Kaupp & Sons enrolled two employees in the Industrial Manufacturing Production Technician (IMPT) Registered Apprenticeship program. Through this program, these apprentices are being upskilled so they can contribute more to their organizations and take on more responsibilities.

Results

"[The NJMEP Apprenticeship Program] worked out well. I think they learned a lot. It's certainly going to help us. The only way we're going to grow is if our people grow. [The apprentices] are getting more confident and willing to take on more responsibility." Buchanan explained.

Kalvin is one of C.B. Kaupp & Sons apprentices. When asked about his time in the Registered Apprenticeship, he said, "My overall impression is that the program is very helpful with a reminder of certain information to help reinforce it, and learning new things and especially learning things that would help toward supervising or managing. The communication portions are my favorite part."

David, another C.B. Kaupp & Sons apprentice agrees that the communication section of the apprenticeship program is essential. He mentioned that the safety curriculum is valuable for both seasoned manufacturers as a refresher and those new to the industry as well.

C.B. Kaupp & Sons are cultivating their talent pipeline through the use of NJMEP's IMPT Registered Apprenticeship program. C.B. Kaupp & Sons can rely on the two apprentices enrolled in the program to take on more responsibilities. They are contributing more to the organization as a whole. This fact allows C.B. Kaupp & Sons to look for more entry-level individuals that can then be trained, as the two current apprentices move up within the company.



PowerTech Apprenticeship Success

Background

PowerTech is an industry leader in the energy conversion space. The company specializes in electrical power supply systems for rail and industrial applications. Their mission is to "ensure energy availability and to use it as effectively as possible. Whether in rail vehicles, in industry or in research and development, our power supply systems operate efficiently and reliably and ensure that optimum use is made of energy." PowerTech complies with the standards of ISO 9001 quality management systems and the International Railway Industry Standard (IRIS).

Challenge

Manufacturers all over the country are facing a severe skills gap. PowerTech was in search of new production workers with all the skills to help drive their company forward. Unfortunately, that perfect hire with all the right experience just didn't exist. Finding employees that will remain loyal to an organization is another massive challenge. Workers find it much easier to walk away from an organization that doesn't invest in their professional development.

PowerTech is not alone. Nearly every manufacturer across the nation is facing similar challenges. What makes PowerTech stand out is how they took action to move forward and overcome.

Solution

"It comes down to motivating people and increasing company loyalty. The original discussion with PowerTech leadership was centered around how we can develop everyone at our organization. The NJMEP program was simply a good solution." Andreas Beilharz, Director of Operations and PowerTech's mentor stated.

PowerTech hired Jaime S., a former truck driver, to help with work in the OEM side of the business. Jamie proved himself as a valuable member of the team. To provide Jamie with the skill that will allow him to contribute even more to the organization, PowerTech leadership signed him up to take part in the NJMEP Industrial Manufacturing Production Technician (IMPT) Apprenticeship Program.

The IMPT Apprenticeship Program is part of NJMEP's Pro-Action Education Network™. The Pro-Action Education Network™ is a state-wide workforce development program spearheaded by NJMEP. This program provides New Jersey manufacturers with a variety of solutions to bridge the skills gap. The IMPT Apprenticeship Program is a year and a half long program that mixes on-the-job (OJT) training with in-class related technical instruction (RTI). The curriculum focuses on providing education to develop well-rounded manufacturing professionals.

"We wanted to push some of our guys from the shop floor to the next level. With the support of NJMEP, we could offer to develop our workforce." Beilharz stated.

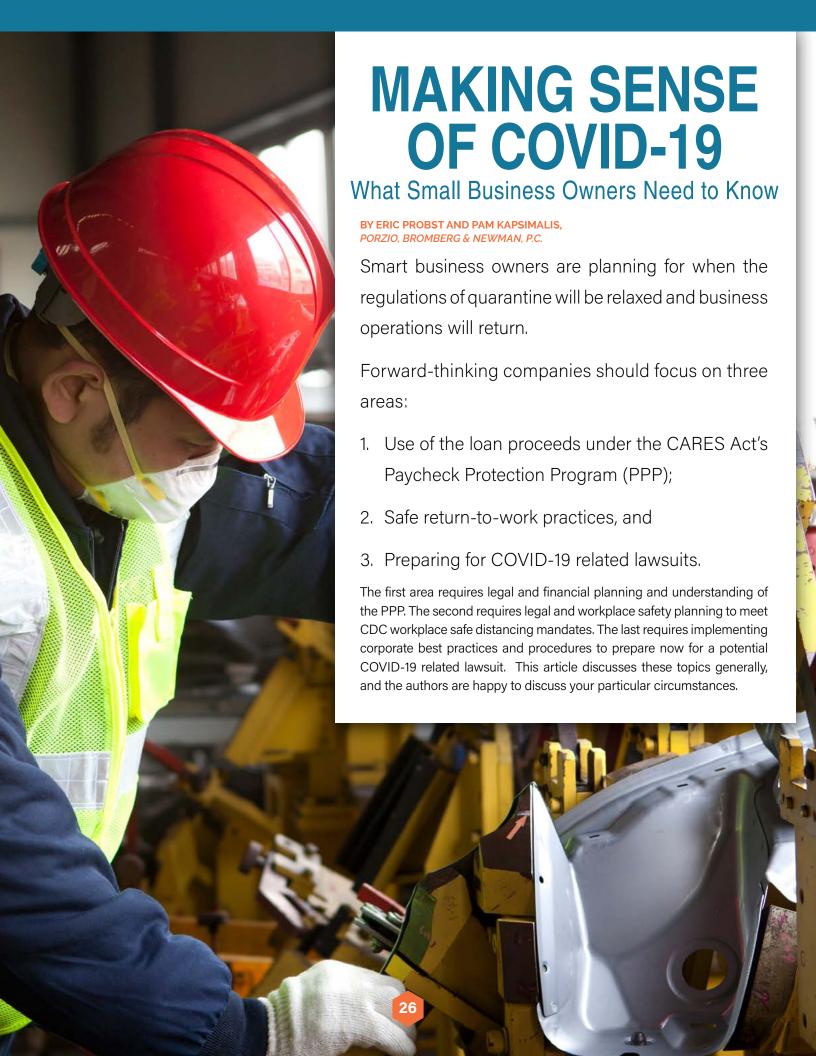
Results

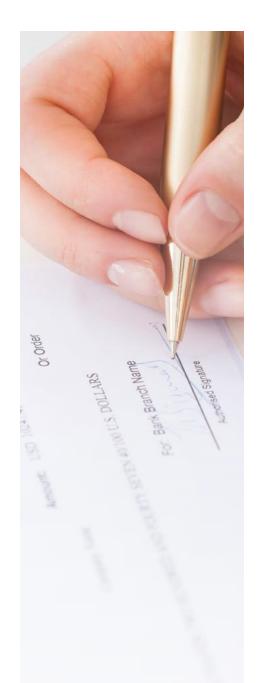
"We saw that the NJMEP program gives apprentices a bigger picture about the product they're working with, a perspective on safety, and a production point of view." Beilharz explained.

Jamie, PowerTech's apprentice stated, "It gave me some newer information. I did welding in high school but I learned a lot more of the technical details. I've learned more about blueprint reading and drawing and pneumatic systems, and hydraulic systems. Of course, the safety review was great,"

Jamie has been promoted to servicing PowerTech's older materials. PowerTech can now utilize his new skillset and place him in more critical roles. He is now able to contribute even more to PowerTech.

This apprenticeship is split up into two parts; related technical in-class instruction and on on-the-job learning. As of March of 2020, Jamie completed the in-class related technical instruction portion of the apprenticeship. Now he will continue forward with additional on-the-job training. PowerTech is already realizing the benefits and there is still another entire section of the program centered around on-the-job training.





I. Payroll Protection Program

By now, you or your business may have qualified for and/or received the PPP loan proceeds. As a business owner, you are trying to maximize the benefits of this loan, especially forgiveness. Below is a list of general considerations to assist in navigating the forgiveness process:

- Proceeds are to be used within 8 weeks after receipt of the loan proceeds.
- In order to qualify for maximum forgiveness, businesses must use the loan for eligible expenses, including payroll (e.g., salary, wages, commissions or tips, employee benefits and taxes on compensation), rent payments, and utility payments.
- The entire amount of the PPP loan is eligible for forgiveness.
- Eligible payroll includes salary, wages, commissions and tips up to \$100,000
 of annualized pay per employee (maximum of \$15,385 per individual for
 the 8 weeks).
- For self-employed individuals, most of the 2019 net profit would be attributed to net income; however such individuals are still limited by the \$15,385 maximum amount.
- Workforce reductions that occur between 2/15/20 and 4/26/20 will not reduce the forgiveness amount if restored by 6/30/20.
- Workforce reductions after 4/26/20 will not be included in the forgiveness analysis.
- Furloughed employees who decline to return to work can be replaced but must be paid at the same rate of pay.
- PPP loan proceeds should be kept in a separate account to provide accountability for the use of those proceeds if there is an SBA review.

Some employees may refuse to come back to work as they are making more money on unemployment. However, if the employer properly documents an employee's refusal to come back to work and has excess loan funds remaining, those funds may either be returned after the reconciliation is done with the lender or the remaining funds may be taken as a loan (subject to the 1% interest over 2 years and allowable use of funds). It is important that a written offer be provided to furloughed employees with a definite date for the employee to respond, with notice that failure to respond will be treated as a refusal to return to work. Employees need to know that refusal to return to work may be considered fraud by the Department of Labor and may disqualify that employee for current or future benefits.



II. Return-to-Work Practices

New Jersey hopefully will soon lift, or relax, Governor Murphy's Executive Orders and permit manufacturers to return their entire workforce to their factories and warehouses. Manufacturers need to prepare and enact safe return-to-work policies and procedures to protect their employees, including:

- Follow CDC guidelines relating to exposure, symptoms, and return to work, and consult workplace/OSHA experts to ensure compliance meets government minimum standards. This should include developing an Infectious Disease Preparedness and Response Plan.
- Practice worksite "safe-distancing": limit meetings, group "stand arounds" and toolbox meetings or conduct them remotely or at social-distancing distances,
- Provide Personal Protective Equipment ("PPE").
- Stagger work start/stop times, lunch breaks and port-a-john use.
- Practice healthy behavior: insist on proper handwashing, coughing, sneezing, and provide hand sanitizers and wipes.

These are just a few tips. Consult OSHA, Guidance on Preparing Workplaces for COVID-19 for comprehensive coverage for these issues {Insert OSHA link}.

III. Lawsuit Preparation

Employers are at risk of being sued for employee's alleged exposure to COVID-19 at the manufacturing facilities, worksites, and in company vehicles. In April, a Wal-Mart employee's family sued the retail giant after the employee died of complications from the COVID-19 virus, claiming the company failed to implement COVID-19 safety precautions, sanitize the store, and provide personal protective equipment such as masks, latex gloves and even antibacterial soaps or wipes to employees. Future personal injury lawsuits against manufacturers will follow the allegations against Wal-Mart



and allege personal injuries or wrongful death because of exposure and seek compensation for pain and suffering, hospital bills, missed time from work, fear of death, and lost wages. Other lawsuits will assert manufacturers violated federal and state wage and hour and family leave laws.

Manufacturers should take proactive measures to prevent and prepare for these suits including:

- Draft and distribute to employees COVID-19 safe worksite practice policies ("best practices"). Use CDC and OSHA Guidelines and state and local government orders to draft these documents and have your employees consent to receiving them.
- Educate employees on COVID-19 best practices and document attendance at education meetings.
- Retain all attendance records and signed receipts of documents regarding best practices in each employee's file.
- For those employees who do not follow best practices, determine risk in retaining that employee and document their employee file.
- Conduct random spot checks of worksites to ensure compliance with "safedistancing" practices and PPE requirements.
- Communicate daily to employees the need to follow and comply with the best practices by email or other written format.
- Understand all employment laws relating to unemployment, leave, and pay as they will mold your response to claims for leave and lost wages. Consult legal consultants to understand these complex laws.
- Maintain individual files on employees who self-quarantine without a prescription, those who take leave to care for a sick relative or for children studying remotely; Plaintiffs' lawyers might file class actions on behalf of a group of employees, and you will want to prove—with documents—how each employee is different.
- Prevent customers/vendors from entering your premises without a mask. Post these signs at all entrances and do not deviate from it.

Like any personal injury or wrongful death lawsuit, COVID-19 exposure lawsuits will be fact sensitive. Documentary evidence will be a key component to defending against COVID-19 related lawsuits. As a defendant, a manufacturer will have to prove it reviewed CDC, OSHA, and other safety guidelines, implemented safety protocols and developed best practices, and communicated them to employees.

Remember to:

- Document all COVID-19 practices implemented, education meetings, spot checks, and other compliance efforts;
- Locate insurance policies and broker information. If you receive a Complaint, insurance carriers must be placed on notice immediately, and
- Retain all COVID-19 related documents to demonstrate compliance to local authorities and as proof in potential COVIDrelated personal injury and wrongful death suits.

The last months have been overwhelming on many levels. All must keep moving forward. For manufacturers, plan now for tomorrow. Understand the PPP and your obligations under the program. Consult financial consultants or lawyers to implement best practices and next steps in not only a financial reassessment but also a risk mitigation plan.

To create the best protection for yourself and your company's staff and to minimize the risk of potential personal injury COVID-19 related lawsuits, follow these guidelines and contact us at Eric L. Probst (ELProbst@pbnlaw.com) and Pamela M. Kapsimalis (PMKapsimalis@pbnlaw.com) and stay updated through Porzio's COVID-19 website at https://porziocovid19resources.com/.



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RETHINKING INDUSTRIAL

DEVELOPMENT

ACTIVITY IN THE POST-

COVID WORLD

BY: PHILLIP SINGERMAN, SENIOR FELLOW, INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

"There must be power in the States and the Nation to remould, through experimentation, our economic practices and institutions to meet changing social and economic needs... It is one of the happy incidents of the federal system that a single courageous State, may, if its citizens choose, serve as a laboratory, and try novel social and economic experiences without risk to the rest of the country."

SUPREME COURT JUSTICE LOUIS BRANDEIS, NEW STATE ICE CO. V. LIEBMANN, 1932 The Covid-19 Crisis of 2020 vividly demonstrates the consequences of four decades of the decline of US manufacturing. A combination of tax policies that favor financial services, trade policies that lead to deficits, corporate policy that drives outsourcing, technology policy that under invests in advanced manufacturing, and talent policy that undervalues STEM education, led to a lack of resilience, surge capacity, and redundancy in our supply base. These trends have undermined our productivity capacity, imperiled our defense industry base, and caused millions of people to lose their jobs. Now our very lives are threatened.

The dramatic impact of the Covid-19 crisis, and the unprecedented national public and private response it evoked, provides an opportunity for a fundamental re-thinking of the strategy to restore our productive capabilities. among these the central role of States. Five principles should shape the initial stages of our industrial recovery strategy.

First, in the US federal system, States play a necessary and critical role in policy development, program implementation, and political sustainability. Governors have clearly demonstrated the leadership role of the States in facing the Covid crisis. This is nothing new: over the decades, States have demonstrated their essential role administering federal funded programs, such as the interstate highway system, Medicaid, unemployment insurance, workforce training, and K-12 education.

Second, existing federal agencies do have the authority and flexibility to respond to unexpected challenges – if they are led by experienced administrators, have adequate resources, and value professional expertise. (By contrast, see "Testing Blunders Cost Vital Month in U.S. Virus Fight" (NYTimes, March 29, 2020).

Third, if the decentralized nature of political authority in the federal system requires a prominent role for the States, the fragmented nature of federal agency mission requires coordinated national leadership. Typically this involves White House executive branch leadership – for example through OMB, NEC, and OSTP – working through the traditional inter- agency process that engages cognizant agencies.

Fourth, It is unlikely that large corporations – by themselves – will be able to quickly pivot to repurpose their facilities,

retrain the workforces, or reprogram their robots to respond to the immediate needs for crucial medical supplies. The decline of vertically integrated industrial systems through the Wall Street driven "asset lite" and "shareholder value" strategies, has created a highly efficient, just-in-time, global supply chain, which unfortunately lacks redundancy, resilience, and is blind to single source dependency in its lower tiers.

Recent articles about the manufacture of facemasks and other medical supplies highlight the flexibility of small firms, working cooperatively, to respond to immediate market needs. (See "At the Brooklyn Navy Yard, Bolstering Supply Chain," NYTimes, April 1, 2020).

These small firms remain the base of our domestic industrial supply chain; of the 290,000 manufacturing "establishments," over 99% are defined as "small" (<500 employees), containing 50% of 12 million manufacturing employees.

Fifth, and perhaps most challenging to contemporary economic trends and intellectual paradigms, the recurring and increasingly frequent outbreaks of congestion driven illnesses in our globally connected world– AIDS, SARS, MERS, Ebola, Covid-19 – undoubtedly amplified by climate change – strongly indicates the need for the dispersal of economic activity.

During WWII the US placed important defense facilities in the heartland to prevent exposure to attack e.g., Boeing in Kansas, and in rural areas to protect security, e.g., Los Alamos in New Mexico. In a world connected by robust electronic networks and transportation systems, the broad dispersal of economic activity to rural areas will have salutary economic benefits, improve health protection, restore economic convergence amongst regions, and reduce political divergence.

This approach challenges the theory of the positive impacts of agglomeration effects and the practices that support regional clusters – which have resulted in significant economic and social costs to both "left behind" rural regions and hyper- concentrated metro areas.

An immediate starting point to begin restoration of our manufacturing supply chain is to develop state/local manufacturing innovation strategies. Existing authorities and proven models exist. The Commerce Department's Economic Development Administration (EDA) EDA has

the authority to provide economic adjustment/planning grants to States, and has often exercised this authority in the aftermath of natural disasters and its Manufacturing Extension Partnership (MEP) program could easily utilize its State Technology Extension Program (STEP) to similar effect.

A major focus of these strategies would be to support diverse and extended supply chains across the nation, particularly in rural areas, to provide security, resilience and redundancy.

Manufacturing enterprises are often the anchors in rural areas, and rural manufacturers are major components of state manufacturing sectors. 10 states, primarily in the Great Lakes region and Southeast, have more than 1,700 rural manufacturing enterprises; in 20 states, primarily along the Ohio and Mississippi Valley and in the upper Great Plains, rural manufacturers represent more than 28% of all manufacturers, and in 9 of those states more than 42%. Rural areas also contain a high proportion of the 35,000 manufacturers in the critical – and vulnerable – food processing supply chain, which the FDA estimates more than 85% employ fewer than 100 persons.

Development of these strategies at the national and state level could be undertaken immediately – without requiring any new legislative authority, through new funding as part of a special supplemental appropriation.

While national and state level strategies are developed, the federal government should put in place a national funding mechanism. One proven model is the Technology Reinvestment Program (TRP), created by Congress in 1992 in response to defense downsizing, and implemented by the Clinton Administration; an initial \$500 million pool of funds, allocated to DARPA, competitively awarded in 7 distinct categories through an inter-agency process, and then managed by the appropriate cognizant agency. In current dollars funding would be approximately \$1 billion.

Another relevant example is the mid-1970's Local Public Works programs (LPW I and II), a counter-cyclical shovel ready infrastructure initiative, administered by EDA, allocating funds to state and local government on a formula based funding levels, through a competitive process. The \$6 Billion in two tranches dispersed at that time would be equivalent to \$28.85 billion now.

Whenever possible, the default mechanism should either be to have the States manage the programs, because of their greater responsiveness to local conditions, or for federal funding to be consistent with State strategies. And a requirement for receipt of major federal funding should be State and local legislative reform to prohibit the use of all federal dollars for inter-state private firm relocation subsidies - a "net-loss game" - estimated at \$70-\$100 billion annually in outlays and foregone tax revenue. Requirements for local policy compliance are common in federal grant-inaid programs, as in the Obama Administration's educational Race to the Top.

A final consideration will be the degree of technological or industrial targeting in any recovery initiative. Major federal strategies are traditionally oriented around a single technological or industrial goal - Race to the Moon in the 1960's; TARP in 2010. Under public discussion in the past few years have been a major Infrastructure Program and a Green New Deal. Now is added the Response to the Covid-19 Pandemic. Such an approach will undoubtedly drive the political and programmatic imperative for action. However, underlying any of these pathways is the need to restore our nation's capacity to produce tangible goods.



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LIFE SCIENCES



FOOD/BEVERAGE





MANUFACTURING WAREHOUSE/LOGISTICS





Adapt and Overcome: Is Automation the Right Solution?

BY MARK HOWE,
VICE PRESIDENT, SALES & MARKETING, THE KNOTTS COMPANY

In The Knotts Company's 68 year history, we have experienced a number of events that have an impact on manufacturing and society as a whole. From natural disasters to economic recessions, each has affected manufacturing's way of doing business. Historic events, both big and small, are opportunities to better understand your strengths and weaknesses.

COVID-19 has impacted manufacturing in ways we would have never imagined. This pandemic has made it clear that in the future, factories, and warehouses will need to evaluate and adapt to not only serve their customers, but to also protect the wellbeing of their workforce.

As we all learned quickly, the future is unpredictable. However, we can take the steps needed to ensure that we can quickly adapt to these circumstances. Our mindset: with the right solutions, we can overcome any challenge that we're facing. Flexibility is more important than ever to maintain production. Automation can provide the flexibility needed to minimize the risk of the unknown and ensure business continuity.

As engineers at heart, we're rolling up our sleeves to provide the resources you need to transition out of the planning stages and prepare for future growth.

- Evaluate the current manufacturing and production levels for your facility. Where are potential gaps? Will a labor shortage cause a bottleneck and delays?
- 2. Are workers provided with an adaptable workstation that gives them the space to work safely and efficiently?
- 3. Can collaborative robots be used to handle low value, mundane repeatable tasks?
- 4. Do you have the right partners to support your automation efforts?

We are all under pressure to do more with fewer resources in a very competitive global environment. The pandemic accelerated the need to evaluate how we are currently doing business. Let's use this opportunity to adapt, overcome, and grow. There are many tools available today that can help you take control of your path forward.

What is your vision for the future? Automation WILL be a part of that future.

FROM THE CASH FROM THE R&D TAX CREDIT TO RE-ESTABLISH YOUR BUSINESS IN NFW JFRSFY

FEDERAL AND STATE R&D TAX CREDITS PROVIDE EXCELLENT OPPORTUNITIES FOR MANY BUSINESSES IN NEW JERSEY TO HELP RE-ESTABLISH THEMSELVES IN THE AFTERMATH OF THIS GLOBAL PANDEMIC.

BY CHARLES R. GOULDING AND PREETI SULIBHAVI, R&D TAX SAVERS

We have seen a marked increase in New Jersey companies monetizing R&D tax credits since early March, 2020. Our engineering teams are working with NJ companies daily to recover the cash from prior tax year credits and to support the necessary post Covid-19 business changes. This article focuses on 5 major New Jersey business categories that are utilizing the R&D tax credit benefits.

Manufacturing

If someone could name the quintessential industry associated with the state of New Jersey it would arguably be manufacturing. In 2018 alone, manufacturers in New Jersey generated over \$52.70 billion. This comprised 8.43% of the Gross State Product (GSP). In fact, \$30.98 billion in manufactured goods were exported in 2018 (\$13.53 billion were exported to free trade agreement – FTA – partners).

One of the reasons New Jersey's manufacturing sector is so strong is due to the state's strategic location; exporting can be done by rail, air, sea or road. Products can be transported to large sites on the East Coast, such as New York City, Philadelphia and Washington D.C., by rail or by main arteries running through the state such as I-95 or I-287. Airports within the state provide flights to 90 cities and 110 international locations. Finally, the Port district of New York and New Jersey is the largest maritime cargo center on the East Coast and is one of the busiest seaport areas in the country.

If there was an industry that could be classified as the "classic candidate" for the R&D tax credit, it would be manufacturing. With activities that include new and improved products, new and improved processes, software developments, virtually all New Jersey manufacturers should be obtaining R&D tax credits because of this. As we have illustrated before, the manufacturing industry is an ideal candidate for the R&D tax credit.

Robotics and automated technology have become a widely used form of equipment within manufacturing facilities. They offer multiple advantages, such as increased efficiency and ease of production activities. Incorporating robotics and automation into existing processes tends to require a significant design effort, whether it is developed internally or through the help of a 3rd party. Both efforts can qualify for R&D tax credits, including software development, algorithm development and tuning, machine learning, logic programming and integration, development of control systems and component selection.





Transportation, Logistics & Distribution

There is a large sector of New Jersey's economy dedicated to Transportation, Logistics & Distribution (TLD). From warehouses to trucking companies, TLD unequivocally supports the East Coast and Mid Atlantic's economies. In 2017 alone, TLD contributed more than \$59.2 billion to the State's GDP, making it the sixth-highest dollar amount contributed by an economic sector per state nationwide.

Distribution centers and warehouses are the new brick-and-mortar for online retailers to store and distribute their goods to intermediary and end-user customers. In the past, when capacity was restricted, distribution centers focused on increasing density. Today, the goal is to relentlessly improve throughput. Becoming the modern retail engine, warehouses have increasingly begun to invest in applicable innovative technologies. These technologies include: narrow-aisle forklifts, co-packaging spaces, collaborative robots ("co-bots"), and other technologies including smart cards and conveyors. Other R&D credit eligible activities can range from software improvements (WMS, GPS, ERP, etc.) to integration of new processes to make shelving, picking/packing and locating items more time and cost-effective. All these improvements and technological advancements help New Jersey arrive at the right destination, while bringing R&D tax credits as well.



Food Production and Distribution

Food companies do particularly well in establishing the R&D tax credit. New Jersey has a significant amount of food manufacturing, production and distribution companies due to the state's vast amount of available resources.



 $\textit{Amy Kuperinsky} \mid \textit{NJ Advance Media for NJ}. com \\$

Food manufacturers can qualify for an R&D Tax Credit in multiple ways – both for product development, but also for process improvement. Today's food shoppers are far more discerning than the previous generation was. Today's consumer demands organic, whole-grain foods, with reduced trans-fats, sugar and salt, that are preservative-free. Today, food companies are substituting processed ingredients with healthy alternatives all while adhering to regulatory health and safety guidelines. NJMEP has an excellent food safety/training program. Food companies also face technical hurdles in the area of packaging and distribution developments and improvements as well. Sample activities that food companies engage in that qualify for the R&D tax credit include: test kitchen activities, experimenting with new ingredients, shelf-life testing and maximization, initiatives to increase

nutritional value, and incorporating new or lean manufacturing procedures. The delicious food New Jersey is home to is often the silent result of systematic testing and experimentation.

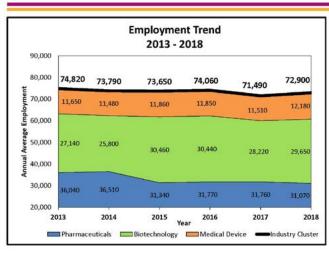
Rutgers Universities' Food Innovation Center located in Bridgeton, New Jersey, offers companies assistance with food manufacturing and process development. The center provides two food innovation locations which are USDA and FDA inspected, and contain food processing spaces for companies to experiment with creating new products and processes, as well as, technical laboratories to conduct tests and examine potential new food items.

With resources such as the Rutgers Food Innovation Center available to companies, one of our clients is actually a part of the Rutgers Food Innovation Center and utilizes its facilities for systematic experimentation and testing.

Life Science Sector

New Jersey is home to discovery. With a 125-year history of developing lifesaving medicines, it is home to 12 of the top 20 pharmaceutical companies. There are over 1,600 life science establishments in New Jersey and in 2018 it employed 2.1% of all private sector workers. The National proportion of life science employment to total was 1.1%. R&D in biotechnology comprises a large piece of the State's life science sector.

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR EMPLOYMENT TREND



- With an average of 72,900 workers employed in this NJ sector in 2018, the employment over the 5-year period experienced a decline of 2.6 percent.
- The pharmaceutical component experienced the largest total percent loss over the 5-year period (-13.8%).

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages. Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

Life science is a strong category for the R&D tax credit, particularly because new product development takes a long time, often years. There is also a complicated testing and regulatory process that pose technical challenges to life science companies in particular. New Jersey has vibrant life science, health-tech and medtech industries, virtually all of which should be obtaining R&D tax credits. Typical activities that qualify for R&D Tax Credits for pharmaceutical and medical device companies include integrating new techniques and assay/testing procedures, integrating new and emerging technologies, manufacturing or laboratory process improvements, and integration of new equipment.

Building Components

New Jersey has an optimal location for building component service companies to design and install building products for the large in state building inventory and for the contiguous large markets of New York City, Philadelphia and their suburbs. The categories of companies typically eligible for R&D tax credits are lighting specifiers, HVAC contractors, glass installers, elevator contractors, roof and insulation companies, audio visual companies and architecture and engineering firms.



The Research & Development Tax Credit

Enacted in 1981, the federal Research and Development (R&D) Tax Credit allows a credit of up to 13% of eligible spending for new and improved products and processes. Qualified research must meet the following four criteria:

- New or improved products, processes, or software
- Technological in nature
- Elimination of uncertainty
- Process of experimentation

Eligible costs include employee wages, cost of supplies, cost of testing, contract research expenses, and costs associated with developing a patent. On December 18, 2015, President Obama signed the bill making the R&D Tax Credit permanent. Beginning in 2016, the R&D credit has been used to offset Alternative Minimum Tax (AMT) and startup businesses can utilize the credit against \$250,000 per year in payroll tax liabilities.

The New Jersey State R&D Tax Credit

The New Jersey R&D tax credit utilizes the same definition as the Federal credit and provides a credit of 10% of the excess qualified research expenses over a base amount plus 10% of the basic research payments.^{vi}

Conclusion

There are many successful business sectors in New Jersey including manufacturing, transportation/logistics/distribution (TLD), food, life sciences and building components. Many of these companies utilize 3D printing, robotic devices and other similar technologies to automate their production processes, as well as develop other new or lean manufacturing improvements. New Jersey companies can benefit from the R&D tax credits to re-establish businesses that have been devastated by the Covid-19 Crisis. Research and development activities can provide eligible companies with Federal and New Jersey State Research and Development tax credits which are available to re-establish businesses reeling from the global pandemic and fuel further innovation.



Charles R. Goulding, Attorney, CPA, is the President of R&D Tax Savers, an interdisciplinary tax and engineering firm that specializes in R&D Tax Credits. Preeti Sulibhavi, CPA, is a Tax Analyst with R&D Tax Savers.

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