

Massachusetts Manufacturing Landscape 2023

Insights from the Voice of
the Manufacturer Survey





MassMEP's survey of regional businesses helps map out the future for manufacturing in Massachusetts.

Understanding what your customers need is the key to good service and building strong customer relationships. This is especially true for MassMEP, where the “P” stands for Partnership. We rely on this information to help individual companies grow and profit. We use this information to inform policy makers and partners how to support the industry sector.

In this report, we distill the wealth of knowledge and perspectives shared by over 200 manufacturers who participated in the “Voice of the Manufacturer” survey. Their contributions cover a spectrum of crucial topics, including workforce dynamics, supply chain resilience, and the evolution towards smart manufacturing. The themes illuminated in this report draw direct connections to MassMEP’s current offerings and strategic directions, showcasing the relevance and impact of our initiatives.

This report is a testament to the collaborative strength of our manufacturing community, and your voice plays a pivotal role in shaping the narrative. How does your perspective align with that of fellow manufacturers across the state? Are you tapping into the array of resources and networking opportunities available to drive your growth and profitability? Do you have an idea that will change the game for manufacturers?

Your voice matters. Take five minutes. Look at the brief report. Contact us and let us know how we can help. Thank you for being an integral part of the Massachusetts manufacturing community. I eagerly anticipate the impact your voice will have on our shared journey.



Sincerely,

Kathie Mahoney
MassMEP President

Who is MassMEP?

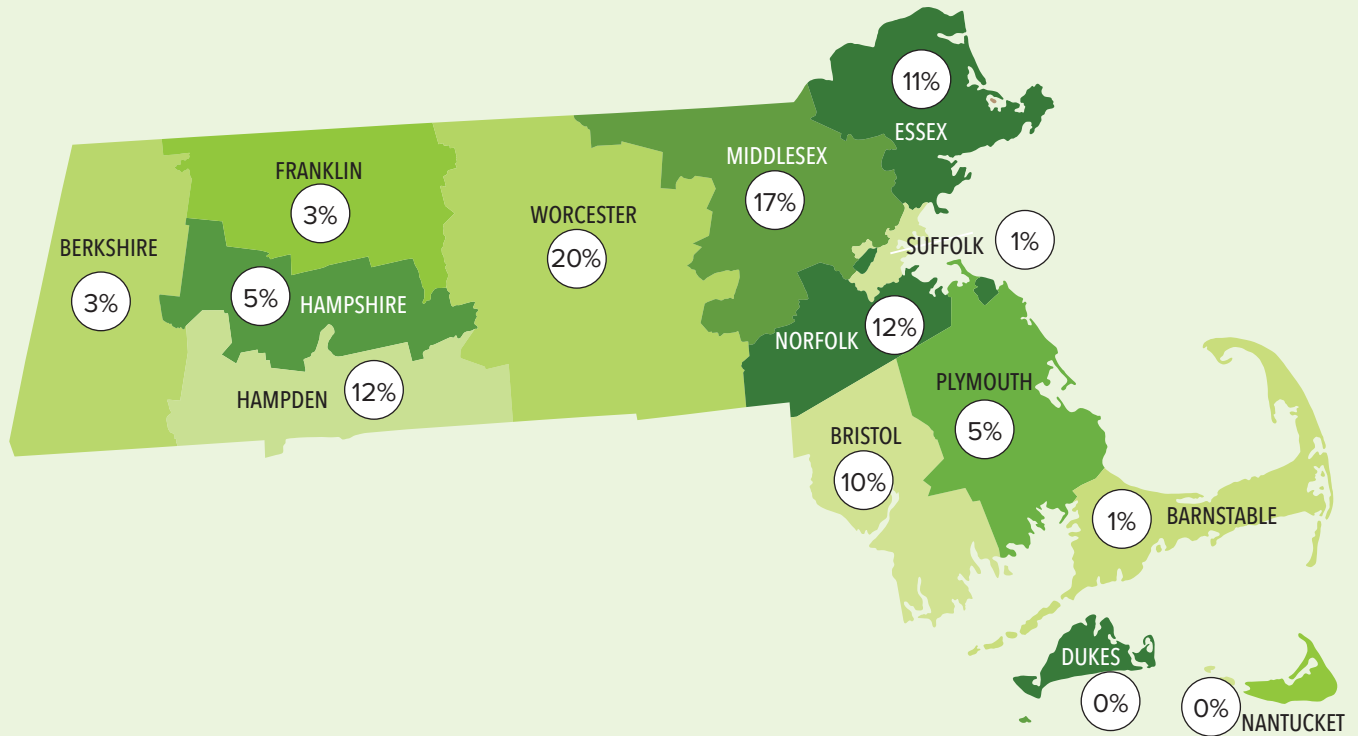
MassMEP provides tailored solutions that empower small and medium sized manufacturers to foster growth within the Massachusetts manufacturing ecosystem. Our organization collectively has over 300 years of industry expertise and our Board of Directors is led by manufacturers and industry partners.

MassMEP is part of a larger entity, NIST MEP, that is made up of over 1300 industry experts across the country. The MEP National Network exists to serve and benefit the U.S. Manufacturing Community.

The Voice of the Manufacturing Survey is part of a bigger constellation of information (labor market information, economic information and JobsEQ). Feedback, constant improvement, and expansion of services is a critical element of MassMEP.

More than 200 manufacturers from around Massachusetts responded to the Voice of the Manufacturer Survey.

Survey Responses by County



Collecting Data for the Survey



The survey posed 17 questions with 3 optional questions on supply chain issues.



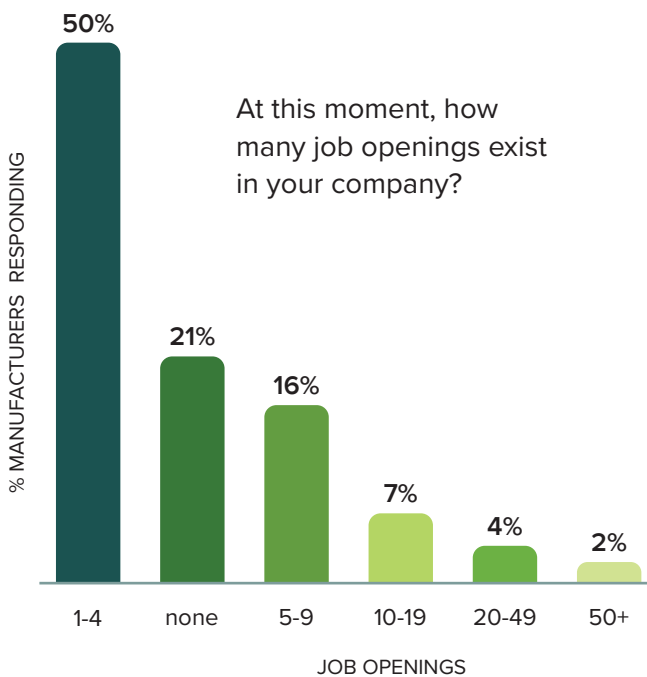
We promoted the survey through our list of manufacturers and industry partners, such as the Center for Advanced Manufacturing, AIM, MassDevelopment, WPI, MIT and UMLowell.



MassMEP used an online data platform to collect manufacturer responses anonymously.

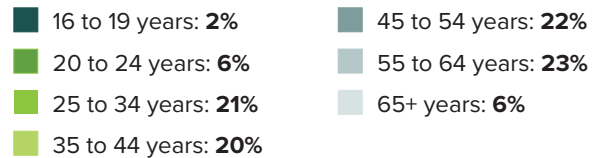
Access to a Qualified Workforce

In the Voice of the Manufacturer Survey, manufacturers identified factors limiting growth, including consistent concerns about the availability of skilled labor, finding new customers, and the impact of living costs. All these factors underscore workforce-related challenges that exert a substantial influence on industry growth and development.



Human Resource Allocation

A balanced approach to human resource allocation is evident in the even distribution of the workforce, with a notable concentration in the 25 to 64 age range, reflecting the diverse scale of employment within the manufacturing sector.



Comparative Workforce Analysis

The shift in workforce priorities from potential career growth to compensation and benefits mirrors the evolving preferences of the workforce, underscoring the importance of competitive employment packages in attracting and retaining talent. It is critical for organizations to consider expanding talent pool by

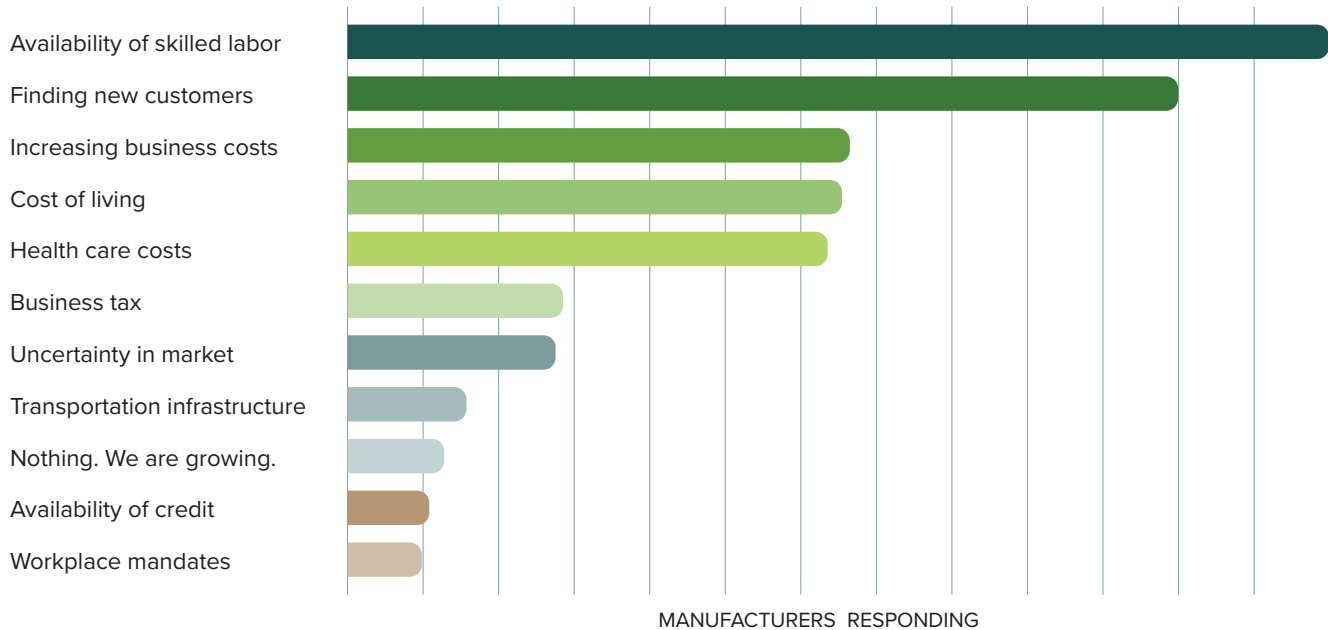
looking at nontraditional workers such as formerly incarcerated and folks with disabilities. Concurrently, companies should explore solutions to enhance productivity of existing workers by utilizing technology such as automation and additive manufacturing. These are the top two concerns of respondents.



In the face of growth constraints posed by the scarcity of skilled labor, the current era demands a paradigm shift towards innovation and disruption, where strategic consulting plays a pivotal role.

Factors Limiting Growth

What are the three biggest factors that limit your company growth?



Growing Market Share

Manufacturers are on the hunt to protect and grow their market share.

INTRODUCING NEW PRODUCTS

A marginal increase from 58% in FY 2022 to 60% in FY 2023 signals a prevailing tech-driven innovation mindset within the manufacturing sector, driving the continuous introduction of new products to meet evolving market demands.

INVESTING IN CAPITAL

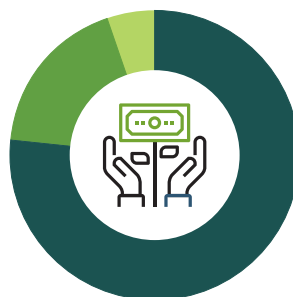
Organizations in Massachusetts have been working extremely hard together and with our new administration to add to our already robust capital equipment grants MMAP and M2I2.

In 2023, is your company introducing a new product or service?



- YES: **59%**
- NO: **35%**
- DON'T KNOW: **6%**

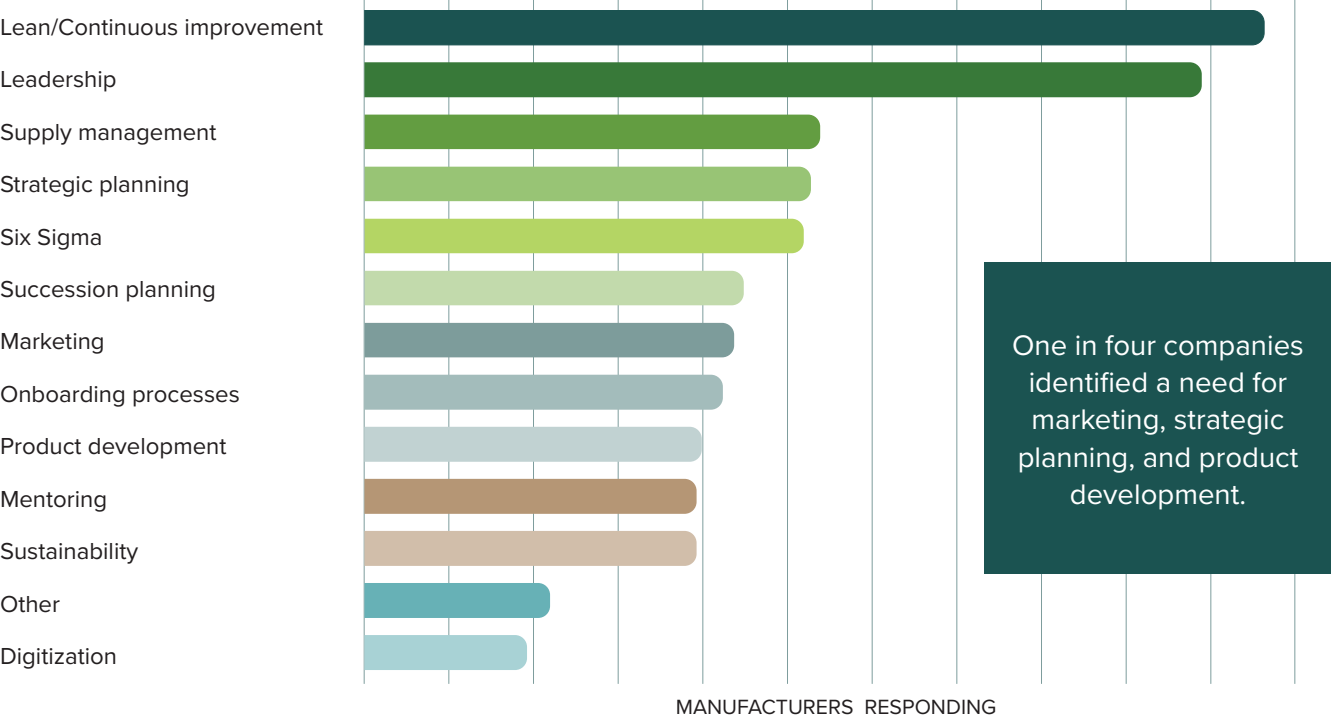
In 2023, does your company plan to invest in capital equipment?



- YES: **77%**
- NO: **18%**
- DON'T KNOW: **5%**

Professional Development for Workforce

What training and professional development are you interested in for you and your workforce?



Smart Manufacturing

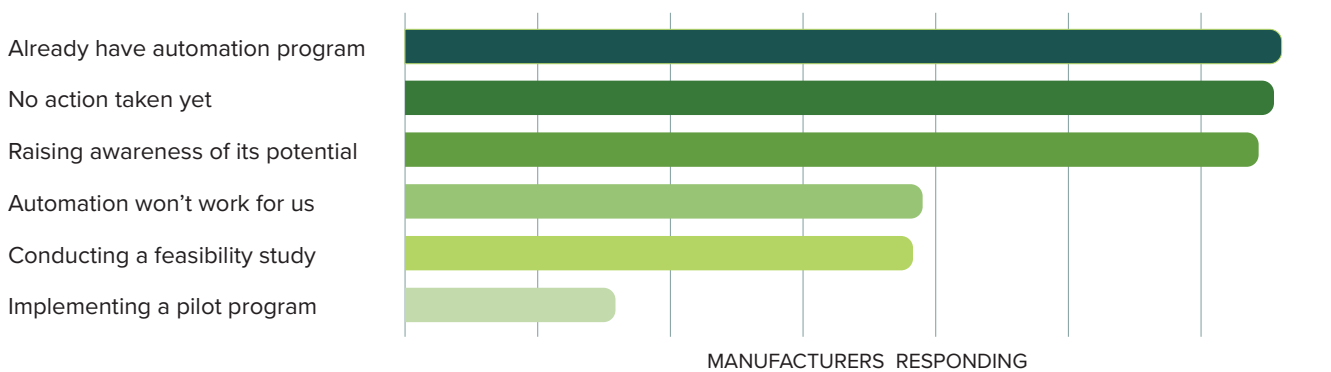
Implementing smart manufacturing technologies is essential for enhancing operational efficiency, optimizing resource utilization, and adapting to evolving market demands.

Smart manufacturing involves the integration of advanced technologies, data analytics, and automation to optimize the manufacturing process, enhance efficiency, and improve overall productivity. The implementation of smart manufacturing can vary significantly across industry subsectors, ranging from predictive maintenance and

real-time monitoring in aerospace and automotive manufacturing to the utilization of artificial intelligence and robotics in pharmaceutical and electronics production. Each subsector tailors smart manufacturing to its specific needs, resulting in diverse applications that streamline operations, reduce costs, and drive innovation.

Automation in Massachusetts Manufacturing

What steps have you taken in terms of introducing automation to address workforce challenges?



Cybersecurity in the Workplace

WHAT ARE MANUFACTURERS DOING ABOUT CYBER SECURITY?

It's crucial for manufacturing companies to invest in robust cybersecurity measures, including firewalls, intrusion detection systems, employee training programs, and regular cybersecurity audits. The landscape is dynamic, and new threats and trends emerge over time, so staying updated with the latest cybersecurity information is essential.

With over 50% of our manufacturers only somewhat confident, we need to do more work in this space. MassMEP with our partners Synagex and TSI can deliver a CMMC assessment that can be funded through the workforce training fund program. Also, visit the Center for Advanced Manufacturing to see their newest grant program for cyber hardware needs.

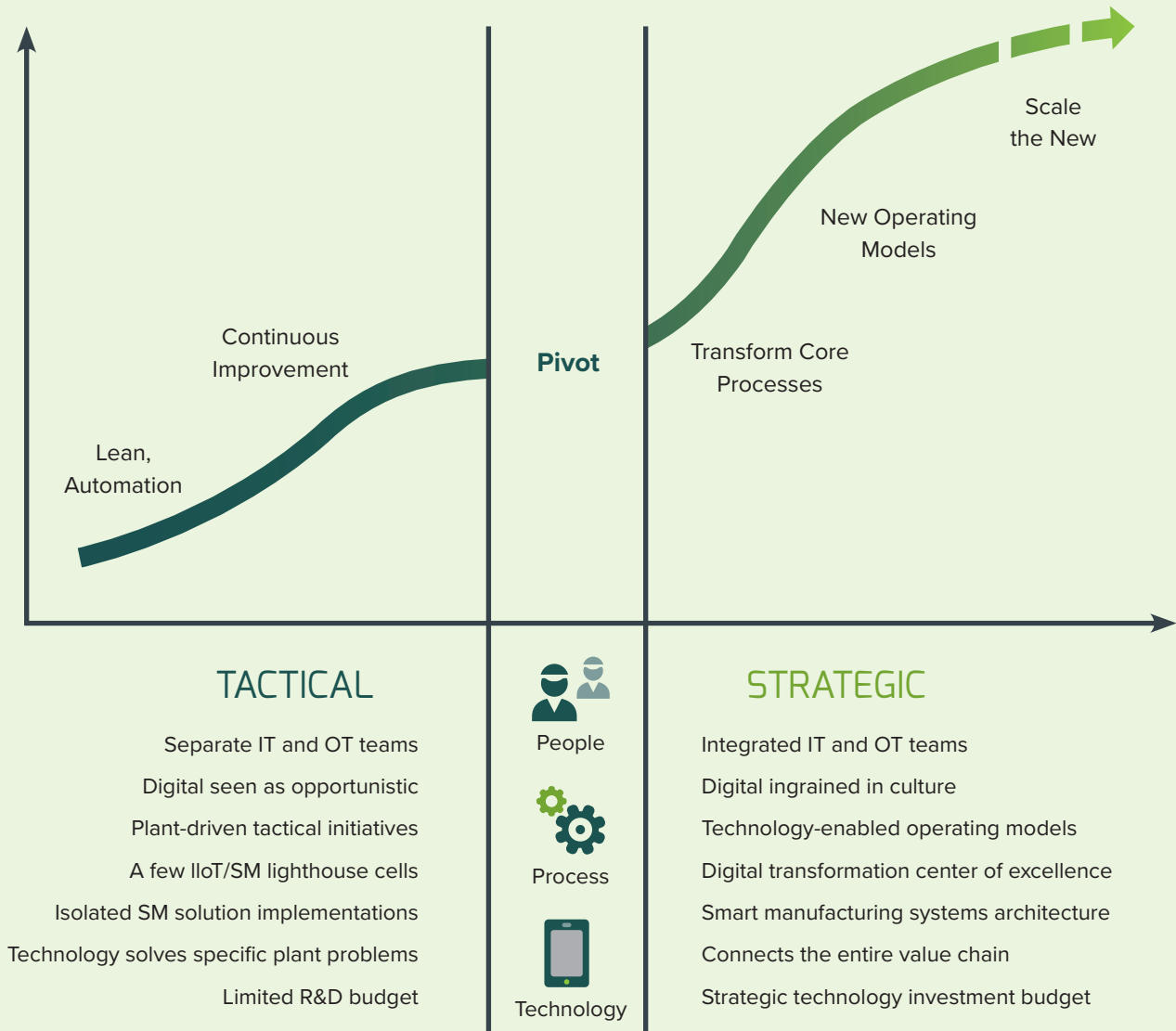
What is your level of confidence that the company is secure from hacking, data breaches, and other technology threats?



- Somewhat confident: **55%**
- Very confident: **33%**
- Not confident: **11%**
- Have not evaluated: **1%**

Pivot from Tactical to Strategic Smart Manufacturing

In order for manufacturing companies to move forward with Technology and Smart Manufacturing, they need a solid foundation of operational excellence to support a transformative project. What small-scale changes can manufacturers make today?



More than 50% of the manufacturers surveyed identified the need to build a strong foundation through Lean and Continuous Improvement training.

Source: CESMII — The Smart Manufacturing Institute, cesmii.org

Meeting the Challenge of Supply Chain Disruption

Deloitte, in collaboration with Manufacturers Alliance, examines how traditional manufacturing supply chains are evolving to balance costs, efficiency, and resilience.

Key risk mitigation strategies companies are implementing over the next year



Source: Deloitte analysis of 2022 manufacturing supply chain study data

Empowering Local Connections

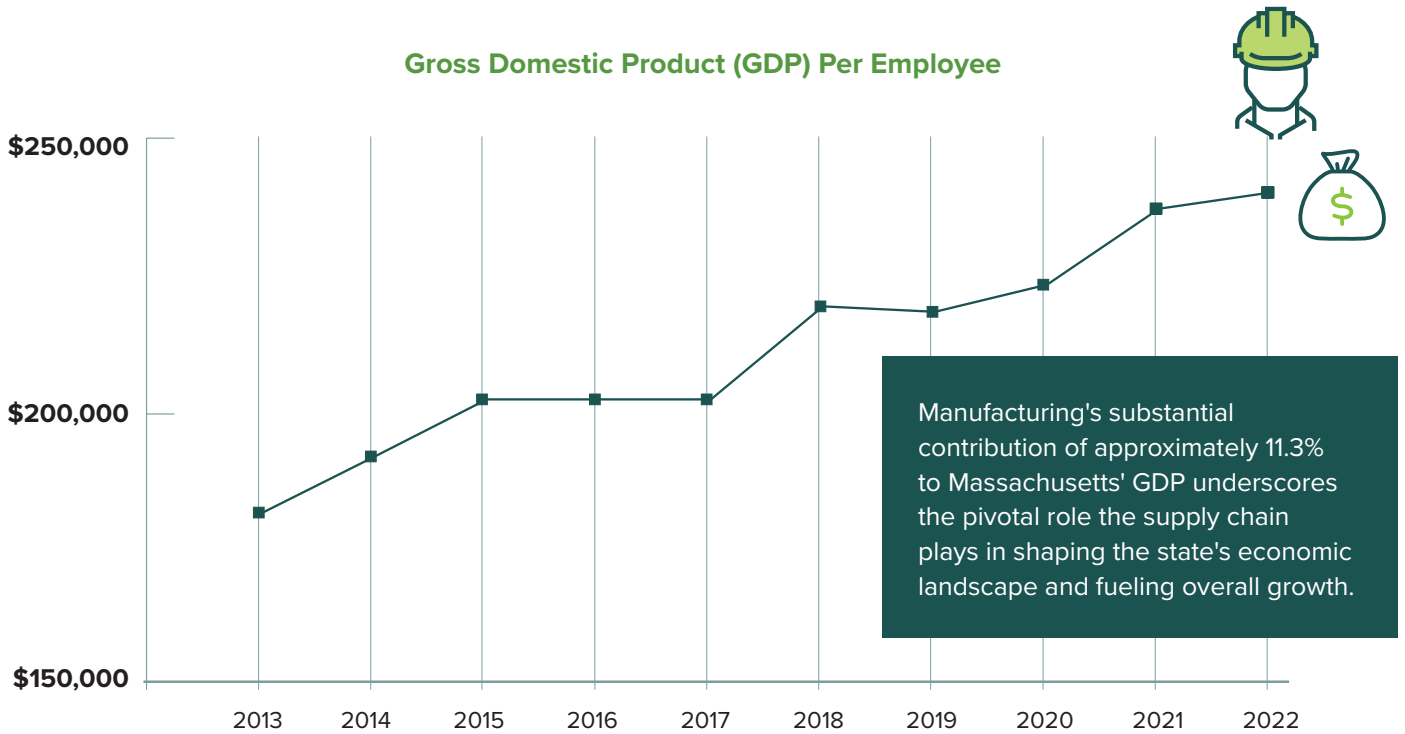
In partnership with both public and private industry stakeholders, Massachusetts is actively engaged in the Connex Marketplace—a dynamic platform designed to facilitate connections between Original Equipment Manufacturers (OEMs) and suppliers at the local level. This innovative space is freely accessible to all Massachusetts manufacturers, offering a valuable opportunity to explore and leverage the diverse range of suppliers in their immediate vicinity.

The Connex Marketplace stands as a testament to our commitment to fostering connectivity within the manufacturing community. This platform not only streamlines access to suppliers but also cultivates a collaborative environment, encouraging local partnerships and synergies.



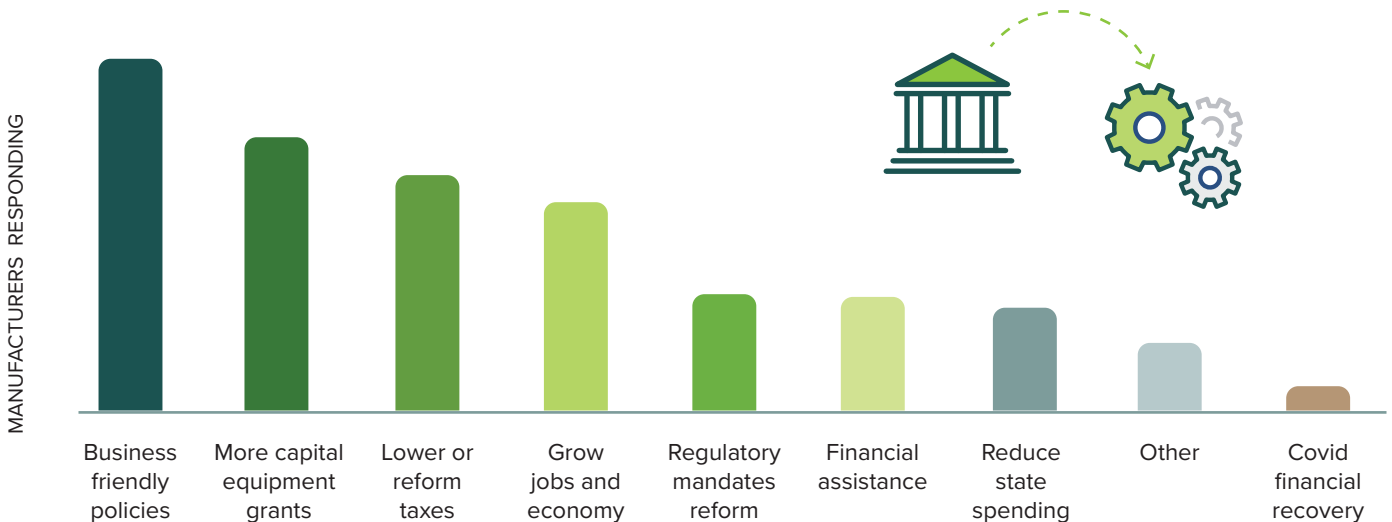
The Impact of the Manufacturers' Voice in Massachusetts

Investing in Manufacturing Creates Direct Impact to the State



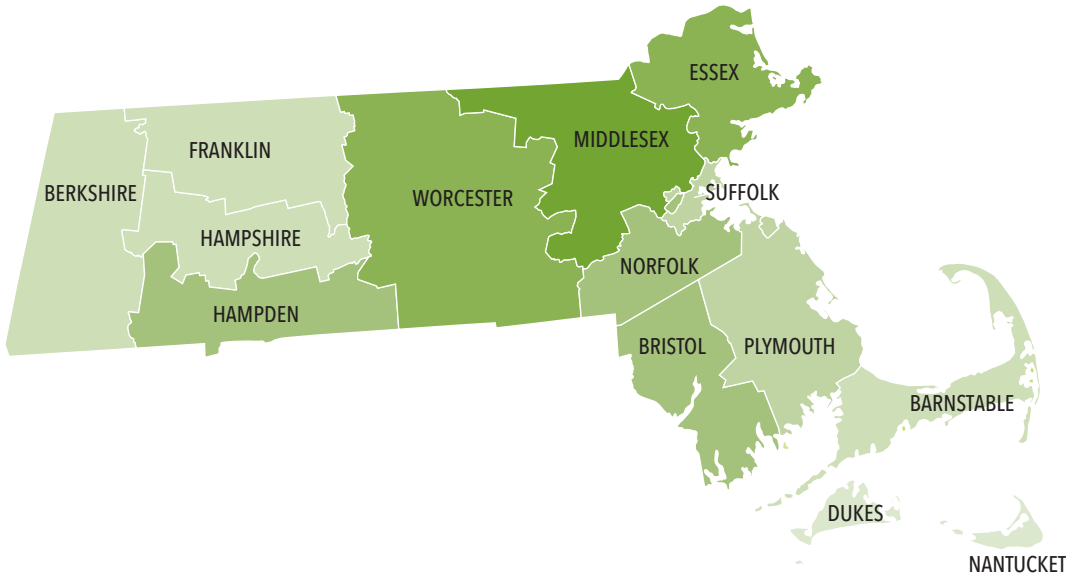
Priorities for Lawmakers

What should be the top priorities for Massachusetts lawmakers to support manufacturing?



Manufacturing Employment Statistics

Manufacturing Employees by County



County	2022 Mfg Employees
Barnstable	2,644
Berkshire	3,569
Bristol	23,823
Dukes	124
Essex	39,798
Franklin	3,729
Hampden	18,487
Hampshire	3,084
Middlesex	71,606
Nantucket	145
Norfolk	19,804
Plymouth	10,396
Suffolk	9,394
Worcester	36,250
Massachusetts	242,924

Manufacturing Jobs by Education Requirements

Education and Training Requirements	# Jobs
Short-term on-the-job training, no experience, no degree	13,865
Moderate-term on-the-job training, no experience, no degree	148,909
Long-term training, no experience, no degree	19,035
Previous work experience, no degree	24,431
Associate's degree or certificate	19,234
Bachelor's degree	8,088
Postgraduate degree	0



Key Strategies for Growth

Continue to work with Massachusetts stake holders on supply chain opportunities including the Connex Marketplace, microelectronics and CHIPS, technology adoption, and workforce development and pipeline. MassMEP supports Massachusetts manufacturers with their topline, bottom-line and pipeline.



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