



MassMEP



IMPACT
REPORT
2017
2022

5 YEARS

Rising To The Challenge

They say time flies when you're having fun.

Apparently, it also flies when you're extremely busy. Shortly after the pandemic started, many parts of our economy shut down. The manufacturing sector, however, had the opposite experience, and so did MassMEP. If this report seems a bit overdue, please understand we had more important things to work on!

The unexpected collapse of normal supply chains caused sudden shortages of critical goods, especially personal protective equipment. Domestic manufacturing companies stepped up immediately, retooled their operations, and began producing these much-needed goods, and the MEP National Network™ was on the scene assisting in these efforts.

Throughout the pandemic, MassMEP was a major part of the Manufacturing Emergency Response Team (MERT). We helped Massachusetts manufacturers quickly pivot their operations to supply hospitals, first responders, and essential businesses with literally millions of masks, face shields, medical gowns, hand sanitizers, protective barriers, and much more. It was inspirational to say the least. The MERT continues to ensure the state can handle any future emergencies.

As an MEP center, our sole purpose is to ensure the success of small- and medium-sized manufacturers, and we are measured entirely on the impacts we make within those companies. To do this, we maintain close relationships with countless stakeholders at the federal, state and local levels, all focused on helping our clients solve their problems and achieve their objectives. At the same time, feedback from our "Voice of the Manufacturer" survey is escalated to

legislators and economic development leaders to optimize programs designed to improve the business climate. Everybody wins.

Constantly advocating for our clients, MassMEP participates in multiple initiatives such as the New Bedford Ocean Cluster "Act Local" program. We are currently identifying supply chain partners to support the primary Vineyard Wind contractors in construction of their offshore wind farms. Similarly, we connect local suppliers to customers across the US through the MEP supplier scouting program.

Understanding the dire need for a robust talent pipeline, MassMEP supported Stonehill College and the Benjamin Franklin Institute of Technology to give students the foundational skills needed in tomorrow's advanced manufacturing environments. We've also built a comprehensive program to ease the transition to smart manufacturing methods, or Industry 4.0.

Since 2017, our efforts have resulted in the creation and retention of 17,199 jobs; \$460.9M investment in new equipment and facility upgrades; \$81.5M in bottom line cost savings; and \$2.1B in new revenue.

We are primed to bring Massachusetts manufacturers even more results over the next five years, and we invite you to join us in that endeavor.



Kathie Mahoney
MassMEP President



{ our mission }

MassMEP creates economic impact by transforming manufacturing enterprises and the manufacturing ecosystem. This is achieved through providing operational excellence methods, workforce development strategies, and innovative growth initiatives that are enhanced through leveraging strategic public/private relationships.

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Accomplishments

MERT Guided Companies as They Navigated the COVID-19 Pandemic

The Manufacturing Emergency Response Team (MERT) helped Massachusetts manufacturers pivot their operations to produce needed materials in response to the COVID-19 pandemic. The team was a collaboration that included representatives from the state's leading manufacturing sector, academia, research and development centers, and the public sector.

550

Massachusetts companies came through MERT portal

20+

Companies made it through the MERT

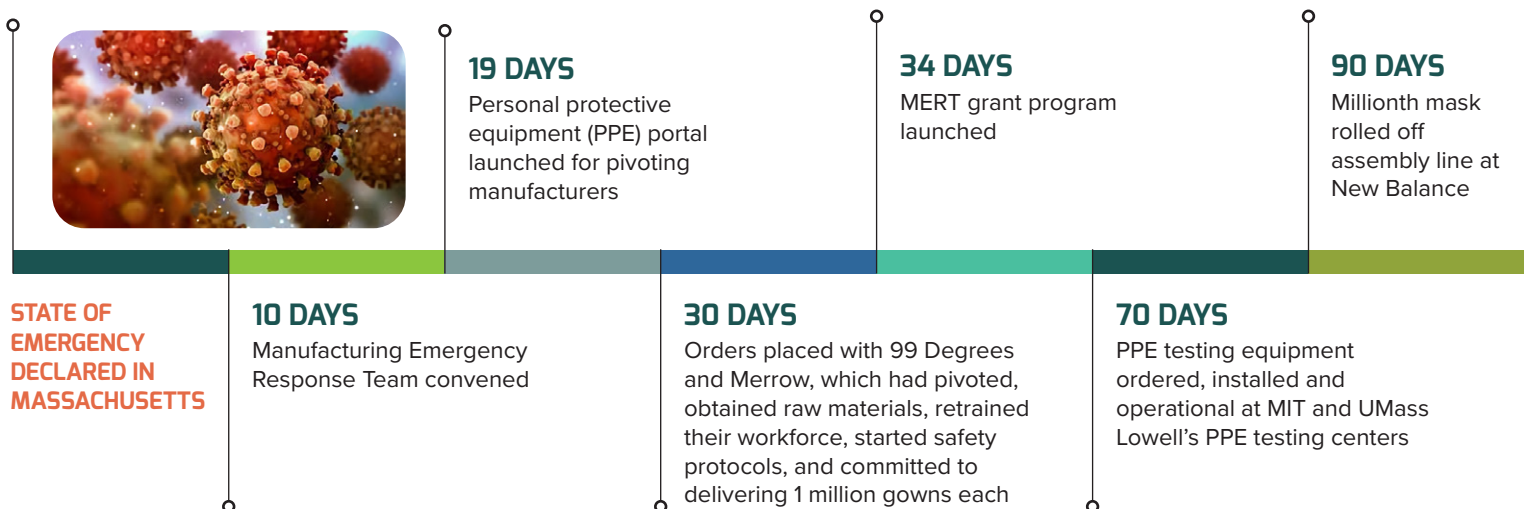
15 million

PPE and other priority items produced by Massachusetts manufacturers

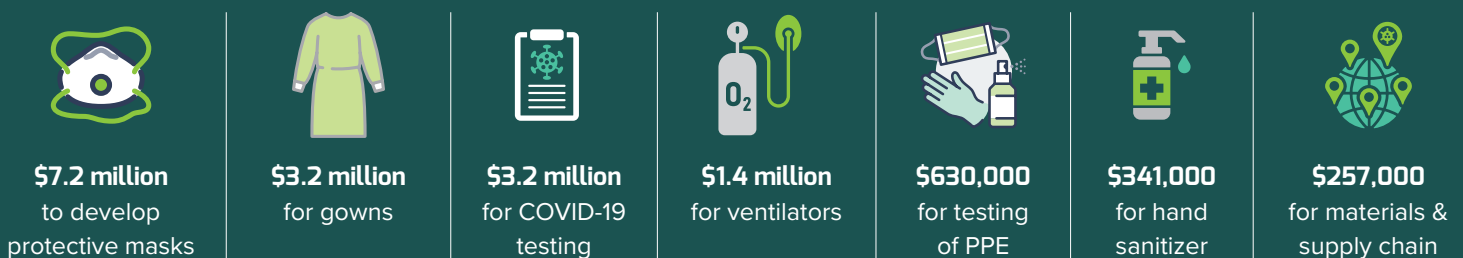
\$16.1 million

Grants awarded to 30 organizations through MERT program

SPEED OF MERT ROLLOUT CRITICAL TO ITS SUCCESS



GRANTS AWARDED THROUGH MERT



CLIENT SUCCESS: FLEXO CONCEPTS, PLYMOUTH MA

New Processes Improved Job Satisfaction, Productivity and Delivery Time

FLEXO CONCEPTS was looking for a formal process to develop and introduce new products, and they turned to MassMEP for help. The company innovates and manufactures TruPoint polymer doctor blades for markets that require roll metering or cleaning and for other specialty applications.

MassMEP guided them in developing a product roadmap, and in doing so exposed other areas of the business that needed improvement. Manufacturing was chosen as the first area of focus.

Using Kaizen and 5S projects with MassMEP, Flexo Concepts grew a culture of innovation and empowerment. The training programs taught employees to work smarter, not harder, and led to an atmosphere of open communication in the way they addressed problems.

The company also established daily morning meetings to review production expectations for the day. This quick assessment gives employees a chance to make schedule adjustments and address issues before they become problems. An employee suggestion program now collects, tracks and resolves all ideas submitted by employees — something that's been a real driver of innovation.

Flexo Concepts has implemented technology that scans product bar codes at shipment. The information is confirmed digitally against sales orders to ensure shipments are accurate. The process now produces only a single piece of paper: the packaging list.

Greater efficiency and job satisfaction are hallmarks of their efforts.

IMPACTS OF MASSMEP SUPPORT



20% gain in productivity



10% increase in jobs



Enhanced company-wide communication



Improved on-time delivery



Established a culture of innovation

“The work we did with MassMEP really was the catalyst for a long list of continuous improvement projects we’ve done. We are very focused on innovation, and a lot of the thinking and practices we use in the business grew from the work done in manufacturing with MassMEP.”



GREG HOWEL, CEO



Virtual Training Brought Manufacturing Supervisors Together to Share Knowledge



MASSMEP developed the Front Line Supervisor Training (FLS) as a virtual program that allows employees from manufacturing companies around Massachusetts to come together, share experiences and learn from their instructors and from each other. The year-long training is an apprenticeship model which combines classroom learning with on-the-job application.

The program consists of three modules: Leadership Skills, Manufacturing Principles, and Problem Solving. There are 35 classes, with 150 hours of training and assignments. Typically, four-hour classes meet three times per month. In the final module, students select a problem they would like to address, such as something that impacts them and their job, and they work to solve it through the final months of training.

WHY IS FLS AN APPRENTICESHIP?

The training is an apprenticeship model that underscores the way adults learn best — by doing. MassMEP registered the apprenticeship with the Massachusetts Division of Apprentice Standards (DAS), and all employees in the program become registered apprentices. The hours of classroom and on-the-job application as well as standards for program content and student and employer commitment are dictated and overseen by DAS and MassMEP.

This level of commitment makes Front Line Supervisor Apprentice different from other supervisory training. Subsequently, there is the opportunity for companies whose students' training was grant funded to take a Registered Apprentice Tax Credit for each student who completes the program.

For the FLS instructors, the most rewarding part of the training has been watching the students create and then present their final Capstone presentations to their classmates and company management at graduation. The companies were impressed with the ideas presented and have been realizing nice impacts from improvement implementation.

A final indication of the program's success is that many companies who have had employees in the training are sending more!

"This class and project will have a legitimate, positive impact on my team and our company. I really appreciate all the time you have put into this training!"

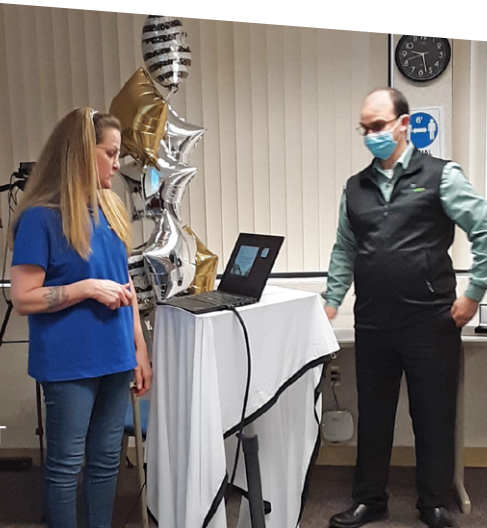


NICHOLAS ROCHELEAU
ROCHELEAU TOOL & DIE

"Good quality instructors and program. We're happy that there is an organization that is focused on the needs of manufacturers."



JAY KAPUR, AIMTEK



CLIENT SUCCESS: MIDÉ TECHNOLOGY, WOBURN MA

Training Led to Better Production in Engineering and Administrative Areas

MIDÉ TECHNOLOGY is a research and development company that provides innovative engineering services that lead to value-added products and solutions for their customers.

After working with MassMEP for training they had provided several years back, they looked to them again for a new solution. The company had been experiencing growth, and in addition to traditional HR training, they wanted to provide functional training for their engineers as well as general productivity training for overall operations. Midé and MassMEP identified topics to apply for a Massachusetts Workforce Training Fund General Grant.

The grant provided a large number of courses that touched many different areas of the company. The engineer training helped the company reorganize the tools that engineers use for their work, making it easier to store and locate tools

and increase efficiency on the job.

In others areas of the business, Midé found that their workflow had not been organized sufficiently. They implemented a training plan with productivity courses for the office and production areas that included Lean for Job Shops and Lean Principles for the Office. Through Value Stream Mapping, the company evaluated administrative processes including accounts payable, accounts receivable, contracts and payroll. The training program allowed the administrative offices to flexibly respond to new business growth.

Equally important, the training led to a much-improved work environment for employees and boosted overall productivity.

Today Midé has 65 employees and has grown by eight people since training with MassMEP started. New business has driven this recent growth, along with maintaining an educated, engaged, and valued team.

IMPACTS OF MASSMEP SUPPORT



\$120,000 in cost savings



5% increase in engineers productivity



8 jobs created



Greater flexibility to respond to company growth

"My experience with MassMEP has spanned multiple years, from consulting on training strategy to providing select needed instruction to large scale grants. The quality of the people I have worked with, including Tom Andrellos and John Pelletier, has been excellent."



RICK ORLANDO, VP OF STRATEGY



ACCOMPLISHMENTS 7

Event Celebrates Industry 4.0 and Smart Manufacturing

MANUFACTURING YOUR FUTURE:

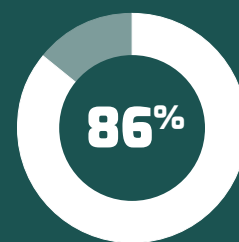
INDUSTRY 4.0 brought together the state's manufacturers in June 2022 for a deep dive through the components of Industry 4.0, a view of SMART Manufacturing, and the importance of building a roadmap to remain competitive and boost the bottom line.

Not only was the event a way to showcase where Industry 4.0 is today and tomorrow, but it was also a place for Massachusetts manufacturers to come together face to face.

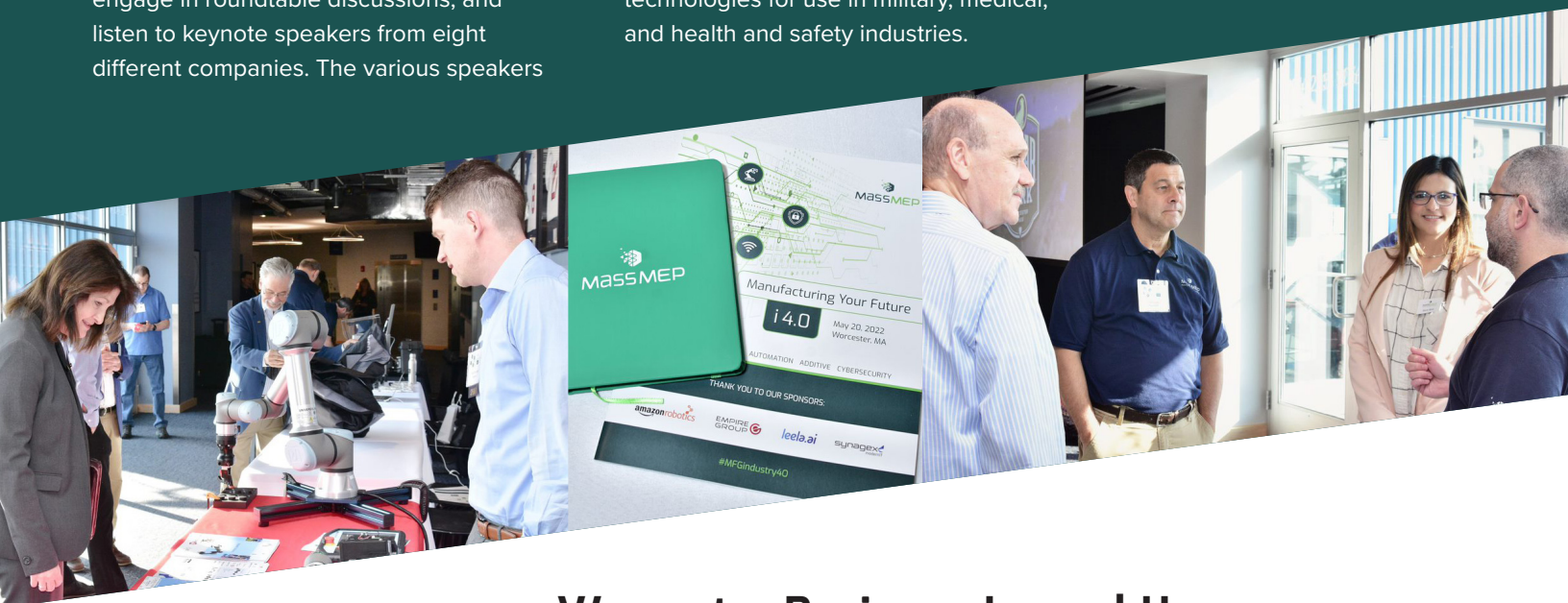
Fifty companies and more than 100 people from the industry gathered at Polar Park in Worcester, Mass., to see exhibits, engage in roundtable discussions, and listen to keynote speakers from eight different companies. The various speakers

presented different perspectives for viewing and utilizing Industry 4.0.

As a highlight to the event, NIST Division Chief Mark Schmit presented the John "Jack" Healy Leadership Awards to two deserving recipients. The first was State Representative Jeffrey Roy, who received the award in recognition of his dedication and support of Massachusetts manufacturing as a whole. The second recipient was the company Human Systems Integration, or HSI. HSI is a forward-thinking organization that designs and manufactures state-of-the-art smart textiles that are wearable technologies for use in military, medical, and health and safety industries.



Percent of U.S. manufacturers who believe that smart factories will be the main driver of competition by 2025



2022 AWARDS

- **Catania Oils**
Manufacturer of the Year
- **Bristol Myers Squibb**
Workforce Development
- **Burkart-Phelan, Inc.,**
Top Product Design/Innovation
- **Jeannie Hebert**
Manufacturing Champion
- **Ascend Elements, Inc.**
Green Manufacturing
- **Solvus Global**, Rising Star
- **Waters Corporation**
Best Collaboration

Worcester Business Journal Honors Top Achievers in Manufacturing

THE WORCESTER BUSINESS JOURNAL

(WBJ) Manufacturing Excellence Awards highlight the top performers in the state's complex and varied manufacturing industry. WBJ Honors nominated companies and individuals as part of its Central Massachusetts Manufacturing Summit and Awards.

MassMEP Center Director Kimberly Ingalls kicked off the 2022 awards and spoke about the importance of the innovative and resilient manufacturing companies in Massachusetts. MassMEP

has had the honor of congratulating staff, clients and third parties who have accepted these awards over the years.

The state's vital manufacturing industry includes a wide swath of companies, such as biotech firms, medical equipment and machinery manufacturers, breweries, food processors, and furniture manufacturers. These awards select the best of the best manufacturers each year — those with very different but mostly equal accomplishments and initiatives, and all doing great work.

Women's Day 2022

EVERY MARCH, we celebrate International Women's Day. In March 2022, MassMEP took that honor to the next level in celebration of Women in Manufacturing across Massachusetts. The Women's Day: Manufacturing Workshop was centered around a panel discussing personal brand, leadership, and networking — important soft skills women need in their toolbox across manufacturing and industry in general. After the panel, attendees engaged in group discussions and activities on each of the topics to enhance key takeaways and reinforce best practices. Two-thirds of the women that attended were in the manufacturing industry, while the rest of the group were our partners in education, state agencies and clients across Massachusetts.

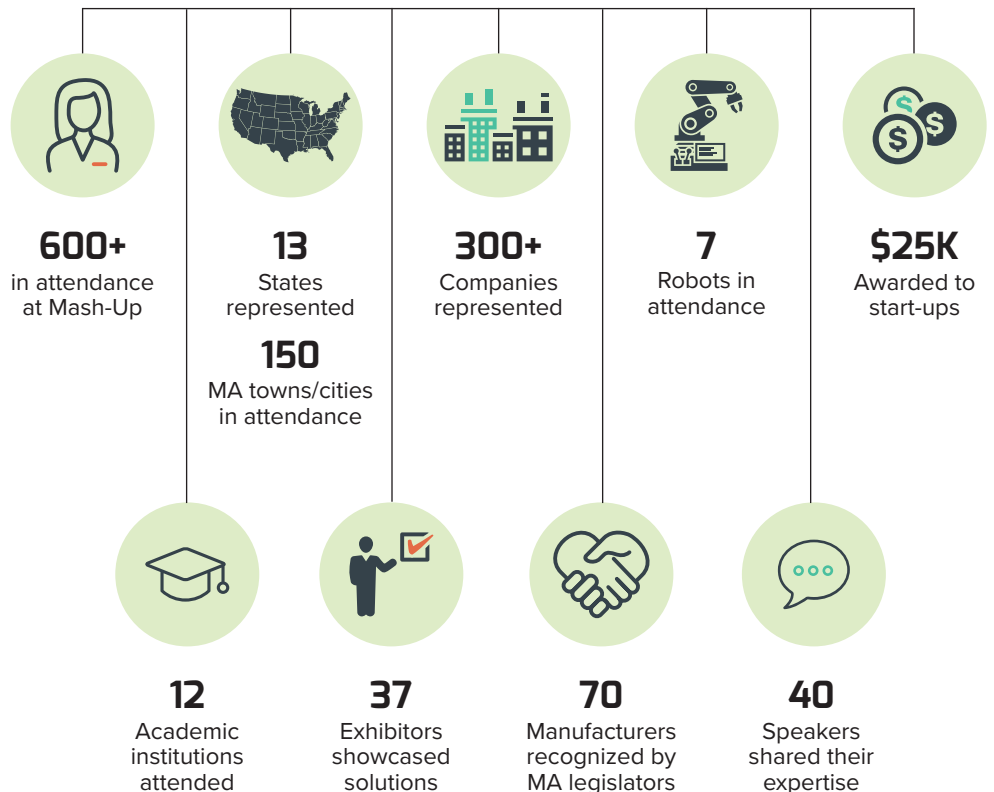


HIGHLIGHTS FROM MASH-UP 2021

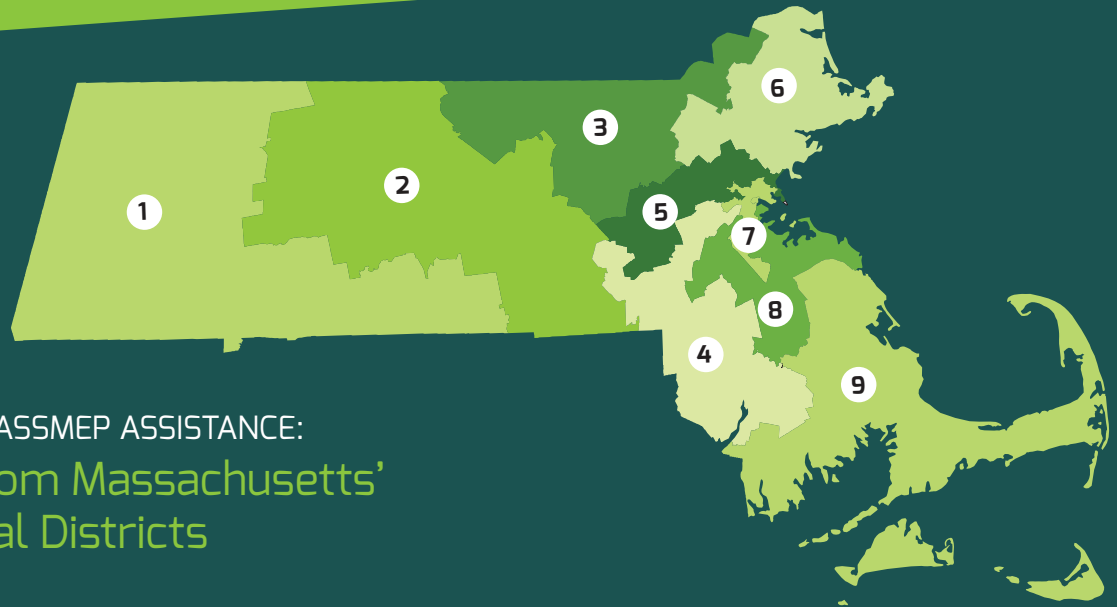
Massachusetts Manufacturing Mash-Up Connects State's Resources

IN 2021, the Center for Advanced Manufacturing (CAM) launched the inaugural Manufacturing Mash-Up, which brought together innovative talent from around the Commonwealth to solve challenges that impact the industry. The event allowed manufacturers to learn from each other, provided business networking opportunities, and celebrated what is working across our state's ecosystem.

HIGHLIGHTS COURTESY OF CAM



Scope of Impact



FIVE-YEAR IMPACT OF MASSMEP ASSISTANCE: Economic Data from Massachusetts' Nine Congressional Districts

DIRECT IMPACT: MassMEP Direct Impact on Clients' Growth
ECONOMIC IMPACT: Indirect Impact on the State's Economy

*Impact numbers are based on five years of survey results reported in Q317-Q222.

DISTRICT 1: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	73	153	91	168	8	493
Retained Jobs	185	683	826	1541	11	3246
Total Jobs Impact	258	836	917	1709	19	3739
New Sales	\$54,355,320.00	\$8,589,931.00	\$4,155,000.00	\$24,959,268.00	\$350,000.00	\$92,409,519.00
Retained Sales	\$53,908,280.00	\$48,887,861.00	\$48,220,000.00	\$190,731,001.00	\$250,000.00	\$341,997,142.00
Total Sales Impact	\$108,263,600.00	\$57,477,792.00	\$52,375,000.00	\$215,690,269.00	\$600,000.00	\$434,406,661.00
Cost Savings	\$2,992,750.00	\$3,295,000.00	\$3,560,500.00	\$2,133,010.00	\$45,000.00	\$12,026,260.00
Saved/Avoided Investments	\$601,500.00	\$2,545,500.00	\$2,381,000.00	\$1,167,950.00	\$202,000.00	\$6,897,950.00
Total Investment Impact	\$4,562,696.00	\$11,989,925.00	\$9,231,830.00	\$42,728,846.00	\$4,635,000.00	\$73,148,297.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	936	1,974	2,292	5,028	46	10,276
Employment Compensation	\$73,076,841.15	\$179,306,880.70	\$220,153,046.75	\$406,115,106.51	\$4,455,704.94	\$883,107,580.05
Value Added	\$134,662,781.31	\$319,305,278.28	\$516,539,712.86	\$646,879,708.22	\$7,834,353.84	\$1,625,221,834.50
Output	\$363,725,821.26	\$620,539,841.07	\$1,007,913,010.04	\$1,468,516,755.97	\$16,058,483.84	\$3,476,753,912.19
Labor Income	\$79,152,064.77	\$194,454,825.25	\$236,382,073.16	\$446,819,566.71	\$4,753,726.01	\$961,562,255.89
State Tax	\$5,947,490.17	\$12,268,644.38	\$18,415,841.27	\$17,059,164.34	\$206,650.06	\$53,897,790.22
Federal Tax	\$17,211,048.86	\$43,119,808.89	\$44,676,317.38	\$94,999,834.51	\$1,013,375.40	\$201,020,385.04
Federal & State Total	\$23,158,539.03	\$55,388,453.27	\$63,092,158.65	\$112,058,998.86	\$1,220,025.46	\$254,918,175.27
Grand Total Tax	\$28,450,299.72	\$63,425,646.76	\$75,464,339.89	\$110,526,462.69	\$1,227,669.88	\$279,094,418.94

DISTRICT 2: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	181	74	129	53	27	464
Retained Jobs	235	125	384	782	149	1675
Total Jobs Impact	416	199	513	835	176	2139
New Sales	\$28,240,000.00	\$15,577,500.00	\$13,571,100.00	\$9,156,000.00	\$15,200,000.00	\$81,744,600.00
Retained Sales	\$51,747,000.00	\$5,806,500.00	\$26,728,700.00	\$26,921,776.00	\$26,275,000.00	\$137,478,976.00
Total Sales Impact	\$79,987,000.00	\$21,384,000.00	\$40,299,800.00	\$36,077,776.00	\$41,475,000.00	\$219,223,576.00
Cost Savings	\$10,849,275.00	\$1,796,500.00	\$1,063,000.00	\$1,334,750.00	\$1,232,000.00	\$16,275,525.00
Saved/Avoided Investments	\$1,818,485.00	\$2,252,450.00	\$545,700.00	\$640,400.00	\$190,600.00	\$5,447,635.00
Total Investment Impact	\$34,794,230.00	\$16,952,901.00	\$7,611,050.00	\$8,788,210.00	\$3,166,750.00	\$71,313,141.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	1395.81	582.84	1341.95	1920.14	599.66	5840.41
Employment Compensation	\$102,972,103.74	\$44,035,398.01	\$110,308,402.71	\$157,707,963.13	\$52,192,487.68	\$467,216,355.28
Value Added	\$173,490,648.61	\$72,591,862.47	\$167,653,380.42	\$248,824,394.34	\$75,554,300.63	\$738,114,586.47
Output	\$371,455,452.83	\$159,783,709.36	\$350,268,481.26	\$581,339,619.18	\$166,444,961.88	\$1,629,292,224.51
Labor Income	\$110,803,793.74	\$46,966,002.44	\$124,531,661.56	\$174,466,586.84	\$55,317,119.86	\$512,085,164.44
State Tax	\$6,660,367.97	\$2,933,214.62	\$5,508,352.72	\$8,429,399.25	\$2,236,631.82	\$25,767,966.38
Federal Tax	\$23,600,886.51	\$10,274,287.97	\$24,727,207.60	\$34,056,161.54	\$11,163,756.49	\$103,822,300.12
Federal & State Total	\$30,261,254.49	\$13,207,502.59	\$30,235,560.32	\$42,485,560.80	\$13,400,388.31	\$129,590,266.50
Grand Total Tax	\$35,013,212.24	\$15,229,116.28	\$31,652,536.90	\$45,493,520.89	\$13,643,711.73	\$141,032,098.04

DISTRICT 3: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	89	74	81	100	10	354
Retained Jobs	68	266	129	1084	32	1579
Total Jobs Impact	157	340	210	1184	42	1933
New Sales	\$7,603,300.00	\$13,370,000.00	\$49,910,000.00	\$18,240,500.00	\$350,000.00	\$89,473,800.00
Retained Sales	\$12,941,410.00	\$17,980,000.00	\$28,575,000.00	\$12,400,000.00	\$4,050,000.00	\$75,946,410.00
Total Sales Impact	\$20,544,710.00	\$31,350,000.00	\$78,485,000.00	\$30,640,500.00	\$4,400,000.00	\$165,420,210.00
Cost Savings	\$3,565,375.00	\$2,883,000.00	\$1,401,850.00	\$708,500.00	\$150,000.00	\$8,708,725.00
Saved/Avoided Investments	\$941,550.00	\$613,550.00	\$562,000.00	\$575,200.00	\$289,050.00	\$2,981,350.00
Total Investment Impact	\$5,859,000.00	\$11,723,400.00	\$3,632,500.00	\$11,491,522.00	\$961,300.00	\$33,667,722.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	508.77	976.68	946.94	2357.85	151.32	4941.56
Employment Compensation	\$42,743,003.91	\$86,626,503.84	\$96,089,664.62	\$185,443,344.26	\$11,765,995.06	\$422,668,511.70
Value Added	\$66,780,688.53	\$144,648,166.56	\$158,607,174.79	\$302,687,153.43	\$18,548,995.79	\$691,272,179.10
Output	\$129,925,533.13	\$294,892,100.06	\$309,143,697.30	\$518,208,199.78	\$70,406,711.40	\$1,322,576,241.66
Labor Income	\$44,908,299.24	\$91,889,155.62	\$101,924,432.43	\$208,783,785.64	\$12,521,376.61	\$460,027,049.53
State Tax	\$2,521,052.65	\$5,677,719.66	\$6,076,405.71	\$10,577,422.29	\$622,130.94	\$25,474,731.26
Federal Tax	\$9,487,924.54	\$20,195,108.32	\$18,877,184.48	\$40,781,503.88	\$2,452,273.75	\$91,793,994.97
Federal & State Total	\$12,008,977.20	\$25,872,827.98	\$24,953,590.19	\$51,358,926.17	\$3,074,404.69	\$117,268,726.23
Grand Total Tax	\$13,701,214.62	\$29,643,739.82	\$28,553,014.47	\$55,663,121.50	\$3,302,701.34	\$130,863,791.76

DISTRICT 4: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	180	129	78	346	13	746
Retained Jobs	574	388	401	700	18	2081
Total Jobs Impact	754	517	479	1046	31	2827
New Sales	\$11,190,000.00	\$20,525,000.00	\$7,745,000.00	\$75,759,000.00	\$1,200,000.00	\$116,419,000.00
Retained Sales	\$42,425,000.00	\$54,370,000.00	\$19,471,187.00	\$117,140,000.00	\$2,500,000.00	\$235,906,187.00
Total Sales Impact	\$53,615,000.00	\$74,895,000.00	\$27,216,187.00	\$192,899,000.00	\$3,700,000.00	\$352,325,187.00
Cost Savings	\$1,690,360.00	\$3,025,000.00	\$881,260.00	\$5,475,500.00	\$135,000.00	\$11,207,120.00
Saved/Avoided Investments	\$1,165,475.00	\$505,500.00	\$800,550.00	\$1,451,900.00	\$35,000.00	\$3,958,425.00
Total Investment Impact	\$8,912,581.00	\$10,532,400.00	\$6,388,935.00	\$22,979,685.00	\$1,784,000.00	\$50,597,601.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	2324.98	1772.45	1276.93	3472.39	85.26	8932.03
Employment Compensation	\$187,129,864.77	\$149,996,671.66	\$108,754,958.87	\$272,727,621.45	\$7,324,049.16	\$725,933,165.91
Value Added	\$317,523,969.85	\$269,434,403.93	\$177,777,923.87	\$443,830,110.25	\$10,634,452.45	\$1,219,200,860.34
Output	\$665,058,344.45	\$580,005,242.58	\$361,511,490.01	\$913,446,771.41	\$20,090,454.77	\$2,540,112,303.22
Labor Income	\$200,362,587.16	\$162,980,535.33	\$119,538,248.85	\$299,570,917.12	\$7,717,269.13	\$790,169,557.59
State Tax	\$12,105,867.02	\$10,518,285.67	\$5,143,808.71	\$14,237,800.60	\$345,537.67	\$42,351,299.67
Federal Tax	\$42,752,004.60	\$36,209,258.29	\$24,841,911.75	\$60,098,326.94	\$1,526,712.05	\$165,428,213.64
Federal & State Total	\$54,857,871.62	\$46,727,543.97	\$29,985,720.46	\$74,336,127.54	\$1,872,249.71	\$207,779,513.30
Grand Total Tax	\$63,468,895.69	\$53,838,035.27	\$30,559,612.39	\$78,454,730.08	\$1,964,714.28	\$228,285,987.71

DISTRICT 5: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	7	11	6	71	3	98
Retained Jobs	10	31	3	141	0	185
Total Jobs Impact	17	42	9	212	3	283
New Sales	\$20,000.00	\$-	\$575,000.00	\$32,960,000.00	\$-	\$33,555,000.00
Retained Sales	\$5,040,000.00	\$1,000,000.00	\$70,000.00	\$23,160,500.00	\$125,000.00	\$29,395,500.00
Total Sales Impact	\$5,060,000.00	\$1,000,000.00	\$645,000.00	\$56,120,500.00	\$125,000.00	\$62,950,500.00
Cost Savings	\$528,000.00	\$180,000.00	\$165,000.00	\$700,750.00	\$63,400.00	\$1,637,150.00
Saved/Avoided Investments	\$58,000.00	\$301,200.00	\$50,550.00	\$2,743,750.00	\$18,400.00	\$3,171,900.00
Total Investment Impact	\$920,450.00	\$1,813,000.00	\$938,500.00	\$34,036,500.00	\$1,043,100.00	\$38,751,550.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	65.02	126.75	24.28	814.01	8.18	1038.24
Employment Compensation	\$5,061,192.84	\$12,020,421.52	\$2,185,870.02	\$70,413,135.88	\$714,726.45	\$90,395,346.71
Value Added	\$7,940,939.46	\$28,008,518.67	\$3,339,509.09	\$112,097,166.53	\$1,590,639.47	\$152,976,773.21
Output	\$17,156,388.21	\$48,956,768.78	\$5,816,265.56	\$248,035,972.79	\$3,276,635.09	\$323,242,030.43
Labor Income	\$5,415,258.60	\$12,816,057.16	\$2,426,540.03	\$88,552,795.21	\$794,938.67	\$110,005,589.67
State Tax	\$326,699.78	\$915,874.12	\$118,216.46	\$4,636,032.40	\$68,530.73	\$6,065,353.50
Federal Tax	\$1,143,725.91	\$3,061,654.83	\$468,565.18	\$16,048,137.16	\$130,529.11	\$20,852,612.19
Federal & State Total	\$1,470,425.69	\$3,977,528.95	\$586,781.64	\$20,684,169.56	\$199,059.85	\$26,917,965.69
Grand Total Tax	\$1,718,109.70	\$4,494,982.21	\$633,673.40	\$23,319,785.69	\$258,528.13	\$30,425,079.14

DISTRICT 6: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	62	29	49	47	34	221
Retained Jobs	252	16	74	121	52	515
Total Jobs Impact	314	45	123	168	86	736
New Sales	\$14,140,000.00	\$3,447,000.00	\$8,215,500.00	\$8,510,000.00	\$340,000.00	\$34,652,500.00
Retained Sales	\$31,620,000.00	\$1,450,000.00	\$7,650,500.00	\$13,900,000.00	\$400,000.00	\$55,020,500.00
Total Sales Impact	\$45,760,000.00	\$4,897,000.00	\$15,866,000.00	\$22,410,000.00	\$740,000.00	\$89,673,000.00
Cost Savings	\$285,000.00	\$2,939,000.00	\$2,091,800.00	\$164,900.00	\$118,400.00	\$5,599,100.00
Saved/Avoided Investments	\$371,800.00	\$296,600.00	\$266,000.00	\$1,412,435.00	\$67,400.00	\$2,414,235.00
Total Investment Impact	\$5,144,476.00	\$2,155,900.00	\$3,504,518.00	\$10,482,820.00	\$67,450.00	\$21,355,164.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	994.03	146.39	383.50	536.16	262.80	2322.89
Employment Compensation	\$79,256,309.16	\$13,784,474.05	\$35,195,277.31	\$49,159,183.59	\$30,760,794.60	\$208,156,038.71
Value Added	\$129,552,232.69	\$26,537,274.49	\$65,870,433.40	\$82,081,774.38	\$62,029,616.91	\$366,071,331.87
Output	\$243,399,093.55	\$51,402,443.95	\$131,460,567.52	\$149,739,122.83	\$103,172,601.70	\$679,173,829.55
Labor Income	\$84,090,949.95	\$14,720,874.86	\$38,304,302.16	\$53,296,047.32	\$32,096,202.95	\$222,508,377.24
State Tax	\$4,744,758.36	\$986,586.76	\$2,541,587.28	\$2,970,783.30	\$2,396,594.98	\$13,640,310.67
Federal Tax	\$17,857,575.75	\$3,342,022.24	\$7,010,885.06	\$10,143,264.75	\$5,934,375.32	\$44,288,123.12
Federal & State Total	\$22,602,334.11	\$4,328,609.00	\$9,552,472.34	\$13,114,048.05	\$8,330,970.30	\$57,928,433.79
Grand Total Tax	\$25,705,311.50	\$4,972,327.38	\$11,223,054.33	\$14,618,138.64	\$10,014,185.20	\$66,533,017.05

DISTRICT 7: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	41	16	44	41	2	144
Retained Jobs	18	40	19	29	2	108
Total Jobs Impact	59	56	63	70	4	252
New Sales	\$699,000.00	\$1,100,000.00	\$3,011,000.00	\$4,325,000.00	\$-	\$9,135,000.00
Retained Sales	\$710,000.00	\$37,000.00	\$2,206,000.00	\$2,410,000.00	\$50,000.00	\$5,413,000.00
Total Sales Impact	\$1,409,000.00	\$1,137,000.00	\$5,217,000.00	\$6,735,000.00	\$50,000.00	\$14,548,000.00
Cost Savings	\$262,000.00	\$360,000.00	\$467,802.00	\$717,500.00	\$500.00	\$1,807,802.00
Saved/Avoided Investments	\$219,000.00	\$220,000.00	\$252,000.00	\$99,750.00	\$-	\$790,750.00
Total Investment Impact	\$4,607,500.00	\$2,862,000.00	\$1,386,300.00	\$2,760,000.00	\$5,000.00	\$11,620,800.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	137.86	120.09	160.61	160.61	9.94	589.12
Employment Compensation	\$10,372,973.22	\$8,157,366.86	\$10,989,698.48	\$2,391,303.47	\$963,294.80	\$32,874,636.83
Value Added	\$16,653,141.09	\$15,578,323.10	\$16,855,312.53	\$17,160,317.79	\$1,993,508.59	\$68,240,603.11
Output	\$35,351,177.58	\$28,706,844.97	\$31,527,054.42	\$32,141,358.60	\$3,226,134.27	\$130,952,569.84
Labor Income	\$11,215,162.68	\$8,932,456.83	\$12,051,939.13	\$12,274,596.35	\$1,142,752.41	\$45,616,907.41
State Tax	\$648,902.03	\$582,089.49	\$578,867.11	\$587,877.70	\$59,689.37	\$2,457,425.70
Federal Tax	\$2,369,134.51	\$2,010,909.04	\$2,354,651.19	\$2,391,303.47	\$236,647.01	\$9,362,645.23
Federal & State Total	\$3,018,036.54	\$2,592,998.54	\$2,933,518.29	\$2,979,181.17	\$296,336.38	\$11,820,070.92
Grand Total Tax	\$3,475,613.62	\$2,969,099.50	\$3,142,270.32	\$3,191,182.60	\$313,603.16	\$13,091,769.20

DISTRICT 8: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	91	59	110	38	108	406
Retained Jobs	293	64	514	136	8	1015
Total Jobs Impact	384	123	624	174	116	1421
New Sales	\$10,090,000.00	\$6,775,000.00	\$4,685,000.00	\$21,521,500.00	\$-	\$43,071,500.00
Retained Sales	\$5,460,000.00	\$85,930,000.00	\$17,680,800.00	\$12,350,000.00	\$1,500,000.00	\$122,920,800.00
Total Sales Impact	\$15,550,000.00	\$92,705,000.00	\$22,365,800.00	\$33,871,500.00	\$1,500,000.00	\$165,992,300.00
Cost Savings	\$790,000.00	\$1,031,600.00	\$192,350.00	\$569,000.00	\$30,000.00	\$2,612,950.00
Saved/Avoided Investments	\$5,246,000.00	\$230,000.00	\$391,420.00	\$219,750.00	\$18,250.00	\$6,105,420.00
Total Investment Impact	\$9,757,300.00	\$11,821,500.00	\$3,650,126.00	\$8,654,700.00	\$14,014,250.00	\$47,897,876.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	1175.15	612.42	1592.65	670.61	241.97	4292.80
Employment Compensation	\$82,824,038.42	\$49,014,786.96	\$141,686,146.23	\$59,915,615.81	\$21,870,358.15	\$355,310,945.57
Value Added	\$140,606,181.82	\$100,480,266.23	\$237,656,228.53	\$92,059,635.90	\$31,254,360.22	\$602,056,672.70
Output	\$317,787,202.52	\$200,346,086.04	\$472,407,464.91	\$181,463,846.91	\$50,991,611.88	\$1,222,996,212.26
Labor Income	\$89,735,806.43	\$55,306,137.63	\$152,776,101.89	\$63,504,950.95	\$24,891,201.31	\$386,214,198.21
State Tax	\$5,606,455.22	\$3,836,626.67	\$8,483,265.27	\$3,451,331.98	\$998,101.85	\$22,375,780.98
Federal Tax	\$19,146,070.22	\$12,571,329.42	\$29,268,530.03	\$11,945,838.95	\$5,021,265.93	\$77,953,034.54
Federal & State Total	\$24,752,525.44	\$16,407,956.09	\$37,751,795.30	\$15,397,170.93	\$6,019,367.77	\$100,328,815.53
Grand Total Tax	\$28,985,472.53	\$19,034,961.02	\$41,917,308.91	\$17,173,572.74	\$6,160,621.51	\$113,271,936.72

DISTRICT 9: FIVE-YEAR IMPACT

DIRECT IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
New Jobs	20	59	131	91	20	321
Retained Jobs	22	133	904	251	117	1427
Total Jobs Impact	42	192	1035	342	137	1748
New Sales	\$4,425,001.00	\$12,091,830.00	\$16,695,705.00	\$13,282,000.00	\$18,030,000.00	\$64,524,536.00
Retained Sales	\$1,170,000.00	\$5,325,000.00	\$201,335,000.00	\$13,049,000.00	\$23,000,000.00	\$243,879,000.00
Total Sales Impact	\$5,595,001.00	\$17,416,830.00	\$218,030,705.00	\$26,331,000.00	\$41,030,000.00	\$308,403,536.00
Cost Savings	\$810,000.00	\$677,560.00	\$378,600.00	\$3,735,000.00	\$5,085,000.00	\$10,686,160.00
Saved/Avoided Investments	\$588,000.00	\$800,200.00	\$649,450.00	\$3,668,900.00	\$567,000.00	\$6,273,550.00
Total Investment Impact	\$2,923,500.00	\$7,391,595.00	\$4,081,640.00	\$11,109,800.00	\$3,692,500.00	\$29,199,035.00
ECONOMIC IMPACT	2018	2019	2020	2021	2022	GRAND TOTAL
Jobs	129.85	612.42	3697.95	862.51	769.73	6072.47
Employment Compensation	\$9,604,033.77	\$49,014,786.96	\$329,037,263.93	\$70,242,536.20	\$79,346,131.36	\$537,244,752.22
Value Added	\$17,164,244.91	\$55,306,137.63	\$554,760,123.91	\$115,668,008.44	\$118,396,328.63	\$861,294,843.52
Output	\$34,471,188.44	\$200,346,086.04	\$1,029,301,139.71	\$237,029,702.26	\$267,276,577.84	\$1,768,424,694.30
Labor Income	\$10,385,315.72	\$55,306,137.63	\$377,381,031.32	\$78,984,162.56	\$99,606,841.54	\$621,663,488.78
State Tax	\$630,344.72	\$3,836,626.67	\$18,236,878.16	\$4,149,252.99	\$7,261,335.42	\$34,114,437.95
Federal Tax	\$2,231,459.58	\$12,571,329.42	\$74,927,784.37	\$15,178,965.92	\$14,185,678.86	\$119,095,218.16
Federal & State Total	\$2,861,804.30	\$16,407,956.09	\$93,164,662.53	\$19,328,218.92	\$21,447,014.27	\$153,209,656.11
Grand Total Tax	\$3,296,573.18	\$19,034,961.02	\$99,092,823.40	\$21,209,283.05	\$28,689,068.85	\$171,322,709.50

Legislative Caucus Promotes “Making It” in Massachusetts

FORMED IN AUGUST 2014, the Manufacturing Caucus includes more than 60 legislators from around the Commonwealth. Lawmakers focus on the renaissance of manufacturing and developing a robust ecosystem that includes training for manufacturing employees, encouraging innovation by helping start-ups access resources, and expanding opportunities in key manufacturing sectors.

MassMEP has been a sponsor of the Manufacturing Caucus Awards since their inception, and we’re proud to continue that role. We have seen over 350 manufacturers receive this honor for their tremendous work across Massachusetts.

MassMEP is successful in part through the support of the Manufacturing Caucus House Chair Jeffrey N. Roy, and Senate Chair Eric Lesser. The manufacturing caucus promotes and encourages “Making It” in Massachusetts and emphasizes their passion for making the manufacturing ecosystem stronger, and for making Massachusetts a world leader in advanced manufacturing.



Leading the Change

Choosing Leaders to Map the Future

In 2021, MassMEP established an industry advisory committee to provide independent, professional expertise and technical assistance on the development and effectiveness of the strategies that will help shape a resilient future for manufacturing in Massachusetts.



The advisory committee is focused on key initiatives, such as, steering the Commonwealth's workforce into new employment opportunities and emerging markets, including clean energy, and other sectors driven by advanced technologies, while guiding the development of high-quality training and education pathways.



The committee's primary role is to voice the needs of SMEs and shed light on the issues that affect the industry most. The committee will have access to a network of peers for sustained collaboration, and they will advocate for solutions working alongside our partners to address regulatory, legislative and policy obstacles.



MassMEP relies on the advice and guidance of the committee to inform our work as we rebuild the economy with industry partners, higher education, trade groups, business organizations, and various quasi-government agencies.

MassMEP Advisory Committee



JAMES AIMONE III
VP Operations
AirLoc Corporation



TOMMY FARRELL
Dir. Finance & Business
Operations Human Systems
Integration, Inc.



BRAD MCNAMARA
Co-Founder and Chairman
Freight Farms



LUKE COLLIER
Sales & Marketing Manager
Sunrise SESA Technologies



AMY LEFEBVRE
Human Resources Advisor
Eastman Chemical Co.



GREGORY PORFIDO
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RORY MACKEAN
Co-Founder and CPO
Tertill Corporation



SAM RUSSO
Strategy & Business
Development
Anduril Industries



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Atech Turbine Components



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Marzilli Machine Co., Inc.



PETER STASIOWSKI
Director of Communications
Interprint USA



SHARON STEEVES
Senior Product Manager
Post-Surgical Products
Dale Medical Products

Healy Award Recognizes Leaders in the Industry

In 2016, MassMEP created the John “Jack” Healy Leadership Award to recognize excellence within manufacturing companies and honor individual manufacturing leaders who are shaping the future of global manufacturing. This award is in honor of MassMEP’s former President and leader, John “Jack” Healy. Jack was the leader of MassMEP from 1997-2016. During his tenure he changed the way manufacturing is perceived and was often referred to as the “Voice of Manufacturing.” His role with MassMEP and his passion for the industry were the catalysts in shaping the direction of manufacturing in Massachusetts.



Jack Healy was considered by many to be the champion of the manufacturing industry for decades in Massachusetts.

2022 JACK HEALY AWARD RECIPIENTS



Human Systems Integration is a forward-thinking company that designs and manufactures state-of-the-art electronic / smart textiles identified as Wearable Technologies. These are used in the military, medical, and health and safety industries. Brothers Tommy and Brian Farrell and their team are pioneers in their industry and are paving the way for how electronic / smart textiles and technologies are designed and manufactured in the future. Their passion for the work that they do is clearly having a positive impact in the Wearable Technologies industry and will continue to influence these markets for many years.



State Representative Jeffrey N. Roy received the Jack Healy Leadership Award in recognition of his dedication and support of Massachusetts Manufacturing. Through his leadership of the Manufacturing Caucus, which promotes and encourages “Making It” in Massachusetts, his efforts have fostered innovation and created opportunities for economic growth. As a champion for manufacturers, Representative Roy has been the voice of manufacturing with his execution in the Manufacturing Caucus Awards and the Manufacturing Emergency Response Team (MERT).

PAST RECIPIENTS OF THE HEALY AWARD



2021
Congressman
Jim McGovern



2020
Carolyn Kirk
Executive Director
MassTech Collaborative



2019
Mercury Wire



2018
Speaker
Robert DeLeo



2017
North Easton
Machine

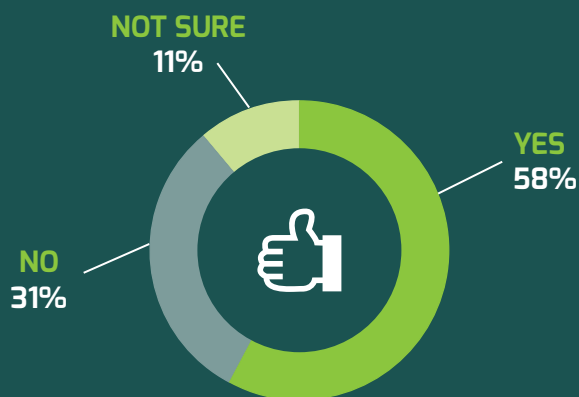
2016
Swissturn/USA

What We've Learned

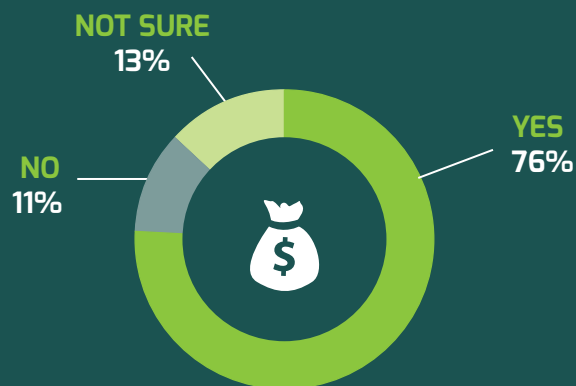
Assessing the Needs of Our Manufacturers

To continue to succeed in our industry, it's crucial to know and to meet the needs of the state's manufacturers. That's why MassMEP conducted the "2022 Manufacturing Pulse Survey," to understand where our resources are most needed and to be prepared to deploy them. Some of the top responses are listed here, and all relate to fiscal year 2022.

	1	2	3
What are your company's top three priorities?	Recruiting qualified workers	New technology, equipment or automation	Employee training
What are the three biggest factors that limit your company's growth?	Availability of skilled labor	Finding new customers, and expanding	Healthcare costs
What options is your company implementing to address workforce challenges and fuel growth?	Increase wages and salaries	Offer employee training	Automate or implement new technology
What training are you interested in for you and your workforce?	Principles of Lean	Team Involvement Problem Solving	Frontline Supervisor



In fiscal year 2022, does your company plan to introduce a new product or service?



In fiscal year 2022, does your company plan to make an investment in capital?

CALL TO ACTION: Strengthening U.S. Manufacturing

Manufacturing USA® and the Manufacturing Extension Partnership

Manufacturing USA and the Manufacturing Extension Partnership (MEP) coordinate complementary public-private partnerships to assist U.S. manufacturers. Both are headquartered at the National Institute of Standards and Technology and support U.S. industry to manufacture high-quality American made products that compete in the global marketplace.



Manufacturing USA is a national network of 16 manufacturing innovation institutes created to secure U.S. global leadership in advanced manufacturing through large-scale public-private collaboration on technology, supply chain, and education and workforce development. The institutes, sponsored by the U.S. Departments of Defense, Energy and Commerce, partner with six additional federal agencies.



**MEP • MANUFACTURING
EXTENSION PARTNERSHIP**

MEP is a public-private partnership with centers in all 50 states and Puerto Rico – with over 1,400 trusted advisors and experts at more than 385 MEP service locations. MEP works side-by-side with manufacturers to reduce costs, improve efficiencies, develop the next generation workforce, create new products, and find new markets.

Serving U.S. Manufacturers Throughout the Full Product Life Cycle

Manufacturing USA:

Builds future manufacturing capabilities through applied research for technology development, along with the requisite workforce skills.

TECHNOLOGY
TRANSFER



TECHNOLOGY
DEVELOPMENT



PRODUCTION



MEP: Focuses on deployment of available technology and business practices primarily to small and medium-sized manufacturers (SMMs).

Distinct Approaches, One Outcome: Strengthening U.S. Manufacturing



**500+
MAJOR
R&D
PROJECTS**



**2000+
PROJECT
PARTNERS**



**70,000
TRAINED
WORKERS**



**\$425
MILLION
STATE,
FEDERAL
& PRIVATE
SUPPORT**



**27,500+
LINKS
WITH
SMMs**



**\$4.9
BILLION
NEW CLIENT
INVESTMENTS**



**105,700+
JOBS
CREATED
OR
RETAINED**



**\$13
BILLION IN
SALES
\$2.7
BILLION IN
SAVINGS**

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