



2020 WORKFORCE ROADMAP:

Priorities for Systems Change in Workforce Development



INTRODUCTION

ACKNOWLEDGEMENTS

We would like to recognize our partners at Ohio TechNet and the Manufacturing Institute who contribute significantly to OMA's workforce strategy. We would also like to express our appreciation to the manufacturers, educators and workforce stakeholders who helped to identify the priorities and themes discussed in these pages.

RECOGNITION OF SUPPORT

We thank these organizations that provided leadership-level support for OMA's Workforce Services:

PLATINUM LEVEL

- Dupont
- Honda
- The Ohio Manufacturing Extension Partnership (Ohio MEP)
- Pharmaceutical Research and Manufacturers of America (PhRMA)
- Standard Power

GOLD LEVEL

- Ohio TechNet

SILVER LEVEL

- Anheuser-Busch Companies

PURPOSE OF THIS ROADMAP

The roadmap is intended to document OMA's 2020 workforce services strategy and action steps to facilitate skill development and talent acquisition among Ohio manufacturers.

OMA uses this roadmap to help communicate its strategy and plans with stakeholder audiences in order to facilitate collaboration, execution and learning.

THE PROBLEM

Manufacturing is the second leading private employment sector in Ohio, following only health care and social assistance employment¹. And, it is growing². The biggest constraint to this growth, however, continues to be a significant disparity between the number of available jobs in manufacturing and the number of qualified applicants for them. The talent gap is driven by—at least—these key factors:

- A shrinking labor pool and increasing baby boomer retirements
- Rapid technology change that requires unprecedented levels of skill and training
- Competitive recruitment tactics from other sectors, which are in the same talent-constrained circumstances

In addition, manufacturing is still suffering from the misperception (or lack of awareness altogether) among young people, their parents and educators that it is not a thriving industry with challenging career opportunities and competitive pay. Further severing the connection between the workforce and the manufacturing industry is the absence of an efficient statewide training and recruiting system that brings together manufacturers, educators, community leaders and the public workforce system.

Many industry leaders, post-secondary and K-12 institutions are still working in isolation, focusing on their individual niches rather than in a larger collective system. Regionally, while a growing number of Ohio manufacturers have implemented industry-led regional sector partnerships to address workforce challenges, many manufacturers are still missing opportunities to collaborate with one another and with training providers to close the skill and talent gap. In order to meet the demands of the manufacturing sector and upskill the workforce, industry leaders must work with service and training providers to align local, regional and statewide assets to their requirements.

Partnerships like Ohio TechNet (OTN), a consortium of Ohio's post-secondary institutions focused on accelerating the readiness of adults for Ohio's manufacturing careers, are making progress in this kind of alignment, and, as such, are an integral part of OMA's workforce strategy.

¹Source: Ohio Department of Job and Family Services, Office of Workforce Development, Ohio Labor Market Information, <http://ohiolmi.com/ces/lmr.htm>

²Source: Ohio Manufacturing Institute

THE SOLUTION

OMA has embraced Industry Sector Partnerships (sector partnerships), as a model for addressing workforce development challenges through collaboration. Sector partnerships put employers in the driver's seat and have demonstrated effectiveness across the country. At least 29 states have adopted state policies in support of sector partnerships³. Manufacturers within a regional labor market work together to influence alignment around common solutions with education and training, economic and workforce development and community organizations. The key elements of sector partnerships include:

- Industry leadership (CEO/executive level) drives the agenda
- Manufacturers identify and collectively address priority issues with their workforce, economic development and education partners as a system
- All stakeholders pitch in to align resources and strengthen the community

Since 2016, OMA has worked with manufacturers and their partners across the state to create a network of sector partnerships and to help establish partnerships where none exists. Through OMA's efforts, the network of sector partnerships is becoming a collective voice for—and system of—the manufacturing industry's workforce development priorities and solutions.

OMA has developed proven strategies and tools to assist parties in forming and operating sector partnerships to address the manufacturing talent shortage. This is systems-level change that is intended to ultimately lead to a more effective way for parties to approach the workforce shortage.

³Source: National Skills Coalition. "Skills in the States: Sector Partnership Policy 50-State Scan." October 2017. <https://www.nationalskillscoalition.org/resources/publications/file/Sector-Partnership-Scan-1.pdf>

OMA'S APPROACH

EDUCATE AND ENGAGE

Through regional meetings, webinars, and an annual statewide summit, OMA shares the benefits of sector partnerships and showcases tools and best practices for sector partnerships to adopt. Through it all, OMA has emphasized the importance of approaching the workforce problem from the systems level so that every program, every initiative and every individual can be working toward the same goal: a coordinated talent system that helps ensure that Ohio manufacturers have access to the skilled workforce they need today and tomorrow.

To this end, the OMA has formed three workforce committees:

- Leadership Committee, made up of OMA board member company representatives and invited industry leaders, charged with driving the OMA workforce agenda.
- Intermediary Committee, which includes a representative ("intermediary") from each manufacturing sector partnership in Ohio.
- State Agency Committee, which includes representatives from the Governor's Office of Workforce Transformation (OWT), Ohio Department of Higher Education (ODHE), Ohio Department of Education (ODE), Ohio Association of Community Colleges (OACC), Ohio Association of Career and Technical Centers (OACTE), Ohio Development Services Agency (ODSA), Ohio Department of Jobs and Family Services (ODJFS), JobsOhio, and others.

Through ongoing briefings and planning meetings, these committees and OMA collaborate and facilitate alignment across systems and with manufacturing industry requirements.

IMPLEMENT

Through online resources such as case studies, worksheets, webinars, and technical assistance, the OMA provides industry champions and their partners with tools to increase participation in, and impact of, industry sector partnerships. Together with the committees described above, these activities are designed to foster a network of sector partnerships that share best practices and work

SUMMARY OF PRIORITIES

through challenges together. OMA uses Key Performance Indicators developed by the Leadership Committee to measure the success of these activities (see Appendix A).

IMPROVE

OMA is committed to helping manufacturers and manufacturing sector partnerships embrace continuous improvement, providing technical assistance, sharing resources, and capturing lessons learned through the committees described above. Again, the idea is to embed a workforce system in Ohio, trumping a disjointed set of unrelated programs.

At the first Ohio Manufacturers' Workforce Summit in 2017, regional breakout sessions and follow-up surveys allowed participants to identify concerns and potential solutions. From those, four priorities emerged. These continue to drive OMA's workforce strategy:

- **Leadership/Sector Partnership Capacity Building:** Through technical assistance and best practices sharing, increase industry champions' and partnerships' abilities to drive systems change
- **Policy Development:** Amplify the voice of manufacturers with lawmakers and public officials
- **Marketing and Communication:** Leverage the Making Ohio brand to elevate awareness and interest in manufacturing careers
- **Education Innovation:** Increase public/private collaborations that attract, train and educate the manufacturing workforce of tomorrow

THEMES

Within each priority, OMA organizes activities around the following themes:

- **Industry-Recognized Credentials:** Expand awareness and attainment of industry-recognized credentials by educating manufacturers, intermediaries, and education providers about the value of credentials; advocate for policies that award credit for credentials; and align earn-and-learn programs with credentials
- **Career Pathways:** Adopt statewide pathways to ensure that programs and initiatives are aligned with industry demand and offer predictable career transitions for students
- **Partner Engagement:** Support industry champions and emerging sector partnerships as they ensure workforce, economic development, and education systems are fully engaged in sector partnership strategy
- **Fund Development and Sustainability:** Expand outreach to sponsors and philanthropic funders; build regional sector partnerships' ability to secure their own funding

SYSTEMS CHANGE DIMENSIONS

In addition to the Priorities and Themes described above, all OMA workforce strategies are designed to support and advance the following systems change dimensions:

- **Industry-led sector partnerships:** manufacturers are at the table with a comprehensive set of partners to identify common issues, needs and goals as well as the strategies and priorities for solving them
- **A common set of industry credentials** used to illustrate specific skills and competencies needed and to validate students' and applicants' skill acquisition; a shared sense of understanding and value derived from using credentials as a translation tool between industry and partners
- **Shared career pathways** with credentials embedded at each level
- **Common work and learn strategies** identified by industry with their partners and prioritized by sector partnerships to maximize buy-in
- **Consensus on key performance indicators** to measure system performance through time

STATE AND NATIONAL INITIATIVES

In 2019, the OMA Workforce Community saw its efforts supported through two significant programs, Ohio's TechCred program and the United States Department of Labor (USDOL) Scaling Apprenticeship Initiative.

TECHCRED

Lt. Gov. Jon Husted, who oversees the Governor's Office of Workforce Transformation, in September 2019 launched the innovative TechCred program, which aims to enhance Ohio's skilled workforce by reimbursing employers who help current or new employees earn industry-recognized, technology-focused credentials. As manufacturing is Ohio's most productive economic sector, boosting Ohio's manufacturing talent pool is an important goal of the state program.

The OMA was a strong supporter of the provision in Ohio's budget that appropriated \$30 million to support this credentialing program. The state intends to fund 20,000 credentials over the next two years. Employers can receive up to \$2,000 for each current or new employee who earns an industry-recognized, technology-focused credential—and up to \$30,000 per funding round. Businesses of all sizes are eligible.

Recently, 219 additional credentials were added to the program in response to employer feedback. The OMA was involved in this effort to expand the list of TechCred credentials, which now stands at 379. New credentials include fields such as additive manufacturing and welding certification.

TechCred offsets the cost of training and upskilling the workforce and encourages manufacturers to embrace credentials as a method for doing so.

SCALING APPRENTICESHIP

In the summer of 2019, the USDOL awarded a \$12M Scaling Apprenticeship Through Sector-Based Strategies grant to the Ohio Manufacturing Workforce Partnership (OMWP), a partnership of the OMA and Lorain County Community College, to train 5,000 apprentices statewide between July 2019 and July 2023. This workforce collaboration is led by OMA in partnership with Ohio TechNet, a consortium which currently represents 28 public institutions of higher education.

Industry sector partnerships are central to the Scaling Apprenticeship initiative. Working with local manufacturers, education providers, and workforce and economic development partners is key to the expansion and adoption of apprenticeships in production, machining, industrial maintenance, and welding career pathways. Building Industry 4.0 skills is also a focus.

Scaling Apprenticeship will infuse resources into Ohio's manufacturing workforce community, helping manufacturers develop new and incumbent workers' technical skills, reduce turnover, increase productivity, and lower the cost of recruitment.

NEW IN 2020

To expand and enhance Ohio's workforce, the OMA recently led the effort to provide state funding for sector partnerships. Established through House Bill 2 and funded through the state operating budget, the Ohio Industry Sector Partnership Grant will invest \$5 million over two years to strengthen the state's network of industry sector partnerships. The OMA encourages manufacturing sector partnership to apply for these grants and is optimistic that the opportunity will infuse the manufacturing workforce community with resources in 2020.

PRIORITY 1 – LEADERSHIP/SECTOR PARTNERSHIP CAPACITY BUILDING

Through technical assistance and best practices sharing, increase industry champions’ and sector partnerships’ abilities to drive systems change.

STRATEGIC ACTIONS	STATUS
Provide leadership training for industry champions participating in sector partnerships, including webinars on topics such as organizational governance and succession planning.	<p>ONGOING</p> <p>The OMA continues to support industry champions with customized technical assistance and coaching. In 2020, webinars will focus on tools and best practices that can be applied to Scaling Apprenticeship implementation and other workforce solutions.</p>
Create a structure and process for best practice sharing and networking across sector partnerships, intermediaries and other manufacturing workforce stakeholders.	<p>ONGOING</p> <p>In addition to best practices sharing through the three workforce committees, in 2018, the OMA began to capture success stories in the form of case studies which are published on MakingOhio.com and showcase some of the innovative ways Ohio is addressing the workforce shortage.</p>
Create and track sector partnership key performance indicators.	<p>ONGOING</p> <p>With the Leadership Committee, OMA refined the Key Performance Indicators to align with Scaling Apprenticeship.</p>
<p>Create a process that will categorize sector partnerships by level of development in order to:</p> <ul style="list-style-type: none"> • Raise self-awareness of where a sector partnership is along a continuum of development • Facilitate continuous improvement • Introduce management (e.g. Baldrige) concepts • Build capacity to think in systems and process terms vs. initiatives or programs • Provide technical assistance and networking to help partnerships advance 	<p>COMPLETE</p> <p>In 2019, OMA developed a set of “Endorsement Criteria” for sector partnerships that intermediaries and industry champions can use to measure their partnerships’ alignment with OMA-identified best practices. (See Appendix B for Endorsement Criteria.)</p>
Educate manufacturers about the value and uses of industry-recognized credentials.	<p>ONGOING</p> <p>Through TechCred and Scaling Apprenticeship, manufacturers’ attention to industry recognized credentials has increased. The OMA continues to develop tools to educate manufacturers and their partners on the value of credentials to measure students’, job seekers’, and current employees’ competency and proficiency in specific skill sets.</p>
Provide training for leadership and intermediaries on how to customize and use statewide career pathways.	<p>IN PROGRESS</p> <p>In 2019, the OMA worked with a small group of manufacturers to customize state-level, industry-driven career pathways. In 2020, these pathways will be incorporated into MakingOhio.com in an interactive format, and sector partnerships will be trained to use them to educate the community about manufacturing.</p>
Educate industry champions on the role of various partners in sector partnerships and support emerging sector partnerships as they engage their local workforce development board, OhioMeansJobs staff, education partners, economic development agencies, community-based organizations, and other important stakeholders.	<p>ONGOING</p> <p>The OMA and its sector partnership community continues to engage partners throughout the public workforce system. Initiatives such as Scaling Apprenticeship will bolster these activities as all parts of the workforce ecosystem are needed to effectively reach the goal of training 5,000 apprentices by 2023.</p>

PRIORITY 2 – POLICY DEVELOPMENT

Amplify the voice of manufacturers with lawmakers and public officials.

STRATEGIC ACTIONS	STATUS
<p>Increase opportunities to leverage private investment with public and otherwise available funds. Conduct an ongoing opportunity scan for grant opportunities and leverage the roadmap to assess requests for support and partnership with external partners.</p>	<p>ONGOING The OMA watches for local, state, and federal opportunities that offer funding for industry sector partnerships and brings those opportunities to the workforce community regularly. New legislation provides sector partnership grants that OMA encourages manufacturers to pursue. Fund development continues to be a priority in 2020.</p>
<p>Work with state agencies and service providers to align funding and reduce duplication of services; continue coordinating the State Agency Committee. This will include periodic briefings and ad hoc meetings to address priorities, opportunities and issues.</p>	<p>ONGOING The OMA works closely with the Governor’s Office of Workforce Transformation and other state agencies to ensure new programs and initiatives will support manufacturing workforce priorities. Representatives from the OMA contribute to steering committees and other high-level advisory groups of the Ohio Department of Higher Education and Ohio Department of Education, among others.</p>
<p>Leverage OMA’s advocacy expertise to amplify the voice of manufacturers; identify those areas where manufacturers’ needs are not being considered and identify common barriers facing sector partnerships. Serve as the statewide advocate for manufacturing sector partnerships.</p>	<p>ONGOING The Leadership and Intermediary Committees offer a forum for OMA to collect this feedback, which is then shared with the State Agency Committee. In addition, members of the OMA workforce community have provided testimony on the state budget as well as other relevant legislation.</p>
<p>Position OMA’s Leadership Committee as a statewide advisory board for education; centralize the source of manufacturers’ and intermediaries’ feedback and requests to education partners.</p>	<p>ONGOING The Leadership Committee has taken on this role for the ODE and will continue to do so. For instance, in 2019, the Leadership Committee provided feedback on credentials being added to ODE’s approved list. It will do the same in 2020.</p>
<p>Ensure manufacturers’ preferred credentials are recognized by ODE and ODHE; explore opportunities to apply federal workforce funding to the cost of credentials.</p>	<p>ONGOING The OMA is working closely with both agencies to ensure manufacturing credentials are added to approved lists. Through the OMA Robotics and Automation Task Force, the OMA is working with a cross-agency team to add new technology-focused credentials in a more efficient and streamlined manner. Finally, Scaling Apprenticeship offers federal funding to offset the cost of credentials earned through paid work-based learning programs.</p>
<p>Gain support of State Agency Committee and other key partners in the adoption of statewide manufacturing career pathways.</p>	<p>IN PROGRESS The State Agency Committee has been briefed on OMA’s industry-driven career pathways. In 2020, the OMA will continue to encourage this committee to adopt the finalized pathways and share them widely through their channels.</p>
<p>Engage local workforce development boards and OhioMeansJobs staff, as well as economic development and other public partners, in sector partnership activity.</p>	<p>ONGOING Through industry sector partnership meetings and activities, the OMA and its Workforce Community will engage workforce professionals across the state. For example, the OMA arranged for a panel of workforce professionals to present at a quarterly meeting of the Central Ohio Manufacturing Partnership (COMP) about available workforce services and funding. The OMA has added a regional workforce board director to the state agency committee in order to serve as a conduit to other boards across the state.</p>

PRIORITY 3 – MARKETING AND COMMUNICATION

Leverage the Making Ohio brand to elevate awareness and interest in manufacturing careers.

STRATEGIC ACTIONS	STATUS
<p>Explore opportunities to attract underrepresented populations to the manufacturing industry including women, disabled, ex-offenders, and veterans.</p> <ul style="list-style-type: none"> Partner with the National Association of Manufacturers (NAM) to create an Ohio-specific campaign for women Partner where practical with NAM's Creators Wanted initiative 	<p>IN PROGRESS</p> <p>OMA is working with NAM to leverage its national Creators Wanted campaign, which is designed to attract a younger audience to manufacturing careers. Curriculum and resources for engaging women in manufacturing jobs was added to OMA's SkillsCommons.org platform and shared across the network. In addition, the Scaling Apprenticeship initiative will help sector partnerships create strategies to effectively engage target populations including women, people of color, veterans, and others.</p>
<p>Create processes and operations to monitor and measure the impact of the Making Ohio brand, including:</p> <ul style="list-style-type: none"> Provide technical assistance to regional partnerships interested in using Making Ohio assets; create a playbook to guide effective use of campaign assets Collect analytics through website and social media platforms Execute social media campaigns to targeted populations Train regional partners (including human resources representatives, college navigators, guidance counselors, and workforce service providers) to gather data about job seekers through their outreach efforts Define metrics of success, e.g. tracking enrollment in education and training programs related to manufacturing 	<p>IN PROGRESS</p> <p>Through the JobsOhio and the Mahoning Valley Manufacturers Coalition pilot in 2019, the OMA was able to identify opportunities for improved tracking and follow-up for individuals reached through Making Ohio marketing programs. These revised practices are also being tested through a campaign supported by MAGNET and JobsOhio in the Cleveland area, and will be replicated and improved in campaigns across Northwest Ohio.</p> <p>Outreach and recruitment resources through the Scaling Apprenticeship grant will further support the refinement of this process.</p>
<p>Update career pathways content on MakingOhio.com to reflect statewide manufacturing career pathways.</p>	<p>IN PROGRESS</p> <p>Designers and developers are working with the statewide career pathways to create interactive online pathways.</p>
<p>Encourage sector partnerships to engage their partners in deploying regional Making Ohio campaigns.</p>	<p>IN PROGRESS</p> <p>In 2019, Making Ohio assets were made available to sector partnerships; in all 11 entities have been approved and have received assets. Currently, the OMA is partnering with a marketing firm to create promotional material templates that can be customized with regional information.</p>
<p>Explore growing sponsorships to fund outreach initiatives.</p>	<p>ONGOING</p> <p>The OMA continues to approach philanthropic and corporate funders with sponsorship opportunities.</p>

PRIORITY 4 – EDUCATION INNOVATION

Increase in public/private collaborations to train and educate the manufacturing workforce of tomorrow.

STRATEGIC ACTIONS	STATUS
<p>Continue to support Ohio TechNet and its education, workforce and industry partners as it engages employers, accelerates learning, expands work-based learning and provides supportive services for adults interested in manufacturing careers. Foster innovative collaborations among higher education institutions (high school, career tech, community college and universities) and industry that facilitate upskilling and degree or credential attainment of Ohioans aligned to in-demand manufacturing careers.</p>	<p>ONGOING As described on page 5, OMA is partnering with Ohio TechNet to implement the Scaling Apprenticeship Initiative.</p>
<p>Engage education providers (K-16) in industry sector partnerships and increase alignment between employer needs and available programs:</p> <ul style="list-style-type: none"> • Develop metrics to measure program alignment to industry needs • Improve best practice and resource sharing among providers • Create template(s) for capturing/sharing best practices • Adopt, curate, and promote Skills Commons resources 	<p>ONGOING Through partnerships with ODE and ODHE, as well as the Ohio Association of Career and Technical Education, OMA continues to encourage education partners to participate in manufacturing workforce initiatives. Across the state, K-12 and post-secondary providers are becoming members of sector partnerships.</p>
<p>Establish processes to award college credit for industry-recognized credentials and to provide on-the-job training aligned to them as well.</p>	<p>IN PROGRESS College credit aligned to on-the-job training is a desired outcome of the Scaling Apprenticeship initiative. Ohio TechNet has leadership responsibility for this strategy.</p>
<p>NEW: Lead Automation and Robotics Task Force to ensure that Ohio's education and workforce systems are prepared to address the industry's rapidly changing needs related to Industry 4.0.</p>	<p>The Task Force, which is co-led by OMA and Lorain County Community College will:</p> <ol style="list-style-type: none"> 1) Create an asset map of educational resources (equipment, curriculum, instructors) related to Industry 4.0 2) Increase the recognition of meaningful micro-credentials in automation and robotics 3) Create automation and robotics career pathways

CALL TO ACTION

While OMA is committed to making Ohio the recognized national leader in manufacturing talent development, there are a number of actions any interested party can take. Please consider doing one or more of the following:

- Email workforce@ohiomfg.com to opt into the OMA Workforce Community to receive ongoing information, including webinar and event announcements
- Join your [local sector partnership](#)
- Request access to the Making Ohio image assets by visiting makingohio.com/partners
- Become a sponsor of OMA's workforce initiatives. Contact Dan Noreen, Managing Director, Development at dnoreen@ohiomfg.com
- Explore the sector partnership tools available at www.ohiomfg.com/workforce-services
- Contribute a [case study](#)
- Participate in an [upcoming webinar](#)

APPENDICES

APPENDIX A

Key Performance Indicators for OMA Workforce Roadmap: Priorities for Systems Change in Workforce Development

PRIORITY 1 – LEADERSHIP/ SECTOR PARTNERSHIP CAPACITY BUILDING	PRIORITY 2 – POLICY DEVELOPMENT	PRIORITY 3 – MARKETING AND COMMUNICATION	PRIORITY 4 – EDUCATION INNOVATION
Through technical assistance and best practice sharing, increase industry champions' and sector partnerships' abilities to drive systems change.	Amplify the voice of manufacturers with lawmakers and public officials.	Leverage the Making Ohio brand to elevate awareness and interest in manufacturing careers.	Increase in public/private collaborations to train and educate the manufacturing workforce of tomorrow.
Number of sector partnerships <i>(OMA data point)</i>	State sector partnership funds directed to manufacturing <i>(OWT data point)</i>	Social media and web analytics <i>(MakingOhio.com data)</i>	New and expanded apprenticeship programs <i>(as collected through Scaling Apprenticeship)</i>
Number of manufacturers involved in sector partnerships <i>(OMA data point)</i>	State and federal funds used to offset the cost of apprenticeship training (through TechCred and Scaling Apprenticeship)	Number of Scaling Apprenticeship participants enrolled	Number of industry-recognized credentials earned <i>(NAM Student Clearinghouse)</i>
Manufacturer Investment <i>(as measured through Scaling Apprenticeship matching funds)</i>	Development of policy recommendations aligned to manufacturer needs <i>(OMA data point)</i>	Number of manufacturers engaged in Scaling Apprenticeship	Employment and wage data <i>(as collected through Scaling Apprenticeship)</i>
County Coverage <i>(OMA data point)</i>		Number of students/potential job applicants engaged through: <ul style="list-style-type: none"> • Speaking engagements • Events, tours, and competitions for K-12 and post-secondary students • MFG Day events held 	Automation and Robotics micro credentials recognized by state agencies

APPENDIX B

Sector Partnership OMA Endorsement Criteria

- Industry-led
- Focused on a single industry (manufacturing)
- Regional, collaborative and systems-based approach
- Staffed by a neutral intermediary
- Dedicated to addressing Workforce Development issues
- Actively involved in OMA Workforce Community
- Priorities align with OMA Workforce Roadmap/KPIs
- Completed supply/demand analysis and strategic plan



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