

OHIO TECHNET

INTERIM ASSESSMENT OF IMPACT AND SUSTAINABILITY CONSIDERATIONS NOVEMBER, 2017



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Department of Higher Education

THE OHIO CONTEXT

The Ohio Technical Skills Innovation Network (Ohio TechNet) consortium is made up of 11 community colleges in Ohio innovating advanced manufacturing workforce solutions. The consortium received \$15 million in 2014 to improve manufacturing education, drive opportunities for manufacturing businesses and workers, and promote collaboration among colleges and partners.

Ohio's manufacturing industry is at a critical juncture as economic change propels the industry into the automation era. The industry is more productive and efficient than ever, and the role of skilled workers is vital. It is the largest industry by GDP in the state, and the third largest by employment. Change is best exemplified by the fact that since 2005 Ohio's manufacturing employment has decreased by over 125,000 jobs, or 15 percent of jobs; yet, the state's manufacturing output has increased by over one-third or nearly \$25 billion. This evolution is driven by the adoption of new production technologies and processes.

A skilled workforce is critical to supporting businesses, and demand for workers who can thrive in a highly efficient and automated environment is at an all-time high. Skilled trades and installation and repair specializations are among the fastest growing occupations in the industry – outpacing trends among lower-skilled production occupations. These higher demand occupations require postsecondary technical and “adaptive” skillsets that involve critical thinking and complex problem solving, which enable companies to evolve along with technology. Workers without these skillsets are vulnerable to displacement as the industry continues to change.

In the context of industry change, businesses are changing their relationships with workers. Union membership has declined reducing union-provided training opportunities, and temporary staffing is growing. The US Department of Commerce estimates that, nationally, nearly 10 percent of production jobs are temporary, which means in-house workplace training is diminished relative to years past.¹

Community colleges have an opportunity to engage with businesses in deeper ways, forging new strategic relationships to fill hiring, workplace performance, and upskilling roles that companies desperately need. And, to build the adaptive skills to drive the industry in its next generation.

To fulfill this opportunity and respond to business needs, Ohio TechNet is helping community colleges keep pace by providing funding, professional development opportunities, numerous tools and resources, and connections to a thriving network of state and national partners. It provides colleges with resources to redevelop curricula, infuse modern technologies into programs, update training spaces, hire skilled instructors, and advance partnerships with businesses and other organizations. And, in many ways, it has served as a “front door” for national and state entities to engage with colleges and their partners.

With the first stage of the initiative ending in less than a year, this brief provides a summary of Ohio TechNet's contributions to supporting Ohio's manufacturing transition and suggests opportunities for continuing momentum started in this initiative.

¹ US Department of Commerce, Economic and Statistics Administration. (2015). “An Update on Temporary Help in Manufacturing.” Washington, D.C. <http://esa.doc.gov/reports/update-temporary-help-manufacturing>

OHIO TECHNET PROGRESS UPDATE

Ohio TechNet has worked to help colleges adapt in a fluid manufacturing environment. In summary, it has successfully delivered the scope of work that was submitted in the 2014 proposal to the US Department of Labor (USDOL). Three strategies were implemented based on the proposal:

- ***Establish an infrastructure for collaboration among colleges and partners to support efforts to adopt and spread innovations in manufacturing education and training.***

Update: Collaboration among colleges and external partners has been a hallmark of this initiative. Ohio TechNet has served as an effective entry point for state and national organizations to partner with Ohio community colleges to address workforce challenges and accelerate transformative change. Project leadership has been active in cultivating external relationships with partnering organizations, resulting in connections to additional resources for colleges that complement the Ohio TechNet grant. These connections have included: (1) a grant-funded initiative led by the Ohio Department of Job and Family Services to expand apprenticeships in Ohio, (2) a grant-funded initiative supported by Lightweight Innovations for Tomorrow (LIFT) to reach agreement among Ohio community colleges on a “manufacturing foundations” curriculum, and to pilot replication of a non-credit Manufacturing Readiness program, (3) a partnership with the Ohio Department of Higher Education to develop and promote tools for Prior Learning Assessments, (4) a “manufacturing careers image” campaign and statewide manufacturing workforce strategy in partnership with the Ohio Manufacturers’ Association, LIFT, and the Governor’s Office of Workforce Transformation, and (5), a collaboration with Manufacturing USA institute NextFlex supporting the development of an earn-and-learn model in a micro-electronics program. Additionally, new platforms for collecting participant data, intranet files sharing and internal communications, project management teleconferences and quarterly meetings, technical assistance webinars, and grant compliance management have been established.

Key Partners



- ***Implement evidence-based instructional models that respond to student and business educational needs.***

Update: The colleges have used grant dollars to develop or improve 138 programs. Investments have included new equipment and space renovations, the hiring of qualified faculty and staff, and new or improved curricula. Curricular improvements have included models for acceleration, contextualization, stackable credentials, integration of industry-recognized credentials, work-based learning including apprenticeship and internships, and competency-based education. Of special note, partner colleges have been able to leverage an additional \$2.6 million in public and private resources to expand the impact of Ohio TechNet grant funds to meet the needs of employers and students.

- ***Support student completion and employment through expansion of evidence-based models.***

Update: Deep employer engagement and an emphasis on student success and completion has driven grant strategies. Among the 11 colleges, over 380 employers are partnered on Ohio TechNet activities, in addition to the state-level work with the Ohio Manufacturers' Association, which reaches a 1400+ membership base. All colleges hired or assigned responsibility for Navigators to recruit, academically advise, and career coach students in grant affected programs. Additionally, colleges have focused heavily on leveraging relationships with local partners to support students, including workforce agencies and community-based organizations. Over 50 external partners have been engaged to support students in Ohio TechNet programs.

IMPACT TO DATE

The consortium is effectively delivering on the scope of the grant. To date, the project has **exceeded its participant target by enrolling nearly 1,900 students with nearly 800 completions and hundreds still in-progress.** Over 600 participants have achieved new employment or earnings increase since enrolling in an Ohio TechNet program.

Currently, post-completion employment outcomes are lagging what was projected in the original proposal. Two primary factors drive this lag: (1) Employment outcomes are an inherently lagged metric because they rely on grant exits, and many students are still in-progress; (2) There was an unexpectedly high proportion, nearly two-thirds, of incumbent workers among the participant population relative to what was anticipated when writing the grant (one-third). Incumbent workers are not included in measures of employment in USDOL's metrics; they are instead measured in terms of earnings increases. This unexpectedly high proportion of incumbent workers is challenging the project's capacity to achieve its employment outcome.

A full evaluation with perspective on the project's impact on student completions, employment, and earnings will be completed at the project's conclusion in Fall 2018.

BUILDING ON OHIO TECHNET'S MOMENTUM

As part of an evaluation of the Ohio TechNet project, the stakeholders were asked “What does it take for community colleges to keep pace with the economy and deliver successful workforce solutions for businesses and workers?” In synthesis, the most prominent answers were: (1) strong relationships with employers built upon the capacity of colleges to deliver skilled workers, (2) successful recruitment strategies that overcome manufacturing image issues and lead to student program enrollments, and (3) strategies to support successful student completion of programs.

Several prominently articulated gaps hindering these items were: (1) modern equipment and space, (2) limited resources to build recruitment pipelines that overcome manufacturing image issues in partnership with employers and other educational partners, (3) institutional readiness or resources to integrate new program structures, such as those focused on reducing student time-to-completion, or new student success initiatives, such as career navigation, and (4) limited resources to be entrepreneurial in employer engagement efforts, such as outreach and lead generation, relationship management, and management of work-based learning programs.

As a result, strategies for building on the momentum of the Ohio TechNet initiative are likely to focus on assembly of resources to support colleges in:

- Employer engagement
- Expansion of work-based learning
- Integration of models for accelerating student learning and completion, including competency-based education, prior learning assessment, modularization/stackable credentials
- Integration of models for student supportive services such as career navigation

Additionally, Ohio TechNet has served as an easy “front door” to a variety of state and national initiatives seeking to access and leverage Ohio’s community colleges. Numerous stakeholders such as state agency officials, industry associations, and groups outside of Ohio stated in interviews that the Ohio TechNet initiative represented an access point and communication vehicle for reaching community colleges in Ohio. One stakeholder even said they would not be funding and supporting work in Ohio, or at least not to the extent they currently are, if Ohio TechNet had not been available to support the work.

Solving workforce challenges in Ohio’s manufacturing industry is an economic development imperative for the state. Ohio TechNet is a compelling platform for engaging external grants, resources, and partners in these efforts. The collaborative infrastructure developed through Ohio TechNet represents an opportunity for colleges to continue working together on solutions with institutional, community, and statewide impact aligned with Ohio’s economic and workforce priorities.

This workforce solution was funded by a grant awarded by the U.S Department of Labor’s Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.



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