

Recipient: Lorain County Community College

Grant Number: TC-26435-14-60-A-39

Quarter Ending: 09/30/2018

**Quarterly Narrative Progress Report
Trade Adjustment Assistance Community College and Career Training
(TAACCCT) Grants**

Project Name:

Ohio Technical Skills Innovation Network (Ohio TechNet)

Grant Number:

TC-26435-14-60-A-39

Award Year:

2014

Report Quarter Ending:

09/30/2018

Date of Submission:

11/14/2018

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A. Annual Summary for Grant Activities

Ohio TechNet (OTN) is an Advanced Manufacturing consortium with 5 programs: Welding, CNC/Machining, Industrial Maintenance, Digital Fabrication/Industrial Automation, Occupational Safety. Schools include Columbus State (CSCC), Cincinnati State (CSTCC), Cuyahoga (CCC), Eastern Gateway (EGCC), Lakeland (LCC), Lorain (LCCC), Owens (OCC), Rhodes (RSC), Sinclair (SCC), Stark (SSC), Zane (ZSC). In Q16, the Employment & Earnings Scorecard was finalized and the Final Evaluation Report was submitted: <https://bit.ly/2F7Dd3f>. OTN surpassed its performance metrics for grant participants, enrolling 2248. Additionally, 46% completed; 320 were non-incumbent completers. OTN's focus on employer-aligned programs, integration of student-focused delivery models, and significant reconfiguration of programs around shorter-term programming resulted in increased completion rates, program retention rates, higher rates of continuation into further education at other institutions, higher credential attainment rates, and higher share of people completing credit hours among participants relative to comparisons. Additionally, participants experienced higher post-completion employment rates for non-incumbent workers in the first three quarters after completion, with 49% of completers obtaining employment in the quarter following completion or pursuing further education. Earnings increased by nearly 40% relative to pre-enrollment for participants that completed programs. In Q16, OTN partners

focused on job placement, reporting, and sustainability. Ohio MFG job postings were shared by the lead team and technical assistance was provided for job placement. OTN colleges have sustained many grant-affected programs and/or plan to expand upon offerings, e.g. several schools transitioned key TAACCCT personnel to permanent positions at their college; as a result of LCCC's TRAIN OH MEMS program, LCCC is preparing to launch an Applied Bachelor degree in Microelectronic Manufacturing <https://bit.ly/2qNy1Y6>; CCC continues development of welding pathways and plans are underway to offer the degree Fall 2019; ZSC's Industrial Systems program is expanding via high school pathway. Further, the grant generated a robust infrastructure that facilitated collaboration among colleges for replication of work-based learning models (including apprenticeships) and acceleration models (including CBE and PLA). Actual reimbursement for OTN grant expenses at Sept 30 was 99.63%.

B. Status Update on Leveraged Resources

Provide an update on the organizations that contributed the resources:

The following unclaimed indirect costs were leveraged by OTN partner schools in Q16: CSTCC: \$964.23, CCC: \$14,214.21, EGCC: \$2,553.90, LCC: \$9,318.67, LCCC: \$24,945.64, OCC: \$25,588.09, RSC: \$9,487.75, SCC: \$16,694.70, SSC: \$1,022.42, ZSC: \$3,293.01.

Provide an update on the ways in which the resources were used during the current quarter:

Unclaimed indirect costs supported administrative services vital to grant deliverable attainment.

Comments:

N/A

During this quarter, did you receive any additional leveraged resources beyond what is listed in your statement of work?

No

C. Status Update on Employer(s) Involvement

Discuss how the required employer(s) has been involved during the current phase of the project.

Required employers supported OTN in at least one of the following ways: shared data on openings, skills and credentials (SD), gave consideration to program completers (CPC), and/or served in a leadership capacity for the Ohio Mfg. Workforce Strategy (WS). Roles are outlined in the section below.

Outline specific roles and contributions of the employer(s) during this quarter.

Clark Reliance: SD. Dana: SD, CPC. Enginetics Aerospace: CPC. General Plug: SD. L&W: SD. Jerl Machine: SD, CPC. Kern-Liebers: SD, CPC. Kerry: WS. Lincoln Electric: SD, CPC. Makino: CPC. SGS Tool: SD, CPC. Quanex: WS.

Identify any challenges encountered/resolved in the development and management of the employer involvement.

OTN colleges continue to explore ways to embed work-based learning into training as programs are sustained and improved. This enhancement will increase the marketability of program completers as employers look for experienced candidates, and lower the time and cost to complete.

Discuss new employers and commitments that may have been added to support the project.

5 employers were added in Q16, which gave consideration to completers and shared data on openings, skills and credentials. Other employer partners committed to these activities and the following as colleges sustained training: participating in program/curricular design, providing input on career pathways, participating on advisory panels, assisting in instruction, hosting paid work experience, hiring completers, and/or serving in a leadership capacity for the Ohio Mfg. Workforce Strategy.

Comments:

Employer interest and engagement in work-based learning continues to grow as TAACCCT funding expires and sustainability through other opportunities are pursued: Rudolph Foods, ContiTech, Cooper Farms, Nutrien, Graphic Packaging, the City of Lima, Fostoria Learning Center have recently become interested/engaged in work-based learning. Further, many employers support colleges as they work to sustain and grow manufacturing training. For example, the following provided support as LCCC pursued approval for a Short-Term Certificate: Diamond Products, Lincoln Electric, SCT, General Plug, Beverage Machine & Fabricators, Elyria Foundry, NN Inc, Thogus.

Have you had any consultation or advisory meetings with business or employer partners during this quarter?

Yes

Were there any direct hires of program of study completers by employer partners during this quarter?

Yes

Were internships or other work-based learning opportunities posted during this quarter?

Yes

Did you acquire any additional employer partners during this quarter?

Yes

D. Timeline for Grant Activities and Deliverables

General Comments:

OTN focused on three primary priorities to successfully achieve deliverables stated in the TAACCCT proposal <https://bit.ly/2IujxXE>. 1. CREATE MECHANISM FOR STATEWIDE COLLABORATION TO ADVANCE OHIO'S INNOVATION ECONOMY: consortium expanded from 11 schools to 27; OTN operationalized an approach for connecting networks of collaborators throughout the state and nation by establishing an effective project management and communication infrastructure, including an integrated data and performance management system;

several state and national initiatives aligned with and leveraged the OTN initiative; OTN leveraged an additional \$3.2 million in public and private resources to expand the impact of OTN grant activities; statewide collaboration is evident in OTN's partnership with Ohio MFG Assoc (OMA); expansion of work-based learning models included RSC's work with ApprenticeOhio to expand apprenticeship programs throughout Ohio, CSCC's expansion of Modern MFG Work Study program and the launch of LCCC's TRAIN OH program which are all slated for replication beyond the TAACCCT grant. 2. TRANSFORM INSTRUCTIONAL DESIGN AND DELIVERY SYSTEMS: SCC's success with Competency Based Education is scalable and replicable; OTN website launched <https://ohiotechnet.org>; 500+ employers engaged; CCC worked closely with Ohio Dept of Higher Ed to ensure that certain types of military training, experience, and/or coursework align to existing college and university courses and will be awarded appropriate credit <https://bit.ly/2FifKw5>; Credit for Prior Learning expanded <https://bit.ly/2qIjflx>; Industrial Safety program launched. 3. EXPAND BEST PRACTICES THAT REDESIGN STUDENT INTAKE, SUCCESS AND PLACEMENT: OTN schools provided career navigation services which helped with job placement and encouraged program completion; participants had higher rates of completion (+8.2 percentage points) and program retention (+12.2 percentage points) than students in comparative programs at non-OTN schools.

How many programs are you planning to offer?

5

As of this quarter, how many programs have you launched to date?

5

Activity ID: 1

Status: Complete

Activity Type: Activity

Project Goal: 1.1 General Program Management

Narrative: Align activities with existing sector initiatives to share best practices

Expected Start: 10/01/2014

Expected End: 09/30/2018

Actual Start: 10/01/2014

Actual End: 09/30/2018

Notes: 03/20/2015: Activity 1.1; Align activities with existing sector initiatives to share best practices

05/07/2015: Started recruitment for Project Manager and Program Developer; contracted with Program Evaluator; hired Resource Development Specialist.

08/14/2015: Work Teams were launched to support program management. Project management team is hired and oriented to Ohio TechNet / TAACCCT including OTN project manager, program developer, senior research project manager, and resource development specialist.

11/12/2015: Consortium infrastructure organized: data sharing agreements, systems for secure data transmittal, weekly calls, regular webinars, site visits. OTN partners align employer engagement and career pathway development with the Ohio Manuf. Careers Council.

02/08/2016: OTN collaborates with state and national leaders and initiatives by supporting the launch of Ohio Mfg Careers Council (OMCC), led by industry with the support of the Ohio Department of Higher Education (ODHE), LIFT and OTN.

05/13/2016: OTN supported Ohio Manufacturing Careers Council, providing coordination assistance for the Education/Skills Work group. ODJFS, ODHE, and ODVS provided updates and feedback at Q6 in-person OTN convening.

08/15/2016: LCCC president presented to OTN presidents. Facilitation of OMCC included assisting with Image Campaign RFP and developing an employer survey. Collaborated with State of Ohio to hire a consultant to finalize the PLA Portfolio Rubric for the State.

11/14/2016: Manufacturing Day planning. RSC working with local MEP to develop programs. Manufacturing USA, JobsOhio and State of Ohio collaboration advances.

02/14/2017: Colleagues from state agencies and non-OTN schools join OTN's weekly consortium calls. We continue to distribute a weekly newsletter to more than 100 people statewide and in-person meetings occur quarterly. www.ohiotech.net is also a resource.

05/12/2017: OTN continues to partner with state of Ohio to implement strategies led by the Apprenticeship Office, OMA, and OMCC.

08/14/2017: OTN collaborates with OMA to launch regional employer meetings to develop/enhance sector partnerships.

11/14/2017: OTN collaborates with the Ohio Manufacturers' Association to plan the Manufacturing Workforce Summit.

02/13/2018: OTN supported Mfg Workforce Summit. LCC plans to replicate TRAIN OH model; employer engagement meeting planned for Jan. 2018. RSC presented at College Apprenticeship

Consortium Grant Meeting. Statewide OTN Sustainability Meeting took place Nov. 30.

05/15/2018: Sustainability conversations continue, as bi-weekly sustainability team meetings have been implemented. OTN continues to work with The Ohio Manufacturers' Association to promote sector partnership to resolve manufacturing workforce issues.

08/14/2018: In-person consortium meeting was held, focusing on allowable activities and grant closeout. OTN presented updates on curation of SkillsCommons' MFG curriculum to OMA's Workforce Leadership Committee.

11/14/2018: Final in-person meeting was held to share project impact and best practices for consideration as OTN infrastructure is sustained. OTN also assisted in preparation for Ohio Manufacturers' Workforce Summit 2018.

Activity ID: 2

Status: Complete

Activity Type: Activity

Project Goal: 2.1 Accelerated Remediation

Narrative: Contextualized and accelerated remediation through collaboration

Expected Start: 06/01/2015

Expected End: 09/30/2017

Actual Start: 03/02/2015

Actual End: 03/31/2018

Notes: 03/20/2015: Activity 2.1; Collaboration with Adult Basic Education, Industry, workforce and Ohio Completion Agenda

05/07/2015: Started procurement process for PLA contractor.

08/13/2015: Select consortium members have had initial discussion with a local ABLE provider about developing a Bridge Class to help prepare students for Math in Welding and engaged faculty to complete enhanced math curriculum for Machinery Maintenance.

11/12/2015: Consortium members attended Competency-Based Education Conference and PLA Strategy Session with CAEL. Select consortium member has confirmed partnership with local ABLE and reviewed and modified curriculum.

02/08/2016: OTN is reviewing CAEL's PLA recommendations to determine a strategy to increase PLA credit obtainment statewide. CSCC developed CBE-focused curriculum. CCC is exploring virtual ideation training & software simulation training for robotics welding.

05/13/2016: OTN is working with State of Ohio to help finalize the state's PLA portfolio rubric. LCC and RSC awarded PLA credit. OTN attended TAACCCT convening and obtained additional PLA resources which will be utilized to enhance PLA in Ohio.

08/15/2016: Welding course at CSTCC now includes 6 math modules that are contextualized. CCC has also included contextualized math in welding course. ABLE program offered to develop remedial math programs at LCC.

11/14/2016: LCCC, LCC, CCC, ZSC, CSTCC utilizing various strategies for tech math and remediation including partnering with Jobs for the Future and ABLE, utilizing Course Skills Mastery and Online Math Adaptive. PLA work with State of Ohio is progressing.

02/14/2017: LCCC partners with ABLE to provide contextualized remediation for manufacturing

pathways. CCC's Fast Track Welding Bootcamp and the first credit based short term certificate (Introductory Welding) have been approved for the Adult Diploma Program.

05/12/2017: ABLE partners support colleges. Math contextualization continues. LCCC RAMP programs now include contextualized Reading and Math, also available through ABLE. Noncredit Ind. Maintenance course created at RSC, this will transfer to credit via PLA.

08/14/2017: RSC conducted a Welding Bootcamp in partnership with ODJFS. QuickStart to College course was offered for free at ZSC to anyone with an interest in attending college.

11/14/2017: RSC: Basic Pathways course for women. LCCC: CORE orientation (GED prep with a MFG focus). CCC: enhanced delivery of Applied Math. ZSC streamlined developmental courses. CSTCC: tutoring allowed 6 students to test out of the co-requisite math course.

02/13/2018: OTN colleges continue to partner with ASPIRE (formerly ABLE/GED). RSC created contextualized math seminar for maintenance technicians. CCC works with Adult Diploma Program and local GED prep nonprofit to recruit students.

05/15/2018: ZSC is offering industrial electricity and PLC courses in Summer 2018 as a 6-week boot-camp. RSC considers segmenting a technical math course into 3 focused courses to meet specific needs of skilled trade occupations and facilitate awarding of PLA.

08/14/2018: LCC supported continued partnership with local ASPIRE program, sharing educational opportunities. RSC supported work to meet industry request to modularize math coursework in apprenticeship program.

11/14/2018: There are no updates on this activity, as the period of performance concluded on 3/31/18.

Activity ID: 3

Status: Complete

Activity Type: Activity

Project Goal: 2.2 Enhanced Collaboration

Narrative: Collaboration among career technical, community colleges, registered apprenticeship and 4 yr univ.

Expected Start: 10/01/2015

Expected End: 09/30/2017

Actual Start: 10/02/2014

Actual End: 09/30/2018

Notes: 08/13/2015: University System of Ohio Talent Development Network collaborated on statewide Post-Secondary Adult Career Education conference. Worked with State of Ohio Apprenticeship Council; attended conferences to gain best practice knowledge on collaboration. 11/12/2015: Affinity Groups have continued to meet, resulting in increased collaboration among partner colleges. Select consortium member collaborated with career centers to become registered apprenticeship sponsor.

02/08/2016: OTN partners created regional partnerships to capitalize on ODHE funding for manufacturing equipment, which maximizes the OTN investment.

05/13/2016: University System of Ohio Talent Development Network (USO TDN) is helping OTN enhance relationships with Ohio's career technical colleges. In Q7, OTN will present at the USO

TDN, PACE and OAACE conference which targets career technical colleges.

08/15/2016: OTN presented at a statewide career technical college conference. Articulation agreements are increasing. CSTCC has a co-enrollment agreement with Butler Tech.

School-sponsored DOL Registered Pre-Apprenticeship program at RSC is being developed.

11/14/2016: RSC: registered apprenticeship program with Omni Manufacturing; revised Dana Corp's Registered Apprenticeship Related Instruction. LCC: articulation with career tech. CSTCC: collaboration with career tech ctrs. CCC: enhanced articulation with CWRU.

02/14/2017: LCCC/CCC partner on safety programs and a Tool and Die Apprenticeship program. RSC provides technical assistance for OTN partners pursuing reg. apprenticeships. LCCC partnered with U of Akron on a pathway from a 2-year to a 4-year degree in MEMS.

05/12/2017: RSC continues to provide technical assistance to OTN colleges pursuing college sponsorship: LCCC received designation. CCC shares space, equipment and ongoing resources with CWRU.

08/14/2017: CSTCC continues partnership with Butler Tech Career Center for Welding program. LCC explores articulation with Pennsylvania College of Technology. CCC, LCCC, RSC, and SCC received Ohio Apprenticeship Grant.

11/14/2017: LCCC and CCC launched regional Advanced Manufacturing Apprenticeship Program. RSC hosted College Apprenticeship Sponsorship Meeting. CCC articulated Welding to program at Excelsior College. RSC is discussing articulation with Wright State College.

02/13/2018: RSC is sponsoring apprenticeships in areas that hadn't been previously offered: Industrial Maintenance Technician, Electrical Production Line Maintenance Mechanic. RSC is developing apprenticeship that utilizes Miami University's 2+2 program.

05/15/2018: RSC, LCCC, CSCC provide guidance to colleges implementing work-based learning (e.g. apprenticeship, TRAIN OH, Modern Manufacturing). RSC expands apprenticeship offerings. CSTCC continues to seek innovative approaches for Earn and Learn strategies.

08/14/2018: LCC supported engagement of union on opportunities to fast-track into apprenticeship program. RSC supported testing of Dual Enrollment Pathway to Manufacturing with high school and technical school.

11/14/2018: Four universities were added as OTN partners. CSCC and LCCC are collaborating on a NSF project to replicate successful work-based learning models developed/expanded under TAACCCT.

Activity ID: 4

Status: Complete

Activity Type: Activity

Project Goal: 2.3 Strengthen Emplry Roles

Narrative: Strengthen employer roles as design and delivery partners

Expected Start: 07/01/2015

Expected End: 09/30/2017

Actual Start: 01/05/2015

Actual End: 03/31/2018

Notes: 08/14/2015: Team 2 is researching and developing employer engagement tools. OTN is

also collaborating with LIFT and OBOR to launch Ohio Manufacturing Careers Council and engaging employers in planning committees, advisory committees, work groups, focus groups. 11/12/2015: Seminar with The Manufacturing Institute was held, which discussed employer engagement strategies and the new ROI tool. Employers have been engaged on advisory panels and via the OMCC to assist in program design and implementation.

02/08/2016: OTN continues to engage employers locally and supports employer involvement in work teams of the Ohio Manufacturing Careers Council (Image/Outreach and Education/Skills).

05/13/2016: OTN schools have worked with industry partners to develop curriculum and OJT opportunities. LCC worked with Lincoln Electric to develop Workforce Needs Survey. Many OTN employers are helping guide the work of the Ohio Manufacturing Careers Council.

08/15/2016: Employers are increasingly involved in curricular design. This is particularly significant in accelerated models such as Right Skills Now and Train OH. Also, OMCC worked with employers to develop employer survey.

11/14/2016: Expanded employer engagement via Lucas County Department of Planning & Development (OCC); Alliance for Working Together (LCC). Ohio Manufacturing Careers Council meetings. Website was enhanced to include listing of employer partners.

02/14/2017: OTN is on the design and implementation team for a new workforce strategy being rolled out by the Ohio Manufacturing Association in response to the needs of their nearly 1500 members, many of which are small and medium sized manufacturers.

05/12/2017: Twenty employer partners were added this quarter. Employer partners continue to assist in curriculum development. OMA and OMCC strategies continue.

08/14/2017: Partnership with regional employer associations continues; CSTCC engages with Partners for a Competitive Workforce. OMA interfaces with regional associations to implement statewide strategy. OTN now has relationships with 354 employers.

11/14/2017: Advisory committees continue to inform program design. RSC held a Process Instrumentation Workforce Summit to engage industry partners that have similar Process Operations procedures.

02/13/2018: OTN added 44 employer partners, and now has 432 total. Incumbent worker training and other workforce services continue to be deployed. LCC's Welding advisory committee helped convert ATS welding degree to AAS.

05/15/2018: Advisory committees continue to meet and provide input on training. LCC's Industrial Welding Advisory Committee assisted in refining curriculum which will be offered in Fall 2018 and offered suggestions for Project Based Learning.

08/14/2018: 33 new employers were added in Q15, with OTN engagement focusing on sharing of openings and hiring.

11/14/2018: Employer partnerships established and expanded through regional sector partnerships and Ohio Manufacturers' Association (OMA) support strategies for job placement and acceleration.

Activity ID: 5

Status: Complete

Activity Type: Activity

Project Goal: 2.4 Online Learning

Narrative: Integrate new & replicate successful models of online tech-enabled competency based learning.

Expected Start: 10/01/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 03/31/2018

Notes: 08/13/2015: Researched hybrid models; drafted Request for Information to gather information on potential providers and efficacy of programs; participated in nat'l conference on Competency Based Education hosted by previous TAACCCT grantees.

11/12/2015: Statewide Competency-Based Education conference attended; competency-based curriculum designed; course created using welding robot purchased with grant funds; Welding Affinity Group created an RFP to solicit online welding program resources.

02/09/2016: Partner schools have made significant progress with CBE and shared this expertise on weekly consortium calls and during affinity group meetings.

05/13/2016: OTN schools have launched programs that incorporate Competency Based Education (CBE). RSC is developing CBE curriculum in Industrial Maintenance relating to Food Technology. SCC has initiated CBE conversion for Machining.

08/15/2016: CBE Course conversion is underway, with three additional courses being piloted in the fall at SCC.

11/14/2016: Successful integration of online ToolingU platform into SCC's E-Learn system for CAM CBE courses; SCC completed conversion of all basic machining courses to CBE; began piloting final group of courses.

02/14/2017: CCC is delivering hybrid curriculum via American Welding Society and Lincoln Electric's U/LINC. Fanuc-Weld Pro software is utilized in training, saving on equipment failures, programming errors, and materials cost.

05/12/2017: LCC considers use of ULINC, which has been piloted at CCC. SCC plans to convert two additional courses into CBE format. OCC on-track to develop online/hybrid welding course.

08/14/2017: Labs for welding courses at ZSC will be delivered in competency-based model, as new training equipment was leveraged. Camera technology is explored at OCC in welding classroom.

11/14/2017: ZSC implemented online academic planner. RSC received positive feedback after delivering online geometric dimensioning and tolerance curriculum at Grob to support an apprenticeship program. CSSC visited Sinclair to discuss application of CBE model.

11/14/2017: ZSC implemented online academic planner. RSC received positive feedback after delivering online geometric dimensioning and tolerance curriculum at Grob to support an apprenticeship program. CSSC visited Sinclair to discuss application of CBE model.

02/13/2018: Utilization of online resources persists among OTN colleges to provide fast-track training. RSC developed Food Science Certificate for hybrid delivery. LCC continues to explore implementation of online resources.

05/15/2018: RSC piloted embedment of online ToolingU modules. LCC continues to consider online resources including ULINC and the AWS online program. CSSC is documenting welding innovation that may be a replicable competency-based education model in the future.

08/14/2018: CSSC is documenting welding innovation that may be a replicable competency-based

education model in the future.

11/14/2018: OTN supported the creation of the OMA SkillsCommons portal, which provides easy access to online training materials for Ohio's manufacturers: <http://oma.skillscommons.org>.

Activity ID: 6

Status: Complete

Activity Type: Activity

Project Goal: 2.5 Serving Veterans

Narrative: Adopt consistent approach to serving veterans

Expected Start: 06/01/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 03/31/2018

Notes: 08/13/2015: Planned July seminar with The Manufacturing Institute focused on Get Skills to Work. LCCC organized Boots to Business workshop with SBDC, postponed due to low enrollment. Will work with veteran service agencies to revise outreach and reschedule.

11/12/2015: Partners are involved at multiple levels in honing services and strategies to accelerate the transition of veterans to manufacturing careers, working with campus groups, OhioMeansJobs, veteran services, Hire a Vet, NEOVETS, and other initiatives.

02/08/2016: Officials from the Ohio Department of Veteran Affairs will lead a veteran-focused info session for OTN project managers in Feb 2016. In Q5, ZSC and CSCC planned a Boots to Business program in partnership with local SBDCs.

05/13/2016: Ohio Dept of Veteran Services presented to OTN project managers in January. LCCC continued to work with NEOVETS, engaging employers for training. PLA credit guidelines were developed, which will allow veterans to receive credit for prior training.

08/15/2016: OTN colleges continue to prioritize veteran outreach. ZSC added a veteran's resources link to their homepage. CCC distributed an OTN program flyer to 600 veterans who are current students.

11/14/2016: CCC's subaward agreement is being increased to recognize leadership in veteran outreach. Ohio's expanded MTAGs will benefit OTN vets. OTN helped NEOVETS schedule roundtable discussions with student veterans about regional veteran services available.

02/14/2017: Veterans benchmark survey distributed to 11 OTN partners; 3 schools responded in Q9. CCC conducted outreach to 23,201 Veterans since Jan 2016. LCC participated in Veterans Session with the ODHE Chancellor and Director of Ohio Veteran's Affairs.

05/12/2017: CCC evaluates how to collaborate with CWRU for veteran initiatives to include research and exploration of technology. Colleges continue to collaborate with internal/external veteran resource groups. Veteran Benchmark Survey administration concluded.

08/14/2017: CCC ensures that veteran participants submit joint transcripts to receive credit via Military Transfer Assurance Guides (MTAGs). Other OTN schools continue outreach to veterans.

11/14/2017: OTN colleges continue veteran outreach, working with local veteran services organizations and offices. CCC worked with local partners to host a Veterans Experience Action Center. LCCC hosted a Veteran Ideation Session.

02/13/2018: Consistent outreach occurred with veteran resources external and internal to OTN colleges. LCC's Recruiter attended a Veterans Panel discussion. CCC hosted a successful veterans event.

05/15/2018: CCC's Exec Dir. of Veteran Initiatives participated in a strategic planning session with leading veteran service agencies regarding the development of regional veterans' employment web portal. LCC working to fast track veterans into apprenticeships.

08/14/2018: LCC supported Navigator's work with veteran students to identify scholarships and services.

11/14/2018: CCC worked closely with Ohio Dept of Higher Ed to ensure that certain types of military training, experience, and/or coursework align to existing college and university courses and will be awarded appropriate credit <https://bit.ly/2FifKw5>.

Activity ID: 7

Status: Complete

Activity Type: Activity

Project Goal: 2.6 Safety Education

Narrative: Expand degree options and credit-bearing education and training for safety professionals

Expected Start: 02/28/2015

Expected End: 09/30/2017

Actual Start: 02/28/2015

Actual End: 03/31/2018

Notes: 05/07/2015: Preliminary discussion regarding scope of work for safety contractor.

08/14/2015: LCCC hosted the Assistant Secretary of Labor for OSHA and industry partners for Workers' Memorial Day. OTN contracted subject matter experts to support project management related to deliverables for the safety education and training component.

11/12/2015: Statewide Safety Industry Council was launched to help design/create the Safety Career Pathway. Representatives from OSHA, industry, workers comp, and education attended. Partners also report embedding OSHA training into technical fields of study.

02/08/2016: In conjunction with the Statewide Safety Industry Council, courses were identified for a 2-year Occupational Safety degree.

05/13/2016: LCCC evaluated subject matter experts in preparation of curriculum launch in Fall 2016, and secured personnel to develop curriculum and continues to engage Statewide Safety Industry Council.

08/15/2016: Three courses have been developed this quarter. LCCC has initiated conversations with CCC to collaborate on the Safety program to leverage its successful partnership for offering students dual enrollment with an OSHA Education Center.

11/14/2016: Strong progress has been made by leveraging the partnership with CCC, which has a highly innovative and successful partnership with Great Lakes OSHA Education Center headquartered at the University of Cincinnati.

02/14/2017: LCCC will launch courses tied to a short-term and one year certificate this summer; in partnership with CCC, LCCC expands instructor pool with the required certification and to do

outreach to industry/students.

05/15/2017: Safety courses are scheduled for Summer 2017 at LCCC and CCC, recruitment has begun. Safety advisory council met. Planning is in place to embed national certification in curriculum.

08/14/2017: LCCC's ATS in Industrial Safety Technician was approved by ODHE; courses will be offered in Fall 2017.

11/14/2017: Occupational Safety training at CCC and LCCC is slotted to begin in October 2017. Participant enrollment is a concern, however.

02/13/2018: OSHA content was incorporated into CCC's Environmental Safety curriculum - approval has been sought. Safety Ctrl's Tech continues to engage with LCCC and developed curriculum for three courses for the Industrial Safety Technician/Technology degree.

05/15/2018: Industrial Safety courses for short-term certificate, one-year technical certificate and associate degree have been developed and are scheduled to launch Fall 2018.

08/14/2018: LCCC hosted a Regional Safety Round Table Focus Group meeting to share the safety certificate and degree programs with new industry partners.

11/14/2018: LCCC and CCC hosted a Safety Round Table event to gather talent demand data from small to midsize companies; 23 employers attended. College funds were used to support sustainability of safety program.

Activity ID: 8

Status: Complete

Activity Type: Activity

Project Goal: 3.1 Systems Integration

Narrative: Replicate successful models of community college/workforce systems integration

Expected Start: 01/01/2015

Expected End: 09/30/2015

Actual Start: 01/01/2015

Actual End: 09/30/2018

Notes: 05/07/2015: Engaged local WIB as a partner and held preliminary conversations about using Ohio's state-level case management system.

08/13/2015: Met with local WIB partner to discuss data management and previewed OTN's special office in Ohio's Workforce Case Management System (OWCMS). Crosswalked data fields in the Participant Intake Form to fields in the OWCMS.

11/12/2015: Continued work with ODHE, ODJFS and local WIB to foster collaboration; connecting with local WIBs and college workforce development departments; Pathway to Employment model created through prior TAACCCT grant at Cincinnati State will be replicated.

02/08/2016: OTN continues to collaborate with workforce partners to engage and support individuals in existing advanced manufacturing initiatives, implementing models such as Right Skills Now, and developing collaborative delivery models.

05/13/2016: OTN schools continued to work closely with workforce partners to recruit participants, obtain tuition funding, support case management, encourage co-enrollment, and host events.

08/15/2016: Collaboration with local OMJs continues to strengthen; OMJs have assisted in

program outreach, recruitment, and with funding tuition for OTN programs.

11/14/2016: LCC Welding training approved by Workforce Investment education and training site. Drawing on KY FAME and CSCC's successful Honda partnership, LCCC launched TRAIN OH; OhioMeansJobs center recruited a diverse participant pool for TRAIN OH.

02/14/2017: The TAACCCT Round 2 Multi State Advanced Manufacturing Consortium allowed RSC access to Immerse2Learn online materials. RSC is working with industry to leverage the use of materials. LCCC hosted OhioMeansJobs for Techno Fridays to source talent.

05/12/2017: Colleges work with OhioMeansJobs offices to conduct outreach to TAA eligible workers and other transitioning adults and to tap WIOA and CCMEP funding. CSTCC initiated conversations concerning OJT funding opportunities to incentivize employers.

08/14/2017: ODJFS shared data on TAA eligible workers in Ohio. RSC developed a DOL Registered Pre-apprenticeship program with help of the Ohio Department of Education Straight A Grant.

11/14/2017: RSC is creating a proposal to launch a Department of Labor Registered Pre-apprenticeship Boot Camp. OTN colleges continue to work with local WIBs to assist in TAA outreach and to support training costs.

02/13/2018: OTN colleges continue to work with local Jobs and Family Services and workforce development boards to recruit veterans, TAA-eligible workers, and other displaced workers. Utilization of WIOA resources continues.

05/15/2018: OTN colleges continue to engage with local workforce boards and leverage WIOA funding. RSC is looking to replicate sector partnership model for manufacturing to build training in wastewater treatment.

08/14/2018: In efforts to expand apprenticeship, RSC supported determination of apprenticeable occupations for wastewater training to meet needs of local municipalities. OMA sector partnership work continues.

11/14/2018: Partnership with Ohio Manufacturers' Association (OMA) was formalized with the development of the Ohio Manufacturing Workforce Partnership. The OMA SkillsCommons portal is used to highlight successful models and tools <http://oma.skillscommons.org>.

Activity ID: 9

Status: Complete

Activity Type: Activity

Project Goal: 3.2 Completion Agenda

Narrative: Align activities to Ohio's completion and student success agenda

Expected Start: 06/30/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/14/2015: Work Team 3 was launched. Its goal to expand best practices that redesign student intake, success, and placement support the alignment of activities to Ohio's completion agenda.

11/12/2015: Navigator Affinity Group launched to share best practices for student intake, success,

and placement; Integration of TAACCCT activities within colleges' overall completion agenda and teams; PLA work which supports student success is advancing.

02/08/2016: OTN utilizes navigators, intrusive advising, creative financial aid programs, and unique curriculum models, such as CBE and PLA, to increase student success and completion. Several OTN project managers serve on their school's Completion Agenda team.

05/13/2016: OTN presented to chief academic officers at an Ohio Association of Community Colleges meeting which focused on Student Success. This work is key to the sustainability of the OTN initiative.

08/15/2016: Welding orientation was offered to help onboard students at CSTCC, and advising and tutoring services were delivered to improve outcomes at CSCC.

11/14/2016: SCC partners with LCCC and SSC to lead Ohio's Completion by Design (CBD) cadre. In Q8, OTN created a roundtable presentation re: intersection of CBD and TAACCCT to be presented at Oct '16 NCWE Conference.

02/14/2017: CCC hosted an Achieving the Dream meeting. Partners are implementing a robust Completion Plan with key milestones and working committees. OTN hosted roundtable at NCWE national conference on intersection of TAACCCT and completion.

05/12/2017: Completion Agenda best practices from LCCC, SCC, and SSC were shared during in-person meeting. Progression and student success with stackable ABET accreditation occurs. ZSC increased flexibility in ISET degree electives and reduced required hours.

08/14/2017: Scholarships were made available for LCCC students interested in a career in manufacturing through the College Now program. RSC develops Pre-apprenticeship in alignment with Industrial Manufacturing Technician Registered Apprenticeship program.

11/14/2017: Navigators monitor student progress toward academic goals to identify barriers and student resources. Navigator Affinity Group Meeting was held. CCC held cohort orientations that reviewed classes required to obtain stackable/latticed credentials.

02/13/2018: Navigators provide guidance and supportive services to OTN participants. CCC continued to hold cohort orientations to promote student success. Manufacturing Foundations training was offered at LCCC. RSC developed a guided pathway for CCP students.

05/15/2018: Navigators were engaged in consortium meetings that focused on student surveying and placement strategies, and were invited to TAACCCT showcase hosted by Northwest State.

08/14/2018: OTN colleges held career fairs to connect students to opportunities. LCCC was recognized as First in the Nation for Excellence in Student Success by the American Association of Community Colleges.

11/14/2018: Navigator role has been sustained at several OTN schools. One success is LCC's integration of the Navigator in the Engineering Dept, where Navigator conducts outreach in collaboration with faculty to support retention, completion and job placement.

Activity ID: 10

Status: Complete

Activity Type: Activity

Project Goal: 3.3 Self Employment

Narrative: Expand training for entrepreneurship focus on professional/technical services for adv

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Quarter Ending: 09/30/2018

mfg

Expected Start: 10/01/2014

Expected End: 09/30/2017

Actual Start: 01/01/2015

Actual End: 03/31/2018

Notes: 05/14/2015: Spring Boots to Business program scheduled with SBDC team at Lorain County Community College.

08/13/2015: LCCC serves dislocated workers through DOLETA supported self-employment training initiative; will design strategies for sharing lessons learned. OTN collaborating to plan regional entrepreneurship event for Fall focused on diverse talent.

11/12/2015: Rhodes SBDC and Columbus State considering replication of “Boots to Business” program; Sinclair maintenance training program also supports entrepreneurs; Fab Lab in development at Zane State will support entrepreneurship.

02/08/2016: ZSC completed their Fab Lab which will help entrepreneurs test ideas. CCC is creating a module-based online training for students interested in becoming small business owners. CSCC, ZSC, RSC, and LCCC are working with local SBDCs to launch programs.

05/13/2016: OTN schools continue to work with local Small Business Development Centers to develop entrepreneurship programs and talent planning sessions. CCC met with LCCC’s SBDC Director to share best practices. ZSC is planning a veteran entrepreneurship event.

08/15/2016: OTN staff collaborate with Small Business Development Centers to highlight entrepreneurship training. LCCC hosted CCC for a meeting with the SBDC and worked with Ohio SBDC on a proposal to expand self-employment services for dislocated workers.

11/14/2016: LCCC and ZSC Small Business Development Centers (SBDC) collaborated in the development of a series of videos for entrepreneur veterans.

02/14/2017: LCCC’s SBDC launched targeted services to displaced workers and businesses impacted by the downturn in the steel industry. RSC faculty member helped a local small business owner create a prototype for an invention using grant-funded equipment.

05/12/2017: Students interested in entrepreneurship continue to be referred to online resources and to local SBDCs. OCC had discussions on developing a course or course materials for entrepreneurship.

08/14/2017: LCCC received the Presidents for Entrepreneurship Pledge College of Excellence Award by the National Association for Community College Entrepreneurship.

11/14/2017: OTN collaborates with the SBDC network to maximize connection of small and medium size enterprises to available services.

02/13/2018: SBDC at LCCC provided entrepreneurship training for veterans considering start-ups during a Veterans Business Forum workshop on Nov. 3.

05/15/2018: An LCC instructor was featured in an entrepreneurship article that was shared nearly 800 times: <https://bit.ly/2CvU90Q>. Visibility on such a platform generates interest in programs and heightens awareness of Career Pathways.

11/14/2018: There are no updates on this activity, as the period of performance concluded on 3/31/18.

Deliverable ID: 1

Status: Complete

Deliverable Type: Deliverable

Project Goal: 1 Finalize evaluation plan

Narrative: Finalize evaluation plan with appropriate IRB approval

Expected Start: 10/01/2014

Expected End: 09/30/2017

Actual Start: 01/01/2015

Actual End: 09/30/2018

Notes: 05/07/2015: Contracted with program evaluator and initiated development of delivery plan.

08/14/2015: The evaluation team of New Growth Group, working with the Ohio State University's OERC, the OTN project team, college partners, and the OH Dept of Jobs and Family Services, prepared the evaluation plan, which LCCC submitted to DOL on 5-15-15.

11/12/2015: The evaluation plan is complete and has been approved. Reviewer notes were received and are the focus of discussion with our evaluation team.

02/08/2016: OTN explored the need to seek IRB approval and LCCC determined that it is not required. OTN is working with partner schools that have additional questions on this matter.

05/13/2016: OTN is working with CSTCC to pursue IRB approval.

08/15/2016: As of Q7, CSTCC's IRB protocol had been drafted and consent forms were completed. This IRB process continues.

11/14/2016: IRB approval is in progress for CSTCC. Third-party evaluator has addressed IRB committee concerns.

02/14/2017: Post-Completion Surveys were administered to participants and Year 2 Memo was developed and reviewed per the approved evaluation plan. CSTCC IRB approval process has been delayed due to system and website changes.

05/12/2017: Post Completion Survey was improved, administration to participants completing programs in Summer 2016 began. CSTCC IRB approval is in process.

08/14/2017: Interim report was drafted. CSTCC IRB approval is in progress.

11/14/2017: The Interim Report for this grant was submitted in Q12. CSTCC IRB approval is in progress.

02/13/2018: Post Completion Survey was administered to completers. Evaluator completed employer involvement and state/national collaboration inquiries and produced an Interim Assessment of Impact And Sustainability Considerations report: <http://bit.ly/2BOtYT2>.

05/15/2018: Summary Inquiry was administered and the following memos were developed: Fall '17 Post Completion Survey Memo, Q12 Memo, State Collaboration Memo.

08/14/2018: Post completion survey was administered. OTN data was analyzed, and development of final evaluation report began.

11/14/2018: Final performance and survey data was analyzed. Final Evaluation Report was completed. Note: partner institutions executed a determination for IRB approval requirements; CSTCC IRB official stated to evaluator that approval did not seem necessary.

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Deliverable ID: 2

Status: Complete

Deliverable Type: Deliverable

Project Goal: 2 Data Management System

Narrative: Common Data Management Systems in place

Expected Start: 10/01/2014

Expected End: 09/30/2017

Actual Start: 10/06/2014

Actual End: 09/30/2018

Notes: 05/07/2015: Engaged local WIB as a partner and held preliminary conversations regarding use of Ohio's case management system.

08/13/2015: Met with local WIB partner to discuss data management and previewed OTN's special office in Ohio Workforce Case Management System (OWCMS); crosswalked data fields in the Participant Intake Form to fields in the OWCMS; drafted data sharing agreements.

11/12/2015: Data management systems are in place to consistently capture participant data. Work continues with State of Ohio and evaluation team to proceed on use of the states' case management system for OTN as part of a workforce transformation agenda.

02/08/2016: Data sharing agreements between consortium lead and partner colleges were executed. Work on data sharing agreement between consortium lead and Ohio Dept. of Job and Family Services was initiated.

05/13/2016: OTN continues to work to develop and execute a data sharing agreement between LCCC and Ohio Dept of Job and Family Services.

08/15/2016: OTN and LCCC are collaborating with Ohio Department of Jobs and Family Services for the creation of a data sharing agreement, which will allow OTN participant data to be tracked in the Ohio Workforce Case Management System.

11/14/2016: OTN works to finalize Data Sharing Agreement with Ohio Dept of Job and Family Services to allow Ohio TechNet's utilization of the Ohio Workforce Case Management System.

02/14/2017: In progress of obtaining necessary data sharing agreement to start utilizing the Ohio Workforce Case Management System.

05/12/2017: Data sharing agreement amendment with partner colleges was finalized; execution is underway. Finalization of LCCC-ODJFS agreement is underway.

08/14/2017: LCCC-ODJFS Data Sharing Agreement was finalized; plans to successfully execute are underway.

11/14/2017: Plans to execute LCCC-ODJFS Data Sharing Agreement continued. Training on updated Case Management System was scheduled.

02/13/2018: OTN participated in training on updated case management system (OWCMS) with local workforce staff, and resolution for consequent technical challenges was sought.

05/15/2018: Resolution of technical issues with the Ohio Case Management Workforce System (OWCMS) is ongoing. White paper to describe challenges in OWCMS utilization is under development.

08/14/2018: White paper to describe challenges in interfacing with OWCMS continues to be developed.

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11/14/2018: White paper describing challenges in interfacing with OWCMS was finalized and posted on SkillsCommons as a Data Tracking Grant Management deliverable:
<https://bit.ly/2DD1QD8>.

Deliverable ID: 3

Status: Complete

Deliverable Type: Deliverable

Project Goal: 3 Website launch

Narrative: Ohio Tech Net website launch

Expected Start: 10/01/2014

Expected End: 09/30/2017

Actual Start: 10/01/2014

Actual End: 06/30/2016

Notes: 05/07/2015: Expanding use of SharePoint as a collaborative tool for consortium. Preliminary conversations regarding integrating this with public website.

08/14/2015: Communications plan was drafted. Website is a priority for Q4 and Q5.

11/12/2015: Compiling a request for bids for a consultant to help manage the communication plan and strategies for OTN, including development and management of strategies for the website launch.

02/08/2016: RFP was issued for communications consultant; consultant was selected and began to develop outreach/communications strategy.

05/13/2016: Website is currently under development, and expected to launch Q7.

08/15/2016: www.ohiotech.net launched in Q7. Website will be enhanced as needed.

11/14/2016: Ohio TechNet website was enhanced via the launch of additional pages for Employers and Technical Assistance.

02/14/2017: www.ohiotech.net is updated regularly.

05/12/2017: Resources are continually added to website: www.ohiotech.net.

08/14/2017: ohiotech.net is used to share project success and best practices.

11/14/2017: OhioTechNet.org continues to be a resource to communicate project goals and success. Plans are underway to link to PLA site and Making Ohio website, which are being developed.

02/13/2018: PLA tool (fastpathohio.com) and Making Ohio (makingohio.com) websites were launched; plans to link sites with OTN website (ohiotech.net) are underway.

05/15/2018: Determination of appropriate linkage of the following continues: OTN site (<http://ohiotech.net>), online PLA tool (<http://fastpathohio.com>), and Making Ohio site (<http://makingohio.com>).

08/14/2018: Concurrent with the development of the SkillsCommons portal for OMA, OTN is in process of updating our website to feature SkillsCommons.

11/14/2018: OTN website was updated to feature SkillsCommons, and other resources for targeted audiences <https://ohiotech.net>.

Deliverable ID: 4

Recipient: Lorain County Community College

Grant Number: TC-26435-14-60-A-39

Quarter Ending: 09/30/2018

Status: Complete

Deliverable Type: Deliverable

Project Goal: 4 Benchmark report

Narrative: Benchmark report

Expected Start: 10/01/2014

Expected End: 09/30/2017

Actual Start: 01/01/2015

Actual End: 09/30/2018

Notes: 05/07/2015: Conversations with Employer Engagement Specialist in support of CCWC meeting with college presidents in September 2015.

08/13/2015: Report in development.

11/12/2015: A partners meeting on PLA was held which will provide information for a benchmark/strategy report to be created by the contractor, CAEL.

02/08/2016: Survey to collect data for benchmark report for colleges' use of Competency Based Education was developed. In conjunction with our work with CAEL, OTN received PLA benchmarking for many of our partner schools.

05/13/2016: CBE survey distributed, and initial results analyzed. PLA benchmark survey is in development. OTN is researching the CBE and PLA programs developed in prior TAACCCT rounds as we integrate acceleration into program design.

08/15/2016: Benchmarking of OTN programs continue. In Q7, the evaluation team conducted implementation interviews with each school to assess progress and identify any gaps.

11/14/2016: Third-party evaluator prepared project overview, which detailed progress on OTN goals and metrics.

02/14/2017: CCC created a Veterans benchmark survey for OTN. Once all responses are collected, benchmark report will be created.

05/12/2017: Veteran Benchmark report is in development, this will be finalized in Q11.

08/14/2017: Veteran benchmark report was finalized; results were shared during consortium meeting. RSC staff went on a benchmarking visit to Henry Ford Community College to learn about its Apprenticeship Ecosystem.

11/14/2017: CSCC documented list of basic math skills required for maintenance awareness curriculum and benchmarked math skills needed for Work Keys.

02/13/2018: RSC benchmarked the Proctor & Gamble Youth Apprenticeship program developed in Mehoopany, Pennsylvania.

05/15/2018: LCCC collected materials for upload to <http://SkillsCommons.org>.

08/14/2018: Collection and finalization of grant deliverables continues.

11/14/2018: Upload of grant deliverables to SkillsCommons was completed: <https://bit.ly/2FjS6PQ>. Benchmark reports shared include the veteran benchmark, CBE survey analysis, and Ohio Mfg. Careers Council (OMCC) survey analysis.

Deliverable ID: 5

Status: Complete

Deliverable Type: Deliverable

Project Goal: 5 Inventory of Strategies

Narrative: Annual inventory of strategies adopted/replicated at partner colleges.

Expected Start: 06/30/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/14/2015: Work Team 2 launched. Annual inventory of strategies is in development.

OTN is collaborating with LIFT (lightweight materials NNMI) to pilot Manufacturing Readiness Program at several partner schools.

11/12/2015: This was initially discussed in Q3. We created a baseline of information by creating a statement of work document for each partner college. Team 2 will continue work to compile ongoing data in Q5.

02/09/2016: The framework for the annual inventory will be completed in Q7, designed to easily summarize adopted strategies pulled from quarterly reports.

05/13/2016: OTN continued to develop framework for annual inventory of strategies. Strategies gathered will be shared on OTN website, as this launches.

08/15/2016: Strategies were consistently shared during weekly consortium meetings and weekly consortium update emails; several have been replicated throughout the consortium (e.g. Revolving Loan, project update, Haas scholarship).

11/14/2016: OTN hosted a webinar featuring Columbus State's partnership with Honda which resulted in creation of a successful Earn and Learn model. Honda would like to help colleges replicate this model statewide.

02/14/2017: Weekly consortium meetings are used to share strategies, which are adopted/replicated at partner colleges. Strategies for credential embedment, implementing earn/learn programs, navigation, data management, and reporting were shared in Q9.

05/12/2017: Best practices are continually shared during in-person meetings, webinars, and conference calls. Q10 topics include: apprenticeship, career pathways, participant placement, navigation. Materials are shared on SharePoint site.

08/14/2017: Best practices are shared during in-person meetings, webinars, and conference calls. Q11 topics include: manufacturing readiness/foundations, prior learning assessment, sustainability, reporting, open educational resources.

11/14/2017: Best practices were shared during in-person meetings, webinars, and conference calls. Q12 topics include: apprenticeship, prior learning assessment, storytelling, sustainability, data/evaluation. Materials were shared on SharePoint site.

02/13/2018: Best practices were shared during in-person meetings, webinars, and calls. Q13 topics: sustainability, data, PLA, Manufacturing Readiness/Foundations, Staffing Agency partnership. Materials were shared on SharePoint and at ohiotechnet.org/impact/.

05/15/2018: Best practices shared during Q14 include: sustainability, apprenticeship, highlights from the 2018 Workforce Development Institute, Making Ohio outreach resources, data collection/reporting, student surveying, accessibility.

08/14/2018: Best practices shared during Q15 include: job placement, data reporting, SkillsCommons resources, sustainability.

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11/14/2018: Best practices shared during Q16 include: job placement, data tracking and reporting, sustainability, Manufacturing Foundations, Manufacturing 5.0, and work-based learning models including apprenticeship. Inventory is available on SharePoint.

Deliverable ID: 6

Status: Complete

Deliverable Type: Deliverable

Project Goal: 6 Toolkits

Narrative: Toolkits created or linked via Ohio TechNet site.

Expected Start: 06/30/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/13/2015: Work Teams 1, 2, and 3 were launched, which will develop toolkits relevant to team goals.

11/12/2015: A toolkit for replication of Right Skills Now, an accelerated training model for machining, is in development. Other toolkits will be created over the course of the grant.

02/08/2016: Toolkits for Right Skills Now and data collection and reporting were developed, and distributed using SharePoint. They will be posted once the OTN website launches.

05/13/2016: OTN continues to develop toolkits. These will be posted on OTN website as developed, and as website is launched.

08/15/2016: Site map for OTN's new website includes a section for toolkits; this page will be launched in Q8.

11/14/2016: LCCC enhanced Right Skills Now toolkit and is in the process of creating a toolkit for replication of a Manufacturing Readiness program developed in the Mahoning Valley. This work is supported by OTN and LIFT.

02/14/2017: OTN continues to create content for technical assistance for earn & learn models, including apprenticeships, Right Skills Now and TRAIN OH; as well as manufacturing readiness, grant management, participant and employer engagement.

05/12/2017: Technical assistance resources are shared internally and on website as applicable.

08/14/2017: Toolkits continue to be shared on ohiotech.net.

11/14/2017: LCCC Dean, Kelly Zelesnik, collaborated with national partners to provide input to the Brookings' Connecting Community Colleges with Employers Toolkit; this will be added to OTN site.

02/13/2018: OTN supported the development of toolkits for Making Ohio's assets and continued work to promote and refine OMA's sector partnership guidance.

05/15/2018: CSSC is working to produce replication documents relating to welding curriculum innovation.

08/14/2018: CSSC continues to develop report/story relating to welding innovation stemming from OTN investment. TRAIN OH toolkit development is underway.

11/14/2018: Making Ohio assets and PLA assessment tool were linked to OTN website <https://ohiotech.net>. Additional toolkits (e.g. Welding Innovation White Paper and TRAIN OH

replication guide) were finalized and shared on SkillsCommons <https://bit.ly/2FjS6PQ>.

Deliverable ID: 7

Status: Complete

Deliverable Type: Deliverable

Project Goal: 7 AMCP web page

Narrative: Advanced Manufacturing Career Pathways web page updated in partnership with OMJ/Ed/Ind/Wkfc partners

Expected Start: 09/01/2015

Expected End: 09/30/2017

Actual Start: 06/15/2015

Actual End: 09/30/2018

Notes: 08/14/2015: Partnership with state of Ohio and LIFT to launch Ohio Manufacturing Careers Council, led by manufacturing CEO's, will drive development of website.

11/12/2015: OTN supported the launch of Ohio Manufacturing Careers Council, an industry-led initiative with 3 areas of focus: outreach/career awareness; skills/education; product commercialization. Career pathways mapping is part of this collaboration.

02/08/2016: OTN continued to work with LIFT, ODHE and OMCC to develop career pathways to be shared on the OTN and a planned OMCC website, linked with OhioMeansJobs.

Communications consultant was also hired to lead the development of the OTN website.

05/13/2016: OTN is working with industry partners and Ohio Manufacturing Careers Council to identify career pathways, which can enhance the efforts currently underway at Ohio Dept of Education. ODE career pathways expert presented to OTN via webinar in Q6.

08/15/2016: Research for the replication of Colorado Helps Advanced Manufacturing Program (CHAMP) consortium site (cocareeractiontools.com) is underway. State of Ohio has expressed interest in learning more about this TAACCCT-funded model.

11/14/2016: CCC is planning a Nov '16 event in collaboration with Achieving the Dream.

02/14/2017: OTN works with the State of Ohio and industry leaders guiding an Image Committee of the Ohio Manufacturing Careers Council, as well as those leading work to create a PLA rubric. This informs updates to Ohio's advanced manufacturing career pathways.

05/12/2017: OTN collaboration with ODHE to develop PLA rubric and Train-the-Trainer materials continues.

08/14/2017: OTN lead team issued a RFP to select a third party vendor to create a Prior Learning Assessment Prediction Tool. Selection committee was assembled.

11/14/2017: Several OTN schools are participating in the launch of a statewide PLA Tool which is being developed with the support of OTN.

02/13/2018: FastPathOhio.com (PLA tool) and MakingOhio.com launched. Exploration to integrate career pathways on Making Ohio site was initiated.

05/15/2018: Additional OTN partners have committed to using on online PLA tool: <http://fastpathohio.com>. Exploration to integrate career pathways on <http://makingohio.com> continues.

08/14/2018: FastPathOhio.com is utilized by 9 schools. Progress continues on enhancement of

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OhioTechNet.org and MakingOhio.com as we highlight the OER content available on SkillsCommons.org.

11/14/2018: Enhancements of Making Ohio (<https://makingohio.com>) and OTN website (<https://ohiotech.net>) were completed. Both sites highlight OER available on SkillsCommons.

Deliverable ID: 8

Status: Complete

Deliverable Type: Deliverable

Project Goal: 8 State wide templates

Narrative: Templates and mats to support consistency in outreach, career advising, and employer engagement

Expected Start: 07/01/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/13/2015: Work Team 3 was launched, which will support the adoption of consistency in outreach, career advising, and employer engagement by developing templates. CSTCC is ready to share the PTEC model and its tools and resources.

11/12/2015: A communications consultant is in process of being engaged to develop templates and materials. The Navigator Affinity Group launched which also supports consistency in advising. Employer engagement locally and via OMCC further supports this work.

02/08/2016: OTN adopted a new logo which aligns to Ohio's state branding. Communications consultant and graphic designer were hired, and began to create consistently branded outreach materials.

05/13/2016: Materials for employer engagement are in development. Processes for replication will be documented in Q7.

08/15/2016: OTN is helping in facilitation of the Ohio Manufacturing Careers Council (OMCC). Industry feedback via OMCC will be incorporated into the development of outreach, career advising and employer engagement materials.

11/14/2016: LCCC's graphic designer creates templates as requested.

02/14/2017: OTN graphic designer continues to provide support to OTN schools in developing these materials.

05/12/2017: Navigator affinity group was convened to support sharing of practices. OTN is supporting PLA Portfolio Rubric in collaboration with ODHE. Results will be shared statewide.

08/14/2017: Best practices were shared during Navigator Affinity group meetings.

11/14/2017: Materials were developed through the Ohio Manufacturers' Association Workforce Strategy initiative and are available at <http://www.ohiomfg.com/workforce-services/>.

02/13/2018: OTN supported Making Ohio <http://makingohio.com/> to improve outreach for mfg training and the launch of regional sector partnerships <http://bit.ly/2zVJpb4> to enhance employer engagement and a Workforce Connections Directory <http://bit.ly/2iRuP9G>.

05/15/2018: OTN began to upload grant deliverables to SkillsCommons: <https://www.skillscommons.org/handle/taaccet/1490>.

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08/14/2018: OTN grant deliverables continue to be uploaded to SkillsCommons:

<https://www.skillscommons.org/handle/taaccct/1490>.

11/14/2018: Upload of grant deliverables to SkillsCommons was completed: <https://bit.ly/2FjS6PQ>.

Included on SkillsCommons are templates for success stories, PLA Train-the-Trainer documents, career pathways, sign displays, and program flyers/brochures.

Deliverable ID: 9

Status: Complete

Deliverable Type: Deliverable

Project Goal: 9 Comparative Analysis

Narrative: System to enable analysis of tools/approaches by partners in completion, outcomes, employer satisfaction.

Expected Start: 10/01/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/13/2015: Work Team 3 will create toolkits for employer engagement in intake, success, and placement.

11/12/2015: Individual partner dashboards on participant results, as well as a single page summary of each college's focus or Statement of Work, have been created to allow for ongoing updates to schools and analysis of best practices for continuous improvement.

02/08/2016: Methodology of preliminary participant surveying was created, Employment Results Scorecard draft is under review, and the evaluation team conducted preliminary round of implementation evaluation interviews.

05/13/2016: Quarterly reports and data templates were modified to better collect information on programs and participants. OTN is working with the evaluation team to consolidate employer outcome tracking.

08/15/2016: Quarterly institutional reports have expanded to collect more employer information. Additional information will be collected in exit surveys. Outcomes prediction tool will be developed in Q8.

11/14/2016: Employment Results Scorecard template was developed, and will be issued as sufficient employment data is available.

02/14/2017: OTN metrics are reviewed regularly and technical assistance is available to schools as needed. Quarterly in-person meetings focus on these topics, guided by the APR outcomes.

05/12/2017: Metrics were continually shared with project management. Revision of executive update is in progress. OTN collaborates with project evaluators for this analysis.

08/14/2017: Reporting processes were continually improved; initial Employment Results Scorecards were produced.

11/14/2017: Employment Results Scorecard and Executive Update templates were shared with state leaders; best practices of TAACCCT grantees were reviewed during TAACCCT convening. Technical assistance was sought; enhancements to improve tools are underway.

02/13/2018: Based on input received at the November Sustainability Meeting, updates to

Employment Results Scorecard and Executive Update were made. An Earnings and Employment Scorecard was created given the high percentage of incumbent participants.

05/15/2018: Format and outcomes for Employment and Earnings Scorecard were refined:

<https://wp.me/a7hqUn-A5>.

08/14/2018: Sustainability of Employment and Earnings Scorecard was considered as OTN prepares to contact stakeholders for funding.

11/14/2018: Analysis tools were finalized and posted to SkillsCommons at <https://bit.ly/2FjS6PQ>. Included are the Employment Results Scorecard and refined Employment & Earnings Scorecard, Executive Update, and OTN Overview.

Deliverable ID: 10

Status: Complete

Deliverable Type: Deliverable

Project Goal: 10 Get Skills to Work

Narrative: Expanded adoption of Get Skills to Work and statewide tools for outreach/marketing

Expected Start: 06/01/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/13/2015: Work Team 2 will develop tools for outreach materials for Get Skills to Work and Boots to Business. Planned July seminar with Brent Weil from The Manufacturing Institute with a focus on Get Skills to Work.

11/12/2015: Based on updated information, OTN is focusing on engagement and service to veterans in general, not only under the Get Skills to Work brand or model. Veteran outreach and acceleration strategies are a primary focus for OTN.

02/08/2016: LCCC received a \$20,000 grant from the Manufacturing Institute, funded by Lockheed Martin, to replicate a manufacturing readiness program for veterans. The model will be shared and refined with OTN partners as it is rolled out.

05/13/2016: LCCC has developed manufacturing readiness program, and plans to launch the first cohort in Q7. Outreach to veteran organizations is underway in order to include vets in this cohort.

08/15/2016: Zane worked with SBDC on Reboot-to-Business event.

11/14/2016: Schools continue to prioritize veteran engagement. As of Q8, approximately 5 percent of OTN participants were veterans.

02/14/2017: This area of work is focused on innovations to improve outreach and service to veterans/returning military. CCC is leading technical assistance. LCCC hosted "Operation Job Search" to help military veterans and service members find employment.

05/12/2017: CCC continues to provide guidance on veteran outreach.

08/14/2017: CCC shared results of Veteran Benchmark; application of results was suggested.

11/14/2017: CCC hosted Veterans Experience Action Center to target veterans. LCCC hosted Veteran Ideation Session to develop outreach strategy.

02/13/2018: PLA tool website assisted veteran in creating a PLA petition. CCC received tuition assistance for veterans from the Cuyahoga County Veteran Service Commission.

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05/15/2018: LCC veterans were advised of their eligibility to fast track into the Carpenters Apprenticeship Program. LCCC's Society of Women Engineers co-hosted a Career Exploration Program exam to match military members to programs.

08/14/2018: Outreach tools were collected, and will be added to SkillsCommons.

11/14/2018: Outreach tools, including Veterans Benchmark Report, were added to SkillsCommons at <https://bit.ly/2FjS6PQ>.

Deliverable ID: 11

Status: Complete

Deliverable Type: Deliverable

Project Goal: 11 Safety enrollment system

Narrative: Dual enrollment system between OSH Training Institute coursework and community colleges established

Expected Start: 02/28/2015

Expected End: 09/30/2015

Actual Start: 02/15/2015

Actual End: 09/30/2018

Notes: 05/07/2015: Preliminary discussions regarding scope of work for safety contractor.

08/14/2015: OTN contracted with subject matter experts to support project management related to deliverables for the safety education and training component, including engagement of industry partners for a statewide advisory council related to this component.

11/12/2015: Statewide Safety Industry Council launched. Representatives from OSHA, industry, workers comp, and education attended. Q4 focus includes compliance with OSHA rules for use of OSHA Training Institute curriculum and OER rules for TAACCCT.

02/08/2016: 2-year Occupational Safety degree courses were identified that align to competencies required of safety professionals.

05/13/2016: OTN is re-evaluating its approach to achieving this goal and will continue dialogue with OTI and ETA along with our industry and educational partners.

08/15/2016: LCCC met with CCC to explore leveraging its success creating a dual enrollment process for students, working with an OSHA Education Center. Collaboration is also in development for the recruitment and credentialing of instructors & joint marketing.

11/14/2016: With a dual enrollment system, LCCC must have a partnership with an OSHA Education Center; good progress has been made. In the coming quarter, LCCC will issue a new request for proposals to seek an Education Center partner.

02/14/2017: LCCC and CCC collaborate to achieve this goal, which has had unexpected challenges. Program design reflects requirements for students to earn OSHA credentials, while we seek a solution to having a reliable OSHA Education Center partnership.

05/12/2017: OSHA training models were integrated into curriculum. RFP was sought for technical assistance to support execution of dual enrollment; SCT was selected. LCCC and CCC pursue direct application to become OSHA Education Centers.

08/14/2017: LCCC and CCC continue to collaborate on program development and marketing, and strategies to partner with an OSHA Education Center. Discussions with Northern Illinois University

were held.

11/14/2017: Additional discussion regarding host site agreements was conducted; LCCC and CCC are in discussion about obtaining a Host Site Agreement with Northern Illinois University.

02/13/2018: Pursuit of Host Site Agreement with Northern Illinois University proceeds; employer partner provided guidance on obtaining agreement. ZSC instructor started to undergo training to become certified OSHA instructor.

05/15/2018: LCCC continues to pursue partnership with an OSHA training center. Safety Controls Technology, a required employer partner, provided further guidance to help LCCC prep for a meeting with Northern Illinois University to discuss a host site agreement.

08/14/2018: Meeting with Northern Illinois University to discuss host site agreement was cancelled. Host site proposal is being prepared for University of Cincinnati Great Lakes Safety Center.

11/14/2018: Host site proposal was submitted to University of Cincinnati Great Lakes Safety Center; proposal was denied due to center's inability to add a new host site. OTN will maintain relationships with OTI's in preparation of future partnership opportunity.

Deliverable ID: 12

Status: Complete

Deliverable Type: Deliverable

Project Goal: 12 Safety Degree Pathway

Narrative: Articulated degree pathway and a professional certificate program

Expected Start: 02/28/2015

Expected End: 09/30/2017

Actual Start: 02/28/2015

Actual End: 03/31/2018

Notes: 08/14/2015: Work Team 1, working with a statewide industry council comprised of subject matter experts, will assist in developing a Safety Degree Pathway.

11/12/2015: Statewide Safety Industry Council was launched to help design/create the Safety Career Pathway. Representatives from OSHA, industry, workers comp, and education attended. Partners also report embedding OSHA training into technical fields of study.

02/08/2016: Work on creation of 2-year Safety Degree is in process, driven by input of Statewide Safety Industry Council.

05/13/2016: OTN has developed the course outline for a 2-year Safety degree, and received LCCC curriculum council approval. Content development is underway and state/HLC approval will be pursued.

08/15/2016: Pathway is in development. Three courses have been completed this quarter, working with subject matter experts and designed to align to both academic requirements and OSHA learning outcomes.

11/14/2016: Offering dual enrollment requires that instructors meet both academic and OSHA qualifications. This increases the challenge of instructor recruitment. LCCC and CCC are working together to maximize shared use of instructors at both institutions.

02/14/2017: Occupational Safety training will begin at LCCC this summer. CCC provided

environmental health and safety training to: 38 students, 20 instructors, 15 safety professionals. Connection to 4-year programs is underway to identify articulation pathways.

05/12/2017: CCC initiated conversation with Findlay University to explore articulation options for Safety degree. Curriculum for LCCC certificates and degree were approved at curriculum council. ODHE approval of Industrial Safety Technician program is sought.

08/14/2017: Industrial Safety Technician program was approved by ODHE.

11/14/2017: LCCC and CCC partnered to offer safety programs in Fall 2017. LCCC courses are scheduled to begin in October 2017.

02/13/2018: CCC has started working to align Environmental, Health and Safety Technology Program to STEM Meta-major, which would further enhance career pathways for this program.

05/15/2018: Courses for Industrial Safety degree will be offered in Fall 2018.

08/14/2018: LCCC plans to support delivery of courses for Industrial Safety degree in Fall 2018.

11/14/2018: LCCC sustained momentum created in the grant by launching 4 safety courses in Fall 2018; enrollment ranged from 5-7 students.

Deliverable ID: 13

Status: Complete

Deliverable Type: Deliverable

Project Goal: 13 Participant Outcomes

Narrative: Agreements in place with state and regional workforce leaders for coordinated tracking and reporting

Expected Start: 10/01/2014

Expected End: 09/30/2017

Actual Start: 01/01/2015

Actual End: 09/30/2018

Notes: 03/20/2015: using Ohio's Workforce Case Management System

08/14/2015: OTN benefits from an extremely collaborative relationship that exists with our local WIB and state agencies. Our local WIB partner spearheads OTN's use of state systems for data management. This is critical to transformational change.

11/12/2015: Work continues with the State of Ohio and evaluation team to move forward on use of the states' case management system for Ohio TechNet as part of a workforce transformation agenda.

02/09/2016: Systems are in place for OTN to utilize the Ohio case management system; a data sharing agreement between Ohio Dept. of Job and Family Services and LCCC is in development.

05/13/2016: OTN continued to work with Ohio Dept of Job and Family Services to develop and execute data sharing agreement which will allow usage of the Ohio Workforce Case Management System to track OTN data.

08/15/2016: LCCC sent requested information to Ohio Dept. of Job and Family Services, which will be used to draft data sharing agreement between department and LCCC.

11/14/2016: OTN works to finalize Data Sharing Agreement with Ohio Dept of Job and Family Services to allow Ohio TechNet's utilization of the Ohio Workforce Case Management System.

02/14/2017: Finalization of Data Sharing Agreement with Ohio Department of Jobs & Family

Service is in progress.

05/12/2017: Finalization of Data Sharing Agreement with ODJFS is in progress, data sharing restrictions exist.

08/14/2017: LCCC-ODJFS Data Sharing Agreement has been executed.

11/14/2017: Expansion of LCCC-ODJFS agreement is under consideration.

02/13/2018: Consideration to expand LCCC-ODJFS agreement is underway, as technical issues with OWCMS exist.

05/15/2018: Additional agreements with ODJFS will not be pursued at this time. Expanded agreements with new and existing OTN colleges are being explored.

11/14/2018: Improved data sharing agreements with new and existing OTN schools will continue to be considered, if needed, as OTN infrastructure is sustained.

Deliverable ID: 14

Status: Complete

Deliverable Type: Deliverable

Project Goal: 14 Best Practices Repository

Narrative: Repository of Ohio best practices and technical assistance

Expected Start: 06/30/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/13/2015: Work Teams will research best-practices relevant to team goals. During successful June Collaboration Meeting with consortium partners, resource sharing took place. Partners volunteered to develop repository.

11/12/2015: OTN uses SharePoint to share information, templates, best practices and links to important technical assistance. The OTN website will be an additional resource to share information with a broader audience, and OMCC is anticipated to complement this.

02/09/2016: OTN uses SharePoint as repository. To reach more colleges and career tech centers, OTN is working with the Talent Development Network to offer workshops at an April '16 conference. The OTN website and social media tools will further expand access.

05/13/2016: OTN continued to use SharePoint as a repository for best practices and technical assistance.

08/15/2016: Site map was created for website, which includes best practices and technical assistance sections. These pages will be launched in Q8.

11/14/2016: Technical Assistance page on Ohio TechNet website has launched. Ongoing use of SharePoint for resource sharing and TA materials.

02/14/2017: Best practices are continually gathered. These are shared with consortium, stakeholders, and others via consortium meetings and correspondence, website, and will be shared on SkillsCommons.

05/12/2017: ohiotech.net.org/impact/ currently houses information regarding best practices.

08/14/2017: Best practices are regularly shared via consortium meetings; these are shared externally via ohiotech.net.org.

11/14/2017: Best practices continued to be documented via weekly newsletters and on ohiotechnet.org.

02/13/2018: Best practices and technical assistance shared via SharePoint, weekly newsletters, and on ohiotechnet.org: <http://ohiotechnet.org/consortium-update-archive/>.

05/15/2018: Best practices continue to be shared internally and via OTN website. Upload of deliverables to <http://SkillsCommons.org> has begun.

11/14/2018: Best practices were shared internally and via OTN website. Deliverables were uploaded to SkillsCommons at <https://bit.ly/2D6ZFXm>. Examples include TRAIN OH replication guide and white paper on welding program innovation.

Deliverable ID: 15

Status: Complete

Deliverable Type: Deliverable

Project Goal: 15 Replicate Boots-to-Biz

Narrative: Replicate Boots to Business SBDC program

Expected Start: 10/01/2015

Expected End: 09/30/2017

Actual Start: 01/05/2015

Actual End: 03/31/2018

Notes: 08/14/2015: Work Team 2 will develop tools for outreach for Boots to Business. A spring Boots to Business workshop organized by LCCC with the SBDC was postponed due to low enrollment. LCCC is working to revise outreach strategies with veteran agencies.

11/12/2015: Rhodes State SBDC and Columbus State are looking to replicate Boots to Business program.

02/08/2016: Columbus State is reviewing opportunities to replicate Boots to Business and Zane State is planning a Boots to Business event which will take place in May 2016.

05/13/2016: CSCC and LCCC continued to work with local SBDC's to determine steps for the replication of a Boots to Business type of program. ZSC continued to work with local SBDC to plan Reboot for Business event.

08/15/2016: ZSC hosted Reboot to Business event, working with local SBDC.

11/14/2016: SBDC at LCCC is planning for a veterans' entrepreneurship training session in November.

02/14/2017: LCCC hosted a panel of veteran business owners to discuss opportunities for entrepreneurs after serving in the military.

05/12/2017: Veterans interested in entrepreneurship were referred to local SBDCs.

08/14/2017: Veterans continue to receive services via local SBDCs.

11/14/2017: Veterans received services via local SBDCs.

02/13/2018: The SBDC at LCCC partnered with Cleveland's Small Business Administration to facilitate a start-up workshop for a Veterans Business Forum on Nov. 3.

05/15/2018: CCC's Veterans Initiative hosted a series of "Ready for Employment Boot Camps" for student veterans preparing for transition into the workforce.

11/14/2018: There are no updates on this deliverable; outcomes were achieved by 3/31/18.

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Deliverable ID: 16

Status: Complete

Deliverable Type: Deliverable

Project Goal: 16 Maker Movement White Paper

Narrative: White paper on Maker Movement initiative and implications for TAA/veterans pursuing self employment.

Expected Start: 10/01/2015

Expected End: 09/30/2017

Actual Start: 06/16/2015

Actual End: 09/30/2018

Notes: 08/13/2015: Work Team 3 was launched and will support this deliverable. This team is charged to create a Maker Movement white paper. LCCC launched plan to host Ohio Makes conference in October 2015.

11/12/2015: Fab Lab in development at Zane. LCCC in process of expanding Advanced Technology Center to include Additive Mfg Lab and Digital Processes. Models from CCC's previous TAACCCT investment to create an additive manufacturing center leveraged.

02/08/2016: OTN has convened experts from partner schools to help develop this white paper.

05/13/2016: OTN continued to collect information to be used in this White paper.

08/15/2016: OTN partners are engaged in significant activity related to the Maker Movement, both new facilities and integration of new technology and teaching strategies into programs of study. These activities inform the development of the white paper.

11/14/2016: LCCC is working on a concept to partner with Ohio State University to host a graduate student to assist with white papers related to the lessons and impact of OTN.

02/14/2017: Significant growth of resources and initiatives to support the maker movement, and connect dislocated workers and/or returning military members to these opportunities continues among OTN partner colleges.

05/15/2017: Due to RSC's active participation in the Annual MakersFest in Lima, OTN lead team explored seeking RSC's assistance in contributing input for the OTN Maker Movement white paper.

08/14/2017: OTN lead team continues to develop an impactful strategy for the Maker Movement White Paper.

11/14/2017: Program Developer was hired to support development of Maker Movement White Paper.

02/13/2018: Work is underway to document OTN partnership with Mfg USA institutes as a way to support making and innovation in Ohio.

05/15/2018: OTN partnership with Mfg USA institutes continues to be documented. A sampling of partnership is highlighted in weekly consortium updates:

<http://ohiotechnet.org/consortium-update-archive/>.

08/14/2018: Development of white paper on OTN partnership with Mfg USA institutes continues.

11/14/2018: Many models and resources have been developed to inspire future makers to consider manufacturing careers, available on: <https://makingohio.com>, <https://ohiotechnet.org>,

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<https://bit.ly/2D6ZFXm>.

F. Key Issues and Technical Assistance Needs

Title	Description
Job Placement and Tracking	Despite multiple efforts by phone, mail, and email many OTN colleges continued to experience challenges receiving data on student employment and wages. An approach taken by LCCC Navigator could be considered in future efforts/projects; Navigator opted to reverse the order of the outreach strategy prescribed for Post Completion surveying by making phone calls to students first, and then following up with emails.

G. Best Practices, Promising New Strategies and Success Stories

Best Practices and Promising New Strategies

1 Employer Engagement

OTN engaged more than 500 employer partners in total. Partnership with the Ohio Manufacturers' Association (OMA) has been instrumental. In Q16, OTN expanded its partnership with OMA, and the Ohio Manufacturing Workforce Partnership was collaboratively established. Further, OTN lead team assisted in planning of the Ohio Manufacturers' Workforce Summit 2018 hosted by OMA. This event was held on Nov. 1 and nearly 500 employers, educators, and state and national stakeholders attended.

2 Apprenticeship

RSC maintains a rolling average of 150 apprentices, in 12 different occupations in support of 15 local companies. 95% of the Related Instruction (RI) is credit bearing and the completion rate is 99%. RSC is expanding its program by offering non-traditional shorter duration occupations that require 144 contact hours of RI and 2000 hours of On-The-Job (OJT) training and RSC is discussing apprenticeships for non-traditional occupations with the City of Lima.

3 Leveraging Advisory Committees

Leveraging LCC's Welding Advisory Committee had a significant role in the development of curriculum to meet current and future needs and these employers continue to contribute consumable supplies: <https://bit.ly/2OKiyS7>. STERIS Corp made a donation of scrap aluminum in Q16 - with another planned and others are currently in conversation with LCC to donate scrap pipe to the program and assist with employer panels in order to sustain and grow the welding program created under this grant.

4 Continuity in Project Mgt

The consistent support of college presidents, provosts, deans, faculty, and workforce staff was key to the success of OTN. Relationships with employers and team members - recruiters, data

managers, student navigators, program developers, and project managers who were consistently involved from the beginning of the grant - produced positive results. The consistency, passion and commitment to the success of our students and employers will remain of paramount importance to the OTN consortium

5 CBE/Articulation of Credit

At SCC, CBE courses developed under the OTN grant continue to serve as a model for institutions across the country. Examples and lessons learned from the SCC program have been featured in the Competency-Based Education Network (C-BEN)'s Quality Framework for CBE User's Guide. SkillsTrac Industrial Maintenance students continue to earn articulated credit through OTN articulation process. To date, more than 850 credits have been articulated for more than 100 participants: <https://bit.ly/2PVdM91>.

Success Stories

1 MFG Pathways in High Schools

ZSC's ISET pathway began at area high schools this semester. Also, RSC met with local high schools, Career Technical Centers and a locally operated Learning Center about creating a Recognized Pre-Apprenticeship program to create a pipeline into apprenticeships and increase the overall output of skilled workers to meet the talent needs of the local companies. Early success includes a local high school working toward starting a Pre-Apprenticeship program, targeting a Fall 2019 start.

2 Applied Baccalaureate Launched

LCCC has received approval from the Higher Learning Commission to offer the applied Bachelor's degree in Microelectronic Manufacturing. This program launched in Fall 2018, and 100% of the enrollees are working full-time and participated in TRAIN OH – the innovative earn-and-learn program launched under the Ohio TechNet grant. This marks a milestone for LCCC as a leader in providing quality, affordable education that bridges the gap between education and industry: <https://bit.ly/2qNy1Y6>.

3 Family Sustaining Wages

Brant was earning \$11/hr when starting LCC's Welding Program in 2018 and now has a new job earning \$ 30/hr plus per diem. Veteran Alex entered LCC's Welding Program in 2016 and has attained 3 AWS certifications and is enrolled in courses to prepare him for an additional 4 AWS certifications. Currently earning \$26/hr, Alex will soon launch his own business as a Welder while working full time. ZSC established a relationship with a new company which hired a student at \$23/hr.

4 Training of TAA Individual

Gary enrolled at SCC in 2016 pursuing a custom ATS degree in Industrial Maintenance and HVAC after being laid off in 2015 and becoming TAA eligible. He was able to complete his dual-credential degree in exactly 6 semesters. Gary was subsequently hired to work and learn the

press at Ernst, which is currently giving him experience running the equipment before he transitions to a Maintenance position for that same equipment, directly applying the skills he acquired in his OTN program.

5 Flexible Training Option

Vincent was displaced, and was offered a maintenance operation job with the condition that he return to school. He selected SCC's SkillsTrac industrial maintenance program, allowing him to build his electrical skills knowledge and experience without needing to take coursework in mechanical skill areas where he already had extensive knowledge and experience. The flexibility of the SkillsTrac program allowed him to fit a class schedule around his overnight 8:00 PM to 8:00 AM work schedule.

H. Additional Outcome Information

LCCC and partners thank USDOL for funding the launch of the OTN consortium which has expanded from 11 community colleges to 27 schools, all committed to providing state-of-the-art training to address Ohio's MFG skills gap. The OTN infrastructure developed through TAACCCT will continue to be utilized to disseminate best practices and foster collaboration among education, employer, state, and national partners. Continue following the OTN project at <https://ohiotechnet.org> and track Ohio's MFG workforce recruitment efforts at <https://makingohio.com>. OTN supports OMA's goal to lead the nation in solving MFG workforce issues as we expand impact beyond the 2,248 grant-funded participants.