



# **The Winston County Manufacturing Recovery Project Final Evaluation Report**

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## Final Evaluation Report

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September 2018

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## Acronyms & Abbreviations

AAS	Associate in Applied Science
CPR	Cardiopulmonary Resuscitation
CTE	Career Technical Education
ECCC	East Central Community College
ELT	Electrical Technology <sup>1</sup>
FEMA	Federal Emergency Management Agency
FPO	Federal Program Officer
I-BEST	Integrated Basic Education Skills and Training
LWIB	Local Workforce Investment Board
MDES	Mississippi Department of Employment Security
MMA	Mississippi Manufacturing Association
MS	Manufacturing Safety <sup>2</sup>
MSB	Manufacturing Skills-Basic <sup>2</sup>
MUW	Mississippi University for Women
NCCER	National Center for Construction Education and Research
nSPARC	National Strategic Planning and Analysis Research Center
OSHA	Occupational Safety & Health Administration
SBDC	Small Business Development Center
SGA	Solicitation for Grant Applications
TAA-eligible	Trade Adjustment Assistance Eligible
TAACCCT	Trade Adjustment Assistance Community College and Career Training
USDOL	United States Department of Labor
WIN	Workforce Investment Network

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<sup>1</sup> Also referred to as the “credit program.”

<sup>2</sup> Manufacturing Safety (MS) and Manufacturing Skills-Basic (MSB) in combination are also referred to as the “non-credit programs.”

## Executive Summary

In October 2014, East Central Community College (ECCC) was awarded a \$2.5M grant from the Department of Labor's Trade Adjustment Assistance Community College and Career Training Grant (DOL TAACCCT) Program to fund the Winston County Manufacturing Recovery Project (Winston County Project). The Winston County Project was intended to quickly provide employment opportunities to hundreds of TAA-eligible workers, veterans, displaced workers, and other adults in rural Winston County, MS. In this intervention, ECCC offers coursework and training credentials in a clear, stackable, and latticed sequence aligned with employer-validated work readiness standards and competencies. As encouraged by the Round 4 Solicitation for Grant Applications (SGA), the Winston County Project builds on previous work conducted by TAACCCT grantees to prepare the project's target population (i.e., TAA-eligible, displaced workers, and other adults in Winston County) to meet industry needs. The project involves providing participants with remediation, certification, or credit learning opportunities.

The four programs offered through the Winston County Project are: (1) *Accelerated Remediation*; (2) *Manufacturing Safety*; (3) *Manufacturing Skills-Basic (MSB)*; and (4) *Electrical Technology Career Technical Education (Electrical Technology CTE)*. The Winston County Project was designed, on a rolling-basis, to enroll over 200 participants per year for three years, for a total of 722 unique participants.

### Evaluation Design

The theory of change undergirding the Winston County Project is that if the target population in Winston County are provided with an opportunity to participate in and complete training applicable to industry, they will be in a position to be hired for available positions in the field. Also, they will be more likely to complete such training if they also receive accelerated remediation and additional support throughout their academic training. A comprehensive evaluation was designed that involved an implementation study and an outcome/impact study. The implementation study focused on how the project was put into place. The implementation study was driven by four required questions: *How was the curriculum selected, used, and created?*; *How were programs and program design improved or expanded using grant funds?*; *Did the grantees conduct an in-depth assessment of participants' abilities, skills, and interests to select participants into the grant program?*; and *What contributions did each of the industry partners' make?* Using a mixed-methodological approach, quantitative and qualitative data were gathered to address the implementation evaluation questions. Data sources included project level documents, focus groups & interviews, and surveys.

The outcome and impact studies were designed to understand how the Winston County Project participants performed on key outcome measures outlined by the US Department of Labor. The overarching question driving these studies was *What difference did the Winston County Project have on project participants?* The distinguishing factor between the outcome and impact study methodology is the absence (or presence) of a comparison group. The absence of a comparison results in an outcome study; whereas, the inclusion of a comparison group results in an impact study. Consistently, the use of the study type was dependent on availability of a comparison group.



## Implementation Study Findings

There are a number of key findings that emerged from the implementation study. These are summarized below:

- During the proposal development phase, ECCC and its sector partners conducted a gap analysis to determine which previously funded TAACCT program would be most appropriate within the current regional context. From the gap analysis the project team identified 12 areas that needed to be addressed to meet advanced manufacturing workforce needs.
- Based on findings that emerged from the gap analyses and after reviewing several previously funded TAACCCT grants, ECCC opted to offer three stacked and latticed credentials. Later, based on reported industry needs, a fourth stacked and latticed credential, Manufacturing Safety, was approved and included into the project. The resulting expanded program of four stacked and latticed credentials included: *Accelerated Remediation, Manufacturing Safety, MSB, and Electrical Technology CTE*.
- ECCC partnered with the Mississippi Department of Employment Security (MDES), its Workforce Investment Network (WIN) Job Centers and the Mississippi Partnership Workforce Investment Board to recruit and qualify TAA eligible workers, veterans, displaced workers, and other adults in Winston County for this project.
- Participants entering the Winston County Project were given the ACT WorkKeys assessment to determine the appropriate curriculum path. The ACT WorkKeys is a job skill assessment system that assists in the selection, hiring, training, and development of workers by measuring foundational and soft skills that can be targeted toward institutional needs. Those not meeting the minimum requirement (i.e., Silver level or higher) utilized the WorkKeys Career Ready 101 as an alternative training curriculum in the remediation program.
- The project administrative structure involved several individuals with varying roles and responsibilities to ensure effective coordination and timely completion of tasks (see Figure 3). A benefit of the administrative structure is that it well-positioned the project to be integrated into the institution for optimal sustainability once the funding period ended.
- A key component of the administrative structure was the Winston County Manufacturing Sector Leadership Team (Leadership Team). The Leadership Team consisted of representatives from ECCC's staff, organization employers (Winston Plywood & Veneer, Taylor Machine Works, and Polo Custom Products), The Montgomery Institute grant staff, MDES and WIN Center personnel, as well as local economic development representatives from Winston County and Louisville (MS). The group met on a monthly basis.
- The project team originally projected that 722 unique participants would be served by the project. In actuality 302 unique participants were served. There was relatively low enrollment of TAA-eligible workers and veterans. Low participation was likely attributable to the lack of strong employer demand that was originally expected. Specifically, management turnover and resulting pressing workforce needs at the Winston Plywood & Veneer plant varied the Manufacturing Safety and MSB program as a hiring requirement over the life of the project.
- While recruitment goals were not achieved, individuals who participated in the project reported high levels of satisfaction. Indeed, over 90% of respondents indicated agreement to a series of questions related to training satisfaction in surveys disseminated at the end of non-credit program offerings.



- The Winston County Project was designed as an industry driven initiative with the majority of the hiring expected to occur by Winston Plywood & Veneer and supplemented by Taylor Machine Works. There are no other organizations in ECCC's service area that would be able to hire to scale as anticipated by the project. In actuality, the majority of hiring occurred by Taylor Machine Works and with hiring also occurring by a large number of smaller organizations. But it should be noted that these hires, while higher than expected, were not at the scale that was projected by Winston Plywood & Veneer.
- Taylor Machine Works requires the Manufacturing Safety and Silver Career Readiness Certificate for new hires. The adoption of these certifications as a hiring requirement is a major shift for existing rural industries.
- Throughout the life of the grant, institutional capacity was expanded. These areas included: strengthening of partnerships, development of stacked and latticed curriculum, creation of a new training facility, addition of the Navigator role to assist students, and identification of appropriate instructors for this particular audience. Regional partnerships have been expanded through the Leadership Team. During these monthly meetings, key entities regularly engage in dialogue allowing for an effective communication of needs and allocation of resources.

### **Outcome and Impact Study Findings**

- While the overall unique participant goals were not achieved, actual completion rates (76%) were consistent with the projected completion rates (72%). The lower participation rates impacted on the obtainment of participant goals for all the outcomes.
- Because the Winston County Project was designed as primarily a non-credit program, only a few individuals completed the credit program. For individuals who received credit, the actual percentage (2%) was lower than the expected percentage (15%).
- Initial employment rates were higher for a comparison TAACCCT project than for the Winston County Project, however, job retention and wages were consistent with this comparison project. This finding was held for seven to eight quarters after employment.
- Moreover, wages were higher for the Winston County Project wage earners than for the average wage earners for the related service area.

### **Conclusions and Implications to Workforce Development Research**

- The Winston County Project interventions were successful in achieving the project's objective to position TAA-eligible workers, veterans, displaced workers, and other adults in Winston County to be hired by local industry.
- The Winston County Project provides valuable insights into the essential elements necessary to effectively recruit individuals into workforce development program. First, the understanding of how the educational training of employees' impact on the bottom-line. Second, employers then must require these educational requirements to the workforce. Finally, job candidates need to understand that obtaining these educational requirements are necessary to obtain meaningful employment.

- The project highlights at its core the elements that are involved in systems changes. It is understood that changing the requirements for a position to include the earning of a certificate, requires a system change. In the present context, the system involves the relationship between the workforce development entities, the workforce, and employers. In a context with less entities in the system, systems change may occur faster or slower than in a context with more entities.
- The results from this project indicate that individuals were obtaining meaningful employment and maintaining employment over a long period of time. Wage data were similar across two TAACCCT funded projects. Also, encouraging, was that these wages were higher than the average wages in the region and that overtime wages increased. The findings from the impact study fit nicely with the findings from the implementation study in that stakeholders indicated the project was making a difference in the lives of individuals. The increase in wage has tangible, in increase tax revenue and buying power, as well as intangible benefits, such as a sense of hope.
- As the nation makes investments in retraining programs, the overarching theme that this project points to in advancing workforce development research is exploring the implementation of workforce development initiatives within a rural context.

## Section I: Background

In early 2013 the Winston Plywood & Veneer company announced plans to open a new plant. This announcement was welcomed news because the region had experienced several recent plant closures by major employers such as Roseburg Wood Products and Georgia-Pacific plywood mill. Indeed, it was the intention of the leaders of Winston Plywood & Veneer to utilize the Georgia-Pacific plywood mill as the new plant, however, the mill was unfortunately destroyed in a tornado that hit the region in April 2014. There was concern that the destruction of the plant would change Winston Plywood & Veneer’s decision to come to the region, but, a month after the devastation, the leaders of Winston Plywood & Veneer reaffirmed their commitment to the region and announced plans to build a “state of the art woods facility” on the former site of the mill. Moreover, the Winston Plywood & Veneer indicated that the new plant would employ nearly 400 high skilled workers. The move to continue with plans to house a plant in the region was met with great relief by both regional leaders and residents. Additionally encouraging, were announcements by employers with smaller hiring needs such as Taylor Machine Works for high skilled workers.

To support the hiring efforts of Winston Plywood & Veneer’s and other regional manufacturing employers, East Central Community College (ECCC) submitted and was awarded a \$2.5M<sup>3</sup> grant from the United States Department of Labor’s Trade Adjustment Assistance Community College and Career Training Grant (USDOL TAACCCT) Program to fund the Winston County Manufacturing Recovery Project (Winston County Project). ECCC is located Decatur (MS) and has a five-county service area including: Leake, Neshoba, Newton, Scott, and Winston counties. The Winston County Project was designed to quickly provide employment opportunities to hundreds of TAA-eligible workers, veterans, displaced workers, and other adults in rural Winston County.



Figure 1. Location of Winston County in Mississippi.

population (i.e., TAA-eligible, displaced workers, and other adults in Winston County) to meet industry needs. The project involves providing participants with remediation, certification, or credit learning opportunities. The specific approach related to how the curriculum was selected, used, and created is detailed within the first evaluation question of this report. Figure 2 presents a schematic for how the students enter and progress through the project.

In this intervention, ECCC offered coursework and training credentials in a clear, stackable, and latticed sequence that were tightly aligned with employer-validated work readiness standards and competencies. The four programs offered were: (1) *Accelerated Remediation*; (2) *Manufacturing Safety*; (3) *Manufacturing Skills-Basic (MSB)*; and (4) *Electrical Technology Career Technical Education (Electrical Technology CTE)*. The theory of change undergirding the Winston County Project is that if TAA-eligible workers, veterans, displaced workers and other adults in Winston County, are provided with an opportunity to quickly complete employer-identified training, they will be in a position to be hired by local industry (also see Appendix A for the project logic model).

As encouraged by the Round 4 Solicitation for Grant Applications (SGA), the Winston County Project builds on previous work conducted by TAACCCT grantees to prepare the project’s target population (i.e., TAA-eligible, displaced workers, and other adults in Winston County) to meet industry needs. The project involves providing participants with remediation, certification, or credit learning opportunities. The specific approach related to how the curriculum was selected, used, and created is detailed within the first evaluation question of this report. Figure 2 presents a schematic for how the students enter and progress through the project.

<sup>3</sup> The exact amount of the grant was \$2,499,950.00.

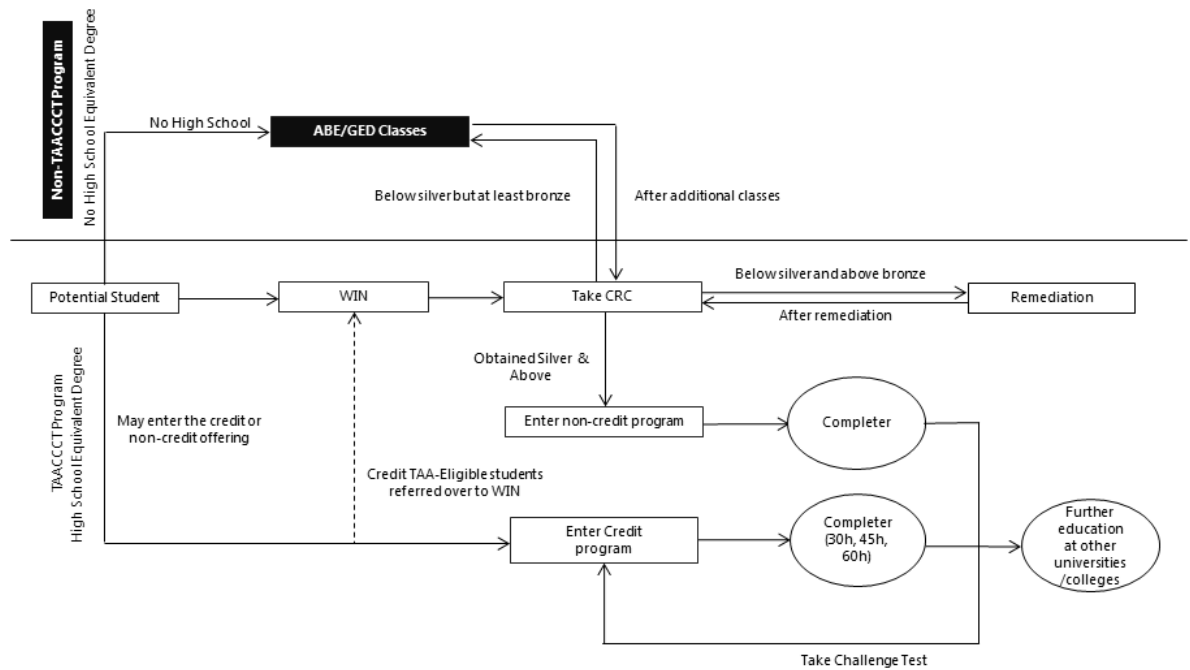


Figure 2. Visual overview of the Winston County Project.

## Background on TAACCT

In 2009, Congress authorized the USDOL TAACCT grant to allow eligible higher education institutions to make significant reinvestments to address the “challenges of today’s workforce” as part of the American Recovery and Reinvestment Act. Beginning in 2011 and across four rounds of funding, the USDOL awarded nearly \$2 billion dollars to 256 grants attempting to award a project in each state for each round of funding. Winston County Project was funded during the Round 4 funding cycle.

## Overview of the Report

Round 4 grant recipients were required to complete an implementation study and an outcome/impact study. This report captures these findings and unfolds in the following way: after the background, an overview of the evaluation plan is provided. In the next two sections, the findings from the implementation and outcome studies are presented. The report ends with key lessons learned and implications to future education and workforce development research efforts.

## Section II: Evaluation Design and Focus

Early within the life cycle of the project, the project team contracted with The Rucks Group, LLC to serve as the third-party evaluator. Again, the theory of change undergirding the Winston County Project is that if the target population in Winston County are provided with an opportunity to participate in and complete training applicable to industry, they will be in a position to be hired for available positions in the field. Also, they will be more likely to complete such training if they also receive accelerated remediation and additional support throughout their academic training.

The third-party evaluator, project team, and data analyses firm partnered to develop and gain approval for the detailed evaluation plan for the Winston County Project (Rucks, Clasen, & Johnson, 2014). Through that work, an implementation analysis and an outcome/impact analysis were outlined and used to guide the work reported in this document. Early within the project's life, these entities also worked together to identify data needs such as: age, race, gender, veteran status, employment status, educational status, and TAA-eligibility.

### Implementation Study

The implementation study was designed to assess how the Winston County project was created and the ongoing monitoring of the operations of the program. The implementation study was driven by four required DOL questions supplemented by project level evaluation questions (see Appendix B). The implementation study utilized a mixed-methodological approach, gathering both quantitative and qualitative data. Specifically, data were gathered from document reviews, focus groups, surveys, and proprietary data sources. Data were gathered from these sources across all three years of the project implementation timeframe except data gathered from proprietary data sources were only gathered in the final year of the project.

<b>Implementation Study Data Sources</b>
<ul style="list-style-type: none"><li>• Site visits</li><li>• Document reviews</li><li>• Focus Groups</li><li>• Surveys</li></ul>

Site visits. A total of three site visits were completed, one across each year of the implementation phase of the project. During each of the site visits focus groups and interviews with the project team, instructors, or participants were completed. Additionally, site visits often included tours of key locations. During the site visits the evaluation team met with members of the data analyses team from the National Strategic Planning and Analysis Research Center (nSPARC). nSPARC is a unit of Mississippi State University with the mission to “advance the use of data science to drive human progress.”

Document review. Project level documents such as communications with Federal Program Officers (FPOs), internal program evaluation review documents, internal site visit monitoring documents, and quarterly reports submitted to the USDOL, were reviewed to assess the completion of tasks while also understanding the factors that catalyzed and impeded project implementation.

Focus groups & interviews. The evaluation team conducted structured focus groups and/or interviews with participants, project staff, and representatives from partnering organizations. Suggestions for strengthening the implementation were provided after each annual site visit and through the production of annual reports.

Surveys. Satisfaction surveys were disseminated to participants at targeted pulse points throughout the implementation phase of the project.

## Outcome and Impact Study

The outcome and impact studies were designed to understand how the Winston County project participants performed on key outcome measures (see Appendix C). The overarching question driving these studies was *What difference did the Winston County Project have on project participants?* The distinguishing factor between the outcome and impact study methodology is the absence (or presence) of a comparison group. The absence of a comparison results in an outcome study; whereas, the inclusion of a comparison group results in an impact study. Consistently, the use of the study type was dependent on availability of a comparison group.

### Outcome and Impact Study Data Sources

- Project Level Data
- State Wage Data
- Clearinghouse Data

Recall that the Winston County Project delivered four different program offerings, as such a comparison group was not available for all offerings. Additionally, for a program offering in which a comparison group was available, Electrical Technology CTE, enrollment was not at a level to warrant utilizing an outcome study design. Consequently, understanding the difference that the project made on participants was achieved differently for each offering (see Table 1).

Program Offering	Available Comparison Group	Sufficient Participation Size	Study Type
Accelerated Remediation	No	N/A	Outcome
Manufacturing Safety	No	N/A	Outcome
MSB	Yes	Yes	Impact
Electrical Technology CTE	Yes	No	Outcome

Table 1. Overview of outcome and impact design approach for each certificate offering of the Winston County Project.

Data for the outcome and impact study were gathered through project level data, state wage data, and proprietary data.

Project Level Data. Data regarding various aspects of individual participation such as start, date, certificate offering, continuation into other stackable components were captured at the project level.

State Wage. nSPARC maintains a state-wide longitudinal workforce data base. The data base was leveraged to identify the needed comprehensive stage wage data for the Winston County Project.

Proprietary Data. Data regarding the continuation of education after completing the project were obtained from the National Student Clearinghouse. The National Student Clearing house is a non-profit organization that provides degree and enrollment verification data.

## Section III: Implementation Study Findings

The findings in this report represent qualitative and quantitative data collected over the course of the project.

### **How was the particular curriculum selected, used, or created?**

During the proposal development phase, ECCC and its sector partners conducted a gap analysis to determine which previously funded TAACCT program would be most appropriate within the current regional context. From the gap analysis the project team identified 12 areas that needed to be addressed to meet advanced manufacturing workforce needs. The resulting product from this work is presented in (Appendix D). Based on findings that emerged from the gap analyses and after reviewing several previously funded TAACCCT grants, ECCC opted to offer three (3) stacked and latticed credentials. The project decided to offer these credentials based on the strategic framework articulated by the Round 2 – Missouri Manufacturing Workforce Innovation Networks project. The dimensions of the framework included:

1. Build programs that meet industry needs
2. Enhance career pathway options for learners and workers
3. Accelerate and improve certification and employment attainment
4. Strengthen online and technology-enabled learning

Other TAACCCT funded projects have also replicated this approach (e.g., Round 3, the East Mississippi Community College (EMCC) Golden Triangle Manufacturing Project). Based on these strategic efforts, the corresponding programs were expanded and improved. How these modifications were achieved is addressed in the response to the next evaluation question.

### **How were programs and program design improved or expanded using grant funds? What delivery methods were offered? What was the program administrative structure? What support services and other services were offered?**

#### **Program Expansion**

The Winston County Project expanded program design by offering four stacked and latticed credentials: *Accelerated Remediation, Manufacturing Safety, MSB, and Electrical Technology CTE*. ECCC partnered with the Mississippi Department of Employment Security (MDES), its Workforce Investment Network (WIN) Job Centers and the Mississippi Partnership Workforce Investment Board to recruit and qualify TAA eligible workers, veterans, displaced workers, and other adults in Winston County for this project. Each credential is summarized in the following section (also see Table 2).

Accelerated Remediation. To provide remediation for workers with low literacy or math skills, ECCC adapted the evidence-based I-BEST instruction model to develop an accelerated remediation program oriented to skills that local employers require. The program is competency-based and includes self-paced, technology-enabled learning. Exiting remediation and entering into Manufacturing Safety or MSB required the obtainment of a silver, gold, or platinum national career readiness certificates.

Manufacturing Safety. In response to a stated industry need, the project team sought and gained approval during Year 2 to create an introductory 24-hour program to the MSB program. The Manufacturing Safety program provides an introduction to modern manufacturing (lean and quality) plus OSHA and CPR training. The resulting



Manufacturing Safety credential is offered independent of the MSB credential. Earning a Manufacturing Safety credential certificate prepares workers for entry level production jobs.

MSB. The MSB credential offers an introduction at a greater depth than the Manufacturing Safety program. The 94-hour MSB program provides an overview of advanced manufacturing using technology-enabled training tools and includes training in precision measurement, blueprint reading, lean manufacturing, safety, basic computer skills, and high-performance manufacturing. Earning a MSB credential certificate provides a solid foundation for an entry level production job.

Additionally, the Course Challenge Examination was developed to provide institutional credit for students who have mastered the outcomes of the non-credit MSB course. The Course Challenge Examination would allow students the opportunity to pass a challenge examination offered by a qualified faculty member for students to demonstrate mastery of course content, gain transfer credit on their transcript subject to enrollment at ECCC, or advance into the ELT credit program.

Electrical Technology CTE. To address the need for better career pathway options for manufacturing workers, ECCC modified its existing Electrical Technology CTE program by embedding credentials and skills training recommended by local industry and modularizing the program into 30-hour, 45-hour, and 60-hour components to accelerate certification and employment by providing multiple exit points. This program was made readily accessible by using hybrid and technology-enabled training systems at ECCC’s Louisville Center in Winston County. For completion of the Electrical Technology CTE program, ECCC established NCCER Core, NCCER Electrical Level I, to be awarded at the 30-hour career certificate and NCCER Electrical Level II assessments to be awarded at the 45-hour as alternative exit points to the 60-hour Associate in Applied Science (AAS) degree. For students who were interested in continuing their education by obtaining a bachelor’s degree, an articulation agreement was established with Mississippi University for Women (MUW). However, due to the lack of demand the credit program at the Louisville Center was discontinued in Year 3.

Remediation: Career Readiness Timeframe: Self-Paced
MS <sup>4</sup> : Career Readiness, OSHA, and CPR Timeframe: 24 hours
MSB: Career Readiness, OSHA, and CPR Timeframe: 94 hours
Electrical Technology Program (30 hour): NCCER Core and NCCER Electrical Level 1; Timeframe: 1 semester
Electrical Technology Program (45 hour): NCCER Electrical Level 2 Timeframe: 1 semester
Electrical Technology Program (60 hour): NCCER Electrical Level 3 Timeframe: 1 semester
Articulation with MUW: Bachelor’s Degree Timeframe: 4 – 6 semesters Beginning engineer/ technician

Table 2. Overview of the stackable and latticed training model for the Winston County Project.

<sup>4</sup> MS = Manufacturing Safety

## Administrative Structure

The project administrative structure involved several individuals with varying roles and responsibilities to ensure effective coordination and timely completion of tasks (see Figure 3). A benefit of the administrative structure is that it well-positioned the project to be integrated into the institution for optimal sustainability once the funding period ended.

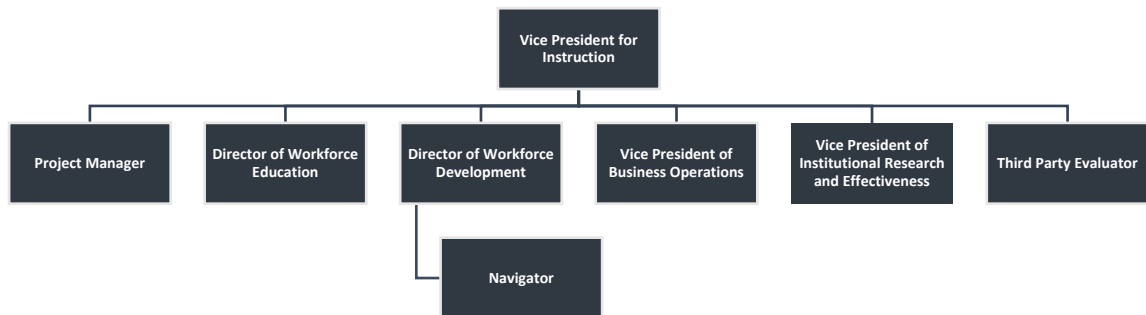


Figure 3. Overview of the administrative structure for the Winston County Project.

Overall project oversight was provided by the Vice President for Instruction and the Project Manager. The Director of Workforce Development with support provided by the Operations Manager oversaw the non-credit programs (i.e., Accelerated Remediation, Manufacturing Safety, and MSB), while the Director of Workforce Education oversaw the credit program (i.e., Electrical Technology CTE). The Vice President of Business Operations provided the fiscal oversight and the Vice President of Institutional Research and Effectiveness was responsible for data gathering. A Navigator reporting into the Director of Workforce Development was responsible for recruiting, coaching, providing support services, and placing participants. While in the earlier iterations of the work, the Navigator provided services only to students completing remediation training, over time the Navigator provided services to all participants in the project.

Also of importance is that a leadership team, discussed in greater detail later in this report, informed key aspects of the project development and implementation.

**Did the grantees conduct an in-depth assessment of participants' abilities, skills and interests to select participants into the grant program? What assessment tools and processes were used? Who conducted the assessment? How were the assessment results used? Were the assessment results useful in determining the appropriate program and course sequence for participants? Was career guidance provided and if so, through what methods?**

In conjunction with the MDES and its WIN Job Centers, as well as the Mississippi Partnership Workforce Investment Board, ECCC recruited qualified TAA-eligible and other workers. Participants entering the Winston County Project were given the ACT WorkKeys assessment to determine the appropriate curriculum path. The ACT

WorkKeys is a job skill assessment system that assists in the selection, hiring, training, and development of workers by measuring foundational and soft skills that can be targeted toward institutional needs.<sup>5</sup>

Those not meeting the minimum requirement (i.e., Silver level or higher) utilized the WorkKeys Career Ready 101 as an alternative training curriculum in the remediation program. ECCC adapted the evidence-based I-BEST contextualized instruction model in the development of the accelerated remediation program, which included personalized and self-paced technology-enabled learning through the Internet-based ACT WorkKeys Career Ready 101 training system and Amatrol e-Learning manufacturing skills training system. Participants in the remediation program were required to retake the ACT WorkKeys National Career Readiness Credential to achieve a Silver level or higher. Upon earning of this credential, the participant may exit the program and progress to a non-credit program. Consistent with emerging best practices, the Navigator was also available for students to seek career advice, in addition to the previously noted duties of tracking students' progress through the Amatrol e-Learning system, while reinforcing coursework, assignment completion, and attendance.

**What contributions did each of the partners (employers, workforce system, other training providers and educators, philanthropic organizations, and others applicable) make in terms of: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging resources, and 8) commitment to program sustainability? What factors contributed to partners' involvement or lack of involvement in the program? Which contributions from partners were critical to the success of the grant program? Which contributions from partners had less of an impact?**

The Winston County Project was designed as an industry-focused project. As such, the project team leveraged regional partner resources to effectively implement the project through the development of a "leadership team."<sup>6</sup> The areas of involvement included: *Program design* involves all the decisions of inclusion or exclusion of the elements involved in the learning process; *Curriculum development* relates to the didactic areas of a program offering; *Recruitment* is the identification of participants in the project; *Training* refers to the professional development targeted to instructors or when involving participants activities that are not program offering specific; *Placement* involves the hiring of program completers; *Leveraging resources* is the obtainment of cash or-kind resources; and *Commitment of Sustainability* refers to the willingness to transition the program from "grant" status to institutionalization of the project.

The leadership team consisted of representatives from ECCC's staff, organization employers (Winston Plywood & Veneer, Taylor Machine Works, and Polo Custom Products), The Montgomery Institute grant staff, MDES and WIN Center personnel, as well as local economic development representatives from Winston County and Louisville. The group met on a monthly basis; however, representatives of each organization were not necessarily at every meeting. Together, these organizations were involved with curriculum development to ensure alignment with industry needs, as well as with recruitment activities.

Another function of the leadership team was to play an integral role in recruitment. Participation by local organizations was excellent with one exception. During the grant period significant management turnover occurred at Winston Plywood & Veneer. As a result, the company's participation waxed and waned over the course of the grant. It is important to note, however, that towards the end of the grant the participation in the non-credit training did increase and has continued post the completion of the implementation phase of the project.

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<sup>5</sup> For additional information regarding the ACT WorkKeys assessment, follow <https://www.act.org/products/workforce-act-workkeys/>

<sup>6</sup> Appendix D presents each partnering organization and the role that they play within these various areas.

**How effective are the recruitment activities in recruiting participants? TAA eligible participants? veteran participants? If enrollment levels are not achieved, how are recruitment activities modified to attract additional participants?**

Overall, it was projected that 722 unique participants would be served by the project; in actuality 302 unique participants were served<sup>7</sup> (see Table 3). The participation projections were based on documented industry demand. Moreover, consistent with workforce best practices, it was assumed that three individuals would receive training for each expected new position created at Winston Plywood & Veneer. Enrollment objectives were articulated for each of the stacked and latticed credentials. Of relevance, during Year 2 of the grant, the project team received approval to offer a Manufacturing Safety course. It was expected that by offering the Manufacturing Safety course that enrollment in MSB would be lower than originally projected but that the Manufacturing Safety and the MSB participation combined would achieve the targeted number of participants projected for the MSB program alone.

Credential Program	Estimated Enrollment	Actual Enrollment
Accelerated Remediation	200	81
Manufacturing Safety + Manufacturing Skills – Basic (MSB; noncredit)	650	242
Electrical Technology Career and Technical Education (credit)	66	9

Table 3. Enrollment estimates and actual enrollment through December 31, 2017.<sup>8</sup>

ECCC partnered with the MDES, its WIN Job Centers, the Mississippi Manufacturing Association (MMA), and the Mississippi Partnership Local Workforce Investment Board (LWIB) to recruit and qualify TAA eligible workers, veterans, displaced workers and other adults in Winston County. Recruitment occurred through brochure distribution, radio advertising, and forum presentations. The recruitment efforts were achieved through a joint effort between the Navigator and Center Operations and Data Coordinator.

By the end of Year 1 with 34% of the projected enrollment for the first year achieved (projected enrollment was 202 and actual was 69), additional recruitment efforts were directed at increasing participation. These additional efforts included: recruiting trips to Louisville Vo-Tech, Winston Academy, and the Red Hills Festival to distribute fliers, brochure dissemination, radio campaign, and discussions with interested participants. Establishing an evening course for incumbent workers was implemented to potentially reach nontraditional participants. Recruiting did improve in Year 3 when Taylor Machine Works made the Career Readiness Assessment and the Manufacturing Safety and the Silver Career Readiness Certificate program prerequisites for employment. Participant enrollment continued to accelerate over the life of the project, unfortunately the projected recruitment was not achieved during the project implementation phase (see Figure 4).

<sup>7</sup> Table 3 does not reflect unique participants.

<sup>8</sup> The project team received permission to extend program services through December 31, 2017.

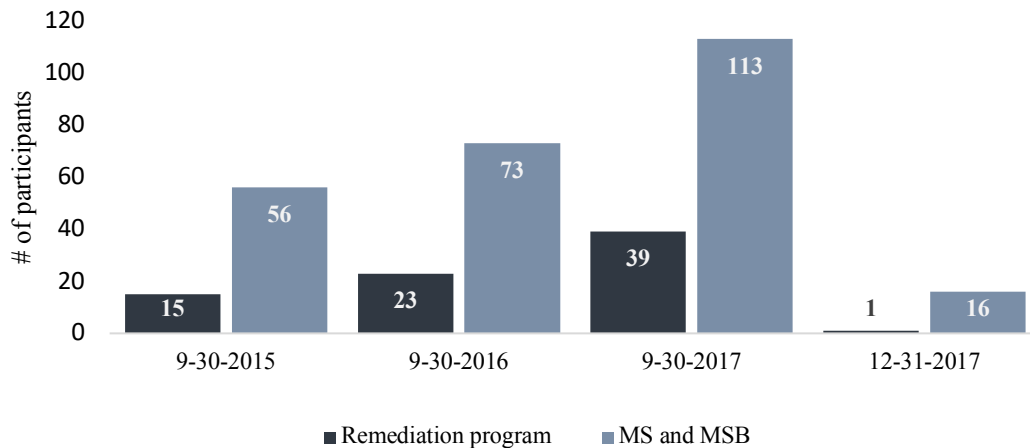


Figure 4. Non-credit participant enrollment by year and the program extension period.

Consistently, recruitment of TAA eligible and veteran participants was also lower than expected. There were only four TAA-eligible participants (1%) of the total 302 participants who participated in the Winston County Project. Overall, 20 (7%) of the participants self-reported veteran status. This figure is on par with the percent of veterans (6%) in Winston County (U.S. Census Bureau, 2014).

Through conversations with project leaders and Winston County Project participants, low participation is likely attributable to the lack of strong employer demand. Management turnover and resulting pressing workforce needs at the Winston Plywood & Veneer impacted on the use of the Manufacturing Safety and MSB program as a pre-hire training program.

While recruitment goals were not achieved, individuals who participated in the project reported high levels of satisfaction (see Figure 5). Indeed, in surveys disseminated at the end of non-credit offerings, over 90% of respondents indicated agreement (strongly agree and agree) to a series of questions related to training satisfaction (56% response rate). Additionally, qualitative comments from participants provided strong feedback about the program offering content, the support and encouragement of the instructor, and the overall difference the project made on their lives. For instance, participants shared that completing the program offered an opportunity for increased pay and to be a role model for other family members. Similarly, an industry representative in a focus group discussion stated that the program was “changing the conversation at the dinner table” from one of despair to one of hope.

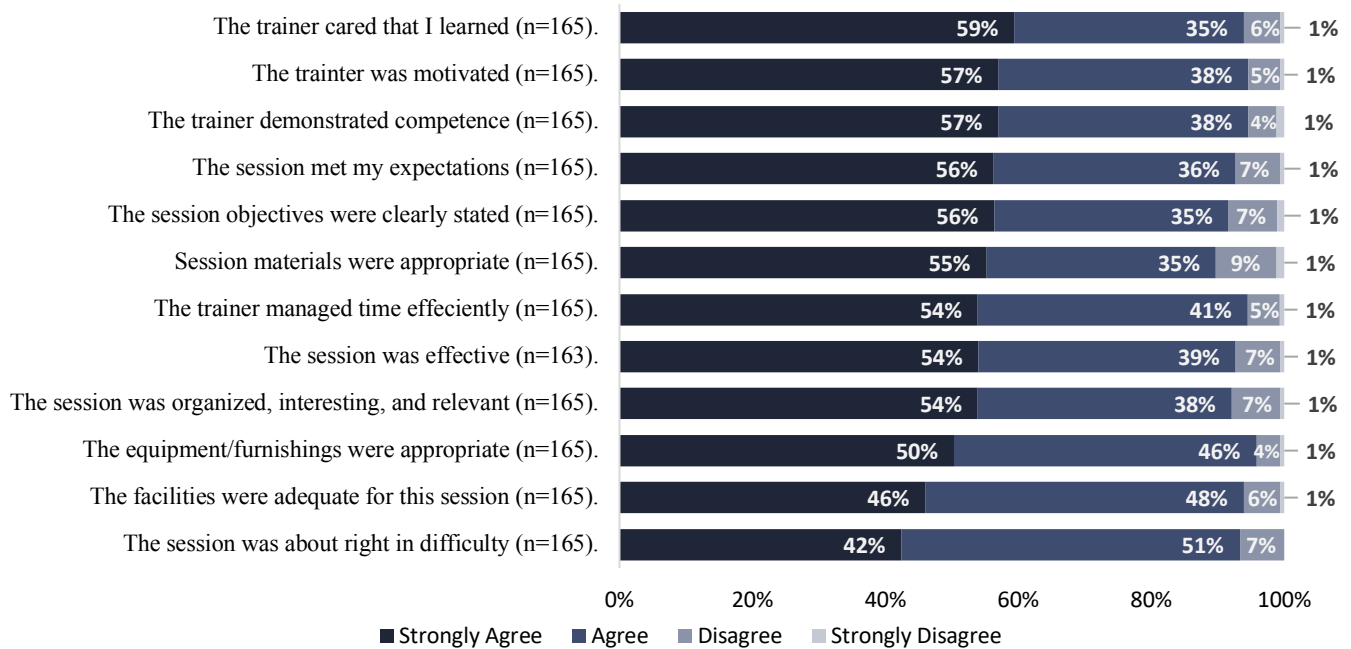


Figure 5. Reported satisfaction of training by non-credit participants.

**Are participants obtaining skills needed by industry (e.g., are participants more marketable)? Is industry providing internships and hiring project participants?**

The Winston County Project was designed as an industry driven initiative with the majority of the hiring expected to occur by Winston Plywood & Veneer and supplemented by Taylor Machine Works (see Figure 6). There are no other organizations in ECCC’s service area that would be able to hire to scale as anticipated by the project. In actuality, the majority of hiring occurred by Taylor Machine Works with hiring also occurring by a large number of smaller organizations. But it should be noted that these hires while higher than expected are not at the level that was projected by Winston Plywood & Veneer. As such, ECCC staff continually engaged with industry partners regarding the Manufacturing Safety, MSB, and the Electrical Technology CTE programs to seek input on curriculum content and customization of the programs to create alignment with industry needs. Because of this coordination, participants are indeed obtaining skills needed by industry. For instance, Taylor Machine Works made completing the Manufacturing Safety training a requirement for production worker employment beginning January 1, 2017. Also, the Yokohama Tire Plant, located in Clay County (about two counties north of Winston County), is also hiring individuals from the Winston County community post project implementation.

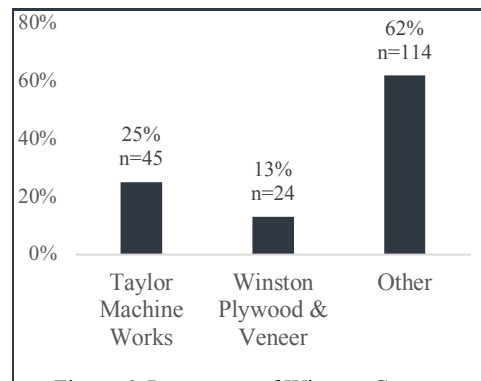


Figure 6. Percentage of Winston County Project completers employed by employer.

There were two motivating rationales for Taylor Machine Works mandating the Manufacturing Safety program for hire. First, the ability of new hire candidates to quickly and independently complete the requirement is informative in the hiring process. Second, having new hire candidates complete the Manufacturing Safety

component promotes a safer work environment because safety training may not be available on the first day of employment. In an interview with an industry representative from Taylor Machine Works it was noted that anecdotal evidence suggests that safety is improving at the plant. Indeed, the emphasis on safety was also shared by actual new hires. In a focus group discussion with Manufacturing Safety and MSB participants, they indicated that safety training is important because the floor is “only as safe as the behaviors of others working on the floor”. Because of the value of these programs, Taylor Machine Works also made completing the MSB a requirement for any advancement at the plant.

### **What difference is the entrepreneurial training making on students?**

One component of the Winston County Project is to provide entrepreneurial training for students seeking a career in the manufacturing industry. ECCC Small Business Development Center (SBDC) staff met with the Winston County Business and Industry Incubator to begin developing entrepreneur training and incubation opportunities for program participants. Only one student took advantage of the entrepreneurial training.

### **How was institutional capacity expanded?**

Throughout the life of the grant, institutional capacity was expanded in the following ways: strengthening of partnerships, development of stacked and latticed curriculum, creation of a new training facility, addition of the Navigator role to assist students, and identification of appropriate instructors for this particular audience. Regional partnerships have been expanded through the Leadership Team. During monthly meetings, key entities regularly engage in dialogue allowing for an effective communication of needs and allocation of resources. As discussed in previous sections of this report, institutional capacity expanded with the addition of the stacked and latticed curriculum.

Additionally, early in the development of the Winston County Project, hidden damage from the tornado at the existing training facility was discovered, making the center temporarily unusable. This situation was reported to the Federal Project Officer and permission was granted to delay the start of the project’s training programs. ECCC began working to obtain an alternate training site to replace the damaged facility. A new building in Louisville, a nearby city, was secured and leased to serve as ECCC’s new training facility. This site was expected to offer the Manufacturing Safety, MSB training, and the Electrical Technology CTE program. The Manufacturing Safety and MSB training are new offerings and the Electrical Technology CTE program was previously only offered at the main campus. Additionally, the Louisville site introduced a new hybrid format of the course. Instruction is delivered to enrolled participants in Louisville via a live internet stream from an in-person instructor at the Decatur campus. The ability to offer the course at this additional site required securing additional instructors and the participation of the Navigator. Unfortunately, renovations to the new facility did not occur during the project implementation phase as the City’s access to FEMA funds was delayed. The ELT program operated briefly in the new Louisville building but moved back to the old location when upgrades to power and other renovations did not occur.



## Section IV: Outcome and Impact Study Findings

The overarching question of the outcome and impact study is: *To what extent did the Winston County Project increase workers’ and wages?* Each of the four programs of study were associated with differences in the availability of an appropriate comparison group with sufficient sample size that would make an impact study feasible. At project onset, it was understood that an outcome study would not be conducted on the Accelerated Remediation program because a viable comparison group was not available. Similarly, after the Manufacturing Safety program was implemented a viable comparison group did not exist. An impact study was conducted on the MSB program because a comparison group of sufficient size existed. However, the comparison group for ELT fell below the threshold needed to complete an impact study (minimally 30 participants from the treatment group), therefore an outcome study was conducted.

### Outcome Study Findings

Towards addressing the outcome question, the USDOL required funded projects to gather data around nine outcome measures. The findings from these outcome measures are presented below. A discussion on the context for each of the outcome measures follows.

Outcome Measure and Definition	Goal	Actual
1. <i>Total unique participants served</i> : Cumulative total number of individuals entering any of the grant-funded programs offered.	722	302
2. <i>Total who have completed a grant-funded program of study</i> : Number of unique participants having earned all of the credit hours for the award of a degree or certificate in any grant-funded program.	537	230
3. <i>Total number still retained in their program of study (or other grant-funded programs)</i> : Number of unique participants who did not complete and are still enrolled in a grant-funded program of study.	86	36
4. <i>Total number of students completing credit hours</i> : Total number of students enrolled that have completed any number of credit hours to date.	110	9
5. <i>Total number of participants earning credentials</i> : Total number of participants completing degrees and certificates in grant-funded programs of study.	537	230
6. <i>Total number pursuing further education after program study completion</i> : Total number of students who complete a grant-funded program of study and enter another program of study, grant-funded or not.	90	59
7. <i>Total number employed after program of study completion</i> : Total number of participants (non-incumbent workers) who complete a grant-funded program of study who are employed during the quarter after the quarter of program exit.	243	98
8. <i>Total number retained in employment after program of study completion</i> : Total number of students (non-incumbent workers only) who completed a grant-funded program of study and who entered employment in the quarter after quarter of program of exit who retained employment in the second and third quarters after program exit.	219	63
9. <i>Total number of those participants employed at enrollment (incumbent workers) who received a wage increase post-enrollment</i> : Total number of students who are incumbent workers (i.e., employed at enrollment) and who enrolled in a grant-funded program of study who received an increase in wages after enrollment.	243	72

Table 4. Project level data of outcomes through December 31, 2017.

### Unique Participants Served

It was anticipated that across the program offerings that 722 unique individuals would be served. The project was actually able to serve 302 unique individuals (Outcome #1). The rationale for the lower than expected number of unique participants served was provided in the Implementation Analysis.

		N	%
<b>Race</b>	African American	202	67%
	White	99	33%
	Other	1	<1%
<b>Gender</b>	Female	82	27%
	Male	220	73%
<b>Age</b>	≤ 25	49	16%
	26 - 35	92	31%
	36 - 50	115	38%
	≥ 50	46	15%

Table 5. Demographics for all Winston County participants (n=302).

### Completion and Retention

Of the 302 unique individuals served, 230 completed a program of study (Outcome #2) yielding a completion rate of 76%. This rate is on par with the originally expected completion rate of 74%; that is, it was expected that 537 individuals out of 722 unique individuals being served would complete a grant-funded program of study.

The project team had expected that 86 individuals would be retained in the program at project end. The number of participants retained was expected to be driven by students who needed to retake a class and/or credential assessment. Thirty-six individuals were actually retained (Outcome #3). That number represents individuals who were still completing the Manufacturing Safety or MSB program, having started in December 2017, and ELT students.

### Credit Hours and Credentials Earned

The Winston County Project includes both a credit and non-credit program. Only a small number of individuals (nine) participated in the credit program, but all of those individuals earned credit hours (Outcome #4). It is encouraging, however, that while 230 unique individuals earned an educational credential, 644 credentials were earned overall representing the obtainment of both educational and industry-recognized credentials (Outcome #5).

### Continuation of Education Experiences

It was projected that 90 individuals would continue their education. Based on data obtained from the National Student Clearinghouse and internal project level data, a total of 59 participants pursued further education after completing a Winston County program (Outcome #6). Interestingly, there were a number of individuals who continued into other programs offered by the Winston County Project. For instance, 29 (36%) individuals who completed remediation training continued to complete a Manufacturing Safety or MSB credential. Moreover, 31 (10%) individuals continued into two other latticed programs offered by the Winston County project. A total of 28 (9%) individuals enrolled in at least one course at a two- or four-year postsecondary school.

## Non-incumbent and incumbent employment

There are three outcome measures related to non-incumbent and incumbent workers who participated in the Winston County project. Of the 111 non-incumbent workers who completed the program, 98 (88%) were employed the quarter after the quarter of program exit (Outcome #7). Moreover, 63 of those workers (64%) were retained in employment the second and third quarters after program exit (Outcome #8). For incumbent workers, 72 of the 118, (61%) received an increase in wages after enrolling (Outcome #9).

## Impact Study Findings

The impact analysis used a comparison quasi-experimental research design to examine differences between participants enrolled in the MSB Winston County Project credential led by ECCC and participants enrolled in the MSB Golden Triangle Project led by EMCC. As noted earlier in the report, both of these projects were modeled after the USDOL TAACCCT Round 2 Project, Missouri Manufacturing Workforce Innovation Networks project with the EMCC's Golden Triangle Project awarded in Round 3 and ECCC's Winston County Project awarded in Round 4. Because both the Winston County Project and the Golden Triangle Project are grant funded projects, it is not expected that there would be significant differences in key outcomes across projects. As such, the question of interest concerns if the outcomes for both of these programs are similar.

A quasi-experimental design method rather than an experimental design was chosen because there were not enough participants expected to effectively implement random assignment. To reduce the chance that unknown variables could be responsible for the observed outcomes, a propensity score match technique was employed.<sup>9</sup> Essentially, this technique statistically matches “treatment” and “control” groups based on selected variables. In the current context, matching identified race, gender, age, Pell eligibility, and veteran status to strive to make the two groups equivalent at baseline by balancing the two groups. The plot of the propensity score match before balancing and after balancing is presented in Figure 7.

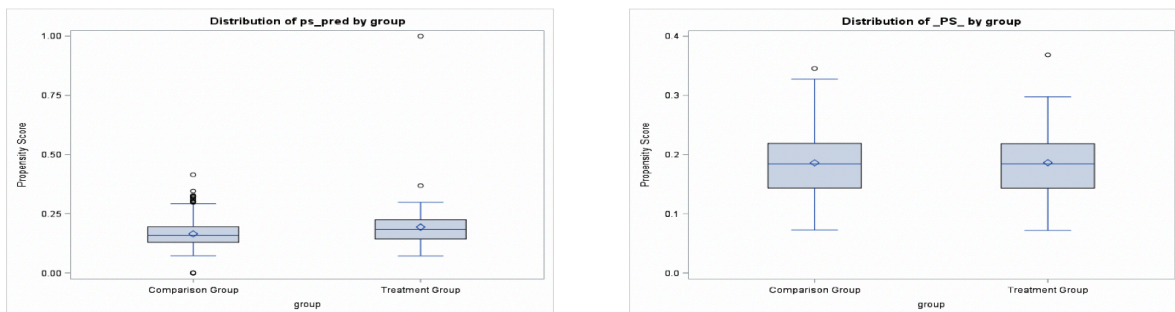


Figure 7. Results of balance check before (on the left) and after (on the right) the propensity score matching.

<sup>9</sup> Data analyses for the Impact Study was completed by nSPARC.

Below is an overview of the demographics of the two groups.

		Winston County Project		Golden Triangle Project	
		N	%	N	%
<b>Race</b>	African American	73	69%	149	70%
	White	33	31%	63	30%
<b>Gender</b>	Female	31	29%	70	33%
	Male	75	71%	142	67%
<b>Pell</b>	Not eligible/missing	90	85%	188	89%
	Eligible, not receive money	3	3%	4	2%
	Eligible, and receive money	13	12%	20	9%
	Age	35.91	---	36.88	---
	Total	106	100%	212	100%

Table 6. Demographics for the impact study sample.

## Results

Initial employment rates were higher for the Golden Triangle Project than for the Winston County Project. However, job retention rates were comparable across the two projects (see Figure 8).

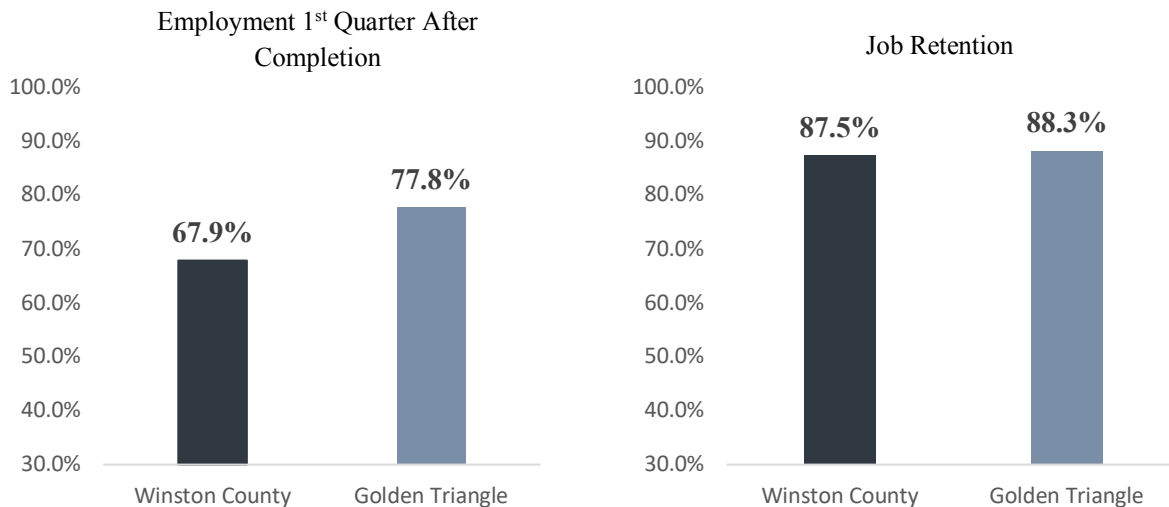


Figure 8. Employment and retention rates by project type.

Because of the nature of the sample, these results are focused on individuals' wages. The average annual wage earned by a participant completing the Winston County Project (\$25,368) did not differ statistically from the average

annual wage earned by participants in the Golden Triangle Project (\$25,558). Additionally, these wages were higher than the average wage within the respective service areas (see Figure 9)<sup>10</sup>.

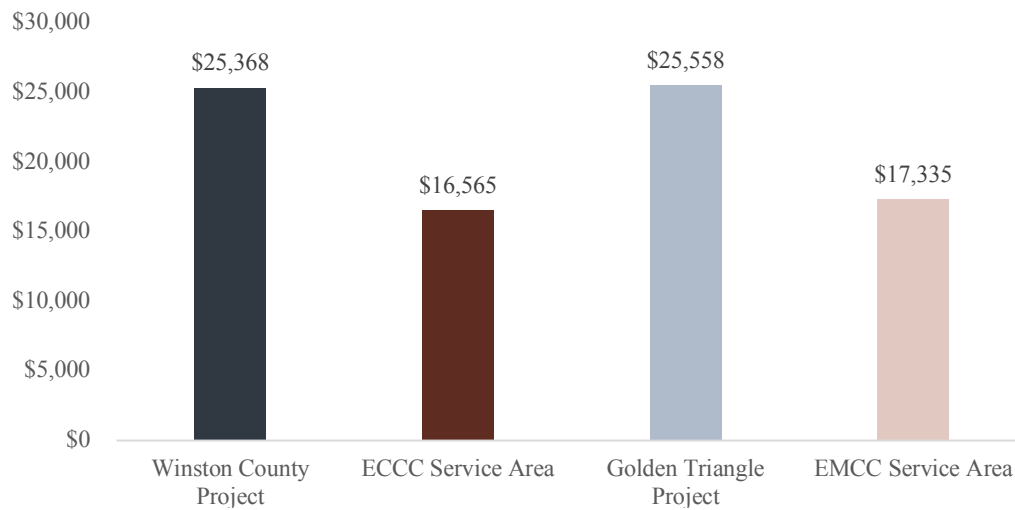


Figure 9. Average annual wages by project and related service area.

Similarly, across multiple quarters, the wages between the two groups did not statistically differ until nearly two years out from program completion ( $p = .03$ ; Figure 10). This finding could be explained by the encouragement to continue education provided by the major employer in EMCC’s service area, Yokohoma Tire. Indeed, in the sample that was used for these analyses, only one individual continued education from the Winston County Project, whereas 20 individuals continued education from the Golden Triangle Project.

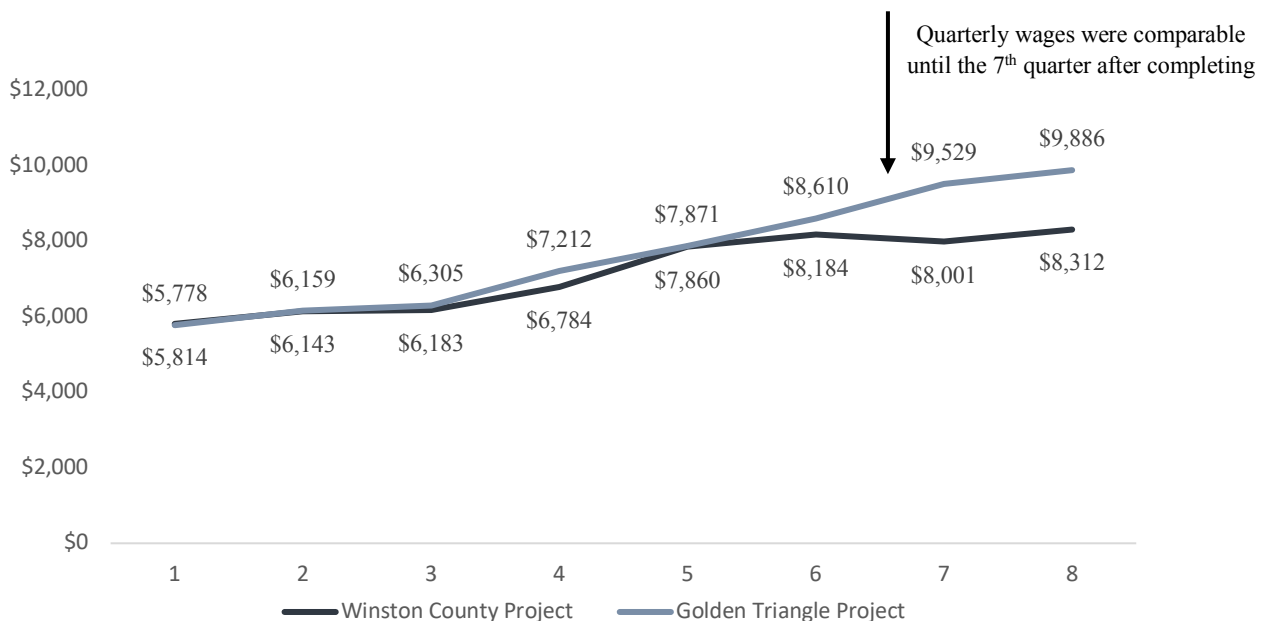


Figure 10. Average quarterly wages by project for eight quarters after completion.

<sup>10</sup> Based on data obtained from [https://en.wikipedia.org/wiki/List\\_of\\_Mississippi\\_locations\\_by\\_per\\_capita\\_income](https://en.wikipedia.org/wiki/List_of_Mississippi_locations_by_per_capita_income)

## Section V: Conclusions and Lessons Learned

The activities of the project were effectively implemented in spite of a number of obstacles experienced. For instance, hidden damage from a tornado that hit the region prior to the grant impacted on the project's timeline. As a consequence, early within the lifecycle of the project, the project team requested and received approval for the adjustment in the timeframe for implementation. All activities and deliverables outlined were achieved within the adjusted timeframe. These activities include purchasing of equipment, establishing curriculum, identifying ECCC's new training facility, developing modules, hiring key staff (e.g., instructors and Navigator), and implementation of an entrepreneur training program. However, the inability to renovate the building due to a delay in FEMA funds and recruiting sufficient number of participants remained intractable obstacles throughout the life of the project.

The encouraging component is that participants and industry partners who fully leveraged the project obtained positive outcomes. As such, the Winston County interventions were successful in achieving the project's objectives. Moreover, the findings from the project advance the research on workforce development and highlights topics for additional research. These areas are summarized below.

### Effectively Recruiting Individuals

The Winston County Project provides valuable insights into the essential elements necessary to effectively recruit individuals into workforce development programs. As noted throughout the report, the enrollment targets were not achieved as expected. Results from the current project suggests that recruiting individuals involves several elements. First, employers' understanding of how the educational training of employees impacts the bottom-line. One rationale for Taylor Machine Works requiring the Manufacturing Safety course for hiring and the MSB course for advancement was the recognition that employees who received this training saved the company money. Anecdotally, the leadership at Winston Plywood & Veneer is also recognizing this importance, which has been attributed to the employer's increased interest in using the training programs after the end of the implementation period for the Winston County Project. Second, employers then must mandate these educational requirements to the workforce. Findings from this project suggest that there may not be enough intrinsic motivation by individuals to seek educational opportunities without employers requiring these credentials. Therefore, if advanced credentials will be obtained by the workforce, it likely will need to be required by employers. For a host of reasons, employers may be reluctant to make advanced credentials a requirement for hire. However, making the case of how a workforce with additional training makes good business sense will encourage employers to fold these requirements into the hiring process. Additionally, job candidates need to understand that obtaining these educational requirements are necessary to obtain meaningful employment. The educational requirements for a position need to be effectively communicated to job candidates with a consistent message. Finally, job candidates will need support to achieve those credentials that may include completing remediation work.

### Timing of Systems Changes

Related to the previous topic, the project highlights at its core the elements that are involved in systems changes. It is understood that changing the requirements for a position towards the inclusion of a certificate, requires a system change. A "system" is a "configuration of interaction, interdependent parts that are connected through a web of relationships" (Abercrombie, Harries, & Wharton, 2015, p. 6). In the present context, the system involves the relationship between the workforce development entities, the workforce, and employers. Achieving the goals of the

project, most importantly, the recruitment of workers, was contingent on the workforce development system. The need for systems change in a workforce development context is likely more pronounced when there are few major employers. Moreover, when there are fewer major employers, the system changes may take longer to be realized. For instance, Winston Plywood & Veneer is indeed moving towards requiring additional training for hiring, but it occurred after the implementation of the project.

### **Impact on Wages**

The results from this project indicate that individuals were obtaining meaningful employment and maintaining employment over a long period of time. Wage data were similar across two TAACCCT funded projects. Also encouraging, was that these wages were higher than the average wages in the region and overtime wages increased. The findings from the impact study fit nicely with the findings from the implementation study in that stakeholders indicated that the project was making a difference on the lives of individuals. The increase in wage has tangible benefits, in increased tax revenue and buying power, as well as intangible benefits, such as an increased sense of hope.

Taken as a whole, the findings also indicate that educational attainment positively impacts on wages. The impact study more directly supports this claim. Additionally, emerging evidence supports the impact of educational attainment such that within the 7<sup>th</sup> and 8<sup>th</sup> quarter wages for EMCC's Golden Triangle Project increased. It is suspected that this increase occurred because management encouraged workers to continue their education at the plant for which most completers were employed. Indeed, in the impact study a larger percentage of participants from the EMCC's Golden Triangle Project than from the ECCC's Winston County Project continued their education.

### **Implications to Workforce Development Research**

As the nation makes investments in retraining programs targeted to TAA-eligible workers, veterans, displaced workers, and other adults, continued research to advance workforce development initiatives is needed. An area for additional research that this project points to is in conducting research to understand the implementation of workforce development initiatives within a rural context. Rural communities are continuing to have smaller economic gains than their more urban counterparts. The context for a rural community is different from an urban community such as the difference in the number of major employers. Research needs to be targeted towards understanding the best ways to bring the prosperity gained in urban communities to rural communities by understanding the contextual difference of implementing workforce development programs. By understanding these contextual differences, initiatives can be better designed for rural communities. In this way, the nation's prosperity can be shared by all citizens.

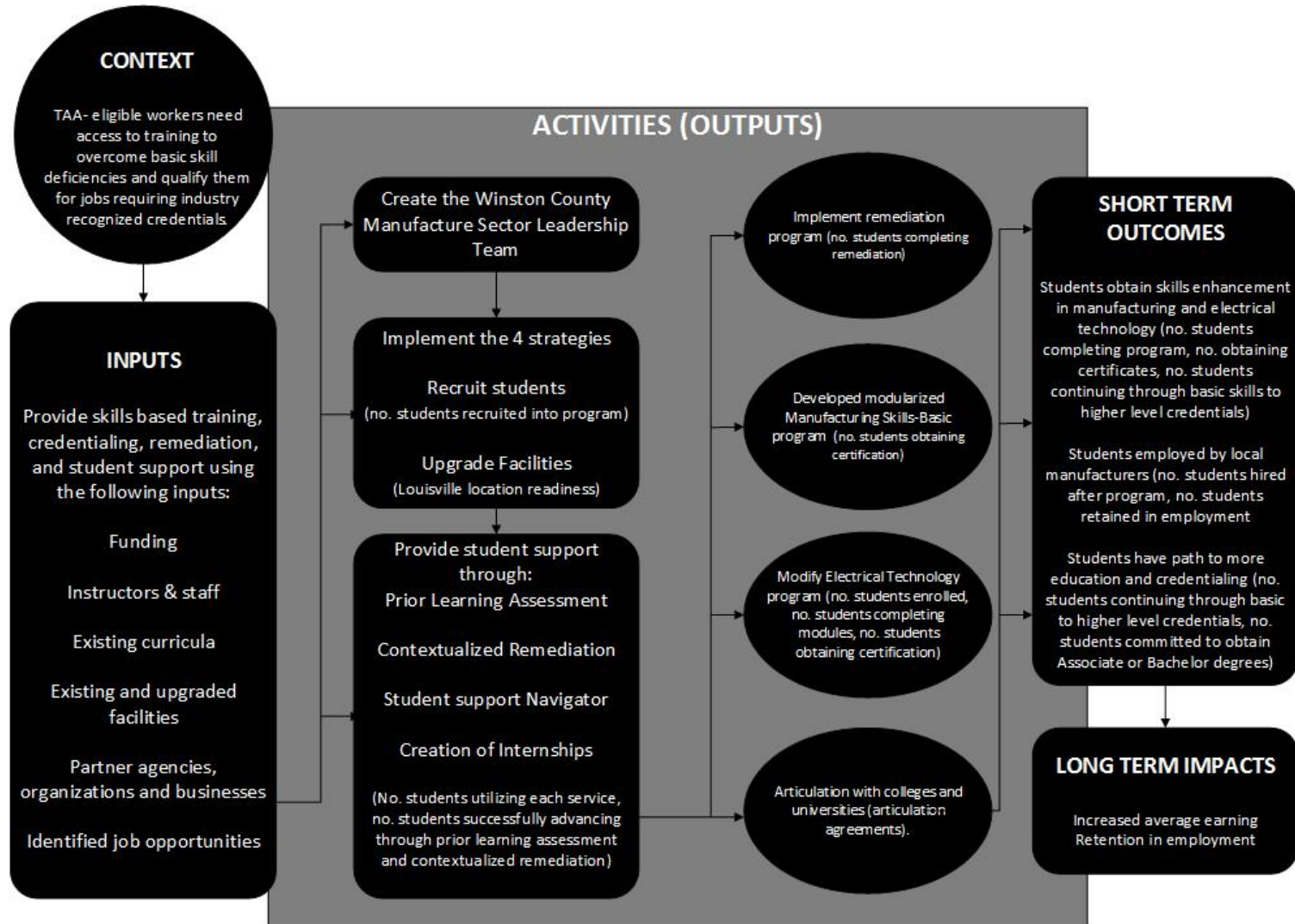


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# Appendices

## Appendix A: Winston County Project Logic Model



## Appendix B: Implementation Evaluative Questions

1. How was the particular curriculum selected, used, or created?
2. How were programs and program design improved or expanded using grant funds? What delivery methods were offered? What was the program administrative structure? What support services and other services were offered?
3. Did the grantees conduct an in-depth assessment of participants' abilities, skills, and interests to select participants into the grant-funded programs? What assessment tools and process were used? Who conducted the assessments? How were the assessment results used? Were the assessment results useful in determining the appropriate program and course sequence for participants? Was career guidance provided and if so, through what methods?
4. What contributions did each of the partners (employers, workforce system, other training providers and educators, philanthropic organizations, and others as applicable) make in terms of: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging of resources, and 8) commitment to program sustainability? What factors contributed to partners' involvement or lack of involvement in the program? Which contributions from partners were most critical to the success of the grant program? Which contributions from partners had less of an impact?
5. How was institutional capacity expanded?
6. How effective are the recruitment activities in recruiting participants? TAA-eligible participants? Veteran participants?
7. If enrollment levels are not achieved, how are recruitment activities modified to attract additional participants?
8. Are participants obtaining skills needed by industry (e.g., are participants more marketable)?
9. Is industry providing internships and hiring project participants?

10. What difference is the entrepreneurial training making on students?
11. Are program completers (e.g., Career Readiness credential, Manufacturing Skills-Basic certification, and the three levels of Electrical Technology Program) continuing their education experience?
12. How will the project be sustained after the grant funding ends?

## **Appendix C: Outcomes/Impact Evaluative Questions**

1. How many unique participants did the grant serve?
2. How many participants completed a grant-funded program of study?
3. How many participants were retained in their program of study or another TAACCCT grant-funded program of study?
4. How many participants earned credit hours?
5. How many participants earned credentials/certificates?
6. How many participants enrolled in further education?
7. How many of the Winston County Project participants who were non-incumbent workers obtained employment within one quarter of completion (e.g., the Manufacturing Skills-Basic and Electrical Technology program)?
8. How many non-incumbent Winston County Project participants employed in the first quarter after each phase of program completion (e.g., the Manufacturing Skills-Basic and Electrical Technology program) were retained in employment two and three quarters later?
9. How many of the Winston County Project participants who were incumbent workers received a wage increase post-enrollment?
10. Are the services provided by the Navigator aiding recruitment, retention, and success rates?
11. What was the program completion rate for Career Readiness credential, Manufacturing Skills-Basic, and the three levels of Electrical Technology Program (overall, and by subgroups)?
12. What was the rate of students receiving credit for non-credit training or Prior Learning Assessments?
13. What are, if any, identifiable factors that impacted on the progression through each level of program completion? That is, what influenced an individual from moving from Career Readiness credential to Manufacturing Skills-Basic to the three levels of Electrical Technology Program?

## Appendix D: Results from the Gap Analyses

Gaps	Impact of Gaps on ECCC Effectively Serving TAA-Eligible and Other Adults
1) Skills gaps between what employers want and what ECCC workforce programs teach.	Limitations in the quality and content of ECCC offerings and limitations on capacity negatively impact ECCC's ability to meet industry needs and ability to serve TAA-eligible and other adults and to meet industry demands.
2) Limited work-based learning and paid internships in Winston County	
3) Lack of training capacity (instructors, classes, technology and equipment) in Winston County to meet industry demands, made worse by tornado.	
4) Gaps in capacity to serve those needing remediation/basic skills training.	The impact is that a high percentage of working population (low-skill, low educational level) will not become eligible for modern manufacturing jobs.
5) Lack of support services for low-income and displaced workers.	
6) Few career opportunities for TAA-eligible and displaced workers, including entrepreneurship.	Limits workers' and students' future earnings capacity and ability to seamlessly build their careers as lifetime learners.
7) Hard to transfer ECCC credits to university.	
8) Inconsistent recruitment of TAA-eligible and displaced workers for training programs.	Limits the number of individuals who enroll in training, minimizing trained labor force for employers.
9) Lack of accelerated, modularized training opportunities for adult workers.	Limits ability of adults and TAA-eligible workers to gain employment in a short period of time.
10) Limited use of technology and online training offerings.	Limitations of faculty expertise is a barrier. Limits Winston County residents access to training and higher education.
11) Limited use of prior learning assessments (PLAs).	Limits adult workers' and Veterans' ability to return to college for skills upgrade due to cost and time constraints.
12) Limited use of data and research in strategy formation.	Wastes time and resources developing local solutions rather than adopting proven solutions from other sources such as other TAACCCT projects and other DOL funded workforce projects. Limits use of data to make process and quality improvements.

**Appendix D – Overview of Partnership Involvement** (greyed areas indicates involvement) through the End of Year 1 (June 30, 2018)

Partner	Program Development Areas							
	Program Design	Curriculum Development	Recruitment	Training	Placement	Program Management	Leveraging Resources	Commitment to Program Sustainability
<b>Employer</b>								
Polo Custom Products								
Taylor Machine Works								
Three Rivers Planning								
Winston Partnership								
Winston Plywood & Veneer								
Yokohama Tire Company								
<b>Workforce System</b>								
MDES								
MMA								
Montgomery Institute								
LWIB								
nSPARC								
WIN Job Centers								
<b>Other Training and Educational Institutions</b>								
East Mississippi Community College								