



CELEBRATING 5 YEARS
WAUBONSEE
COMMUNITY COLLEGE

**Waubonsee Community College
Trade Adjustment Assistance Community
College and Career Training (TAACCCT) Grant**

Executive Report
(Tech Rep No REPS160930)



Northern Illinois University
Learning Today, Leading Tomorrow

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(September 20, 2016)

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I. **TAACCCT Program/Intervention Description and Activities**

A. *WCC TAACCCT project and purpose*

Waubonsee Community College (WCC) identified two major strands for this project, entitled Strengthening Transitions, Building Pathways and Improving Achievement for Disadvantaged Workers. The two strands were (1) create an evidence-based continuum of adult education programming to successfully transition career-limited adult students into credit courses, stackable and latticed postsecondary occupational certificates and degrees, or industry recognized certifications or credentials. This model is based on the adult education visioning document produced by the State of Illinois, successful bridge pilots across the State, and Waubonsee's pilot of health care contextualized coursework and (2) develop and implement an evidence-based, online and technology-enabled stacked and latticed degree and certificate program in Laboratory Technology.

The purpose of the Strengthening Transitions was to build the capacity of the WCC adult education division to successfully transition students to occupational programs in one of the targeted industries: (1) Healthcare Bridge Program, (2) Manufacturing Bridge Program, (3) Laboratory Technology, and (4) Specialist Office Support to meet the needs of employers.

B. *Program/intervention evaluated*

1. *Component description*

The project design incorporated six primary strategies to accelerate and increase completion of certificates and degrees and job placement: (1) Design, adaptation or revision of online and hybrid courses, (2) Transition Advisors to support both GED/ESL and Lab Tech students to persist and succeed, (3) a mandatory Lab Tech college success course to increase persistence, (4) assessment of academic & skill deficiencies for adult learners & provision of contextualized remediation, (5) credit for prior learning experiences, and (6) development of a laboratory technology curriculum, career pathway & instructional space at WCC, and engagement of industry partners and subject matter experts in the Developing a Curriculum (DACUM) process.

The four programs evaluated were

1. Healthcare Bridge Program: To build basic skills or prepare for the GED test while also training for a career in healthcare. WCC students will finish as a Certified Nurse Assistant (CNA).
2. Manufacturing Bridge Program: To build basic skills or prepare for the GED test while also training for a career in manufacturing. WCC students will finish with an OSHA 10-Hour Safety Card for work in manufacturing.
3. Laboratory Technology: To gain basic lab skills needed by employers in many diverse industries while learning what type of science-related careers are related. WCC students will earn a certificate or an associate degree.
4. Office Software Specialist: To gain skills about word processing, spreadsheet, database, and presentation graphics. WCC students will earn a Certificate of Achievement after completing the program.

As part of the curriculum design, materials were developed in-house using a universal design approach. WCC reached out to adjunct instructors to develop the curriculum. In addition, materials were developed as open sources so students could access the information. The Lab Tech program hired a reviewer to work with curriculum writers so the material are ADA compliant for Lab Tech. Regarding College and Career Coaching, an additional coach/counselor was hired to meet with TAACCCT once a week. In regard to job placement assistance and tutoring, WCC already had the infrastructure to provide these services to TAACCCT participants.

2. *Population served*

Participants in the program included males (n=67) and females (n=543). Regarding race, the students served included Whites (n=258), Black or African American (n=74), Asian (n=15), American Indian / Alaska Native (n=1), Hispanic / Latino (n=248), Other (n=2), Prefer not to answer (n=10), and Other/Not listed (n=2).

3. *Evidence-based of program*

WCC utilized six primary strategies to accelerate and increase completion of certificates/ degrees and job placement.

Strategy 1: Design, adaptation or revision of online and hybrid courses in the Laboratory Technology program using the Quality Matters rubric.

WCC revised WCC online or conventional courses for the offered programs. Conventional courses offered to the TAACCCT participants provided an adequate learning environment.

Strategy 2: Implement comprehensive bundled student services with Transition Advisors to help both GED/ESL and college-level students persist and succeed.

WCC assigned two Transition Advisors to work with students to successfully transition from GED/ESL courses to credit courses (developmental and/or college-level) to support persistence, laddering of credentials, lateral transfers, certificate and degree completion, and job placement or vertical transfers to baccalaureate institutions. The support provided to the students increased retention and completion.

Strategy 3: Mandatory college success course to increase persistence.

WCC required all program participants to take a customized student success course (different than the Transitions Program for GED/ESL students).

Strategy 4: Assessment of academic and skill deficiencies for adult learners and provision of contextualized remediation.

WCC focused on transitioning ABE and ESL learners to credit courses and employment through contextualized learning. WCC used the TABE, CASAS, COMPASS, and Work Keys assessments. Academic deficiencies were remediated and students were transitioned to credit courses through participation in a 16-hour/week, 8-week long Transition Program incorporating contextualized learning in healthcare/social services and professional, scientific, and technical services.

Strategy 5: Award credit for prior learning experiences.

TAACCCT participants were not awarded credits due to the lack of prior learning experience at college level.

Strategy 6: Develop a laboratory technology curriculum, career pathway and instructional space at WCC through engagement of industry partners and subject matter experts in the Developing A Curriculum process (DACUM).

A career pathway for Laboratory Technology and associated curriculum were developed using the Developing A Curriculum process (DACUM), identifying industry-defined competencies for each step.

II. Evaluation Design Summary

A. Goals of the evaluation

- Determine the achievement of program outcomes.
- Determine TAACCCT participants' perceptions about the different programs.
- Determine earning differences between the control group and TAACCCT participants.
- Determine earning differences regarding gender and completion.

B. Implementation study design

1. Research questions for the implementation

The following research questions were addressed for the implementation analysis:

- What service delivery and/or system reform innovations resulted in improved impacts for participants?
- Under what conditions can these innovations most effectively be replicated?
- What are the types of emerging ideas for service delivery change and/or system reform that seem the most promising for future research? Under what conditions are these ideas most effective?
- What directions for future research on the country's public workforce system, and workforce development in general, were learned?

2. Conceptual framework and implementation

WCC utilized the activities under each priority to implement the TAACCCT program. Each activity was implemented as indicated in the initial RFP; however, challenges were encountered such as (1) recruiting participants for the Manufacturing Bridge and the Lab Tech programs and (2) curriculum development. The implementation of the project provided a venue:

- To hire a Transition Advisor to transition students from non-credit hours to credit hours.
- To develop courses that teach intermediate basic education or above for language arts or mathematics and science content contextualized for a particular career pathway.
- To improve internal processes.
- To develop two new programs (1) Laboratory Technology and (2) Office Support Specialist.

3. Implementation data and methods

Qualitative data were collected to understand the implementation of the program. Qualitative techniques were utilized to analyze the data.

C. Outcomes study design

1. Outcomes analysis (quantitative descriptive)

1. Methodology

A mixed-method approach was established to standardize the approach. A variety of techniques were utilized: (1) Modified Nominal Group Technique to develop an instrument to understand the students' perceptions about the Healthcare, Manufacturing, Lab Technician, and Office Software Specialist programs; (2) participant interviews and focus groups to understand factors for the success or improvement of the project; (3) Open-ended questions for Staff to summarize lessons learned; and (4) Statistical tests (Independent t-test and Growth modeling) to determine differences in wages.

A matching technique utilizing estimated propensity scores was implemented to match the treatment group with the control group to assess the project for the 2013 cohort. Due to the number of participants in each of the programs, matching techniques were not performed for the 2014 cohort or the 2015 cohort. As a result of the low number of participants enrolled in each of the programs, a group discussion with WCC staff members by program was implemented to understand the recruitment barriers. The participants and staff were also interviewed.

2. Data used and reliability

Inter-rater reliability was implemented for the qualitative data to ensure accuracy of the results.

Modified Nominal Group Technique is a Delphi technique. This strategy includes several steps with the objective of reaching consensus.

Reliability of the survey was not performed.

3. Outcomes measured

The following outcomes measures were evaluated:

1. Total unique participants served
2. Total number who completed a grant-funded Program of Study
3. Total number still retained in their Programs of Study (or other grant-funded programs)
4. Total number of students completing credit hours
5. Total number of students earning credentials
6. Total number pursuing further education after Program of Study completion
7. Total number employed after Program of Study completion †
8. Total number retained in employment after Program of Study completion
9. Total number of those participants employed at enrollment who received a wage increase post-enrollment

III. Implementation Findings

1. Institutional capacity

The Office of Research, Evaluation, and Policy Studies did not evaluate the capacity building of the program(s) and/or the intuitional building capacity.

2. *Partnerships*

The partnerships were

- River Valley Workforce Investment Board - Worked with the WCC Transition Advisor to discuss client needs, ensure complementary services, and accelerate students to transition ready status. Served on the project advisory committee to guide curriculum development and wrap-around services.
- Kane County Department of Employment and Education (KCDEE) - Case managers worked with the WCC Transition Advisor to discuss client needs, ensure complementary services, and accelerate students to transition ready status. Served on the project advisory committee to guide curriculum development and wrap-around services.

An Advisory committee was formed to guide the implementation of the grant regarding curriculum development and wrap-around services. The advisory committee also met with employers to identify needs in the workers' skill sets. In addition, TAACCCT staff collaborated with the Office for the Internship Career Development Center to help TAACCCT students find internships.

3. *Fidelity of implementation*

Fidelity of implementation was not measured.

4. *Operational strengths and weaknesses of the program*

The strengths and weaknesses were extracted from the qualitative data collected.

Strengths.

- Student support through advisors for completing the certificate program.
- WCC infrastructure to address the students' needs such as job placement, internships, and career counselor.
- The advisory committee overseeing the implementation of the program and formative results.
- The programs have evolved through the management of the different obstacles that have been solved, which provides very important knowledge for the future cohorts.

Weaknesses

- *The main weakness that was indicated throughout the evaluation process was the need for a full time person to lead the programs.*

IV. **Participant Outcomes**

Table 1: Revised Outcomes

Outcome Measure		Actual Reported Outcomes				Revised Outcomes	Progress Assessment	
		Y1	Y2	Y3	Y4	Total	Y1 – Y4	
						(Y1 – Y4)		(Y1 – Y4)
1	Total unique participants served	26	113	65	130	334	264	Met
2	Total number who have completed a grant-funded Program of Study	0	35	43	39	117	180	Not Met
3	Total number still retained in their Programs of Study (or other grant-funded programs)	7	65	6	0	78	47	Met
4	Total number of students completing credit hours	0	38	24	101	163	189	Not Met
5	Total number of students earning credentials	0	34	20	39	93	198	Not Met
6	Total number pursuing further education after Program of Study completion	0	10	24	13	47	20	Met
7	Total number employed after Program of Study completion †	0	3	7	1	11	172	Not Met
8	Total number retained in employment after Program of Study completion †	0	3	5	1	9	14	Not Met
9	Total number of those participants employed at enrollment who receive a wage increase post-enrollment †	0	35	24	0	59	94	Not Met

† Illinois Department of Employment Security data required for this measure is not available until six months after the time at which reporting occurs. This results in lower than expected outcome numbers.

Note: Data provided by Waubensee Community College as of August 2, 2016.

Table 2: Outcome Measures by Program

Outcome Measure		Year 1			Year 2				Year 3				Y4				Total	
		Health Care	Manuf.	Y1 Total	Health Care	Manuf.	Lab Tech	Y2 Total	Health Care	Manuf.	Lab Tech	Y3 Total	Health Care	Manuf.	Lab Tech	Office Support	Total Y4	Y1-Y4
1	Total Unique Participants Served	15	11	26	77	32	4	113	26	15	24	65	22	12	67	29	130	334
2	Total Number Who Have Completed a Grant-Funded Program of Study	0	0	0	22	13	0	35	18	20	5	43	8	8	0	23	39	117
3	Total Number Still Retained in Their Programs of Study (or Other Grant-Funded Programs)	4	3	7	47	14	4	65	0	0	6	6	0	0	0	0	0	78
4	Total Number of Students Completing Credit Hours	0	0	0	22	12	4	38	22	2	0	24	22	12	67	0	101	163
5	Total Number of Students Earning Credentials	0	0	0	22	12	0	34	20	0	0	20	8	8	0	23	39	93
6	Total Number Pursuing Further Education After Program of Study Completion	0	0	0	5	5	0	10	6	14	4	24	5	4	0	4	13	47
7	Total Number Employed After Program of Study Completion	0	0	0	0	3	0	3	6	1	0	7	0	1	0	0	1	11
8	Total Number Retained in Employment After Program of Study Completion	0	0	0	0	3	0	3	4	1	0	5	0	1	0	0	1	9
9	Total Number of Those Participants Employed at Enrollment Who Receive a Wage Increase Post-Enrollment	0	0	0	23	12	0	35	11	11	2	24	0	0	0	0	0	59

Note: Data provided by Waubensee Community College as of August 2, 2016.

Limitation: Due to the number of participants in each of the programs, Fall 2013 and Spring 2016 Survey data could not be compared to identify differences and/or changes in perceptions.

V. Conclusions

A. Lessons learned

A lessons learned survey was administered to all of the WCC TAACCCT staff.

What worked well on the project?

The answers were divided into six categories as follows:

Financial aid: Students could not finish the program without the financial relief and support offered through these grant-funded programs.

Class format: Creation of additional courses and the formats in which they were offered were benefits of the project.

Students' work: The students were supportive of each other. They were given time to work on their homework after classes. The small groups allowed student interaction and deepened understanding of the information provided.

Curriculum development: The curriculum design and the idea of providing a bridge between skills and content in a workforce area were important.

Recruitment: Promotional efforts were strong-: tours, speaking at the Counselors' Breakfast, speaking at Faculty Orientation, etc. Business partners on the Advisory Committee were involved.

Selection process: Selection of students was very important to the success of the program as well as the screening of instructors to meet the requirements of the program.

What did not work well on the project?

The participants indicated that recruitment and curriculum development did not work well as indicated below:

Recruitment: Retention of students in the manufacturing bridge program seemed to be a continual challenge. Some of the participants dropped their classes due to transportation or childcare issues.

Curriculum development: Several barriers were mentioned:

1. Difficulty finding qualified people to build curriculum.
2. Lack of a full-time faculty spearheading the program.
3. Difficulty finding qualified people to teach.
4. Difficulty having lab instruments ready for students.
5. Impact of reorganization of the division and the use-lab policies.
6. Deficiency of students' knowledge.
7. Lack of alignment of activities, outcomes, and personnel participating between the grant Statement of Work and the original anticipated outcomes compared to the actual grant activities and actual outcomes was the biggest problem in this project.

B. Quantitative and qualitative data results

After completing a holistic analysis of the data, the Office of Research, Evaluation, and Policy Studies would like to offer the following observations:

1. Work closely with high school counselors to collect their feedback regarding the programs offered and to provide high school counselors with information that will be useful to high school students for their future decisions.

2. Continue monitoring implemented recruitment strategies to decide what is working based on the number of students participating in each of the programs. Recruitment is a barrier due to the low number of students participating in the manufacturing and lab tech programs.
3. Continue monitoring the differences in perceptions between control and TAACCCT participants to inform areas for change and successes in the different programs.
4. Encourage employers to be part of the program assessment to understand the changes and/or adjustments the programs need to prepare future employees with skills and knowledge to meet the employers' needs.
5. Staff indicated in the Lessons Learned survey activities that did not work well or activities that could have been changed. Among those ideas, hiring full time faculty and/or a full time Lab Tech Coordinator would enhance the program(s). Other suggestions were provided that should be analyzed to determine whether they can be implemented.
6. Encourage students from the Healthcare Bridge Program to participate in data collection tasks or assign data collection times for formative evaluation purposes.
7. Students from the Software Specialist Certificate had mixed views about the program. It is suggested to share their comments with the instructors to determine whether their feedback can be implemented or used for curriculum delivery adjustment(s).

Quantitative data analyses were performed on the Student Survey Data and the Illinois Department of Employment Security (IDES) wages data.

The Student Survey data could not be compared from Fall 2013 to Spring 2016 due to the small number of participants. However, it can be indicated that in Fall 2013 only one question "Instructors are courteous and respectful of students" was statistically different between the control and TAACCCT groups for all students, while in Spring 2016 the question was not statistically different. The Spring 2016 results indicate that the following questions were statistically different: (1) "College staff are courteous and respectful of students." (2) "The classrooms have enough equipment for all students to have plenty of opportunity to practice." (3) "Adult Education Transition Advisors (Paul or Kim) are available when I need to see them." (4) "I am accomplishing my academic goals at Waubonsee." (5) "Course work helped me further develop my critical thinking skills." (6) "Course work helped me further develop my communications skills." (7) "The Adult Education Transition Advisor helped me to succeed in this course." (8) "Getting to class is sometimes a problem for me." (9) "I have a better understanding of the value of a college certificate." (10) "The program has improved my study skills." and (11) "I was taught to communicate with coworkers at my own level of employment."

Regarding the Illinois Department of Employment Security (IDES) wages data, the Independent *t*-test revealed a significant difference between males vs. females (NAS program and HCB program). In addition, a significant difference was found in gender among the TAACCCT participants.

Employers were not able to provide information regarding the TAACCCT students hired.

Regarding qualitative data collected, the students indicated:

Overall, the interviewed participants perceived the Manufacturing Bridge Program, Healthcare Bridge Program, Lab Tech Program, and Office Software Specialist Program as helpful. Participants in the Manufacturing Bridge Program indicated that the program prepared them for the GED and a future career in the manufacturing industry. The participants of the Healthcare Bridge Program specified that the preparation received will help them in future employment as a Certified Nursing Assistant (CNA). The participants of the Lab Tech Program indicated that the program helped them better understand laboratory practices. The participants of the Office Software Specialist Program mentioned that the program improved their skills and enhanced their knowledge of Microsoft products. All four groups believed they would be able to seek better employment in the future.

- **Manufacturing Bridge Program Participants:** The participants believed that the program was helpful in preparing them for GED tests, for a future career in the manufacturing industry, and for expanding their knowledge. They felt they grew in confidence about implementing new skills due to the hands-on training.
- **Healthcare Bridge Program Participants:** The participants felt the program helped to prepare them for future employment as a Certified Nursing Assistant (CNA). The participants felt the clinical experience was very helpful and more clinical time could be added. The classes, training, and new knowledge learned helped build the confidence of the participants to be optimistic about the prospect of finding a job as a CNA once they completed the courses.
- **LabTech Program Participants:** The participants believed the program helped them better understand what goes on in the laboratory and related laboratory safety practices. Some of the participants thought the program was fast paced compared to what they expected. The participants were optimistic about future employment in the Lab Tech field and their ability to implement the knowledge and skills gained in the Lab Tech Program.
- **Office Software Specialist:** The participants believed they improved their skills and enhanced their knowledge in Excel, PowerPoint, and Word to be able to seek better employment. All three groups indicated that their confidence increased about (1) applying new skills and knowledge, (2) time management, and (3) organizational skills to meet deadlines.

Regarding the qualitative data collected, the staff indicated:

- **Healthcare Bridge Program Staff:** Interviewees indicated that the Healthcare Bridge Program was successful due to the credentials students receive after completing their coursework.
- **Manufacturing Bridge Program Staff:** Manufacturing Bridge Program students were from within the program; however, a challenge was encountered with students' scores, which were not high enough to be eligible for the program.
- **LabTech Program Participants:** The interviewees indicated that due to the implemented changes other students in WCC are taking advantage of the courses offered and more materials about the program have been distributed, so the interest in the program has increased.
- **Office Software Specialist:** Interviewees indicated that they were satisfied with the results of the program. They may consider recruitment changes such as (1) extending the recruitment period and (2) evaluating students' computer skills.

//NOTHING FOLLOWS//