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IMPLEMENTATION AND OUTCOMES REPORT FY 2016

Developing Effective Applied Engineering Program Models in Three Georgia Community Colleges

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EXECUTIVE SUMMARY

The ATC Times 3 Consortium (ATCX3) is a collaborative effort that includes Athens Technical College, Atlanta Technical College, and Albany Technical College. In October 2012, the ATCX3 received a 13.9 million dollar Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant from the U.S. Department of Labor (DOL). **The ATCX3 consortium has overarching goals that include**, (1) Adding new associate degree programs; (2) introducing stackable certificates for engineering technology and latticed certificates to allow students in closely related programs to bridge into the engineering technology programs; (3) embedding basic skills development in entry-level occupational courses, redesign the delivery of learning support coursework, provide additional methods of technology-enhanced instruction, and expand prior learning assessments; (4) introducing contextualized, problem-based pedagogy; and (5) providing wrap-around support services. In many areas, the colleges share similarities programming approach. There are also areas where the colleges use different approaches. The summary presents an overview of similarities and differences between the programs.

SIMILARITIES

Leveraging existing resources for program development. Each of the colleges responsible for developing new programs and courses used existing resources available through the TCSG. By assessing models already available, the colleges were able to determine how to move forward with creating curricula that had the appropriate balance between theory and applied pedagogical methods.

Staffing. Each of the colleges uses a teamwork approach in supporting the development of the TAACCCT funded engineering programs. While each area handled their primary duties, faculty and

staff converge to promote and showcase the program through various initiatives such as recruiting and engineering week. Regularly scheduled staff meetings allow team members to abreast of what's happening with the project.

Engaging industry. The colleges worked early on in the project beginning with the grant proposal to develop relationships with industry professionals. As a result, the each college had access to talent that could support and provide feedback on program development that included areas such as curriculum review and equipment purchases. Many of the industry professionals consulted are also members of the advisory boards for the colleges.

Professional development. To fully meet the demands of newly developed or enhanced programs, each of the colleges supported a wide range of program development activities for the faculty and staff. Staff received training and certification specific to content areas, attended and presented at conference workshops and took part in the annual ATCX3 Consortium gathering.

DIFFERENCES

Stacked and Latticed Credentials. The degree to which the colleges developed stacked and latticed credentialing differed among the colleges. Athens and Atlanta developed pathways for students to bridge across disciplines within engineering. Albany, with a fully developed engineering program developed an additional TCC. The extent to which the programs in the engineering department support a bridged or latticed structure was not identified at the time of this report.

Wrap-around services. Each of the colleges has fully engaged staff who are deeply committed to providing support services to students in the engineering programs. However, the level of structure to the models vary. Albany Tech currently has a structured approach that can be followed by anyone

entering into the role of Achievement Coach. Whereas, Albany has developed a structure, Athens Tech spent a great deal of time developing a theory of change model for working with students. Document reviews of Achievement Coach material suggest that Atlanta Tech does not currently have a structured or theoretical approach to working with students.

Data Analytics. In the initial design of the ATCX3 grant proposal, each school proposed using leveraged resources through Achieving the Dream to support student level data retrieval through a specially designed data-mart program developed by CFAR's Institutional Research team. Currently, Athens Tech is the only college still working directly with the data-mart. To offset this and maintain data collection consistency, CFAR is working with Albany and Atlanta and allowing them to submit raw CSV files via a secure cloud-based source at which point CFAR IR staff processes the data for them.

INTRODUCTION

The ATC Times 3 Consortium (ATCX3) is a collaborative effort that includes Athens Technical College, Atlanta Technical College, and Albany Technical College. In October 2012, the ATCX3 received a 13.9 million dollar Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant from the U.S. Department of Labor (DOL). The Consortium identified five primary goals: (1) Add new associate degree programs; (2) introduce stackable certificates for engineering technology and latticed certificates to allow students in closely related programs to bridge into the engineering technology programs; (3) embed basic skills development in entry-level occupational courses, redesign the delivery of learning support coursework, provide additional methods of technologyenhanced instruction, and expand prior learning assessments; (4) introduce contextualized, problem-based pedagogy; and (5) provide wrap-around support services.

Each Consortium College provided leadership in developing specific components of the integrated plan and delivering professional development activities that guided the implementation of those components. The intent of the Consortium was to scale processes statewide to all of the colleges in The College System of Georgia (TCSG) by holding professional development conferences for guiding faculty and staff to learn about how to incorporate the various deliverables into practice at each technical college in Georgia. ATCX3 proposed that the combination of new programs, greater use of effective pedagogy, and enhanced support services would lead to greater persistence and graduation rates which would in turn aid TCSG in accomplishing its mission of providing employers with a highly skilled, well-educated workforce.

BACKGROUND AND CONTEXT

Nationally, job training is used as a strategy to simultaneously help employers and job seekers while strengthening the economy. Workforce development has been at the forefront of the national conversation about economic recovery, poverty alleviation, and the strengthening of the middle class. President Barack Obama and Vice President Joe Biden proved that it is a national priority by supporting a number of workface development policies and initiatives during their time in office, the TAACCCT initative has been foremost among them,

TAACCCT provides capacity-building grants to support the development of model occupational training programs at America's community colleges and universities. TAACCCT funded programs prepare individuals for employment by using proven workforce development and education strategies. TAACCCT aims to:

- increase attainment of degrees, certificates, certifications, diplomas, and other industry-recognized credentials that match the skills needed by employers to better prepare workers eligible for training under the Trade Adjustment Assistance (TAA) for Workers Program and other adults for highwage, and high-skill employment or re-employment in growth industry sectors;
- introduce or replicate innovative and effective methods for designing and delivering instruction that address specific industry needs and lead to improved learning, completion, and other outcomes for TAA-eligible workers and other adults; and,
- 3) demonstrate improved employment outcomes.

The Consortium

Athens Technical College is the official lead college for the Trade Adjustment Assistance Community College and Career Training Grant (TAACCCT). Each of the three consortium members will provide leadership in developing specific components of the integrated plan and for delivering professional development activities to guide the implementation of these components as seen in Table 1.

1	Table 1. ATC Consortium Areas of Responsibility
College	Area of Responsibility
Albany	 Work with engineering professional to create latticed bridge programs. Work with Arkansas Consortium and Southern Polytechnic State University to develop additional prior learning assessments.
Athens	 Work with representative from Caterpillar, private engineering firms, Georgia Engineering Alliance to create stackable certificates for existing engineering technology programs and developing curriculum for new associate degree programs in Environmental engineering technology, Electromechanical engineering, Mechanical engineering, Nano engineering technology and their associated pathways. Provide guidance in the redesign of learning support based on lessons
	learned from Complete College America initiative.
	 Work with engineering professionals to develop Industrial engineering and Industrial systems engineering programs.
Atlanta	 Work with railway professionals and railway organizations such as AAR and AREMA to create lattice bridge programs.
Atlanta	 Embed basic skills development in entry-level occupational coursework based on the Washington I-BEST model.
	 Develop wrap-around support services based on case manager approach to delivery.
The Technical College System of Georgia	 Provide assistance in transforming instructional delivery through auspices of Georgia Virtual Technical Connection.
	 Provide assistance in tracking TAA-eligible workers and other program participants to measure the success of initiatives.
	Facilitate policy change to enact program initiatives.
	 Use existing data sharing agreements with Georgia Department of Labor to track program participants as they enter the workforce.

Logic Model

Figure 1 displays the overall logic model for the ATC TAACCCT project with a focus on key inputs, activities, outputs and program outcomes that are expected through this grant.

Figure 1. Atcx3 Logic Model



The overarching goals are to:

- Develop (Athens Tech and Atlanta Tech) and enhance (Albany Tech) replicable Engineering curriculum development processes that will ensure that competencies, content, and assessments are continuously improved and widely disseminated;
- Develop and provide new student support services that address the particular needs of TAA-eligible workers and other students in engineering programs;
- Enhance the technological infrastructure for delivering program courses and assessments;

- Offer multiple options that lead to a series of stackable and latticed credentials with labor market value;
- Through PLA, address organizational policies and procedures to allow students to progress through programs of study at an accelerated pace.

Project Organization

Figure 2 below provides an overview of the project's organization. As noted earlier, Athens Technical College served as the lead college, which supported the overall administrative team for The Consortium. This included the Project Manager, Business Manager, Data Analyst, and Administrative Assistant. TCSG served in a supporting role. Each partner college operated independently within the consortium. CFAR was the external evaluator.

Figure 2. Organizational Chart of The ATCX3 Consortium



ATCX3 Evaluation

To assess the effectiveness of the programs, DOL required that all Round Two Grantees contract with a third-party evaluator. Athens Tech as the lead consortium member contracted with Center for Applied Research (CFAR) at Central Piedmont Community College located in Charlotte, NC to provide third-party evaluation services. DOL specified that all grantee evaluations should address both program implementation and outcomes or impacts. This report will look at program implementation and outcomes of the ATCX3 grant.

This report includes: (1) an outline of the overall study methodology and data sources; (2) background information on each of the ATC colleges; (3) summaries of the goals and primary elements of ATC; (4) a discussion on the implementation of program activities

under the grant; (5) a report on outcomes as outlined by TAACCCT and; (5) concludes with recommendations for the ATCx3 Consortium.

Methods

Document Review: A document review was conducted that included team meeting minutes, advisory board meeting minutes, case notes from the Achievement Coaches, and training logs from Instructional Designers.

Interviews: Informal interviews were conducted with various faculty and staff at each college. Interviews included face-to-face, phone, and email. The purpose of the interviews was to gain insight to program implementation as it related to their job roles.

Focus Groups: Focus groups were conducted with students at Athens Tech and Albany Tech. The focus groups provided insight into student perceptions and experiences in their programs. The sessions were recorded, transcribed, and coded for thematic analysis.

Surveys: A student experience survey was conducted with students in TAACCCT funded Engineering Technology programs at each college. Surveys were developed and approved by each college for content and language. The Achievement Coaches at each college administered the online survey during a class funded by TAACCCT.

Student Records: CFAR's IR team worked with the three colleges to develop internal datamarts for each college. This process will allow the colleges to conduct better research and analysis of their students. The IR team at each college created multiple extraction programs to include student unit record level data, class files, graduation files, and financial aid records for each term under the grant. CFAR staff built the data-marts, provided phone consults, and visited each college to install SAS and the data-mart structure. The data-

mart provided aggregate as well as individual level data on student characteristics and enrollment outcomes for the first term of the TAACCCT funded engineering programs through Fall 14 terms. As seen in Table 2 below, each school had a different starting term based on how they rolled out their programs.

Table 2. Data-mart Extractions			
Spring 13 Albany	• Fall 13 Albany, Athens		
Spring 14 Albany, Athens	 Fall 14 Albany, Athens 		
Spring 15 Albany, Athens, Atlanta	 Fall 15 Albany, Athens, Atlanta 		
Spring 16 Albany, Athens, Atlanta			

Observations: Observations of program activities were conducted that included recruitment events, program tours, program staff meetings, and e-week activities. Additionally, follow-up phone calls and mails with program staff at each college. The follow-up provided an opportunity to verify and fill in gaps in information.

ENROLLMENT AND CHARACTERISTICS OF PROGRAM PARTICIPANTS

Table 3. ATC X 3 Enrollment by College			
	Athens	Albany	Atlanta
Total Enrollment			
Participant Status	96	314	211
Still enrolled program in TAACCCT Funded Program	75	116	75
Completed a TAACCCT funded program	4	9	4
Exited training prior to completion	17	189	132

Recruitment by College

Athens Tech began immediately working on a recruitment plan to attract students to the engineering program. Initial first steps were connecting with the various community organizations identified in the grant such as the Georgia Department of Labor (GDOL), potential employers, local high schools, and Athens Tech's student recruitment office. Of the more interesting recruiting approaches was the presentation of the DIVIDE AND CONQUER MATH WORKSHOPs with the idea being that if students could conquer their fear of math they may be more interested in applying to an engineering program that requires a strong math core. The recruiting efforts are based on two approaches; (1) direct, which centers on recruiting at the student level or; (2) outreach, which focuses on working with community organizations that work with potential students to promote the engineering program. Table 3 shows the type of recruitment conducted by Athens Tech.

Table 4. Recruitment Efforts by Type (Athens)			
ATC Summer Open House	Direct		
Community Events	Direct		
Divide and Conquer Math Workshops	Direct		
Employer Outreach	Outreach		
Georgia Department Labor	Direct		
Georgia Department of Labor – Program Promotion	Outreach		
High School Recruitment	Direct		
Media Advertising	Direct		
STEM Day	Direct		
Tech on Tuesdays	Direct		
Web Advertising	Direct		

Albany Tech Achievement Coaches developed a plan that outlined their recruitment activities. The plan identified two functions, (1) direct recruiting events aimed at potential

students and (2) marketing/outreach events aimed at informing organizations with access to potential students.

Table 5. Recruitment Efforts by Type (Albany)	
Monthly talk at GED Orientations at Albany Tech	Direct
Relationship building with organizations that work with target population	Outreach
Research and identify potential employers willing to allow Achievement Coaches to speak with employees	Outreach
Speak at Family Literacy Connection	Outreach
Weekly check-ins with staff at the Veteran Affairs Department	Outreach
Weekly talks at Goodwill Industries Job Center	Direct
Weekly talks to WIA participants at GDOL	Direct

Atlanta Tech uses an integrated and collaborative effort to recruit students to the engineering program. The ATC college admissions department has primary responsibility for recruiting students through campus tours, college and career fairs, high school visitations and special events. The TAACCCT program staff works directly with the admissions department in tailoring recruitment efforts that address the target population for the TAACCCT sponsored engineering programs. The TAACCCT engineering program targets:

- Under-employed men and women who seek retraining
- Unemployed persons seeking to re-enter the workforce
- Displaced homemakers
- Veterans in search of post-secondary training

Atlanta Tech's recruitment plan uses an approach that identifies active and passive recruiting strategies that include the following:

Table 6. Recruitment Efforts by Type (Atlanta)	
Business and Industry Partners	Passive
Community/civic events	Active
Direct Mail and e-Mail	Active
On Campus events	Active
Public information sessions and institutional marketing	Passive
Posters/ Signs	Passive
School visits	Active
Telemarketing	Active

DEMOGRAPHICS AND BACKGROUND CHARACTERISTICS OF ATC X 3 STUDENTS

Table 7. Student Demographic by College				
		Athens	Albany	Atlanta
Gender	Female	6	53	16
	Male	90	261	195
	American Indian	1	0	1
	Asian/Pacific Islander	2	206	162
Dooo/Ethnicity	Black	19	0	0
Race/Elimitity	Hispanic	0	97	6
	White	66	11	40
	Other	8	0	1
	Under 24	59	159	76
A go of	24 - 30	9	57	22
Age al Eprollmont	31 - 40	21	70	58
Enronment	41 - 50	5	25	30
	51 and older	2	21	25
Other Characteristics	Full Time Student	33	157	50
	Veteran	8	27	31
	Financial Aid	31	398	No data
	Beginning Student	35	102	86
	Adult Ed	0	0	11
	Returning Student	29	139	72
	High School Student	0	30	0
	Transfer	32	43	42

COURSE AND PROGRAM DEVELOPMENT BY COLLEGE

Athens Tech offers Engineering Associate Degree (AAS) programs in four areas:

Engineering Science Technology with specializations in Environmental, Mechanical

Engineering, Electromechanical and Manufacturing, and Nanotechnology. Students are

"WE HAVE AN ENGINEERING

TECHNOLOGY PROGRAM

EXCITED ABOUT." Dr. Tremaine Powell, Chair of the

Engineering Technology Department,

can obtain Technical

Certificates of Credit (TCC) in

the following areas:

Engineering Technology

Basics, Environmental

Assessment Technician,

Nanotechnology Technician,

and Stormwater and Erosion Control Technician. There are currently no diploma program options available. The engineering program at Athens Tech is new to the college requiring the engineering program to build from the ground up.

Athens Tech

Program Design

Initially, an assessment of other engineering programs within and outside of the TCSG was conducted. Findings from the assessment suggested that most two-year engineering programs were too soft on the applied sciences and a heavy emphasis on the general education courses. This is not uncommon given that most two-year engineering programs are preparing students to transfer to four-year institutions. While generally this is acceptable, the TAACCCT initiative was created to provide students with the opportunity to complete a two-year degree and move directly into the workforce. Therefore, the challenge was to design a program that was somewhere in the middle

that allowed students the opportunity to transfer to a fouryear institution or directly into the workforce. Local industry professionals via an advisory board were consulted throughout the development of the engineering program. A final draft was initially reviewed and approved by the TCSG with final approval for accreditation and implementation by the Southern Association of Colleges and Schools (SACS).

Instructional Design

The Instructional Designer (ID) was hired early on in the grant. Her initial tasks included planning, organizing, and developing training and classroom materials to assist faculty. Classroom materials included developing computer based training programs, and infusing more technology based resources into classroom approach training materials.

The ID also conducted professional development workshops focusing on online learning assessability and flipped classrooms. Per faculty request, custom training sessions are available to assist with additional course development materials.

The TCSG recently mandated that all students must have an e-portfolio upon completion of their program. To that

INTRO TO ENGINEERING

Athens expected its Intro to Engineering TCC to have a significant value add to the student and the engineering program. According to Dr. Powell, chair of the Engineering department at Athens Tech, the TCC has an internal and external significance. Internally, the Intro to Engineering TCC allows students to access financial aid, which is something that most students struggle with at Athens Tech (56% of students receive some type of financial aid). Externally, employers recognize the Intro to Engineering TCC as an entry level certification that grounds potential employees in the

end, the ID consulted with faculty and staff in developing a template for e-portfolios. Additional activates conducted by the ID included working with the faculty and staff in the engineering program to develop promotional and marketing materials for recruitment. Overall, Athens Tech has made great use of the ID position provided by the TAACCCT grant. The ID was productive and made great use of her time piloting ideas and approaches with programs outside the scope of TAACCCT while the engineering program was in the development phase. At the same time, the ID made herself available to assist with grant tasks and supporting the various positions within the grant.

Unique to the course delivery for the engineering program at Athens Tech is its strong focus on the applied aspects of the occupational courses. TCC's are embedded into the curriculum so students will not only increasingly gain workforce ready credentials while working towards their degree, they will also have the opportunity to explore the pathways without declaring a degree focus for students who are unsure about their career options.

Funding from TAACCCT has allowed Athens Tech to expand the range of occupation equipment for applied training. Historically, students had limited options for training on equipment limiting their experience when applying for a job. According to one professor, the goal is not to 'train' them on one piece of equipment but a range that will allow them to think critically about whatever piece of equipment they encounter in the field. The machinery may not be what they've experienced first-hand but they will have a foundational understanding of how the equipment works.

ALBANY TECH was the only school in the ATCx3 Consortium that had a fully developed engineering program. With an intact engineering program, Albany Tech chose to focus on enhancing their programs. The upgrades will allow students to learn in an environment that reflects today's technology driven workforce. The enhanced classrooms will help students to learn in a fun and engaging manner.

With a full roster of engineering TCC's, diplomas, and associate degree programs, Albany Tech chose not to focus on program expansion. They developed a TCC, Intro to Engineering, although the value added of the TCC remains unclear. The program staff note that beyond boosting student confidence in completing 'something', the TCC held no value outside of the college in particular with employers.

Instructional Design

Albany Tech's Instructional Designer worked diligently

to increase the blended focus of the courses in the engineering programs. During the initial assessment of course content, it was determined courses were lacking in a truly blended approach. For example, a blended course consisted of students having access to "Thank you so much. I really enjoyed the VoiceThread Training." --T. West "Thanks Kay. I am really looking orward to using this in my class." -N. Lane Hey thanks Kay, really enjoyed rour training session!"—D. West Fun Friday Workshop Feedback

blackboard where they could find their course syllabus and end of course teacher evaluations.

To promote and engage faculty in using technology in the classroom, Dr. Bell began an initiative called fun Friday in the Lab. The goal of the lab is to promote the variety of instructional strategies and resources available to faculty. One-on-one sessions are

available to faculty for customized support. Faculty participating in the labs receive a certificate upon completion of the lab. Fun Friday has been well received by faculty.

COURSE DELIVERY

Instruction for occupational courses is taught by highly skilled instructors who have industry experience. With the blended course delivery, online modules were created that incorporated multimedia technology. These modules were synced to electronic gradebooks where assignments and assessments could be easily accessed and graded by instructors. Albany Tech also embedded wraparound services into the course design by adding skill building workshops into the occupational courses. This approach allows for maximum reach to students without requiring them to incorporate extracurricular activities into an already hectic schedule that, for most students, includes work and family in addition to the basic requirements for their programs.

ATLANTA TECH'S newly developed Industrial Engineering and Systems Technologies program offers associate degree programs in Industrial Systems Technology (IST) and Industrial Engineering Technology (IET), Technical Certificates of Credit in Railway Signaling Services and Railway Engineering Signals Design and has plans to develop embedded TCC's in Industrial Mechatronics. All programs are fully accredited by the TCSG and SACS.

Program Design

The mission of Atlanta Tech's engineering program is to improve skills development that will enhance industrial high-tech para professionals. To do this, Atlanta Tech leveraged existing resources with TCSG to build some curricular content. However, the main core courses were developed institutionally working with industry experts, curriculum specialists and TAACCCT funded faculty. Courses were designed using the I_Best Washington Model to create pathways to basic skills development. Course material was compiled into a full course notebook that includes:

- Programs standard guide
- Curriculum advisement sheet
- Syllabus
- Course lesson plans
- Lecture notes
- Quizzes, Tests, Exams
- > Handouts
- Lab competency checklist
- Class/management plan
- Course Safety Information
- Course supply/tool lists, and
- Miscellaneous

WE ARE BEING RECOGNZIED AS A WORTHY PARTNERSHIP WITH NATIONALLY RECOGNIZED INSTITUTIONS SUCH AS GEORGIA TECH AND STATE GOVERNING OFFICIALS. ~Dr. Samuel Afuwape, Chair of Industrial Engineering and Systems

SPECIAL PROJECTS: PRIOR LEARNING ASSESSMNETS

The Prior Learning Assessments (PLA) was intended to support the goals identified by the ATCx3. The Consortium proposed to revamp and fully integrate PLA's into the ATCx3 colleges with a full scale up by grants end.

Credit for prior learning is a key tenement that falls under the experimental learning umbrella that dates back to the 70's. Educational institutions are willing to recognize that meaningful learning can and does occur in settings outside of academia. The American Council on Education (ACE) and the Council for Adult and Experiential Learning (CAEL) have pioneered the credit for prior learning efforts. The College Level Examination Program (CLEP) has been the standard bearer for evaluating prior learning. However, CAEL has been encouraging institutions to look for alternatives for assessing prior learning. The ATCx3 Consortium included credits for prior learning as a special project in the TAACCCT Round 2 Grant. The Consortium has taken on the challenge of instituting a more fluid approach to accessing prior learning to account for the vast options available to students to gain knowledge outside of the classroom.

The ATCx3 Consortium hired a Prior Learning Assessment (PLA) Coordinator six months into year one of the grant. The initial job responsibilities of the PLA Coordinator was to create and present a policy to the Consortium and TSCG; upon approval, implement at each of the three consortium schools; and, scale to the remaining community colleges in Georgia championed by the TCSG.

Policy Development

The first steps in developing the PLA program included conducting background research on the current PLA policy within the consortium and other community colleges

in the state as a baseline for what was happening in Georgia. Additional research was done on colleges that were known to have well documented PLA programs in place. In addition to background research, the PLA Coordinator took an online training for PLA Certification through CAEL. The goal of the CAEL PLA Certification is to provide an understanding of the principles of experiential learning and applying it in developing a PLA program within the context of a particular institution.

Once all the necessary research was conducted, a draft was written and presented to an in-house team of faculty and staff at Albany Tech to review. The in-house final draft was sent to the consortium partners for review. The final PLA policy draft was then presented, reviewed and approved by the TCSG.

The initial timeline for this piece was given one year. However, it was completed six months ahead of schedule. According to the PLA Coordinator, this was and is the easiest piece of the program to complete. Getting faculty and staff buy-in would prove to be the biggest challenge in implementing the PLA program.

Implementation

Once a policy was approved by the TCSG, the initial step in implementation was to inform administrators, faculty and staff within the consortium of the policy and assist with implementing as needed on each of the three campuses. With support from the TCSG, a PLA presentation was made in a session with the 2013 Academic Affairs Vice Presidents Annual Meeting. PLA workshops were created and delivered to two of the TAACCCT consortia members, Athens Tech and Albany Tech. Atlanta Tech did not participate in the PLA workshops. In 2014, the PLA Coordinator and TAACCCT Project Manager planned a workshop tour across Georgia to introduce the PLA policy to TCSG

community colleges; however, lack of buy in from individual schools generated little to no interest and the workshop tour was put on hold. In recent months, some schools have made inquiries and requests for the policy

TAACCCT OUTCOMES

Table 9. TAACCCT Outcome Measures			
	Target	Actual	Percent
Total number of participants	400	621	155%
Total number completing a grant funded POS	240	173	72%
Total number retained in a grant funded POS	292	242	83%
Total number retained in other education program	361	9	3%
Total number of earned credentials	240	508	211%
Total number pursuing further education after completion	188	2	1%
Total number employed after POS completion	224	17	8%
Total number retained in employment after POS	322	0	No data
Total number receiving wage increase post- enrollment	167	0	No data

LESSONS LEARNED FROM IMPLEMENTATION AND OUTCOMES

Recruitment

Overall each school had a solid approaches to recruitment and can be seen based on

the number of served in a TAACCCT funded program. During the TAACCCT initiative,

the ATCX3 initiative served 62 students in their programs that over and above the

targeted 400 identified in the work plan. While each school had a slightly different

approach, the commonalties that worked for each school included:

- Outreach to local community organizations
- Team work approach to recruitment
- Show casing TAACCCT funded programs

In addition to focusing on the above areas, ATCx3 grantees were encouraged to recruit trade adjustment assistance (TAA) eligible individuals. According to internal analysis of data provided by the Georgia Department of Labor (GDOL), there were a significant number of eligible individuals in the ATCx3 service areas. Each college made considerable effort towards recruiting these individuals during each recruiting event, ew TAA-eligible workers enrolled.

Wrap Around Services

Research has shown that students that have access to multiple support services are more likely to complete their degree programs. The ATCx3 provides wraparound services in the way of Achievement Coaches to assist students in TAACCCT supported engineering programs. Activities of the Achievement Coaches include recruiting, advising, conducting skill-building workshops, and providing referral services. Relationship building is another core component of Albany Tech's approach to its wraparound services. The Achievement Coaches noted that building relationships with faculty and students is critical to success; according to one AC, "if you want access to the students, you have to go through the faculty so it just makes sense to work with them from the start.

The challenge with the wraparound services was primarily administrative. While each program worked diligently to provide services to the students, there was a lack of cohesive documentation with and across the consortium. While differences across programs could be expected, within programs there should be more cohesion and

structure. Each college was encouraged to develop a unified approach to documenting work conducted with and on behalf of students.

RECOMMENDATIONS

Data Analytics. Continue to work individually with the colleges to reconcile data-mart issues. As discussed earlier, only one of the colleges is currently using the data-mart system as outlined in the grant. Additionally, each school will need to develop a data analytics team in conjunction with the TAACCCT Data Analyst and Evaluator to sort through data challenges. Specifically, 1) reconciling system data with program records, 2) identifying a mechanism for obtaining wage labor data, and 3) clarifying the process for conducting the quasi-experimental design using historical data.

Wrap-around services. Use strengths from each of the colleges' wrap-around program to develop a comprehensive approach. Each of the colleges has established strengths in providing wrap-around services to students. It would be appropriate for the colleges to come together to developed a structured model based on the strengths and lessons learned from each school.

Professional development. Develop a comprehensive resource library that contains information gathered from the extensive professional development training that faculty and staff received.

Engaging industry. The ATCX3 Consortium has an opportunity to develop and share the models used with each of the schools to engage industry. The three schools geographical

locations in large, medium and rural settings and their approach to working within each of

these areas successfully would be of value to the field.