FLORIDA XCEL-IT: INFORMATION TECHNOLOGY CAREERS FOR RURAL AREAS

FINAL EVALUATION REPORT

UCF PROGRAM EVALUATION AND EDUCATIONAL RESEARCH GROUP

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This evaluation report presents details and insights on the efforts and progress made by *Florida XCEL-IT: Information Technology Careers for Rural Areas* (XCEL-IT), a U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program funded project led by the College of Central Florida (CF). It was completed by Program Evaluation and Educational Research Group (PEER) at the University of Central Florida (UCF), the project's third-party evaluator. Its contents do not necessarily reflect the views of UCF, CF, or DOL.

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INTRODUCTION

This evaluation report provides details and insights on the efforts and progress made by *Florida XCEL-IT: Information Technology Careers for Rural Areas (XCEL-IT)*, a Department of Labor (DOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) program funded project. It presents findings on key outcomes and accomplishments at the end of the four-year Round 3 project, which ends September 2017. During this period, PEER performed a series of in-depth site visits; conducted regular interviews with key stakeholders engaged in the XCEL-IT initiative; reviewed project related reports, deliverables, and other agreed-upon evidence; reviewed results from surveys of students; and attended some project related events.

The report begins with a brief description of the project and a summary of the proposed activities. It then moves to a discussion of implementation efforts relative to its adoption, highlighting findings from PEER's interim evaluation report (Swan, Fidanzi, & DeStefano, 2017). Next, it presents a quantitative analysis of short-term participant outcomes (education and employment), and results from a comparative impact study (Hahs-Vaughn, Swan, & Clark, 2017), which extended to more recently, in April 2017. This all considers what the consortium and its member colleges achieved in terms of what was outlined in the grant's Statement of Work (SOW). Finally, the last section provides a summary of what the consortium considered as lessons learned, promising practices, and innovative strategies.

Overall findings for process and implementation evaluation have shown that while some of the planned activities were started late by some of the member colleges, momentum was gained for meeting almost all of the requirements outlined in the grant's Statement of Work, and certainly the major ones.

Results for the outcome evaluation indicated the consortium met five of its ten intended outcome measures. For example, the consortium exceeded the aim to have 2,253 students enter and progress along pathways to high-skill, high-demand careers, reaching a total of 2,779, but fell short with only 109 retained in employed after program of study completion, versus aiming for 797.

Results from the impact study suggest that the XCEL-IT TAACCCT program students, relative to students in comparable programs, resulted in an increased likelihood of adults completing their program; for non-completers being retained in education; and for non-incumbent completers who entered employment, being retained in employment. However, XCEL-IT students were only slightly more likely to receive a wage increase.

The main audiences for this report include the sponsor, policymakers interested in Information Technology (IT) programs or similar workforce development programs, the consortium colleges, and other colleges considering such approaches.

BACKGROUND

TAACCCT PROGRAM OVERVIEW

On March 30, 2010, President Barack Obama signed the Health Care and Education Reconciliation Act, which appropriated a major investment of $2 billion over four years ($500 million per year) to fund the U.S. Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant program. The Department of Labor is implementing the TAACCCT program in partnership with the Department of Education. The TAACCCT Round 3 Solicitation for Grant Applications (SGA/DFA PY-12-10) (United States Department of Labor, Employment and Training Administration [USDOL], 2013) includes three overarching goals:

1. Increase attainment of degrees, certifications, certificates, diplomas, and other industry-recognized credentials that match the skills needed by employers to better prepare Trade Adjustment Assistance (TAA) eligible workers and other adults for high-wage, high-skill employment or re-employment in growth industry sectors.
2. 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.
3. Demonstrate improved employment outcomes.

Every U.S. state has received funding, over the life of TAACCCT, through 256 grants totaling $1.9 billion. These grants, which end in September 2018, are happening in 60% of the nation's publically funded community colleges (TAACCCT, 2017). Efforts have aimed at institution building, rather than at tuition assistance, and have built industry-aligned programs in manufacturing, healthcare, information technology, energy, transportation, and other industries. Through TAACCCT, community colleges have developed or redesigned nearly 2,600 programs of study.

XCEL-IT "THE PROJECT" OVERVIEW—DESCRIPTION OF THE SINGLE-STATE CONSORTIUM INTERVENTION

In September 2013, DOL awarded a $10,161,060 award under Round 3 of the TAACCCT grants program, to a single-state consortium led by the College of Central Florida, in Ocala, Florida to fund a four-year project titled *Florida XCEL-IT: Information Technology Careers for Rural Areas* (XCEL-IT or "the project") to build college capacity to provide specialized information technology (IT) training. The official start date was October 1, 2013.

The Florida College System, previously known as the Community College System, contains 28 public community colleges and state colleges in Florida. The XCEL-IT consortium is comprised of seven of these colleges, representing 22 of Florida's 67 counties, including the College of Central Florida, Eastern Florida State College, Florida SouthWestern State College, North Florida Community College, Palm Beach State College, South Florida State College, and St. John's River State College. XCEL-IT was designed to help the rural areas of Florida, which have historically been occupied by higher proportions of older residents with lower incomes, higher poverty rates, and less education than most other areas in Florida. Fifteen of the 22 counties in which these consortium campuses reside are in rural areas of critical economic concern (Rural Economic Development Initiative, 2011).

XCEL-IT recruitment efforts targeted workers eligible for training under the TAA for Workers program, and other adults, including Veterans, and those over the age of 24 who were either unemployed or underemployed by providing them with skills and knowledge to attain in-demand jobs in the IT field. The main objective of the grant was to prepare these individuals by adding 18 new programs, including 15 CCC, 2 ATC, and 1 PSAV (Figure 1).
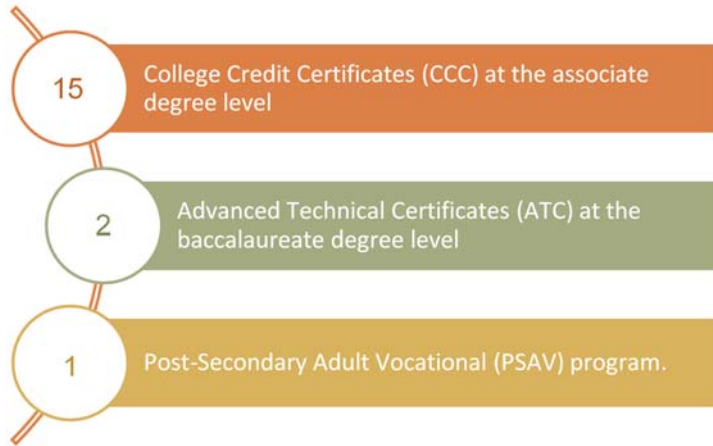
Figure 1. Number and Types of Programs Proposed by XCEL-IT

XCEL-IT provided specialized IT training in manufacturing, logistics and supply chain management, and cyber security. IT skills in the geographical areas served by consortium member colleges have typically been out-of-date. Entrepreneurship was another focus of the grant since the majority of businesses served in the targeted counties had employed four or fewer people.

Other ways the capacity building activities that XCEL-IT proposed to develop and implement within the period of performance included the following:

- Adding refined career pathways from non-credit courses to Bachelor of Applied Science (BAS) degrees in IT, cybersecurity, logistics, manufacturing, and entrepreneurship.
- Adding an online course in developmental education using new technologies.
- Creating an Employment Results Scorecard that provides TAA-eligible workers, and other adult learners and prospective Florida students, key information on the employment outcomes of graduates to determine whether these programs of study may be appropriate for their career goals.
- Refining techniques for reaching out to TAA-eligible workers and other adults in rural environments.

To see an abstract and executive summary, along with the technical proposal and other information about XCEL-IT and other TAACCCT awards, are located at the U.S. Department of Labor's Grant Application and Award Database website (http://www.dol.gov/dol/grants/). The project was also required to provide a more detailed table detailing the grant's activities, deliverables, costs of implementation, and the timeline with milestones soon after the award. This version was adapted from the grant agreement (omitting costs) to summarize the XCEL-IT work plan (Appendix A).

EVALUATION DESIGN

Evaluation components focused on program implementation/process (formative), outcomes, and impacts (summative). The next two sections provide an overview of PEER's evaluation questions, data sources, and methods of analysis. PEER worked with the XCEL-IT core team to develop and update a simple logic model identifying key program components and desired outcomes (Appendix B). The evaluation followed guidelines established by the Joint Committee Standards (Yarbrough, Shulha, Hopson, & Caruthers, 2011) and the American Evaluation Association Guiding Principles (www.eval.org).

PROJECT IMPLEMENTATION ANALYSIS

To help document lessons learned, best practices, and project outcomes, PEER conducted an investigation of the early investments and a study of the implementation of the project. Findings from *implementation analysis* and *process evaluation* aimed to (a) accurately document and analyze, from a third-party perspective, the steps involved in developing and operating the program, and (b) drive improvement. There were three main evaluation questions for program implementation analysis (Figure 2).

How is the project being implemented?

Is it being implemented as planned?

What should be improved?
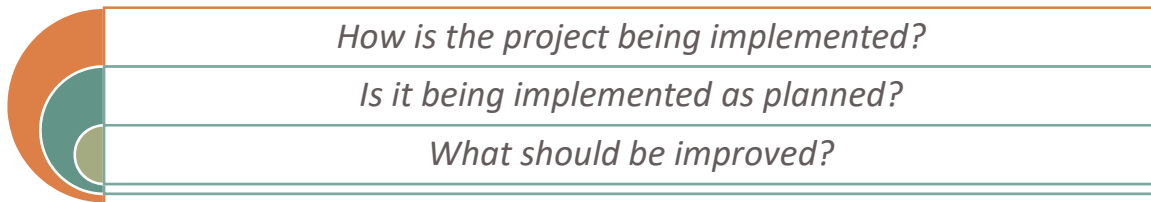
Figure 2. Implementation and Process Evaluation Key Questions

Evaluation data and other project information used for the program implementation analysis were collected from a review of program records, collected by each member college and from other sources. PEER worked with members of the project team to create an Implementation Evaluation Template, where College Coordinators (one at each site) detailed quarterly progress. This provided a common way to document demographics, participant status, program participation, skill acquisition, and progress related to meeting the intended goals of the project. Each quarter they provided an updated template, deliverables and other evidence outlined in the project's work plan (Appendix A). College Coordinators were also responsible for maintaining XCEL-IT's Participant-Level Database, for enrollees at their site, that included all required elements for Annual Performance Reports (APR) and measures for tracking participation in activities for the consortium's Quarterly Narrative Progress Reports (QNPR).

PEER summarized information from the Implementation Evaluation Templates for a "summary report" each quarter, used by the Consortium Director to prepare the consortium's QNPR. Evaluators conducted an audit of each college's participant-level database, to verify educational outcomes against college records for a sample of students at each site. PEER also conducted interviews and focus groups with a sample of key stakeholders to help (a) identify or better understand problems that should be addressed; (b) understand complex behaviors and motivations, and gather an array of opinions, ideas, and perspectives on important topics; and (c) assess and document what interventions were working along with the lessons learned. Other data collected, that was especially important for driving timely

improvements, included feedback from students, using program-exit and end-of-course surveys, and faculty interviews for those implementing the courses.

Site visits were conducted by PEER twice annually for each site in Years 2 and 3. The consortium director led three of these—when she was able to attend. Focus of these visits was to provide technical assistance for data collection procedures, data storage at the student level, assuring understanding of required evidence to maintain, and to reviewing timeline for reporting. Another focus was on keeping communication lines open and positive, and data collection (interviews, field notes, meetings with faculty and staff, visiting new labs, and observations).

The lead evaluator met almost monthly with the Consortium Director and participated in the director's monthly calls and at consortium-level meetings. Table 1 lists additional questions used to guide the evaluation, along with the different approaches taken.

Table 1. *Program Implementation Analysis: Additional Evaluation Questions Aligned with Methods*

Implementation Questions	Evaluation Methods
▪ How is curriculum selected/developed?	▪ Documenting curriculum already in place at member colleges ▪ GAP analysis to provide the rationale for the new curriculum, and its alignment with national industry and accreditation/certification standards ▪ Progress monitoring
▪ What is the project's administrative structure? ▪ How are TAACCCT programs being developed? Is new curriculum being vetted? How well does that process work? ▪ What are the course delivery methods? Are they flexible and customer driven? ▪ Are users satisfied? What recommendations do they have for improvement?	▪ Administrative structure analysis ▪ Document review of evidence provided ▪ Qualitative feedback from College Coordinators, administrators, and faculty (interviews); and students (end-of-course surveys, program exit survey, focus groups)
▪ What are the methods for recruiting students? How well does that process work? ▪ Is an in-depth assessment of participants' skills, abilities, and interests conducted? What tools and processes are used? ▪ Does the project provide career guidance to participants? How well does that process work?	▪ Review of documents and assessments used for participant referrals ▪ Review of advising tools and process ▪ Qualitative feedback from stakeholders (WIB partners, program staff, involved faculty, and students)
▪ What contributions do partners make? ▪ What factors contribute to partners' involvement or lack of involvement? ▪ Which contributions from partners are most critical to the success of the program? Which contributions from partners have less of an impact? ▪ What valued components should be sustained?	▪ Document review of meeting minutes, data collected on participant referrals and sustainability plans ▪ Qualitative interviews and a collaboration factors inventory ▪ Review of sustainability plans and accomplishments using a template (Years 3 and 4 for each member college)

Note. There were two overarching evaluation questions for implementation analysis, in addition to those listed in this table, including 'How is the project being implemented?' and 'Is it being implemented as planned?'.

PEER used correlation analysis to examine some of the relationships between program operational characteristics and program outcomes. Qualitative data—for example, open-ended responses for assessing the effectiveness of the services using surveys or guided interviews and focus groups—were analyzed using content analysis. Responses to open-ended questions were analyzed using coding to identify major themes (Corbin & Strauss, 2015) by two different analysts independently. Initial disagreements were discussed to reach a consensus (Morse, Barrett, Mayan, Olson, & Spiers, 2002).

OUTCOME EVALUATION

Summative/outcome evaluation at the end of each project year focused on outcome measures based on the stated objectives (common measures) obtained at the student level plus formative feedback for the next program cycle. Results helped document the extent to which intended and unanticipated impacts were achieved, drawing recommendations and answers to the following summative evaluation questions:

> Did the consoritum meet aggregate projections (common measures) for all participants in all programs?

> How do participants compare to control groups for post intervention outcomes?

> To what extent did the project meet the stated goals for change or impact on critical components?

- New or revised credit courses and certificates in IT areas, including new lab equipment
- New or revised non-credit courses/soft skills training
- New developmental education MOOC in Grade 12 reading, mathematics, and English (also non-credit)
- A rural outreach structure and methods to recruit 2,500 new students
- Accelerated learning, especially through credits for prior learning/experience, but including more career-oriented advising
- Outcome data collection for an Employment Results Scorecard
- Institutionalizing inter-college collaboration and collaboration with IT employers

> Did the grantees conduct an in-depth assessment of participants' abilities, skills, and interests when selecting participants into the grant program?

> What contributions did XCEL-IT partners make?

- What did they provide in terms of (a) program design, (b) curriculum development, (c) recruitment, (d) training, (e) placement, (f) program management, (g) leveraging of resources, and (h) 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?

> What valued XCEL-IT components can be sustained?

Figure 3. Summative Evaluation Questions

One focus was on how well the consortium was on track for meeting aggregate projections (common measures) for all participants in all programs. For this, grantees used the participant-level database mentioned in the previous section, to track students' progress, and capture all data elements necessary to report on demographic and outcome data.

For TAACCCT consortia, like XCEL-IT, the lead institution is responsible for gathering all information and data from participating consortium members and reporting to the DOL/Employment and Training Administration (DOL/ETA) in aggregate, using the APR Form in order to comply with the reporting and record keeping requirements of the grant. For the evaluation, annual counts were recorded in the APR and compared to projected counts for the number of participants and projected outcomes at the start of the grant to determine progress. A USDOL/ETA issued handbook (OMB Control Number 1205-0489) defining each of these outcomes measures. This along with APR and Quarterly

Narrative Progress Report (QNPR) Forms and Instructions are available with other resources on the TAACCCT Learning Network website (https://taaccct.workforcegps.org)

Another aspect of the evaluation focused on a developmental education massive open online course (MOOC) designed as a way to improve the basic skills of students in order for them to continue onto one of the new pathways. MOOCs first came about in 2008, and then became popular by 2012, as a mode of online learning aimed at reaching an unlimited number of participants via the web (Pappano, 2012). PEER evaluated XCEL-IT's MOOC design and provided subject matter expertise for improving the content, after an initial review managed by CF. While CF did recently finish development of the MOOC, in Year 4, it has not been launched because of unforeseen barriers. Once the new technology is used, PEER will perform an outcome study to investigate faculty and staff use of MOOC for students, the level and quality of interaction between students and faculty, and outcomes for students.

IMPACT STUDY

Hahs-Vaughn, Swan, & Clark (2017) conducted an impact study that relied on a comparison of the outcomes of students who were involved versus others who were not. The study was guided by both (a) recognizing the actors that the evaluators believed would influence what could be accomplished with the grant; and (b) a thorough understanding of the different activities that individuals from both groups engage in. While randomized designs are typically a preferred method for assessing treatment outcomes, it was not feasible to randomly assign and retain students to XCEL-IT's educational programs. Therefore, we selected a quasi-experiment with a cohort-control group design with statistical adjustments.

Student-level data for this came from sample programs identified at each (all seven) XCEL-IT member institutions. For purposes of this report, students enrolled in the TAACCCT courses comprised the 'treatment cohort' and enrolled in courses during Year 2 (Oct 2014–Sept 2015). To facilitate the measurement of treatment impact (i.e., newly developed course), each college selected what they determined as the best-matched program(s) comparative cohort. More specifically, for the comparison cohort of participants, colleges provided data on at least as many students as those in the treatment cohort, with the exception of one college which provided data only for a treatment group, determining there was no similar program at their college to use as a comparison. The comparison students must have either enrolled or formerly enrolled in a similar program of study (or combined program of study) as those in the treatment cohort, but were not enrolled in a version of the program that had been funded in any way with other grant funds. All educational outcome data and student background/demographics were collected from the students' institutional records. To examine the performance outcomes of the training programs, each college linked the data obtained by the college from educational records and linked it to the unemployment (UI) wage records provided by the workforce investment board or workforce partners (WIB) before providing to PEER. Appendix C provides a table summarizing results for this by group (treatment and comparison) and college. The dataset for both treatment and comparison students included the following:
   a. College attending
   b. Student Birthdate (MM/DD/YYYY)
   c. Gender (M/F/blank no self-disclosure)
   d. Hispanic/Latino Ethnicity (Y/N)
   e. Race (White, Black/African American, Hawaiian Native or Pacific Islander, Asian, American Indian or Alaskan Native, More than One Race, Blank/no self-disclosure)
   f. Pell eligibility (Y/N)
   g. Program of study (College Credit Certificate)—students having enrolled for the first time in one of the CCC courses)

h. Eligible Veteran status (yes 180 days/yes, eligible Veteran/yes, other eligible person/no, see reporting guidelines for more details about this)
i. Disability status (Y/N)
j. Retained in other education (only for non-completers) (Y/N)
   - Participants who have NOT completed a grant-funded program and are no longer enrolled in a program that is funded in any way by the grant this year are counted in this field.
k. Still enrolled in other education (only answer if completed targeted program) (Y/N)
   - For students who complete a program and are still enrolled in an educational program.
l. Date of student's first enrollment in targeted program of study (MM/DD/YYYY)
m. Date student completed targeted program of study (if applicable) (MM/DD/YYYY)
n. Incumbent worker status (at "first enrollment" is when the student first enrolled in targeted program) (Y/N)
o. Entered Employment [Y/N if the individual entered employment after program completion (two 3-mo cycles)—only answered if completed targeted program]
   - Defined as only participants who completed a grant program this year, or in the last quarter of the previous year, and are NOT incumbent workers.
p. Retained in employment after program completion (Y/N) [Only participants who completed a grant program in the current year, or in the last quarter of the previous year, that were NOT incumbent workers were eligible]
   - Students counted here must have been counted as Entered Employment, and retained in employment, in both the second and third quarters afterward.
q. Wage increase for incumbent worker post enrollment (Y/N) [Wage increases could occur any time after enrollment for any reason, however, only the first wage increase for incumbent workers could count]
   - This was computed for incumbent workers as well as non-incumbents who entered employment.

Data Analytic Methods

Treatment effects were measured using a posttest only, quasi-experimental design, in which the treatment and comparison cohorts were balanced by propensity score matching after the intervention period, but prior to computing comparative differences. Propensity score matching is a common statistical adjustment procedure by which participants in non-randomized treatment groups are matched on an aggregate of several variables, which relate to the outcome variables and the selection mechanism, to reduce selection bias (Austin, Grootendorst, & Anderson, 2007; Bai, 2011). Theoretical and empirical evidence indicates that use of propensity score matching is suitable to eliminate bias between treatment and control group participants caused by the inconsistencies between the two groups on their observed attributes (Pearl, 2009; Rosenbaum & Rubin 1983). While the ability to reduce bias using propensity score adjustments (PSA) varies depending on the adjustment method, common support between the groups before matching, and specific outcomes, propensity scores can reduce as much as 95% of selection bias in quasi-experiments (Austin, 2009; Bai, 2011; Shadish, Clark & Steiner, 2008). Although there are several commonly used adjustment methods, propensity score matching often reduces more bias than other methods (Austin & Mamdani, 2006; Kurth et al., 2006). In addition, the statistical analyses used with matching tends to be more powerful and require fewer participants than it does with other methods.

Propensity scores are estimated as the predicted probability that participants will be in a treatment condition based on several observed covariates (Rosenbaum & Rubin, 1983). For this study, the covariates in the propensity score model included the following:

a. Age
b. Male
c. Hispanic
d. Underrepresented minority (i.e., non-White and non-Asian)
e. Pell eligible
f. IT program of study (reference: non-IT)

g. Veteran
h. Disabled
i. Incumbent

While it would have been ideal to match individuals within the college they were enrolled, as explained earlier, only six of the seven colleges provided comparative student data. Of those six, three colleges provided less data for the comparison students than the treated students. Therefore, sample size was not sufficient to support matching within each college. The college where students were enrolled was initially included as a matching covariate. However, balance statistics were greatly improved when college was excluded from the propensity score matching, and thus it was not included in the final matching algorithm. Figure 4 provides the general procedure used to match treatment and comparison students.
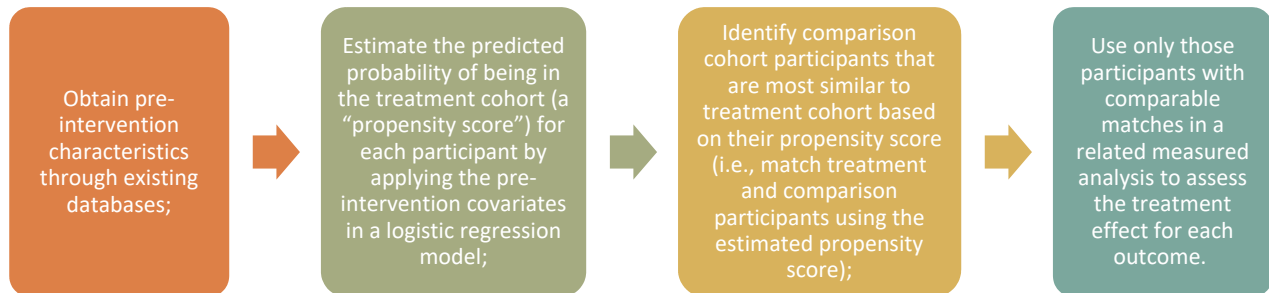
Figure 4. General Procedure for Matching Treatment and Comparison Students

The likelihood of finding comparable matches for the treatment group increases under the following conditions: when there are samples of students from the same geographic region with similar demographic characteristics; when we draw comparison participants from a large pool of potential participants; and when we utilize available covariates to model the propensity scores (Dehejia & Wahba, 2002; Rosenbaum & Rubin, 1985). In order to reduce the most bias, caliper matching was employed. With caliper matching, pairs of treated and comparison participants are created such that the difference in the propensity scores between the groups differs by a caliper width, i.e., a maximum fixed distance. To minimize the mean squared error (MSE), calipers of width .20 to .55 times the standard deviation of the propensity score logit were tested, ultimately using a caliper of .25. Research suggests that approximately 99% of the bias can be reduced by using a caliper width of .2 times the pooled standard deviation of the propensity score logit. Using a caliper width of .60 has been found to reduce between 86% and 91% of the bias (Cochran & Rubin, 1973) to as much as 95% and 99.6% of the bias (Austin, 2010).

To determine the extent to which the propensity score matching was effective in reducing selection bias, PEER examined how well the propensity scores balanced the individual covariates after the matching procedure. Rubin's (2001) criteria was used to assess propensity score balance. Individual covariates were assessed for balance using a standardized measure of bias (Rosenbaum & Rubin, 1985), and graphs were used to visually inspect balance. Assuming that all relevant covariates are included in the propensity score model, balanced covariates indicate that treatment effects are also unbiased. Recommendations by Thoemmes and Kim (2011) and Fraser et al. (2011) on reporting PSA were followed to ensure transparency in reporting and ensure sufficient detail was provided for those wishing to replicate the matching process.

To estimate the effect of group membership (i.e., intervention and comparison) on the outcomes, logistic regression was applied after matching.

Missing Data

There were some missing data. In the case of binary data (e.g., Hispanic, Veteran, disability, incumbent), missing data was coded as the reference group (i.e., '0'). Only 2 of the 899 cases were missing age data. For those cases, the group's average for the respective college replaced missing values.

Propensity Score Matching

Logistic regression was used to estimate the predicted probability of assignment to an intervention or comparison program. Matching on the propensity scores was conducted in SPSS with the R plug-in and PS Matching dialog (Thoemmes, 2016). The students were matched 1:1 (one treatment case to one control case) without replacement using optimal matching within a caliper of .25SD. This yielded a 100% matched set, so that every student in the intervention group was matched to a student in the comparison group (n = 394 per group).

Overall balance, as measured by relative multivariate imbalance, improved after matching (.538 before as compared to .470 after). Means and percentages of bias were compared before and after matching. Absolute standardized mean differences close to zero are preferable, as that indicates small differences between the treated and untreated units. All covariates and interactions of covariates had values below .35, suggesting relatively good balance in the model. Based on Rubin's (2001) criteria, treated and comparison propensity score mean differences were well within one-half standard deviation (.34) and residual error variances of propensity scores regressed on covariates were near one. All plots (including jitter plots, histograms of standardized differences, and dot plots of standardized differences) suggested that balance was achieved. In aggregate, matching on the propensity score resulted in a matched sample where all of the baseline covariates and interaction terms are very similar between students who participated in XCEL-IT and students who participated in comparison programs. After matching, only those participants with comparable matches (i.e., the matched sample) were used to assess the treatment effect for each outcome.

Matched Sample

A summary of descriptive statistics by condition after the propensity score matching procedure was applied is presented in Table 2. As noted in Table 2, the matched sample of treatment and comparison students were similar in average age (30–32), largely male, predominantly non-Hispanic and White or Asian, non-disabled, and not veterans. There was a slightly larger proportion of incumbent workers in the comparison group compared to the treatment group (56% versus 50%, respectively) and a slightly higher proportion of treatment students in IT programs (93% versus 87%, respectively).

Table 2. *Group Differences Before and After Matching on Pre-Intervention Characteristics*

	Treatment n = 394	Comparison (pre matching) n = 505	Comparison (after matching) n = 394
Age			
Mean	31.64	31.33	30.85
SD	10.99	11.36	11.50
Min	17.5	15.9	15.9
Median	28.99	27.55	26.63
Max	72.4	67	67
Gender			
Male	327 (83%)	332 (66%)	331 (84%)
Female	67 (17%)	173 (34%)	63 (16%)
Hispanic			
Yes	60 (15%)	97 (19%)	63 (16%)
No	334 (85%)	408 (81%)	331 (84%)
Race			
Minority	100 (25%)	126 (25%)	95 (24%)
White or Asian	294 (75%)	379 (75%)	299 (76%)
Pell eligible			
Yes	208 (53%)	241 (48%)	189 (48%)
No	186 (47%)	264 (52%)	205 (52%)
Eligible veteran			
Yes	42 (11%)	40 (8%)	40 (10%)
No	352 (89%)	465 (92%)	354 (90%)
Disability			
Yes	8 (2%)	7 (1%)	7 (2%)
No	386 (98%)	498 (99%)	387 (98%)
Incumbent worker			
Yes	198 (50%)	279 (55%)	219 (56%)
No	196 (50%)	196 (39%)	175 (44%)
IT program			
Yes	367 (93%)	342 (68%)	342 (87%)
No	27 (7%)	163 (32%)	52 (13%)

IMPLEMENTATION STUDY FINDINGS

The XCEL-IT technical proposal provided a comprehensive list of all activities for the first three years, along with the "deliverables" (including outputs, products, or other evidence) that would result from each. These deliverables were then refined at the start of the grant, as part of a DOL mandatory modification, to make what would be developed through XCEL-IT better defined and more measurable. See Appendix A.

Findings provide comparisons of performance to targets for each of the consortium's proposed activities. There were 14 different activities designed to develop and implement the model training programs at the different colleges. These activities fall within the four areas listed in Figure 5.
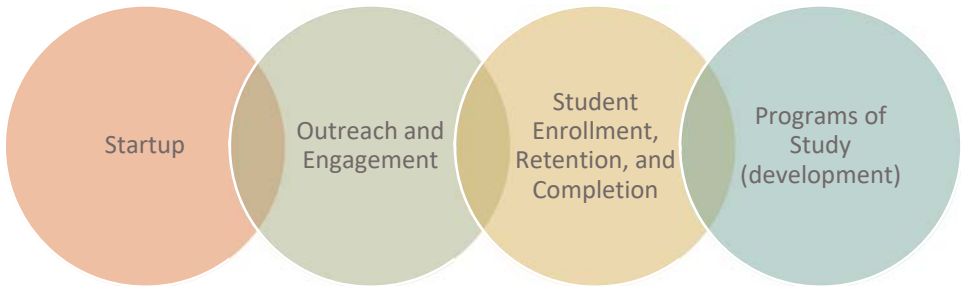
Figure 5. Four Focus Areas for XCEL-IT Activities

After each activity we begin with the description of what was originally proposed, then follow with how it was carried out, pointing out any differences, and whether deliverables were met.

PART ONE: START-UP

The project plan identified two activities for the startup phase: (a) Securing Resources and (b) Briefing Stakeholders in the Involved Communities. These activities all occurred, but most started later than planned.

Activity 1.1: Secure Resources

Projected Start and End Dates: Y1Q1–Y1Q2

> Securing Resources included several deliverables: (a) project staff would be employed, (b) initial meeting of Project Council, (c) meetings of XCEL-IT Advisory Committees, (d) initial training in Agile Management, (e) hiring an external evaluator. Activity 1.1 also included developing quarterly targets (Milestones) for meeting each deliverable.

In January 2014, all Round 3 TAACCCT grantees were required to identify more specific deliverables for each activity that would be developed through their grant, including quantifying the deliverables and providing a brief description. This was the first milestone identified as a deliverable, which was met. Status for other important components for

this activity—including hiring key personnel, purchasing equipment, and various other deliverables—is provided below.

Hiring Key Personnel

Hiring project staff and new course instructors was supposed to happen within three months, but it took longer. All but one member college hired project staff by the end of Year 1. The other finished staffing in Year 2. Five of the seven colleges had a College Coordinator in place by the deadline, however, four of the member institutions had turnover of this position early on (one college twice). Three colleges (FSW, PBSC, and SJR) were slow in hiring instructors.

Purchasing Equipment

Equipment was ordered by the end of Year 1.

Other Start-up Deliverables

Five other start-up deliverables were accomplished, some differently than planned:

- Initial meeting of project council
- Initial training in project management—colleges elected to do this differently at each site rather than using Agile Project Management (CC Pace, 2014) processes/resources referenced in the proposal.
- External evaluator in place
- Two meetings annually of each of the seven colleges' advisory committees—most held only one meeting in Year 1, one college started in Year 2
- Conduct annual IT employer forum at each college—all but one college (EFSC) conducted an IT employer forum in Year 1 and the goal was met by all, with some holding more than one forum beginning in Year 2

Activity 1.2: Brief Stakeholders in Every Community

Projected Start and End Dates: Y1Q1–Y3Q4

> For this activity, each college was to establish its own standing outreach taskforce, including participation from local non-profit organizations and conduct outreach events in every community served by the member institutions. The activity included a milestone of each college holding its first stakeholder meeting within the first four months of the project (by Y1Q2).

Three colleges (CF, FSW, and SJR) met the milestone deadline for holding its first stakeholder meeting including non-profits within the first four months of the project, others started later.

PART TWO: OUTREACH AND ENGAGEMENT

There were five XCEL-IT activities identified for improving outreach and engagement (Figure 3). The main gap for this was for attracting post-traditional students who may not be aware of certifications and degrees. Post-traditional students are a diverse group of individuals who do not necessarily come to college *as ready* as more traditional college students. They are typically older, may or may not have been in the workforce, are often unemployed or underemployed, and have a desire to further knowledge and skills while balancing work, life, and education responsibilities.

2.1 Conduct social media campaigns	2.2 Conduct outreach presentation tables	2.3 Conduct snack classes

2.4 Conduct follow up to engage veterans and other subgroups	2.5 Implement pro-active advising
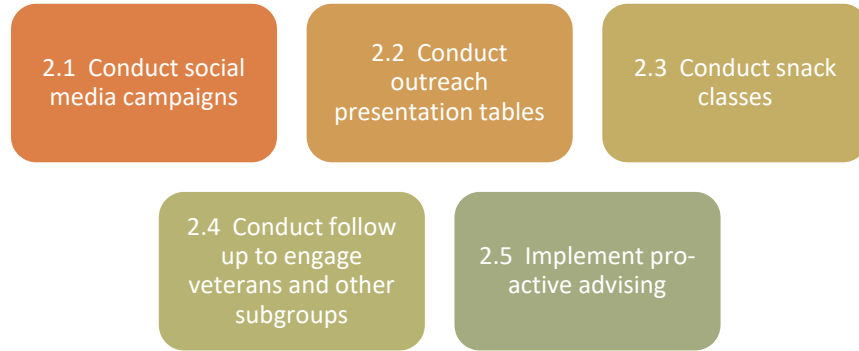
Figure 6. Outreach and Engagement Activities

XCEL-IT accomplished outreach and engagement through social media campaigns, more specialized outreach and recruiting, and with more proactive advising. The consortium broadened its intended audience, which is over 24, long-term underemployed or unemployed, with TAA-Eligible preferred to help assure that the programs had enough students enrolled. The following provides comparisons of performance to targets for the five outreach-and-engagement activities planned.

Activity 2.1: Explain XCEL-IT Opportunity to TAA-eligible Workers and other Adult Workers in Rural Communities

Projected Start and End Dates: Y1Q2–Y3Q3

> According to the work plan, there would be 42 social-media campaigns (2 per year per college) held by seven Workforce Investment Boards (WIB), designed in consultation with others in the consortium to promote the project to target audiences.

Local WIB's from two colleges did one campaign in Year 1. Six of the seven colleges met the target for two WIB campaigns annually for Years 2 and 3. One (FSW) did not involve their WIB in promoting TAACCCT programs.

While all member colleges accomplished reaching out to TAA-eligible workers at least twice through the WIB, there were fewer in this worker group than anticipated.

Florida WIB's are housed under CareerSource Florida, a statewide workforce policy and investment board. Historically, not all member colleges had used the WIB to channel adult students. The most successful, have one-stop centers located directly on college campus, which are convenient for attracting those who might not otherwise consider college programs. To learn more about CareerSource Florida and its local workforce development teams, visit the CareerSource Florida website (http://careersourceflorida.com).

Some funds were included in the budget for WIB to help enroll participants in the Employ Florida Marketplace (EFM), which is an online resource for job listings, education and training opportunities, and various career building assistance. However, only a small number of XCEL-IT participants elected to self-enroll in EFM. Instead, they were offered one-on-one assistance and other services such as help with finding a job, creating a resume, soft skills training and pro-active advising through a collaborative effort between the WIB and the

consortium colleges. WIB also provided assistance with obtaining Unemployment Insurance (UI) wage data for both APR reporting and the impact study.

While WIB will continue to collaborate with the colleges to promote the new programs, additional funding would be needed to sustain social media campaigns like the ones created for XCEL-IT. It is also important to recognize these groups typically focused more on connecting qualified workers to human resource managers (career assistance) than they do to career training.

Activity 2.2: Conduct Outreach Presentations/Tables

Projected Start and End Dates: Y1Q2–Y3Q3

> To help address the historic lack of outreach to adult and other non-traditional students, each member college was to create an outreach team that would begin meeting regularly by the fourth month, charged with shaping outreach and findings ways to sustain it. This would include monthly presentations/tables reaching the targeted population.

All of the colleges performed outreach at least quarterly in the form of presentations and/or tables. Examples of other events reported, include speaking engagements, classroom visits, expos, open houses. PBSC and SFSC started these events beginning in Y1Q4, others started earlier. Only CF and SFSC established an outreach team for this. More follow up, including creating outreach task forces and developing and implementing a plan for regular sustainable outreach with college administrative support, was recommended.

Activity 2.3: Conduct Snack Classes

Projected Start and End Dates: Y1Q2–Y3Q3

> According to the SOW, monthly one-session snack classes would be held on popular, useful topics, often delivered by, or in conjunction with, local non-profit organizations.

Snack classes primarily included face-to-face events, for example, tours of employers to help participants visualize their career opportunities and set personal goals, enjoyable games to promote academic and career exploration, and lab-in-the-box-type tool usage. The Consortium Director added boot camps to the original list and recommended this as an activity to prepare for industry certification.

PEER confirmed that three of the colleges met the monthly target, and the rest (4) held snack classes at least quarterly by the end of Year 1. All (7) conducted these classes in Year 2 and six continued offering them in Year 3. Overall, there were well over 100 snack classes covered, impacting more than 1,300 students.

While many of these snack classes proved useful with helping students obtain industry certification and other valuable skills, only one college will sustain these efforts beyond the life of the grant without additional support.

Activity 2.4: Conduct Follow-up for Veterans and Other Sub-Groups

Projected Start and End Dates: Y1Q2–Y3Q3

> Another objective was to 'reinvigorate' veterans' programs. This would occur through follow-up information sessions specific to unique participants, including veterans and other subgroups (for example unemployed, over age 24, and for differing career avenues). Priority would be placed on TAA-eligible persons first, and then on veterans.

There were three main ways that XCEL-IT attracted veterans and participants from other subgroups:

- Disseminating flyers or brochures through local veteran's groups or offices.
- Working with WIB to target these groups.
- Hosting boot camps or presentations, and tables at local events.

One college (SJR) documented meeting the target for holding follow up information sessions each year. Five held sessions in Years 2–3, and the other college (FSW) documented outreach beginning in Year 3 with the help of the WIB. Two colleges (FSW and NF) reported very little contact with veterans. Others were successful reaching out to the veteran community through local non-profits and through their college veteran's resource office/advisor(s). For example, CF reported that the Marion County Veteran Coalition was immediately welcoming and made many more community contacts available; there were well attended soft skills trainings at the Ocala Ritz Veteran Village (affordable housing); and there was a veterans club that was active in helping and participating in Coffee and Career Talks as well as local job fair planning.

Activity 2.5: Implement Pro-active Advising

Projected Start and End Dates: Y1Q2–Y3Q3

> Pro-active advising was to begin at the start of the grant and advising staff would be trained how to ask key questions about a participant's needs and aspirations (during advising). Deliverables in the SOW included (a) tracking advising for XCEL-IT students and (b) using data available from the Employment Results Scorecard, which is a system for tracking and reporting outcome measures for Florida college programs as it goes online.

Pro-Active Advising

Each college had someone on their project team assigned to provide pro-active advising, however students experienced a different model for this depending on (a) where they enrolled, and (b) for how much assistance they sought out. Perhaps this should not have been so surprising.

Tracking for XCEL-IT advising in the student-level database was inconsistent—where some member colleges either had missing data, or did not track it at all, but all Consortium Directors reported that students reacted and benefited from the guidance they received.

All consortium colleges have moved to a more holistic approach for serving students during the grant period, but this cannot be attributed to just TAACCCT. Much of the progress in this area is happening due to a new Florida College System's (FCS) Performance Funding initiative. For more information about Florida's new funding model and rule that was approved in 2016 by the State Board of Education, visit the FCS Performance Funding Model website (https://www.floridacollegesystem.com/publications/performance_funding_model.aspx). This performance-based incentive initiative, adopted by the State Board of Education, came into place by new law (s.1001.66, Florida

Statutes), effective in July 1, 2016, requiring that Florida College System models include four measures: Retention Rates, Completion Rates, Job Placement/Continuing Education Rates, and Entry-Level Wages.

Florida Employment Results Scorecard

The project developed and implemented an up-to-date and useful Florida Employment Results Scorecard. Administrators can now use this to align institutional outcomes to the workforce needs of the state of Florida, and advise students about the success of college programs. Due to the late start in developing, and how this fit with other FCS initiatives, release date for the tool did not occur until Year 4. More information about Employment Results Scorecard is provided on page 33.

To promote use of the tool, the Division of Florida Colleges has conducted presentations and webinars to different audiences, including:

- Florida Association for Institutional Research Annual Meeting, Howey-in-the-Hills, FL (May, 2017)
- Association for Institutional Research Annual Forum, Washington, D.C. (May, 2017)
- FCS Council of Instructional Affairs, Council of Student Affairs, and Occupational Education Standing Committee Meeting, Cocoa Beach, FL (June, 2017)
- Multiple webinars throughout the year targeted towards key FCS administrators, including Chief Instructional Affairs Officers, Chief Student Affairs Officers, and Institutional Researchers.

Plans are in place to continue sharing this through the Chancellor's monthly newsletter, FCS webinars and listservs, and other conference presentations by division staff.

PART THREE: ENROLLMENT, RETENTION, AND COMPLETION

Figure 7 depicts the five activities comprising student enrollment, retention, and completion.

| 3.1 Conduct non-credit courses or embed soft skills learning modules | 3.2 Conduct PSAV/non-credit courses for industry certifications | 3.3 Ensure prior learning assessment |

| 3.4 Expand work-based learning | 3.5 Advise for retention and placements |
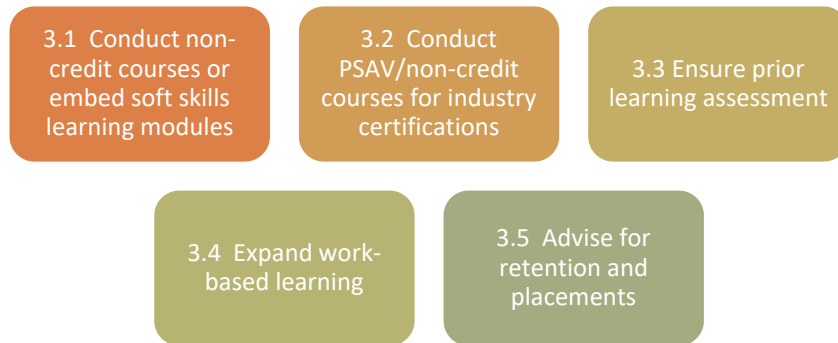
Figure 7. Student Enrollment, Retention, and Completion Activities

Planned activities were all accomplished, but with varying degrees of success.

Activity 3.1: Conduct Non-Credit Courses or Embed Learning Modules Covering Soft Skills

Projected Start and End Dates: Y1Q2–Y3Q3

XCEL-IT would conduct non-credit courses or embed learning modules covering soft skills. This activity included two targets. The first was to hold non-credit courses for students to acquire soft skills. The

second was for CF to create and test 24 developmental education MOOC modules so students acquire basic skills in reading, mathematics, and English. These MOOCs would include college promotional messages and links of embedded material suggesting that college is a positive and achievable career step for students at all levels.

Soft Skills Non-Credit Courses

XCEL-IT offered many free non-credit courses in *soft skills* which focused on equipping individuals with the necessary personal attributes needed to be successful at their workplace when dealing with customers and interacting with co-workers and supervisors. One college (CF) first offered these classes in Year 1 (on schedule), others started in Year 2.

All member colleges reported offering some form of soft skills training, around topics such as work ethic, communications, resume building, business ethics, interpersonal skills, teamwork, interviewing, and technology. Four colleges provided this training through their WIB, one through a staffing agency, and another has them embedded in the new courses. In Year 3, the number of these offerings by college, ranged from one to nineteen. While others were successful, there was one college (FSW) that reported having no students participate even though they advertised trainings on different campuses and at varying times.

MOOC Created and Tested with 24 Topic Modules and Quizzes

A MOOC is a M̲assive O̲pen O̲nline C̲ourse aimed at unlimited participant and open access. XCEL-IT's intent for developing these non-credit modules was for use by prospective students to brush up on skills so they can be successful in XCEL-IT programming. The proposal named two types of massive open online course (MOOC) for this—one for developmental education and the other for entrepreneurship. The Dev Ed MOOC had two deliverables detailed in the grant agreement (SOW):

- Creating and testing 24 general education topic modules and quizzes covering 70 state educational competencies, 180 primary learning activities, 90 optional learning activities, a closing test, and links to follow-up activities.
- Students acquire skills in reading, mathematics, and English according to pre- and post-test results collected after completion of each topic module.

For potential students, the Dev Ed MOOC was planned as an accessible way to review some basic skills to determine if they should enroll, or take one of more Dev Ed courses or MOOC modules, before enrolling in other coursework. Dev Ed MOOC modules were finished late, in Year 4, after a second round of quality checks for content and formatting. Because of late development, the grant did not accomplish testing or launching these new modules.

For the Entrepreneurship MOOC, members of the project team met with eLearning experts and then began drafting content in Year 1. However, administrators decided to put an end to its development.

Activity 3.2: Conduct PSAV/Non-credit Courses for Industry Certifications

Projected Start and End Dates: Y1Q2–Y4Q1

This activity was for conducting career certificate (PSAV) non-credit courses for industry certifications focused on preparation for immediate employment at NFCC; and for preparing students for certification exams (all member colleges).

NFCC got a quick start on conducting PSAV courses by getting a new Automation and Production Technology (APT) program started. Students can now choose to articulate 15 credit hours into three different AS programs. They also

have the opportunity to earn the Manufacturing Skills Standards Council (MSSC) Certified Production Technician industry credential. The college reports that APT students are at a 100% pass rate for earning this.

● ● ●

All colleges reported preparing students for industry certifications through boot camps and other non-credit type means.

Activity 3.3: Prior Learning Assessment

Projected Start and End Dates: Y1Q2–Y4Q2

> XCEL-IT was to employ several options for accelerated program completion, including credit for prior learning. Milestones set, included setting baselines and tracking the use of prior-learning assessments, and refine processes at each institution, to ensure students can be awarded with the greatest amount of credit for their previous learning and experience.

The proposal identified a gap where all consortium colleges had written policies to allow award of prior learning and experiential credit, yet options for this were not often used. Examples for what could be awarded, include military training and education, credit by examination, industry certification, work experience and training, open source courseware, and locally developed and administered course examinations.

One unexpected barrier came up beginning 2014 (Year 1 of XCEL-IT), due to new Florida legislation, asserting that colleges can no longer require those who have earned a diploma since 2004 or served in the military to take the state's standard placement test or to enroll them in non-credit remedial courses. This had an impact, on reducing the need for Activity 3.3 and also Activity 3.1, because of a decreasing the demand for students to enroll in the developmental education MOOC.

It turned out that while XCEL-IT did not play a part in broadening possibilities for awarding credit to students for their previous learning and experience, Florida College System (FCS) institutions are now required to do this anyway. Because of Section 1004.096 of the 2016 Florida Statutes and Rule 6A-14.032, colleges award credit for military training and education courses, and there are now more policies in place to help speed up time-to-degree completion. Overall, the consortium documented 39 XCEL-IT students receiving credit for prior learning (CF 16, EFSC 0, FSW 0, NF 2, PBSC 8, SFSC 12, SJRS 1). Only one college (CF) established a baseline for this.

Activity 3.4: Expand Work-based Learning

Projected Start and End Dates: Y1Q3–Y4Q2

> Colleges were to expand work-based learning in their college credit programs in IT and related fields in the form of 1-3 credit internship or job shadowing at a relevant employer. Expanding these experiences is a strategy intended to increase students' employability and job placement. Milestones for the grant included both increasing the number of participating companies providing these opportunities, and tracking the number of placements over baselines.

Internships and other experiential learning with local employers was another component to maximizing the value of the new programs. Two consortium colleges documented progress for creating internship opportunities during Year 1 (CF and SJR) and began placing interns in Year 2. Four colleges started later and one (FSW) had no success.

Over the grant period, 120 companies provided internships to 210 XCEL-IT participants, and more than one-third of those students were offered employment at that same company. Table 3 summarizes the number of companies

employing XCEL-IT interns, the number placed, and the number of interns offered employment at that company following the internship.

Table 3. *Number of Companies Providing Internships, Participants Placed, and Interns Offered Employment Following Internship, by Member College*

College	Number of Companies Providing Internships	Number of Participants Placed in Internships	[1]Number of these Interns offered Employment
CF	72	107	56
EFSC	16	36	5
FSW	0	0	0
NFCC	6	12	12
PBSC	16	36	6
SJRSC	3	7	2
SFSC	7	12	3
Totals	120	210	84

Notes. Table refers to paid and unpaid internships (combined).

[1]Intern offered a job following at the same company following internship.

NR is not provided.

There is a concern that while an internship may be seen—especially by employers—as a way for a significant number of students to gain real life experiences and a possible way to gain employment—only one of the member institutions (CF) made considerable progress embedding internships into programs it developed. CF reported over 100 for-credit placements over the grant period, but others were not as successful. PBSC has recently ramped up a program for awarding credit for work experiences so numbers beginning this fall, will be higher.

Activity 3.5: Advising for Retention and Placements

Projected Start and End Dates: Y1Q3–Y4Q4

> Train advising staff to ask key questions about students' needs and aspirations. Include showing them how to consider results available from the new Employment Results Scorecard as it goes online. Deliverables included tracking the number of participants retained in each program and for placement in employment. There was also a milestone for tracking whether or not participants were advised.

There was success for tracking outcomes for enrollment and placement, which is required for TAACCCT APR reporting. Deliverables for this activity, which will help serve as a baseline for its effectiveness, included tracking the number of students retained in each program and how many are placed. These were both met. Each coordinator reported this to the consortium director annually for Years 1 and 2 and then quarterly for Year 3.

Training advising staff for how to use the Employment Results Scorecard did not occur during the grant period, because it was not launched until later than planned. More information about this tool and status of its development is provided on page 33.

PART FOUR: PROGRAMS OF STUDY

The project aimed to create fifteen new College Credit Certificates (CCC) at the associate degree level and two Advanced Technical Certificates (ATC) at the baccalaureate degree level, all linked to industry certifications. This section provides details about the progress for development and implementation of these programs.

4.1 Align academic credentials in Basic AS programs in IT	4.2 Align academic credentials related to advanced IT

Figure 8. Student Enrollment, Retention, and Completion Activities

Before the project started, gaps were demonstrated where programs of study were either missing or inadequate for meeting IT employer needs. To close these gaps, XCEL-IT aimed to replicate or create 15 new College Credit Certificates (CCC) at the associate degree level and two Advanced Technical Certificates (ATC) at the baccalaureate degree level, all linked to industry certifications. These programs were identified in the consortium's work plan (Appendix A). Appendix D contains a table summarizing the status of these programs for Activities 4.1 and 4.2, whether they were added or changed, the Florida Classification of Instructional Program (CIP) Codes, the number of credit hours, college(s) implementing, whether or not the program is embedded in a degree program, and justification for change.

All but two of the 15 programs, Mobile Device Technology LLC and Information Management BAS, have related industry certifications. All but three, are either partially or fully embedded in AS or BAS umbrella program(s).

Activity 4.1: Align Academic Credentials in Basic AS Programs in IT

Projected Start and End Dates: Y1Q4–Y3Q1

According to the SOW XCEL-IT would create nine new College Credit Certificates (CCC) as part of stacked credentials for A.S. degree programs. There are two targets for this including obtaining approval and delivering new curriculum to DOL. These would address employment needs in IT.

- CCC in Geographic Information Systems (GIS)
- CCC in Help Desk Services
- CCC in IT Technician
- CCC based on Cisco Certified Network Associate Securing Certification
- CCC in Network Virtualization
- CCC in IT Communications (VOIP)
- CCC in IT Management
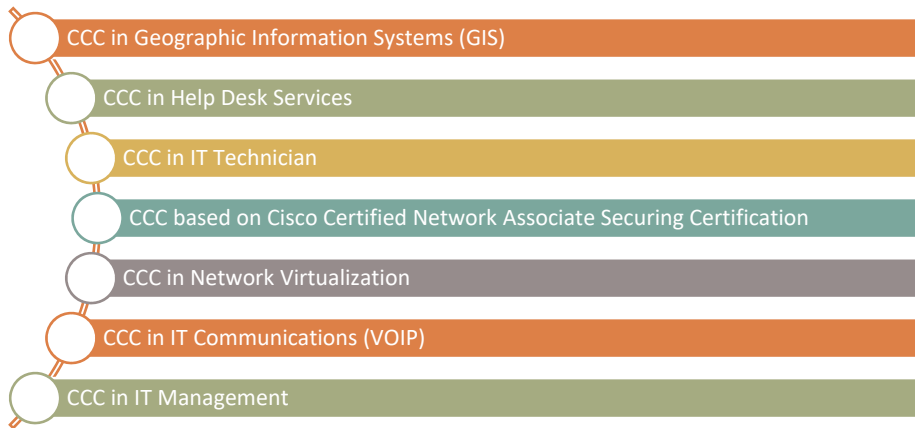
Figure 9. XCEL-IT Programs: Nine New Academic Credentials in Basic AS Programs in IT

Six of the seven member colleges started program development by Y1Q3 with three members having all programs approved before the expected start date. Two of the original programs were daggered by the State. Eight basic IT programs (11 duplicated) were implemented and enrolling students by Y2Q1 (some sooner). The last program (of the 8 implemented) was IT Communications (VOIP), in Y2Q4.

Some of these programs were approved by the State with slightly different names than what was either listed in the State Approved Programs (see CIP codes), by other colleges, and/or how they are listed in the SOW. Of the nine XCEL-IT had modifications to what was originally planned regarding these programs, some approved as late as Year 3. Here are a few details:

- IT Management was not developed because it was Daggered by the State
- The IT Technician CCC was daggered by the State and replaced with a IT Support Specialist CCC.
- IT Communications (VOIP) was changed to IP Communications (VOIP)
- The CCC in Mobile Device Computing was changed to a Local Level Certificate (LLC) because the 12 credit hours did not meet the State Framework (24 credit hours).
- See Appendix D for the full list.

To meet a provision laid out in the SGA, the grantee uploaded key components of new curriculum to the Open Professionals Education Resource Network (https://open4us.org/about/).

Activity 4.2: Align Academic Credentials Related to Advanced IT Programs

Projected Start and End Dates: Y1Q4–Y3Q1

Building on basic IT programs, XCEL-IT proposed adding seven new CCCs, two ATCs and one PSAV listed in Figure 9. Each of these would align with industry certification(s) that students can earn, except the CCC for Entrepreneurship. There were two targets for this, including obtaining approval and delivering new curriculum to DOL. These new programs would address employment needs in IT.

CCC in Network Security
CCC in Digital Forensics
CCC in Logistics and Distribution
CCC in Automation and Simulation
CCC in Robotics and Simulation
CCC in Entrepreneurship
ATC in Networking Security
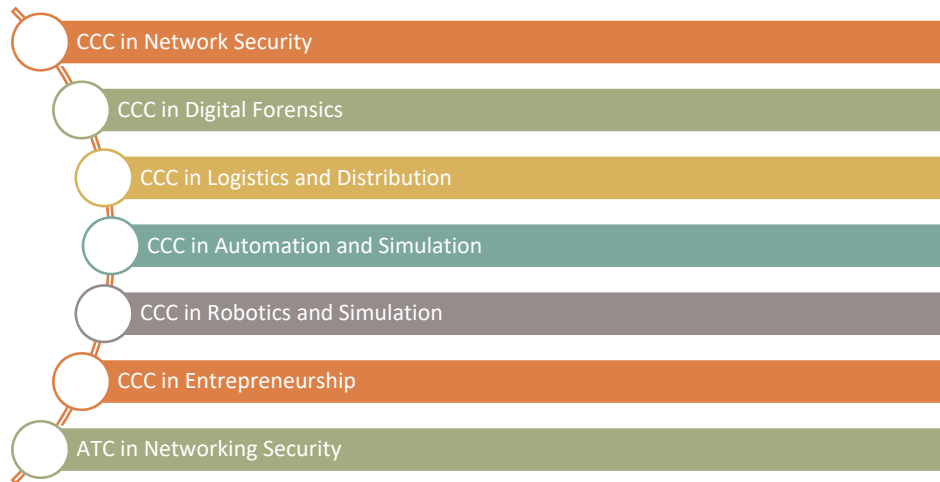
Figure 10. XCEL-IT Programs: Seven New Academic Credentials Related to Advanced IT

Grant deliverables, for aligning academic credentials related to advanced IT programs—including getting the programs approved and sharing components of developed curriculum—were evidenced. There were two substantial changes, (a) a CCC was developed instead of an ATC by SFSC for Logistics and Supply Chain Management, and (b) PBSC added an Information Management BAS program, which was approved because it latticed with an AS. For details see Appendix E.

OUTCOME & IMPACT STUDY FINDINGS

This chapter presents results from the outcome and impact evaluation, answering the six main evaluation questions, and more.

- Did the consortium meet aggregate projections (common measures) for all participants in all programs?
- How do participants compare to control groups for employment outcomes?
- Did the grantees conduct an in-depth assessment of participants' abilities, skills, and interests when selecting participants into the grant program?
- What contributions did XCEL-IT partners make?
- To what extent did the project meet the stated goals for change or impact on critical components?
- What valued XCEL-IT components can be sustained?

PERFORMANCE IN MEETING AGGREGATE PROJECTIONS

Did the consortium meet aggregate projections (common measures) for all participants in all programs?

Findings revealed that by the end of the grant, five of the nine XCEL-IT outcome goals for Common Outcome Measures were met. This section provides information about the annual outcome projections and counts along with demographic information about XCEL-IT participants.

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Prior to the start of the grant, each member college provided participant outcome projections (targets) for each year, for each of the TAACCCT common measures. A table summarizing annual outcome projection by college is contained in Appendix F. The lead college (Consortium Director) used these targets to track progress and report Cumulative Participant Outcomes for all grant participants for the consortium's Annual Performance Report (APR).

FINAL COUNTS FOR COMMON OUTCOME MEASURES

This section provides results for how well XCEL-IT met final performance outcomes identified in the grant agreement. Table 4 includes final (Years 1–4) participant counts by college.

Table 4. *College Level Final Counts for Common Outcome Measures (Years 1–4)*

Outcome Measures	CF	EFSC	FSW	NFCC	PBSC	SJR	SFSC	Totals
1. Unique Participants Served/Enrollees	850	707	157	251	501	178	135	**2,779**
2. Total # of Participants Who Have Completed a Grant-Funded Program of Study (POS)	378	150	37	66	57	67	77	**832**
2a. Total # of Grant-Funded POS Completers Who are Incumbent Workers	195	82	28	9	24	28	38	**404**
3. Total # Still Retained in POS or other grant-funded program	963	1,236	181	164	532	339	111	**3,526**
4. Total # Retained in Other Education Program(s)	17	6	14	87	41	40	1	**206**
5. Total # of Credit Hours Completed (aggregate across all enrollees)	3564	12,157	896	2,083	1,805	3,681	1,483	**25,669**
5a. Number of Students Completing Credit Hours	696	1,442	139	190	503	342	126	**3,438**
6. Total # of Earned Credentials (aggregate across all enrollees)	486	252	47	406	79	223	173	**1,666**

Outcome Measures	CF	EFSC	FSW	NFCC	PBSC	SJR	SFSC	Totals
6a. Total # of Students Earning Certificates—Less Than One Year (aggregate across all enrollees)	197	77	46	60	7	7	77	**471**
6b. Total # of Students Earning Certificates—More Than One Year	94	35	19	59	5	60	0	**272**
6c. Total # of Students Earning Degrees	133	116	23	65	49	0	4	**390**
7. Total # Pursuing Further Education after POS Completion	205	17	25	9	23	36	42	**357**
8. Total # Employed After POS Completion	14	28	5	37	7	28	11	**130**
9. Total # Retained in Employment after POS Completion	11	5	18	28	12	27	8	**109**
10. Total # of Those Employed at Enrollment Who Received a Wage Increase Post-Enrollment	483	501	12	8	1	70	57	**1,132**

Notes. Not all outcome measures had targets set for goals.

Outcome measures 4, 7 and 8 are exit points. For 9, incumbents are not counted.

Table 5 provides consortium-level outcomes XCEL-IT projected versus counts for what was accomplished through the end of the grant period. These numbers reveal that five of the nine XCEL-IT outcome goals for Common Outcome Measures were met for Years 1–4 (Planned vs Actual).

Table 5. *Consortium Level Final Outcomes: Projected versus Actual by Year (Years 1–4)*

Outcome Measures	Year 1		Year 2		Year 3		Years 4		Years 1–4	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
1. Unique Participants Served/Enrollees	363	249	885	1,047	1,005	1,243	0	240	**2,253**	**2,779**
2. Total # of Participants Who Have Completed a Grant-Funded Program of Study (POS)	70	20	417	144	562	464	0	204	**1,049**	**832**
3. Total # Still Retained in POS or other grant-funded program	197	204	600	894	775	1,225	0	1,203	**1,572**	**3,526**
4. Total # Retained in Other Education Program(s)		1		66		89		50		**206**
5. Total # of Credit Hours Completed (aggregate across all enrollees)[a]	207	937	466	10,292	623	10,186	0	4,254	**1,296**	**25,669**
5a. Number of Students Completing Credit Hours		181		998		1,057		1,202		**3,438**
6. Total # of Earned Credentials (aggregate across all enrollees)	71	31	391	302	496	888	0	445	**958**	**1,666**
6a. Total # of Students Earning Certs—Less Than One Year		20		118		240		93		**471**
6b. Total # of Students Earning Certs--More than One Year		0		61		130		81		**272**
6c. Total # of Students Earning Degrees		0		41		194		155		**390**
7. Total # Pursuing Further Education after POS Completion	25	14	202	92	255	200	0	51	**482**	**357**
8. Total # Employed After POS Completion	50	0	220	41	352	43	243	46	**865**	**130**
9. Total # Retained in Employment after POS Completion	42	0	195	29	319	36	241	44	**797**	**109**
10. Total # of Those Employed at Enrollment Who Received a Wage Increase Post-Enrollment	68	2	126	172	176	507	187	451	**557**	**1,132**

Note. [a]Target (Planned) for Outcome Measure 5 was interpreted by grant writers as the number of students earning credentials while counts (Actual) are for number of credentials earned, hence the large range for Planned vs Actual.

For the last column, Years 1-4 Actual, 'green' highlights outcome projections *met* or *exceeded* and 'red' highlights those *not met*.

Participant Counts and Demographic Information

From October 2015 through the end of the grant-funded program enrollment period (Spring 2017 Semester), the consortium enrolled 2,779 unique participants. This is 526 more students than the 2,252 planned. Table 6 provides cumulative numbers by demographic.

Table 6. *Cumulative Participant Demographic Information for the Consortium*

Demographic Information		Totals	Percent
Gender	Male	1,945	70.0%
	Female	830	29.9%
	Totals	**2,775**	**99.9%**
Race	Hispanic/Latino[a]	420	15.1%
	American Indian or Alaskan Native	15	0.5%
	Asian	54	1.9%
	Black or African American	451	16.2%
	Native Hawaiian or Other Pacific Islander	14	0.5%
	White	1,732	62.3%
	More Than One Race	232	8.3%
	Totals	**2,918**	**105.0%**
Degree	Full-Time Status	1,148	45.8%
	Part-Time Status	1,360	54.2%
	Totals	**2,508**	**90.2%**
Other	Incumbent Workers	1,252	45.1%
	Eligible Veterans	284	10.2%
	Participant Age (Mean)[b]		29.8%
	Persons with a Disability	120	4.3%
	Pell-Grant Eligible	1,424	51.2%
	TAA Eligible	5	0.2%

Notes. N = 2,779 unique participicants

Two participants did not identify their gender.

[a]Included as a race instead of a y/n for Hispanic/Latino.

[b]Includes some participants that are below the target of above age 24.

Comparing Outcomes of Participants and Nonparticipants

How do participants compare to control groups for post intervention outcomes?

XCEL-IT treatment effects were measured using a posttest only, quasi-experimental design, in which treatment and comparison cohorts were balanced by propensity-score matching after the intervention period but prior to computing comparative differences. The groups, before and after matching on the pre-intervention characteristics, are profiled earlier, in Table 2, and on the post-intervention outcomes in Table 7.

Table 7. *Group Differences Before and After Matching on Post-Intervention Outcomes*

Post Intervention Outcomes	Treatment n = 394	Comparison (pre matching) n = 505	Comparison (after matching) n = 394
Completed Program			
Yes	123 (31%)	36 (7%)	22 (6%)
No	271 (69%)	469 (93%)	372 (94%)
Retained in Other Education (only for non-completers)			
Yes	13 (5%)	43 (9%)	34 (9%)
No	258 (95%)	426 (91%)	338 (91%)
Not applicable (i.e., completed program)	33	36	22
Still Enrolled at TACT Institution (only for completers)			
Yes	26 (21%)	2 (6%)	1 (5%)
No	97 (79%)	34 (94%)	21 (96%)
Not applicable (i.e., did not complete program)	271	469	372
Entered Employment (only for non-incumbents who completed program)			
Yes	27 (44%)	1 (10%)	1 (11%)
No	35 (57%)	9 (90%)	8 (89%)
Not applicable (i.e., did not meet criteria)	331	495	385
Retained Employment (only for non-incumbents who completed the program and who entered employment)			
Yes	21 (78%)	--	--
No	6 (22%)	1 (100%)	1 (100%)
Not applicable (i.e., did not meet criteria)	367	504	393
Wage Increase (for incumbent workers and non-incumbents who entered employment)			
Yes	167 (68%)	255 (76%)	197 (72%)
No	77 (32%)	81 (24%)	78 (28%)
Not applicable (i.e., does not meet criteria)	150	269	119

Notes. All wage related data for the impact study relied on wage records provided by the WIB.
All educational outcome data for students were obtained from college records.

To test hypotheses of group differences—given the binary nature of the dependent variables—logistic regression analyses were computed to determine whether each of the outcomes could be predicted by program (XCEL-IT or comparison program).

Completed Program

Students in XCEL-IT were significantly more likely to complete the program as compared to students in comparison programs (B = 2.038, SE = .245, Wald = 69.261, p < .001). The odds ratio (OR = 7.675) suggests that students in XCEL-IT programs are nearly 8 times more likely to complete the program as compared to students in other programs.

Retained in Other Education (for non-completers)

Non-completing students in XCEL-IT were significantly less likely to be retained in other education programs as compared to students in comparison programs (B = -.691, SE = .336, Wald = 4.223, p = .040). The odds ratio (OR = .501) suggests that the odds of non-completers being retained in other education are about one-half for students in the XCEL-IT program as compared to other programs.

Still Enrolled in Education (for completers)

Students who completed XCEL-IT were not significantly different from students in comparison programs in terms of their likelihood to continue enrollment in other educational programs (B = 1.728, SE = 1.047, Wald = 2.723, p = .099). The odds ratio (OR = 5.629) suggests that the odds of students who completed XCEL-IT continuing in other education are about five times greater as compared to students from other programs.

Entered Employment (for non-incumbents who completed)

Non-incumbent students who completed XCEL-IT were statistically similar to students in comparison programs in terms of their likelihood to enter employment (B = 1.820, SE = 1.091, Wald = 2.782, p = .095). The odds ratio (OR = 6.171) suggests that the odds of non-incumbent students who completed an XCEL-IT program entering employment are about six times more likely as compared to students from other programs.

Retained in Employment (for non-incumbents who complete and entered employment)

Because of the extremely minimal variation in the data (only one comparison student meeting this criteria, see Table 6), logistic regression analysis was not conducted to determine whether retaining employment for non-incumbent completers who entered employment could be predicted by program (XCEL-IT or comparison program). Of the 27 non-incumbent students who completed XCEL-IT and entered employment, 21 of the 27 were retained in employment. There was one comparison student who met criteria but that student was not retained in employment.

Wage Increase (for incumbent workers and non-incumbents who entered employment)

Non-incumbent XCEL-IT students who entered employment, as well as XCEL-IT incumbents, were statistically similar to students in comparison programs in terms of their likelihood to receive a wage increase (B = .152, SE = .192, Wald = .629, p = .428). The odds ratio (OR = 1.165) suggests that the odds of XCEL-IT incumbent and non-incumbents who entered employment are only slightly more likely to receive a wage increase as compared to students from other programs.

ASSESSMENT OF APPLICANTS ABILITIES, SKILLS, AND INTERESTS WHEN SELECTING PARTICIPANTS

Did the grantees conduct an in-depth assessment of participants' abilities, skills, and interests when selecting participants into the grant program?

Grantees did not conduct an in-depth assessment of participant's abilities, skills, and interests when selecting participants into the grant program due to new Florida legislation, asserting that colleges can no longer require those who have earned a diploma since 2004 or served in the military to take the state's standard placement test or to enroll them in non-credit remedial courses. While more intrusive and individualized advising now seems to be the norm for member colleges, they are also experimenting with other new ways to get help to those needing additional support. Most of these efforts to reform developmental education was done by investing in tutors, support labs, individualized academic technology, and additional academic resources.

While XCEL-IT did not play a part in broadening possibilities for awarding credit to students for their previous learning and experience, Florida College System (FCS) institutions are now doing more of this anyway. Because of Section 1004.096 of the 2016 Florida Statutes and Rule 6A-14.032, colleges award credit for military training and education courses, and there are now more policies in place to help speed up time-to-degree completion. All FCS institutions must have information posted to their websites and assigned coordinators to help guide those looking to obtain college credits for prior learning and experiential credit. The EFSC Registrar's Office Credit Evaluation webpage (http://www.easternflorida.edu/admissions/registrars-office/credit-evaluation/) is a good example.

CONTRIBUTIONS BY XCEL-IT INDUSTRY PARTNERS

What contributions did XCEL-IT partners make?

Industry Partner Contributions

QNPR Templates and reports submitted by College Coordinators, detailed the many contributions that industry partners made. PEER helped them track how they were involved, and summarized this by types of involvement. Over the four years of the grant, we documented involvement from a total of 227 employers with XCEL-IT, ranging from 10 to 100 companies per college with SFSC having the least and CF having the most employers. Of those mentioned, 15% were considered non-profit organizations, 30% were involved with the advisory committee, 34% focused on recruitment and promoting of the XCEL-IT program, 8% helped with training, 26% assisted in placing students, 47% offered internship opportunities, 16% assisted in leveraging resources, 4% supported program management, and 13% focused on program development.

Results for what factors contributed to partners' involvement or lack of involvement with XCEL-IT were mixed, however most coordinators agreed that having frequent and individualized contact with the employer made a difference. Another lesson learned was having them involved in committee work at the college, where the work could also benefit their organization (for example with placements) and kept them more engaged.

LESSONS LEARNED FROM PROGRAM IMPLEMENTATION

Hiring Key Personnel

XCEL-IT took longer to get organized and running than anticipated. Much of this was due to late hiring of project staff, and turnover. Lessons learned: Speed of hire, hiring the right people, and training them properly are important ways to ensure the success of any project. Otherwise, significant productivity will be lost.

Recruitment Sources and Strategies

College Coordinators described the most successful marketing strategy implemented for attracting TAA-eligible workers and other adults in rural communities. They also described some challenges they faced with marketing to target populations.

Challenges for Marketing to Target Populations

CF highlighted its student success stories in an Employer Connection Booklet distributed to over 1,5oo local employers.

- CareerSource was not always a good choice for assisting with social media campaigns. And one college reporting going through two marketing consultants before switching to a third provider that exceeded expectations.
- Not being able to provide tuition and fees funding to participants was a challenge.
- One of the most rural colleges found it extremely difficult to market to the Veterans population, despite considerable efforts they were not able to participate in any local military base activities.
- One college reported being able to overcome recruitment challenges with the assistance of the Veterans Service Office, the Career Center, and the Outreach Team.
- Many individuals from targeted groups have obstacles and challenges that have nothing to do with their education/training endeavors.

Successful Marketing Strategies Implemented

- CF highlighted its student success stories in an Employer Connection Booklet distributed to over 1,5oo local employers. This also provide information about how employers can become more involved in CF's programs and processes, whether through advisory committees, business tours, career chats, internships or hiring events. In Year 3, CF also began advertising in the local Chamber and Economic Partnership monthly magazines.
- Billboards partially funded by CareerSource and SJR State as well as Career Fairs and Business Forums were its most successful marketing strategies for FSW. They also highlighted use of program cards that it could put directly in peoples' hands. Some used an opt-out option, which got XCEL-IT enrollment numbers up for students who were enrolled in XCEL-IT program courses, but did not know about the project.
- The most successful marketing strategy implemented to attract new students was the opt-out option. PBSC visited classrooms during the first two weeks of each semester and explained to students the benefits of the XCEL-IT program. The students who met the grants participant's criteria were enrolled automatically, but provided with the opt-out option if they felt the services offered were beneficial to them.
- SFSC emphasized their best practice was combining multiple strategies, including Rack Cards, Flyers, Print Ads in local newspaper /News Stories, Billboards, Facebook campaigns, Press Releases, websites, radio, banners, social media posts, and advertisements.
- Some member colleges established a Standing Outreach Task force, which proved helpful with marketing.

Placement Assistance

Since one the goals of TAACCCT is placing students in employment, project staff worked to establish effective placement strategies. All member college relied on CareerSource [the local WIB] representative to assist XCEL-IT students with finding employment. WIB are easy to access and close by, some are on campus. All are easy to access.

All coordinators reported that XCEL-IT WIB representatives were helpful to some extent, and friendly. Some used WIB more heavily than others, depending on what help was available. Coordinators reported on challenges and successes they experienced with placement.

Why this was Challenging

Despite having this help, College Coordinators found it challenging to establish effective placement strategies for participants. See Figure 11.
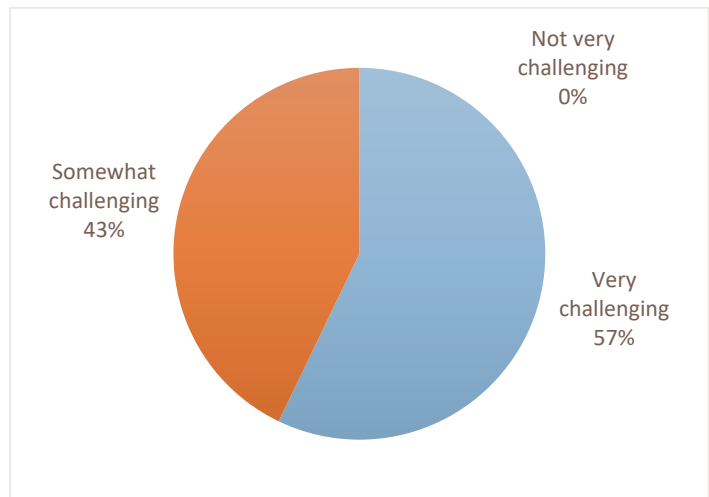

Figure 11. How Challenging College Coordinators Indicated it was to Establish Effective Placement Strategies for TAACCCT Participants?

Here is a summary of why XCEL-IT coordinators perceived it was challenging to place their non-traditional students:

- Some employers require work experiences for near entry-level positions.
- Students can lack motivation to seek out better opportunities. Mostly due to a lack of self-confidence.
- Students are usually not as flexible as the more traditional students are. The non-traditional students can have tunnel vision for specific job titles, making them more difficult to place.
- Many seem unwilling to relocate or commute more than what seems to be (from the College Coordinator's perspective) a reasonable distance from home.
- Many lack soft skills or need more interview practice.
- Some do not have access to reliable transportation.
- Many were already working, prior to XCEL-IT, and want to continue attending school part-time after earning a credential.
- Some are reluctant to take an internship for little or no pay even if there is a chance it may develop into a full time job later.
- They seem unwilling to do more than what is required to receive a credential.
- Even though many XCEL-IT lacked specific work experience, some internship positions secured go unfilled because students are not interested in doing any more than the required coursework for earning credentials.

Successes for Placing Students

XCEL-IT aimed to increase the number of students placed in employment. Details about successes include:

- Using marketing themes, like 'Be a Hot Employer' and 'Hire Tomorrow's Leaders Today' helped with employer engagement, and getting the employers to share information about job postings and hiring events.
- Success with holding or being involved in large job fairs for the local community. Some of these locations were new.
- Students now encounter more obtrusive advising and more individualized services for IT programs.
- Resume, interviewing and soft skills workshops are now included as a part of the first-year program experience.
- Colleges have improved connections with local employers, so employers are aware of these new programs, and have had input into their development. Therefore, they are more likely to hire students who complete.

Expanding Work Place Learning

Project leaders observed that local employers were shifting away from accepting candidates with limited work experience. To help fill this gap, the consortium provided internships and other work-based experiences to improve the value of new XCEL-IT programs. What they learned, was that it took a lot of effort to create well-run internships, and even with that effort, success for them to connect students with this type of work experience was limited. Barriers documented for this, included a lack of demand for unskilled labor (few employers see them as a benefit), liability issues/insurance concerns, and that many non-traditional students are already working or were unwilling to work for "free". Only one of the seven XCEL-IT colleges (CF) made considerable progress embedding internships into the new for-credit programs developed, reporting 97 placements (3-credit internships). Two colleges (CF and SJR) began placing interns in Year 2. Four others started in Year 3, and one (FSW) had no success.

Policymakers and college administrators should take a closer look into what constitutes IT workplace learning and incorporate it into comprehensive educational reform. We also recommend researching effective ways to reduce barriers that stand in the way for employers and colleges to work together.

Developing New Programs

College coordinators came up with some lessons learned for developing new programs.

- Coordinators wished that they had met face-to-face more often, getting started right away and then twice a year was recommended.
- Many students are more interested in earning AS degrees than they are a CCC.
- Fully embedding CCCs into related degrees dramatically improves the number of CCCs awarded.
- Developing innovations and adopting them within colleges is not easy. Be sure to include program faculty, deans and curriculum coordinators in planning new programs often and early. Coordinating these efforts, and forming committees made up of the right people, can be difficult when grant staff are not already familiar with the college culture.
- Ensure classes are offered often enough so that students can complete as soon as possible. Hire adjuncts, when needed, to help with load.
- By including earning an industry certification as part of a course, completions for these happened faster, and students earning these credential gained confidence, job outlook, and hire ability.
- Obtain input from important stakeholders, including program advisors, marketing department representatives.
- Market through classroom visits and offer boot camps to help students practice before testing for a credential. It also helps to establishing testing centers on campus.
- Creating state-of-the-art labs to provide hands-on experience.

Awarding Credit for Prior Experience

Students finish faster when they can be awarded credit for prior experience, yet despite XCEL-IT efforts, less than 2% of participants were awarded credit for prior experience.

Because of Section 1004.096 of the 2016 Florida Statutes and Rule 6A-14.032, colleges award credit for military training and education courses, and there are now more policies in place to help speed up time-to-degree completion. Researching and sharing best practices that come about because of this new legislation is recommended.

CHANGE OR IMPACT FOR OTHER CRITICAL COMPONENTS

New or Revised Credit Courses and Certificates in IT areas

After all the approved modifications to the SOW, XCEL-IT created 17 new programs, with some documented at multiple sites.

All member colleges used grant funds to create classroom or laboratory space. Some of the spaced took longer than anticipated to get going, but all that labs were used as intended, and all will continue to be utilized for students after the grant ends.

New or Revised Non-credit Courses and Soft Skills Training

Implementation evaluation revealed that all member colleges offered some form of soft skills training for the TAACCCT developed programs. Over the life of the grant, there were many different types of trainings/courses held around such topics as work ethic, communications, resume building, business ethics, interpersonal skills, teamwork, interviewing, and technology.

Four colleges provided this training through their WIB, one through a staffing agency, and another has them embedded in the new courses. In Year 3, the number of these offerings by college, ranged from one to nineteen. While others were successful, there was one college that reported having no students participate even though they advertised trainings on different campuses and at varying times.

New Developmental Education MOOC

MOOCs for developmental education are not as popular now in Florida, due to Florida legislation revisions to section 1008.30 of Florida Statutes, asserting that beginning in 2014 colleges could no longer require those who have earned a diploma since 2004 or served in the military to take the state's standard placement test or to enroll them in non-credit remedial courses. This has had an impact on decreasing the demand for students to enroll in the developmental education.

Development of XCEL-IT MOOCs turned out to be more complex than initially determined, causing problems with development. Lessons learned include (a) getting two teams of SME's involved early, one to create the product and the other, perhaps a Technical Advisory Group, to test and critique during development; and (b) because of new Florida laws around developmental education, in order to keep support services like the MOOC from being underutilized, our colleges need to be intentional in their advising.

A Rural Outreach Structure and Methods to Recruit 2,500 New Students

XCEL-IT was successful in recruiting higher numbers for programs than was originally planned. Most of this is due to performing the large number of outreach and engagement activities described on pp. 17–21). In all, the consortium logged c 6oo of these events.

Increasing the Number of Credentials Earned by Restructuring how they are Awarded

There have been improvements made to assure that students are awarded the maximum number of credentials earned, but not all of the member college systems have adopted automated processes like Auto-GRAD and Auto-POP, which can increase the number of completions. For Auto-GRAD, institutions perform regular degree audits, and eliminate the requirement to fill out a graduation application. For Auto-POP, student records can be updated to included CCC programs that are fully embedded in associate degrees.

The lesson learned here is that students may not be awarded a credential, even though they completed all the required coursework without systems like Auto-GRAD and Auto-POP. Appendix G provides a summary of what College Coordinators' reported regarding the process for awarding CCC credit and what has changed.

Inter-College Collaboration

Inter-College Collaboration among the group of consortium directors and other XCEL-IT staff did not exist before the grant, so those relationships took some time to develop. This was done face to face at whole group meetings initially and then annually, at monthly meetings, at site visits conducted by the Consortium Director, and other events. From the evaluators perspective they worked together well and reached out to help each other whenever they could. As a measure of the effectiveness of the collaboration within the consortium member colleges, PEER used the Wilder Collaboration Factors Index, as described in the methods section, the WCFI measures team collaboration on twenty research-tested factors, which are grouped in six categories: *Environment, Membership Characteristics, Process and Structure, Communication, Purpose*, and *Resources.* Table 8 summarizes those results.

Table 8. *Wilder Collaboration Factors Inventory Results for XCEL-IT Member Colleges*

Essential Elements Factors influencing the success of collaboration	Means 1-5 Scale Y1
Environment: *Favorable social and political climates, positive history of collaboration, perceived leadership*	**4.0**
History of collaboration or cooperation in the community	3.6
Collaborative group seen as a legitimate leader in the community	4.5
Favorable political and social climate	4.0
Membership Characteristics: *Right partners, mutual respect, understanding and trust, self-interest met, and ability to compromise*	**4.4**
Mutual respect, understanding, and trust	4.4
Appropriate cross section of members	4.2
Members see collaboration as in their self-interest	4.7
Ability to compromise	4.6
Process and Structure: *Clear roles and responsibilities, clear method of decision making, flexible and adaptable, invested interest, multiple layers of participation, and comfortable pace of development*	**4.2**
Members share a stake in both process and structure	4.4
Multiple layers of participation	4.2
Flexibility	4.2
Development of clear role and policy guidelines	3.9
Adaptability	4.3
Appropriate pace of development	4.2
Communication: *Multiple methods, open and frequent, and informal and formal communication*	**4.6**
Open and frequent communication	4.7
Established informal relationships and communication links	4.4
Purpose: *Clear and attainable goals and objectives; shared vision and purpose; and unique purpose*	**4.2**
Concrete, attainable goals and objectives	4.4
Shared vision	4.2
Unique purpose	3.9
Resources: *Capable leadership; and enough staff, materials, funds, influence, and time*	**4.3**
Sufficient funds, staff, materials, and time	4.2
Skilled leadership	4.6

Note. N = 7 (100%). Based on responses from Coordinators in the last few months of the grant.

Plans for continued inter-college collaborations include

- sharing curriculum and marketing ideas for common programs;
- sharing of connections, for example finding vendors and products;
- collaboration on future grants;
- regular visits to IT labs that were developed under the grant to see updates and share best practices;
- invitations to events, for example Manufacturing Day (every October), college program openings; and
- student clubs and holding competitions, for example with Cybersecurity.

Outcome Data Collection for an Employment Results Scorecard

Through TAACCCT, XCEL-IT directed the development of Florida College Graduates Succeed, an online business intelligence tool designed to deliver an expanded single-state Employment Results Scorecard built from the experience gained through the development of the Florida College System's (FCS) Smart-College-Choices web portal.

The new scorecard tool was designed for Florida College System (FCS) administrators and others to access employment and earnings information on FCS college graduates. Viewing data at the state, college, award, and

program level provides users the ability to access this information in a variety of ways to assist data-informed decision-making. Administrators can use it to align institutional outcomes to the workforce needs of the state of Florida, and advise students about the success of college programs.

The new scorecard tool has recently been launched for use by all through the Florida Department of Education's PK-20 Education Information Portal website [https://edstats.fldoe.org under the Florida College System (FCS) tab]. Links on the site allow users to search in different ways. Selections fall under three main categories:

- Student Completion Rates
- Continuing Education/Employment (Employment and Continuing Education, Continuous Employment at Same Employer, Continuous Employment)
- Earnings (Full-Time Employment Earnings, Full-Time Employment Earnings Gain)

Data sources for this tool include the Florida Education and Training Placement Information Program (FETPIP), which provides follow-up statistics on students, and the Bureau of PK-20 Education Reporting and Accessibility (PERA).

PLANS FOR WHAT WILL BE SUSTAINED

What valued components of XCEL-IT can be sustained?

The Consortium Director worked with College Coordinators in Year 3, and obtained feedback from college administrators, to create detailed plans for each college, for what valued components of XCEL-IT *should be* sustained, along with a plan to continue them. Just recently (in Year 4) these plans were updated to reflect what *will be* sustained after the grant period ends. Appendix H provides a summary of those results, organized by college under several headings including placement, proactive advising, marketing, advisory committees, employer forums, outreach, trainings, work-based learning, and others.

Another XCEL-IT component that will continue is the administrators' use of the Florida Employment Scorecard to align institutional outcomes to the workforce needs of the state of Florida, and advise students about the success of college programs. This tool is also available to others.

XCEL-IT also brought about some sustained changes by improving how some colleges were tracking student completion of college credit certificates. Some of this involved the college implementing new or different policies for retaining students or awarding credentials. For example, CF brought to light the need for a college wide report that would show how close students were to completing their degree or certificate. PBSC reached out to students who had five or fewer classes remaining by phone and e-mailed students with six or more classes to finish their degree. The Dean of the BAS programs, decided to implement the same strategy within her team of advisors. Finally, SJR State Advising and Records have changed the Grad Sub policy to make it easier for students to substitute like coursework. This has made application for graduation much easier for IT students, resulting in more awarded CCCs.

STUDY LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The findings give rise to some study limitations and directions for future research. With respect to the evaluation, the main limitation was that the available data could not account for many of the factors that might be driving student outcomes. Other lessons about data availability included that Annual Performance Report (APR) counts relied on self-report, when other more reliable methods were not obtainable. There were also cases in which the college indicated that both wage data and incumbent worker status was identifiable using UI wage records. For the impact study, these cases were coded as 'no', assuming that no wage increase was provided by the WIB, and that they were not an incumbent, etc., although these assumptions could not be verified.

Since it was not possible, in this context, to use random assignment for the impact study, we did our best to find comparable groups that were similar enough to provide a likely estimate of causal impact of interventions. Still even with randomization, we could not have groups that were equivalent at baseline. Life for these individuals simply presents many confounding variables that cannot be controlled or accounted for. There were other issues regarding comparisons. One of the seven participating colleges did not provide comparison group data and of the six colleges that provided data, there were fewer comparison group participants than treatment for three of those colleges. This created difficulties in computing matched samples. Finally, a longer evaluation period would help to determine whether XCEL-IT approaches support job success and careers advancement, and longer-term educational outcomes. Many XCEL-IT students were still enrolled in education, or were still enrolled in programs but not in courses (possibly later being dropped or coming back) at the end of the grant (study period).

To assure all wage related data were collected the same way for groups in the impact study, we did not rely on the consortium student-level database used both for the APR and QNPR. Instead, we relied solely on wage records provided by the local WIBs. Likewise, we used datasets compiled by Office of Institutional Research for each college to obtain participants' educational outcomes, backgrounds and demographic information.

Other limitations came about because of late data and data errors. Some of this could have been avoided with additional and more experienced in-house support for data collection and management. Colleges were given the same deadline for submitting data and reports, but not all colleges met these deadlines. There were a number of data entry errors, as well as differences in operational definitions for Common Outcome Measures. We found evidence that member colleges (all 7) made errors in what was reported using the QNPR template, and the APR Form, which were identified and corrected in later cycles. Some of this was confusion that began at the start of the grant about what colleges were responsible for what grant activities, as well as how they were to be implemented. This had to be clarified with the College Coordinators, even after they attended TAACCCT-level training and a training provided by the consortium lead. There was also issues with initial hiring starting late and turnover.

For direction for future research, there is good news that success of these programs and others in the Florida College System, using outcomes for completion and placement, will be tracked continuously using the Florida Employment Scorecard. Resulting data will be useful for future studies comparing outcomes across programs and across colleges, etc. Since implementation is so recent, additional research would reveal details about its effectiveness.

Plans for continuing this work include, publishing journal articles and presenting papers at professional meetings.

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APPENDIX A. XCEL-IT Work Plan

XCEL-IT WORK PLAN SUMMARY

Part I: Start-up	Implementer(s)	Timeline
Activity 1.1: Secure Resources	▪ CF Project Dir ▪ 7 College Coordinator ▪ Project Council ▪ External Evaluator	Start:10/1/13 End: 01/31/14 Milestones: Quarterly targets established for each deliverable
Deliverables: ▪ Staff Employed – Full and part time staff, 17 Full Time faculty and adjuncts. ▪ Initial Meeting of Project Council ▪ Meetings of member college Advisory Committees ▪ Initial Training in Agile Management ▪ External Evaluator in Place	▪ CF Project Dir ▪ 7 College Coordinator ▪ Project Council ▪ External Evaluator	Start: 10/1/13 End: 01/03/14 Milestones: If needed, Interim staff will begin project
Deliverable: 21 IT EMPLOYER FORUMS , one per college, per year, years 1, 2 & 3	▪ CF Project Dir ▪ 7 WIBs ▪ Co-sponsors: Manufacturing Association ACE, IEEE, APICS	Start: 10/1/13 End: 10/15/16 Milestone: Annual schedule of forums
Deliverable: Equipment Ordered	▪ CF Project Dir ▪ 7 College Coordinator ▪ 7 College Purchasing units	Start: 10/15/13 End: 01/31/14 Milestone: Some arrive by 11/01/13
Activity 1.2: Brief Stakeholders IN EVERY COMMUNITY Deliverables: ▪ 7 Standing Outreach Task Forces Established ▪ Local participation with Non-profit organizations (list of activities held, date, counts for participation)	▪ CF Project Dir ▪ 7 College Coordinator ▪ Project Council ▪ 7 WIBs	Start:11/15/13 End:09/30/16 Milestone: First meeting within four months of start date
Part II: Outreach/Engagement	**Implementer(s)**	**Timeline**
Activity 2.1 Explain Florida Xcel-it Opportunity to TAA-eligible Workers and Other Adults in Rural Communities Deliverable: 42 social media campaigns (6 for each regional WIB)	▪ 7 College Coordinator ▪ Project Recruiters ▪ 7 WIBs	Start:1/15/14 End: 4/15/16 Milestone: Six separate campaigns
Activity 2.2: Conduct Outreach Presentations/Tables Deliverable: Descriptions of events, dates, counts for participation	▪ 7 College Coordinator ▪ Project Recruiters ▪ 7 WIBs and Non-Profits	Start: 2/1/14 End:5/15/16 Milestone: Monthly events
Activity 2.3: Conduct Snack Classes Deliverable: Descriptions of classes held, dates, participation counts	▪ 7 College Coordinator ▪ Project Recruiters ▪ 7 WIBs	Start: 2/1/14 End: 5/15/16 Milestone: Monthly events
Activity 2.4: Conduct Follow-up for Veterans and Sub-Groups Deliverable: Descriptions of Info sessions unique to participants (veterans, unemployed, over age 24), dates, participation counts	▪ 7 College Coordinator ▪ Project Recruiters ▪ 7 WIBs ▪ Non-Profits	Start:2/15/14 End: 7/1/16 Milestone: Separate events held
Activity 2.5: Pro-active Advising Deliverables: ▪ Quarterly reports for participants served. ▪ Tracking Scorecard Created, Tested, and Released by July 2016 for tracking and reporting outcomes by program by college	▪ 7 College Coordinator ▪ Project Advisors ▪ 7 WIBs	Start:2/15/14 End: 7/1/16 Milestone: Advisors hours and contacts
Part III: Student Enrollment, Retention and Completion	**Implementer(s)**	**Timeline**

Activity 3.1 Conduct Non-Credit Courses or Embed Learning Modules Covering Soft Skills Deliverable: Students Acquire Soft Skills (number of classes held, dates and participation counts)	▪ 7 College Coordinators ▪ Project Faculty ▪ Online Vendor	Start: 4/1/14 End: 11/30/16 Milestone: # classes held

Deliverables:
  ▪ 24 topic module MOOC Created and Tested
  ▪ Students Acquire Skills in Reading, Math and English Pre
  ▪ Post test data after completion of each topic module
	▪ CF Project Dir
	▪ CF SMEs
	▪ Vendors: UCF and FIU
	▪ Project Faculty
		Start: 2/1/14
		End: 9/30/16
		Milestone: Created by 8/1/14

Activity 3.2 Conduct PSAV/Non-credit Courses for Industry Certifications Deliverables: Students Prepared for Certification Exams (number of certification classes held and number of industry credentials earned by participant)	▪ Project Faculty ▪ NFCC Coordinator	Start: 1/3/14 End:11/30/16 Milestone: # classes held
Activity 3.3: Prior Learning Assessment Deliverable: Track the number of College Credits Awarded for prior experience or industry certifications over baseline established using Spring 2014 data	▪ CF Project Dir ▪ 7 College Coordinators ▪ Project Council ▪ 7 College Advisory Comm.	Start: 2/1/14 End:2/1/17 Milestones: Baselines established and tracking
Activity 3.4 Expand Work-based Learning Deliverable: Number of students placed in Internships	▪ 7 College Coordinators ▪ 7 College Advisory Committees, ▪ Participating employers	Start: 5/15/14 End:12/31/16 Milestones: # of participating companies
Activity 3.5 Advising for Retention and Placements Deliverables: Track if student retention in program and placement in field	▪ 7 College Coordinators ▪ Project Advisors ▪ 7 WIBs ▪ Employers	Start: 5/15/14 End:9/30/17 Milestone: Participants advised
Part IV: Programs of Study	**Implementer(s)**	**Timeline**

Activity 4.1 Align Academic Credentials in Basic AS Programs in IT
 Deliverables: 9 new College Credit Certificates
  ▪ 1 in Geographic Information Systems (GIS)
  ▪ 1 in Help Desk Services
  ▪ 1 in IT Management
  ▪ 1 in IT Technician
  ▪ 1 in Mobile Device Computing
  ▪ 1 based on Cisco Certified Network Associate Security Certification (Name TBD)
  ▪ 1 in Network Virtualization
  ▪ 1 in IT Communications (VOIP)
	▪ 7 College Coordinators
	▪ IT Forum Participants
	▪ Advisory Councils and Faculty from SJRSC, Edison,
	▪ CF, EFSC, PBSC, and EFSC.
		Start: 8/15/14
		End:12/15/16
		Milestones:
		  25 employed Y1
		110 employed Y2
		174 employed Y3
		124 employed Y4
		New curriculums approved by College Curriculum Committees by 2/1/15 and delivered to DOL by 9/30/15

Activity 4.2: Align Academic Credentials for Advanced IT
Deliverables:
7 New College Credit Certificates:
  ▪ 1 in Network Security
  ▪ 1 in Digital Forensics
  ▪ 1 in Information Security
  ▪ 1 in Logistics and Distribution
  ▪ 1 in Automation and simulation
  ▪ 1 in Robotics and Simulation
  ▪ 1 in Entrepreneurship
2 Advanced Technical Certificates
  ▪ 1 in Logistics and Supply Chain Management (new)
  ▪ 1 in Networking Security (revised)
1 new PSAV in Automation and Production Technology
	▪ 7 College Coordinators
	▪ IT Forum Participants,
	▪ Advisory Councils and Faculty from all 7 colleges
		Start: 8/15/14
		End:12/18/16
		Milestones:
		  25 employed Y1
		110 employed Y2
		174 employed Y3
		124 employed Y4
		New curriculums approved by College Curriculum. Committee by 2/1/15 - delivered to DOL by 9/30/15

APPENDIX B. XCEL-IT Logic Model

FLORIDA XCEL-IT Logic Model

Inputs – *What is invested*	Strategies – *Specific Activities/Services*	Outputs – *Measure of Strategy Implementation*	Outcomes		Impacts (Long Term) – *Conditions*
			Short Term – *Learning: awareness, knowledge, skills, motivations*	Medium Term – *Action: behavior, practice, decisions, policies*	
• Project Staff • College instructors, staff, and administrators • Motivated participants • Student success coaches • College courses, equipment, supplies • Industry partners • Employers • Regional WIB • TAACCCT Funding • Local advisory committees • College task forces • Leveraged resources	• Refined pathways to IT, cybersecurity, logistics, manufacturing, and entrepreneurship • Build partnerships with employers • Develop and offer courses and programs • Project related trainings • Targeted recruiting • Blast media messages • Benchmark prior learning • Outreach events and snack courses • Follow up with veterans and TA-eligible workers • Pro-active advising • Provide soft-skills training • Create a developmental education MOOC • Internships offered • Assist participants with job searches • Hold specific events for veterans and other sub-groups • Create Employment Results Scorecard	• New and enhanced courses and programs to match local needs • Descriptions of program materials and how credentials are stacked • Descriptions of participants enrolled • Credits earned for prior learning tracked • Descriptions of outreach, snack and soft-skill classes with attendance • List of employers involved with descriptions of partnerships built • Descriptions of internships offered and those completed tracked • Descriptions of specialized equipment and how it will be maintained • Number of veterans and other sub-group members involved at events • Participant advisement tracking • Descriptions and attendance counts for soft-skill classes held • Tracking credits, programs and other credentials earned • Tracking industry certs attempted and earned • Scorecard launched	• New techniques for recruiting from rural environments • Partners report programs are developed to meet local needs • Labs and other developed spaces are used • Faculty and students perceive courses are effective • New opportunities provided for acquiring basic skills • Participants gain confidence in their chosen area of study • Students complete coursework • Retention-support is enhanced • Employment-related services are provided	• Recruiting goals are met • Participants are retained • Participants earn intended degrees and certification • Participants are employed in-field and plan to continue in those roles • Participants and success coaches actively engage in and perceive a benefit from coaching activities • Up-to-date and useful Employment Results Scorecard • New labs and successful spaces can be maintained	• New patterns of collaboration for Florida colleges continues • Continue refining pathways for meeting employer needs • TACT programs sustained • Participants remain employed after 12 months • Participants increase average earnings • Partnerships continue to be healthy

APPENDIX C. Impact Study Table: Summarizing Results by Group (Treatment and Comparison) and by College

College of Central Florida Dataset

	Treatment n = 94	Comparison (pre matching) n = 51
Age		
Mean	30.03	32.98
SD	9.74	11.74
Min	18.51	19.43
Median	26.75	28.77
Max	56.33	60.52
Gender		
Male	81 (86%0	33 (65%)
Female	13 (14%)	18 (35%0
Hispanic		
Yes	13 (14%)	8 (16%)
No	81 (86%)	43 (84%)
Race		
White	69 (73%)	37 (73%)
Black/African American	14 (15%)	9 (18%)
Hawaiian native or Pacific Islander	0	0
Asian	4 (4%)	0
American Indian or Alaskan native	2 (2%)	0
More than one race	2 (2%)	2 (4%)
Blank/no self-disclosure	3 (3%)	3 (6%)
Pell eligible		
Yes	51 (54%)	37 (73%)
No	43 (46%)	14 (28%)
Eligible veteran		
Yes	7 (7%)	2 (4%)
No	87 (93%)	49 (96%)
Disability		
Yes	1 (1%)	0
No	93 (99%)	51 (100%)
Incumbent worker		
Yes	52 (55%)	27 (53%)
No	2 (45%)	24 (47%)
Completed program		
Yes	27 (29%)	1 (2%)
No	67 (71%)	50 (98%)
Retained in other education (only for non-completers)		
Yes	4 (6%)	10 (20%)
No	63 (94%)	40 (80%)
Not applicable (i.e., completed program)	27	1
Still enrolled at TAACCCT institution (only for completers)		
Yes	22 (82%)	1 (100%)
No	5 (19%)	0
Not applicable (i.e., did not complete program)	67	50
Entered employment (only for non-incumbents who completed program)		
Yes	5 (39%)	0
No	8 (62%)	0
Not applicable (i.e., did not complete program)	81	51

	Treatment n = 94	Comparison (pre matching) n = 51
Retained employment (only for non-incumbents who completed the program and who entered employment)		
Yes	5 (100%)	--
No	0	--
Not applicable	89	51
Wage increase for incumbent workers or non-incumbents who entered employment		
Yes	48 (84%)	0
No	9 (16%)	27 (100%)
Not applicable (i.e., not incumbent)	37	24

Eastern Florida State Dataset

	Treatment n = 74	Comparison (pre matching) n = 260
Age		
Mean	34.92	31.44
SD	11.28	11.63
Min	20.63	15.95
Median	31.18	27.54
Max	72.39	67.01
Gender		
Male	62 (84%)	213 (82%)
Female	12 (16%)	47 (18%)
Hispanic		
Yes	4 (5%)	19 (7%)
No	70 (95%)	214 (93%)
Race		
White	59 (80%)	211 (81%)
Black/African American	7 (10%)	20 (8%)
Hawaiian native or Pacific Islander	0	2 (1%)
Asian	4 (%%)	3 (1%)
American Indian or Alaskan native	2 (3%)	2 (1%)
More than one race	2 (3%)	10 (4%)
Blank/no self-disclosure	0	0
Pell eligible		
Yes	39 (53%)	101 (39%)
No	35 (47%)	159 (61%)
Eligible veteran		
Yes	11 (15%)	229 (88%)
No	63 (85%)	31 (12%)
Disability		
Yes	3 (4%)	4 (2%)
No	71 (96%)	256 (99%)
Incumbent worker		
Yes	42 (57%)	140 (54%)
No	32 (43%	120 (46%)
Completed program		
Yes	0	15 (6%)
No	0	0

	Treatment n = 74	Comparison (pre matching) n = 260
Retained in other education (only for non-completers)		
Yes	7 (10%)	31 (12%)
No	67 (91%)	229 (88%)
Not applicable (i.e., completed program)	0	0
Still enrolled at TAACCCT institution (only for completers)		
Yes	25 (34%)	83 (32%)
No	49 (66%)	177 (68%)
Not applicable (i.e., did not complete program)	0	0
Entered employment (only for non-incumbents who completed program)		
Yes	11 (15%)	52 (20%)
No	21 (28%)	68 (26%)
Not applicable (i.e., did not complete program)	42 (57%)	140 (54%)
Retained employment (only for non-incumbents who completed the program and who entered employment)		
Yes	40 (54%)	119 (46%)
No	2 (3%)	21 (8%)
Not applicable	32 (43%)	120 (46%)
Wage increase for incumbent workers or non-incumbents who entered employment		
Yes	43 (81%)	143 (75%)
No	10 (19%)	49 (75%)
Not applicable (i.e., not incumbent)	21	68

Florida Southwestern State College Dataset

	Treatment n = 30	Comparison (pre matching) n = 55
Age		
Mean	31.83	24.53
SD	12.39	7.14
Min	20.08	19.60
Median	25.92	21.78
Max	65.27	57.22
Gender		
Male	18 (60%)	29 (53%)
Female	12 (40%)	26 (47%)
Hispanic		
Yes	12 (40%)	25 46%)
No	18 (60%)	30 (55%)
Race		
White	13 (43%)	34 (62%)
Black/African American	4 (13%)	5 (9%)
Hawaiian native or Pacific Islander	0	1 (2%)
Asian	1 (3%)	0
American Indian or Alaskan native	0	0
More than one race	6 (20%)	0
Blank/no self-disclosure	6 (20%)	13 (24%)
Pell eligible		
Yes	17 (57%)	31 (56%)
No	13 (43%)	24 (44%)

	Treatment n = 30	Comparison (pre matching) n = 55
Eligible veteran		
Yes	2 (7%)	6 (11%)
No	28 (93%)	49 (89%)
Disability		
Yes	0	3 (6%)
No	30 (100%)	52 (95%)
Incumbent worker		
Yes	21 (70%)	31 (56%)
No	9 (30%)	24 (44%)
Completed program		
Yes	8 (27%)	1 (2%)
No	22 (73%)	54 (98%)
Retained in other education (only for non-completers)[2]		
Yes	*Not reported*	*Not reported*
No		
Not applicable (i.e., completed program)		
Still enrolled at TAACCCT institution (only for completers)		
Yes	4 (50%)	0
No	4 (50%)	1 (100%)
Not applicable (i.e., did not complete program)	22	54
Entered employment (only for non-incumbents who completed program)		
Yes	--	0
No	--	1 (100%)
Not applicable (i.e., did not complete program)	30	54
Retained employment (only for non-incumbents who completed the program and who entered employment)		
Yes	--	--
No	--	--
Not applicable	30	54
Wage increase for incumbent workers or non-incumbents who entered employment		
Yes	6 (75%)	1 (100%)
No	2 (25%)	0
Not applicable (i.e., not incumbent)	22	54

North Florida Dataset

	Treatment n = 59
Age	
Mean	32.13
SD	12.70
Min	17.51
Median	29.01
Max	62.75
Gender	
Male	57 (97%)
Female	2 (3%)
Hispanic	
Yes	2 (3%)
No	58 (97%)
Race	
White	33 (56%)
Black/African American	24 (41%)
Hawaiian native or Pacific Islander	0
Asian	0
American Indian or Alaskan native	0
More than one race	2 (3%)
Blank/no self-disclosure	0
Pell eligible	
Yes	37 (63%)
No	22 (37%)
Eligible veteran	
Yes	7 (12%)
No	52 (88%)
Disability	
Yes	1 (2%)
No	58 (98%)
Incumbent worker	
Yes	12 (20%)
No	28 (48%)
Completed program	
Yes	31 (53%)
No	28 (48%)
Retained in other education (only for non-completers)	
Yes	0
No	28 (100%)
Not applicable (i.e., completed program)	0
Still enrolled at TAACCCT institution (only for completers)	
Yes	*Not reported*
No	
Not applicable (i.e., did not complete program)	
Entered employment (only for non-incumbents who completed program)	
Yes	16 (70%)
No	7 (30%)
Not applicable (i.e., did not complete program)	0
Retained employment (only for non-incumbents who completed the program and who entered employment)	
Yes	10 (63%)
No	4(25%)

	Treatment n = 59
Not applicable	0
Wage increase for incumbent workers or non-incumbents who entered employment	
Yes	4 (14%)
No	1 (4%)
Not applicable (i.e., not incumbent)	0

Note. There was no viable comparison group for this college.

Palm Beach State College Dataset

	Treatment n = 31	Comparison (pre matching) n = 77
Age		
Mean	34.91	35.20
SD	10.42	11.32
Min	20.78	20.29
Median	33.13	32.22
Max	57.68	61.77
Gender		
Male	26 (84%)	28 (36%)
Female	5 (16%)	49 (64%)
Hispanic		
Yes	9 (29%)	33 (43%)
No	22 (71%)	44 (57%)
Race		
White	13 (42%)	34 (44%)
Black/African American	6 (19%)	24 (31%)
Hawaiian native or Pacific Islander	2 (7%)	0
Asian	4 (13%)	3 (4%)
American Indian or Alaskan native	0	0
More than one race	1 (3%)	0
Blank/no self-disclosure	5 (16%)	16 (21%)
Pell eligible		
Yes	13 (42%)	30 (39%)
No	18 (58%)	47 (61%)
Eligible veteran[a]		
Yes	0	0
No	31 (100%)	77 (100%)
Disability		
Yes	1 (3%)	0
No	30 (97%)	77 (100%)
Incumbent worker		
Yes	18 (58%)	57 (74%)
No	13 (42%)	20 (26%)
Completed program		
Yes	8 (26%)	4 (5%)
No	23 (74%)	73 (95%)
Retained in other education (only for non-completers)		
Yes	23 (100%)	71 (97%)
No	0	2 (3%)
Not applicable (i.e., completed program)	0	0
Still enrolled at TAACCCT institution (only for completers)		
Yes	8 (100%)	4 (100%)
No	0	0
Not applicable (i.e., did not complete program)	0	0
Entered employment (only for non-incumbents who completed program)		
Yes	1 (100%)	--
No	--	--
Not applicable (i.e., did not complete program)	30	77
Retained employment (only for non-incumbents who completed the program and who entered employment)		
Yes	--	--
No	--	--

	Treatment n = 31	Comparison (pre matching) n = 77
Not applicable	31	77
Wage increase for incumbent workers or non-incumbents who entered employment		
Yes	8 (36%)	56 (95%)
No	14 (64%)	3 (5%)
Not applicable (i.e., not incumbent)	0	0

South Florida College Dataset

	Treatment n = 41	Comparison (pre matching) n = 31
Age		
Mean	28.86	31.51
SD	9.28	11.84
Min	19.53	19.39
Median	24.93	29.08
Max	60.37	64.49
Gender		
Male	31 (76%)	19 (59%)
Female	10 (24%)	13 (41%)
Hispanic		
Yes	17 (42%)	11 (34%)
No	24 (59%)	21 (66%)
Race		
White	33 (81%)	29 (91%)
Black/African American	6 (15%)	2 (6%)
Hawaiian native or Pacific Islander	1 (2%)	0
Asian	1 (2%)	0
American Indian or Alaskan native	0	0
More than one race	0	0
Blank/no self-disclosure	0	1 (3%)
Pell eligible		
Yes	25 (61%)	15 (47%)
No	16 (39%)	17 (53%)
Eligible veteran		
Yes	5 (12%)	0
No	36 (88%)	32 (100%)
Disability		
Yes	2 (5%)	0
No	39 (95%)	32 (100%)
Incumbent worker		
Yes	21 (51%)	23 (72%)
No	20 (49%)	9 (28%)
Completed program		
Yes	37 (90%)	14 (44%)
No	4 (10%)	18 (56%)
Retained in other education (only for non-completers)		
Yes	--	--
No	4 (100%)	18 (100%)
Not applicable (i.e., completed program)	37	14
Still enrolled at TAACCCT institution (only for completers)		
Yes	5 (14%)	2 (14%)
No	32 (87%)	12 (86%)
Not applicable (i.e., did not complete program)	4	17
Entered employment (only for non-incumbents who completed program)		
Yes	4 (24%)	--
No	13 (77%)	1 (100%)
Not applicable (i.e., did not complete program)	24	30
Retained employment (only for non-incumbents who completed the program and who entered employment)		

	Treatment n = 41	Comparison (pre matching) n = 31
Yes	4 (100%)	--
No	--	--
Not applicable	37	31
Wage increase for incumbent workers or non-incumbents who entered employment		
Yes	19 (76%)	21 (88%)
No	6 (24%)	3 (13%)
Not applicable (i.e., not incumbent)	16	7

St. Johns River State College Dataset

	Treatment n = 65	Comparison (pre matching) n = 30
Age		
Mean	29.89	30
SD	10.39	9.19
Min	18	19
Median	27	27
Max	64	48
Gender		
Male	52 (80%)	10 (33%)
Female	13 (20%)	20 (67%)
Hispanic		
Yes	3 (5%)	1 (3%)
No	62 (95%)	29 (97%)
Race		
White	61 (94%)	3 (10%)
Black/African American	3 (5%)	2 (7%)
Hawaiian native or Pacific Islander	0	0
Asian	0	0
American Indian or Alaskan native	1 (2%)	0
More than one race	0	0
Blank/no self-disclosure	0	25 (83%)
Pell eligible		
Yes	26 (40%)	27 (90%)
No	39 (60%)	3 (10%)
Eligible veteran		
Yes	10 (15%)	1 (3%)
No	55 (85%)	29 (97%)
Disability		
Yes	0	0
No	65 (100%)	30 (100%)
Incumbent worker		
Yes	32 (49%)	0
No	33 (51%)	30 (100%)
Completed program		
Yes	12 (19%)	1 (3%)
No	53 (82%)	29 (97%)
Retained in other education (only for non-completers)		

	Treatment n = 65	Comparison (pre matching) n = 30
Yes	2 (4%)	0
No	51 (96%)	29 (100%)
Not applicable (i.e., completed program)	12	1
Still enrolled at TAACCCT institution (only for completers)		
Yes	12 (100%)	--
No	--	1 (100%)
Not applicable (i.e., did not complete program)	53	29
Entered employment (only for non-incumbents who completed program)		
Yes	5 (71%)	--
No	2 (29%)	--
Not applicable (i.e., did not complete program)	58	30
Retained employment (only for non-incumbents who completed the program and who entered employment)		
Yes	2 (100%)	--
No	--	--
Not applicable	63	30
Wage increase for incumbent workers or non-incumbents who entered employment		
Yes	30 (86%)	--
No	5 (14%)	--
Not applicable (i.e., not incumbent)	30	30

APPENDIX D. Status for Activity 4.1: Align Academic Credentials in Basic AS Programs in IT

Status for Activity 4.1: Aligning Academic Credentials in Basic AS Programs in IT

Listed in SOW	Not in SOW--added later or different name	FL CIP Code	Credit Hours	Lead College(s)	Where Implemented	Modification Approved?	Creation	Latticed[1]	Issues
Geographic Information Systems (GIS) CCC	NA	0545070213	21	SJR	SJR	NA	Improved	No	▪ None
Help Desk Services CCC	Help Desk Support Technician CCC[3]	0511010313	18	SJR	CF, SFSC	NA	New	Yes	▪ Named differently in SOW
					SJR	NA	Improved	Yes	
IT Management CCC	NA	0511010304	30	FSW	Not Implemented	NA	NA	NA	▪ Daggered by State
IT Technician CCC	IT Support Specialist CCC	0511010311	18	FSW & SJR	EFSC	No	Existed	Yes	▪ Named differently in SOW
					SJR, FSW	No	Improved	Yes	▪ Replaced daggered IT Technician CCC
Mobile Device Computing CCC	Mobile Device Technology LLC	None for LLC	12	CF	CF	No	New	No	▪ Named differently in SOW ▪ Because 12 credit hours did not meet State framework of 24, modified to local level cert (LLC)
Cisco Certified Network Associate Security Certification (name TBD)	Cisco Certified Network Associate Security CCC	0511100121	15	PBSC & EFSC	PBSC	NA	New	Yes	▪ 15 credit hour vs State framework of 16 for Network Support Technician CCC
	Network Infrastructure (CISCO) CCC	0511100114	21		EFSC & SJR	NA	Improved	Yes	▪ Part of the Network Sys Tech AS program which is aligned with CISCO industry cert
			18						▪ SJR has 18 credit hours vs State framework 21
Network Virtualization CCC	NA	0511100116	18	EFSC	EFSC	NA	Improved	Yes	▪ None
IT Communications (VOIP) CCC	IP Communications (VOIP) CCC	0511100120	32	EFSC	EFSC	No	New	Yes	▪ Named differently in SOW ▪ No State Framework approved for "IT" VOIP so EFSC elected to replace with "IP"
Not listed	Information Management BAS	1101110991	120	PBSC	PBSC	Yes	Improved	Yes	▪ Added after grant award thru a mod PBSC initiated
Not listed	Information Technology Administration CCC	0511010307	18	SJR	SJR	Yes	Improved	Yes	▪ Added after grant award thru a mod SJR initiated
Not listed	Network Enterprise Administration CCC	0511100113	27	SJR	SJR	Yes	Improved	Yes	▪ Added after grant award thru a mod SJR initiated. ▪ 27 credit hours vs State framework 29
Not listed	Web Development Specialist CCC	0511080103	36	SJR	SJR	Yes	Improved	Yes	▪ Added after grant award thru a mod SJRSC initiated
Not listed	Engineering Technology Support Specialist CCC	0615000007	18	FSW	FSW	Yes	New	No	▪ FSW plans to bring up an Advanced Manufacturing AS and embed this cert in it
Not listed	Accounting Technology Management CCC	0552030205	27	NFCC	NFCC	Yes	New	Yes	▪ Added after grant award thru a modification NFCC initiated
					CF	Yes	Improved	Yes	
	Accounting Applications CCC	0552030205	27		SFSC	Yes	Improved	Yes	▪ Different name but CIP used is for Accounting Technology Management CCC which was approved thru a modification NFCC initiated
Not listed	Accounting Technology Specialist CCC	0552030204	12	NFCC	NFCC	Yes	New	Yes	▪ Added after grant award thru a mod NFCC initiated
					CF	Yes	New	Yes	
Not listed	Accounting Technology Operations CCC	0552030203	18	NFCC	NFCC	Yes	New	Yes	▪ Added after grant award thru a mod NFCC initiated
					CF	Yes	New	Yes	

Notes. For a full list of Florida CTE Curriculum Frameworks in IT, visit the FLDOE Career & Technical Education website (http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/).
[1]Fully or partially embedded under a Degree program at this college. [2]Mode is Face to face (F), Mixed (M), or Fully Online (O).
[3]Same program, different name.
Some programs are not included in IT Career Cluster, e.g. Accounting and Entrepreneurship CCCs are in Business, and Logistics CCCs are in in Transportation.
NA is Not Applicable.

APPENDIX E. Status for Activity 4.2: Align Academic Credentials Related to Advanced Programs in IT

Status for Activity 4.2: Align Academic Credentials Related to Advanced Programs in IT

Listed in SOW	Not in SOW--added later or different name	FL CIP Code	Credit Hours	Lead College(s)	Where Implemented	Modification Approved?	Creation	Embedded[1]	Issues
Network Security CCC	NA	0511100118	30	NFCC	NFCC & SFSC	NA	New	Yes	▪ SJR has 21 credit hours vs State framework of 30 or 20
			30		EFSC	NA	Improved	Yes	
			21		SJR	NA	Improved	Yes	
			30		FSW	NA	New	No	
Digital Forensics CCC	NA	0511100119	32	SFSC & SJR	SFSC	NA	New	Yes	▪ None
			24		SJR	NA	Improved	Yes	
Information Security CCC	NA	0511100118	21	PBSC	PBSC	NA	New	Yes	▪ CIP used is for Network Security CCC framework because there was no Info Security CCC ▪ 21 credit hours vs State framework 20
Logistics and Distribution CCC	Intermodal Freight and Transportation CCC	0652020303	18		FSW	NA	New	No	▪ Named differently in SOW but is under Transportation and Logistics AS
Networking Security ATC	NA	0511100367	12	CF & EFSC	CF	NA	New	Yes	▪ CIP used on CF website is for IT Security ATC in State Frameworks
	Network Security Forensics ATC	0511100166	12		EFSC	No	New	Yes	▪ Elected to offer this program instead CIP used is for Network Systems Tech ATC which was daggered by State
Logistics and Supply Chain Management ATC	NA	0652020966	15	CF & SFSC	CF	NA	New	Yes	▪ CIP used on CF website is for Supply Chain Management ATC in State Frameworks
	Logistics and Transportation Specialist CCC	0652020901	18		SFSC	No	New	Yes	▪ Elected to offer this CCC which is under Supply Chain Management AS instead since missed deadline to a apply for ATC
Automation and Production Technology PSAV	NA	0615040603	20	NFCC	NFSC	NA	New	NA	▪ None
Automation and Simulation CCC	Simulation and Automation CCC	0615040601	12	CF	CF	NA	New	Yes	▪ CIP used is for "Automation" CCC in State framework
Robotics and Simulation CCC	Robotics and Simulation Technician CCC	0615040514	12	SJR	SJR	NA	New	Yes	▪ Named differently in SOW
Entrepreneurship CCC	NA	0552070308	12	CF & NFCC	CF	NA	New	Yes	▪ CIP used is for Business Entrepreneurship CCC
	Business Development and Entrepreneurship CCC	0552070306	25		NFCC	No	New	Yes	▪ Named differently in SOW
			25		FSW	No	New	Yes	
	Small Business Management CCC	0552070101	24		FSW	No	Existed	Yes	▪ Named differently in SOW ▪ Elected to offer this program instead which is under the Business Administration BAS AS

Notes. For a full list of Florida CTE Curriculum Frameworks in IT, visit the FLDOE Career & Technical Education website (http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/).
[1]Fully or partially embedded under a Degree program at this college. [2]Mode is Face to face (F), Mixed (M), or Fully Online (O).
[3]Same program, different name.
Some programs are not included in IT Career Cluster, e.g. Accounting and Entrepreneurship CCCs are in Business, and Logistics CCCs are in in Transportation.
NA is Not Applicable.

APPENDIX F. Annual Outcome Projections by College

XCEL-IT ANNUAL OUTCOME PROJECTIONS BY COLLEGE

Outcome Measures	CF	EFSC	FSW	NFCC	PBSC	SJRSC	SFSC	Combined Targets			
1. Total Unique Participants Served	50	125	68	15	50	30	25	Y1	363		
	100	260	240	60	100	50	75	Y2	885	Total	2,253
	150	280	240	60	100	75	100	Y3	1,005		
2. Number Completing a TAACCCT-Funded Program of Study	0	30	30	10	0	0	0	Y1	70		
	50	67	180	50	20	20	30	Y2	417	Total	1,049
	80	72	180	50	60	30	90	Y3	562		
3. Number Retained in Program of Study or Other TAACCCT-Funded Program	25	90	15	15	20	27	5	Y1	197		
	75	195	105	25	85	60	55	Y2	600	Total	1,572
	135	195	105	25	105	105	105	Y3	775		
4. Number Completing Credit Hours	40	100	0	20	20	27	0	Y1	207		
	60	200	30	30	65	45	36	Y2	466	Total	1,296
	120	240	30	30	85	68	50	Y3	623		
5. Number Earning Credentials	5	30	11	5	10	5	5	Y1	71		
	60	72	89	50	50	20	50	Y2	391	Total	958
	85	77	89	70	60	55	60	Y3	496		
6. Number Enrolled in Further Education After TAACCCT POS Completion	0	25	0	0	0	0	0	Y1	25		
	30	50	45	20	25	12	20	Y2	202	Total	482
	50	55	55	20	30	20	25	Y3	255		
7. Number Employed after TAACCCT-Funded Program of Study Completion.	5	20	5	5	5	5	5	Y1	50		
	38	50	30	35	25	17	25	Y2	220	Total	865
	59	65	65	45	30	43	45	Y3	352		
	24	50	40	35	25	44	25	Y4	243		
8. Number Retained in Employment After Program of Study Completion	9	15	5	10	3	0	0	Y1	42		
	46	40	25	40	15	14	15	Y2	195	Total	797
	71	55	55	40	25	33	40	Y3	319		
	30	45	40	40	23	38	25	Y4	241		
9. Number Employed at Enrollment Who Received a Wage Increase	33	25	0	10	0	0	0	Y1	68		
	8	50	12	20	12	12	12	Y2	126	Total	557
	2	60	20	20	17	40	17	Y3	176		
	10	50	30	25	16	40	16	Y4	187		

Note. There have been modifications to highlighted cells due to errors in the original table in the SGA and SOW. These changes were made by College of Central Florida (the lead college) with FPO approval.

APPENDIX G. Maximizing the Number of Credentials Awarded: Changes to the Process for Awarding Credentials

MAXIMIZING THE NUMBER OF CREDENTIALS AWARDED: CHANGES TO THE PROCESS FOR AWARDING CREDENTIALS

There have been improvements made to assure that XCEL-IT participants are awarded credentials earned when the complete all the coursework as part of an umbrella program that they are enrolled in. Sometimes this is not automatic though, meaning the student may be awarded the umbrella program degree and not be awarded the CCC (event when completing all of the required coursework), unless extra steps are taken before graduation.

College	Is the process for awarding a CCC Automatic?	What is the process for awarding credentials?	[1]How (if at all) the process changed for awarding credentials since the grant was funded?
CF	Yes	▪ The Registrar's office notifies students that they will receive the certificate in the mail and can choose to walk at graduation.	▪ The Auto Grad system was put in place in Fall 2014 to work around the student's need to complete a graduation application for their certificate of study. ▪ CF has seen a 366% growth from 2011 to 2016 for AS Degree level certs, including CCC, with the first big bump occurring in 2014. ATC awarded went from zero prior to the grant to 40 in 2014-15 and 92 in 2015-16.
EFSC	Yes	▪ The college informs them.	▪ The number of certificates awarded has increased significantly because the College performs a regular audit of this for CCC and ATC.
FSW	Yes	▪ FSW uses Auto Grad.	▪ If the student specifically listed one of the corresponding CCCs at a program of studies, they were automatically awarded their earned certificate. If not, they had to submit and be approved by an official advisor, a change program request. After that at the end of the following semester, they would be awarded.
NFCC	No	▪ The College Coordinator sends a list of completers to the graduation specialist who verifies and then contacts the student. The student comes in and completes paperwork and has their advisor sign off, then brings it back to the graduation specialist.	▪ It has not.
PBSC	Yes	▪ Once the student completes all the requirements of the college credit certificates he/she will receive the certificate via mail. ▪ The students will receive a certificate as soon as they complete their CCC requirements the system triggers the process. Also, if the student's primary program of study is an A.S. degree and the student complete all the required courses for an embedded CCC, the system automatically includes the certificate as well.	▪ NR
SJRSC	No	▪ Students must apply to be awarded each credential earned. For example, there are 3 CCCs embedded in the Network Engineering A.S. degree so they have to fill out four separate forms.	▪ Number of credentials awarded has improved considerably. ▪ Workforce Advisors will continue tracking Computer Ed students for certificates after the grant ends.
SFSC	No	▪ Students must apply to be awarded a certificate or degree earned.	▪ XCEL-IT performed audits and sent reminders to students to apply for graduation so they can be awarded credentials earned.

Notes. This is a summary of feedback obtained from Coordinator reports in the last quarter of the grant.

[1]These changes cannot be attributed to XCEL-IT.

APPENDIX H. What Valued Components of XCEL-IT Can be Sustained

WHAT VALUED COMPONENTS CAN BE SUSTAINED AFTER THE GRANT ENDS

College	Current Process	Will this continue after the grant ends?
Placement Activities		
CF	▪ XCEL-IT staff actively research job opportunities and notify students about positions by phone or email. ▪ The CF Talent Center, as well as all IT and Business courses provide students with resume writing assistance and mock interview training. They also make students aware of employment assistance provided through the CF network.	▪ Yes. These processes and services will be sustained through the strong partnership built with CareerSource CLM, and the creation of the new CF placement office on campus.
EFSC	▪ The college's Career Center is responsible for placement activities. It also provides training to college advisors, specifically in the areas of IT and cybersecurity.	▪ Yes
FSW	▪ Placement activities are guided by the local WIB (onsite).	▪ Yes
NFCC	▪ Placement activities are guided by the local WIB.	▪ Yes
PBSC	▪ PBSC's WIB provides students with activities to assist them with job placement. The college also has a Career Center that provides services for career, college planning, and for placement.	▪ Yes
SJRSC	▪ The XCEL-IT director supported students for retention and placement, holding Open Forums and Employer Career Fairs, notifying students about employment positions, and providing proactive advising. She worked closely with SJR State's Workforce Services team, which is led by the Workforce Services Director, advisors (3), a Career Transitions Specialist, and other staff. They have built strong partnership with the Career Services Committee and the local WIB, which have offices on two of the campuses.	▪ Yes. The Career Transitions Specialist and Workforce Advisors positions will continue. WIB is housed on campus are funded by CareerSource.
SFSC	▪ The college provides proactive advising. This includes help with soft skills, resume and cover letter writing, and also increasing job search skills maximizing relevant results. ▪ Students are notified about different job titles within their program of study.	▪ Yes. SFSC college advisors and career development center will provide these services. These processes have had very little cost added, and often yield positive results.
Proactive Advising		
CF	▪ Program advising for enrollment transitioned to the first year advisors of the college in early 2016. This was a college wide decision, as part of the college's Quality Enhancement Plan. After completing 24 credit hours, students are assigned to a meta-major advisor specific to their area of study.	▪ Yes, these processes and through the strong partnership built with CareerSource CLM, and the creation of the new placement office on campus will all be sustained.
EFSC	▪ EFSC's advising staff currently is responsible for referring all students to The Tech Hire Project Manager for these programs.	▪ Yes
FSW	▪ FSW is currently transitioning to a new Appreciative Advising model college wise. Each school will provide embedded advisors with a specific casefiles of students. This was not because of XCEL-IT.	▪ Yes
NFCC	▪ The XCEL-IT coordinator provided extensive advising for all XCEL-IT program students.	▪ Yes
PBSC	▪ PBSC has advising teams on each program (BAS and AS). Proactive advising is an effective way to guide students but also it works well with retention. The students feel like they can trust their advisor and are open to discuss freely what they need.	▪ Yes
SJRSC	▪ Computer Education and IT student advising is covered under the umbrella of Workforce Development. There are Workforce Advisors (3 with on each campus) devoted to advising students	▪ Yes

College	Current Process	Will this continue after the grant ends?
	for academic success. The XCEL-IT Director worked closely with the Workforce Advisors to serve XCEL-IT participants. Typically, XCEL-IT students had an initial advising session with a Workforce Advisor to start them on their academic path. The XCEL-IT Director then became the advisor for XCEL-IT participants.	
SFSC	▪ XCEL-IT staff and college advisors have provided extensive advising for students who are interested or enrolled in XCEL-IT programs.	▪ Yes. SFSC advisors will continue this role.
Marketing and Social Media		
CF	▪ Students. Flyers at Advisor's tables, XCEL-IT webpage, XCEL-IT certificate mentions on every related degree page of the CF main website, XCEL-IT Facebook, Google +, Program rack cards, program booklets, in classroom presentation, retractors in hallways advertising programs and events, monitor displays in hallways and newspaper articles/ads.	▪ Some will. Marketing for specific XCEL-IT programs will end after the period of performance; however, advertising of latticed credentials should continue.
	▪ Employers. Employer Connection website, CEP innovations magazine advertisements, a 4-page Employer Connection booklet, articles.	▪ Yes. Marketing to employers will continue through the employer connection website, and other college efforts.
EFSC	▪ Students. The grant marketing strategy involved classroom presentations where the Xcel It boot camps were advertised. The program's boot camps have been the "hook" that recruited students.	▪ Yes. Bootcamps are popular. They serve as a hook for students.
	▪ Employers. Marketing to employers is conducted through industry forums, subject matter expert (SME) interaction, internship and professional opportunities. The EFSC Marketing Department has developed a variety of social and print media to support the grant. These include a website, flyers, posters, newspaper ads, etc.	▪ Yes. The college will continue the Xcel It program's industry relationships. This effort has already begun through the college's Continuing Education department and Career Center.
FSW	▪ Students. Flyers at Advisors tables, program rack cards, program booklets, classroom presentations, monitors in hallways, press releases/ads, and radio advertisements.	▪ Some will. Marketing for specific XCEL-IT programs will end, however advertising of scaffolded credentials should continue.
	▪ Employers. Employer Connection website. School of Business and Technology outreach and promotional materials and articles.	▪ Yes
NFCC	▪ NFCC continuously updates advertising, media, and website development. Student recruitment and outreach planning ongoing, along with plans for community involvement to leverage resources and promote business and organizational partnerships.	▪ Yes
PBSC	▪ We worked with the Cybersecurity Alliance Club (student's organization) and the Computer Club so they can continue using our Facebook page in order to promote IT and cybersecurity. We have used free workshops, and information sessions to promote programs. A close relationship with South Florida Technology Alliance has proven to be of vital importance.	▪ Yes. Outreach meetings, workshops, and Facebook page should be maintained.
SJRSC	▪ Students. XCEL-IT has leveraged resources with SJRSC's marketing department and CS NEFL to develop promotional material, print advertisements, and billboards. We have also done classroom presentations and have participated in advertising programs and campus events.	▪ Yes. All new programs and activities are now an integral part of SJR State's Computer Education. The college leveraged XCEL-IT marketing and this will continue.
	▪ Employers. NR	▪ NA

College	Current Process	Will this continue after the grant ends?
SFSC	▪ Leverage resources with SFSC's Community Relations department to develop promotional material, print advertisements, radio spots, social media posts and advertisements, local media's websites, billboards, and SFSC's website. Promoted educational programs, events, and snack classes. Promotion to employers was also a component of XCEL-IT efforts.	▪ Yes. Marketing for specific XCEL-IT programs will end after the period of performance; however, advertising of latticed credentials should continue. We have received positive feedback from print, billboard, and our website and these efforts will continue. Marketing to employers will also continue.
Advisory Committees and Employer Forums		
CF	▪ XCEL-IT assists with planning and coordinating the Advisory Committees, as well as attracting new members and assisting with retention of current members. The new process of ensuring a diverse and appropriate size committee has assisted with receiving feedback on curriculum and program structure. In addition, the enhancing of the committees has helped with developing partnerships with employers by offering employer forums, job opportunities, and internships to students.	▪ Yes for both. The Advisory Committees (AC) and Employer Forums were already occurring, but XCEL-IT enhanced the format. In addition, we proposed and received approval from the Dean of Business and Technology to move ACs to a structured schedule for the year, in March and October, to ensure proper planning and consistency.
EFSC	▪ Employer Forums. XCEL-IT program staff conducted several industry forums during the grant in addition to attending the Career Source quarterly industry partner forum.	▪ No. However, we have advised to continue this relationship officially through a new Tech Hire grant.
	▪ Advisory Committees. EFSC will continue advisory committees to ensure its programs are relevant and current to meet workforce needs. Advisory committees support Associate in Science and College Credit Certificate programs as well as continuing education.	▪ Yes
FSW	▪ Advisory Committees. These were already happening, but we enhanced the format to include the addition of the regional economic development officers, and CareerSource.	▪ Yes
	▪ Employer Forums. XCEL-IT has brought in employers and community members in to speak to students regarding their education/career path.	▪ NR.
NFCC	▪ Advisory Committees These exist for all programs. They will continue their involvement in shaping student-learning experiences, through providing employer visits to the classroom, internship opportunities and student tours of facilities. ▪ Employer Forums. There were no forums but NFCC has regular meetings and strong industry partnerships.	▪ Yes. General NFCC funds pay for all food and some marketing expenses tied to these activities
PBSC	▪ Each program (BAS and AS) are in charge of the meetings and events with partners.	▪ Yes
	▪ Each program (BAS and AS) are in charge of the meetings and events with partners but no Employer forums were documented by the project.	▪ NA
SJRSC	▪ XCEL-IT participated in three employer forums and twice Computer Education Advisory Committees each year.	▪ Yes. Advisory Committees (AC) and Employer Forums (EF) were already occurring. These will continue.
SFSC	▪ The college hosts employer open forums and career fairs.	▪ Ye.
Outreach Activities and Outreach Taskforce		
CF	▪ Outreach Task Force. The Outreach Taskforce, Business and Career Resource Cooperative (BCRC) was created in partnership between XCEL-IT and the Small Business Development Center (SBDC). It serves a purpose for the community and the related partners in creating awareness around the resources and opportunities available with each organization. This includes bringing awareness to CF programs.	▪ The Outreach Taskforce, Business and Career Resource Cooperative (BCRC) will continue under SBDC's leadership.

College	Current Process	Will this continue after the grant ends?
	▪ <u>Veteran Outreach</u>. In preparation for the grant's end, XCEL-IT representatives have met with the Veteran Club advisor and Financial Aid director. Both individuals have a keen interest in continuing a high level of veteran engagement here at CF. XCEL-IT has worked with veterans by planning Coffee and Career Talks targeted toward job readiness skills for veterans, offering soft skills classes at the Ritz Veterans Village, and participating in radio broadcasts and veteran focused events in the community	▪ Yes, services can be continued through Talent Center and the new CF Veterans Club.
EFSC	▪ <u>Outreach Task Force</u>. There is no task force. College outreach is accomplished through college wide recruiting, the Career Center, the Marketing department, the Tech Hire grant, and other entities within the college.	▪ N/A. However, these entities will reach the same goals of a task force; they already exist and are in the college budget.
	▪ <u>Veteran and TAA-Eligible Outreach</u>. Outreach to veterans is done by the college's Military & Veterans Services Dept. There are very few TAA-Eligible and we have had no response despite reaching out through our WIB.	▪ Yes
FSW	▪ <u>Outreach Task Force</u>. There is no task force but there table events and other engagements to bring awareness to the programs at FSW will continue.	▪ Yes. Specific outreach activities will transition to the Dean's office.
	▪ <u>Veteran and TAA-Eligible Outreach</u>. The Veterans Affairs department at FSW handles this. XCEL-IT has worked with veterans by planning Coffee and Career Talks targeted toward job readiness skills for veterans, offering soft skills training at the Ritz Veterans Village, and participates in radio broadcasts and veteran focused events in the community.	▪ Yes. These services can be continued through the Veterans Affairs department at FSW.
NFCC	▪ <u>Outreach Task Force</u>. There was not task force for this developed.	▪ NA
	▪ Veteran and TAA-Eligible Outreach. Several outreach events occurred, but without much success in reaching these audiences.	▪ Yes. Outreach will be more general, yet still appropriate for all groups identified for this grant.
PBSC	▪ <u>Outreach Task Force</u>. There is no task force. The college already have career fairs scheduled throughout the year and the Career Centers and volunteer staff handle these activities, for the most part.	▪ Yes (but no task force)
	▪ <u>Veteran and TAA-Eligible Outreach</u>. We have a veteran's affairs office in each campus to advise and provide dedicated services and events to our veterans. Project staff had made visits to local Veterans offices.	▪ Yes
SJRSC	▪ <u>Outreach Task Force</u>. The Outreach Taskforce for XCEL-IT at SJR State included members from CareerSource NEFL, FL Healthy Start, SJR State Workforce Advisors, and the Career Transitions Advisor. The task force was able to target potential students over the age of 24, TAA eligible, under/unemployed, entrepreneurs and veterans.	▪ Yes. These activities will shift to the Workforce Services and Career Services Departments at SJR State.
	▪ <u>Veteran and TAA-Eligible Outreach</u>. Representatives from the committee presented in the community at civic clubs, veterans' organizations, local events, local high schools, SJR State classes, participated in career fairs and open house events. They shared their knowledge with all advisors regarding the new programs.	▪ Yes, it will be integrated into the standing committee of Workforce Services.
SFSC	▪ <u>Outreach Task Force</u>. The dream team was formed as the outreach taskforce. As a result, this task force presented in the community at civic clubs, veterans organizations, local events, local high schools, SFSC classes, hosted campus tours, and participated in career fairs and open house events. They cloned their knowledge and understanding with all advisors regarding the new programs.	▪ Yes. While the Dream Team will not continue, the proven activities they came up with will be absorbed by other professional staff, college recruiters, and faculty.

College	Current Process	Will this continue after the grant ends?
	▪ Veteran and TAA-Eligible Outreach - These activities listed above resulted in participants for XCEL-IT grant. As far as TAA eligible participants, we have discovered through considerable effort with state and county officials and our local WIB that the TAA eligible demographic in our market is small and extremely limited. Our college supports working, underemployed, and unemployed individuals, as well as veterans. A good portion of our college population is over 24.	▪ Yes. Through college, local WIB and Veteran's Affairs Office.
Workshops, Bootcamps, and SoftSkills Training		
CF	▪ Soft Skills Training. Talent Center representative reaches out to instructors for the semester to offer a to perform a 30-minute presentation on the importance of soft skills	▪ Yes. We have seen some evidence that this is working, but more follow up is recommended.
	▪ Workshops/Bootcamps. Snack classes were offered by XCEL-IT as a recruiting tool. We have held snack classes on topics related to our certificate programs here at the college and out in the community through lab in a box. Lab in a box meetings were held in partnership with CareerSource CLM, using their mobile unit	▪ No
EFSC	▪ Soft Skills Training. This is offered through the college's Career Center.	▪ Yes
	▪ Workshops/Bootcamps. After a college course is completed with a grade of A or B and with the boot camp instructor's permission, a participant is accepted into a boot camp where they are also tested. The course also covers the material for an industry certification.	▪ Yes
FSW	▪ Soft Skills Training. This is embedded in most XCEL-IT framework (per the state frameworks)	▪ Yes
	▪ Workshops/Bootcamps. These have been periodically planned and coordinated through XCEL-IT, They were marketed through flyer distribution and email broadcast.	▪ No
NFCC	▪ Soft skills Training. CareerSource and NFCC provide Professional Development and Soft Skills Workshops.	▪ Yes
	▪ Workshops/Bootcamps. Snack Classes are held ever semester to buildup interest in the class for the next term enrollment.	▪ Yes
PBSC	▪ Soft Skills Training. Consultis Inc. provided an Info Session – Job Placement Activity (resume writing & interviewing skills). XCEL-IT held other classes held for this. The PBSC Career Centers provide career mentoring and other services.	▪ No
	▪ Workshops/Bootcamps. All certification workshops have been done using volunteers that are already certified in a certain field. The process, although is not complicated, it takes some time and effort. With the help of the faculty and advisors, we can identify such individuals and carry-on with these workshops (this was reported in Y3).	▪ NR
SJRSC	▪ Soft Skills Training. The XCEL-IT Director reaches out to Faculty to offering to share a 30-minute PowerPoint presentation on soft skills. Instructors are very generous in sharing time and often add their expertise to presentation. Career Services makes individual appointments to provide soft skills assistance.	▪ Yes both will continue, however instructors can present content themselves or request Career Services to make a classroom visit to present (XCEL-IT staff will no longer be available).
	▪ Workshops/Bootcamps. Transender, and online simulation system, was paid for by XCEL-IT funds and will not be sustained after March 30, 2017. SJR State College has identified a less costly system that will be implemented. For industry certification, XCEL-IT funds supported a Pearson Vue Test Center. In future, industry certification testing will be coordinated through SJR State's Testing Department.	▪ Yes

College	Current Process	Will this continue after the grant ends?
SFSC	▪ <u>Soft Skills Training</u>. XCEL-IT assists with resume writing and interview readiness. XCEL-IT helps enhance professional development and how to apply it to the job through the advising process. All 30+ credit hour programs have Professional Development in the Workplace embedded as a 3-credit hour course	▪ Yes
	▪ <u>Workshops/Bootcamps</u>. There are several: Intro to Cybersecurity; CompTIA IT Fundamentals; Forklift training; and QuickBooks.	▪ Yes
<u>Expand Work Based Learning (internship or credit for prior experience)</u>		
CF	▪ Career Pathways is a program that offers high school students and graduates of any age from public technical institutions the opportunity to earn college credit by successfully completing career and technical courses (electives) while in Grades 9-12.	▪ Yes. Both of these will continue.
EFSC	▪ The college's Career Center is responsible for internship coordination. ▪ There has been little success for providing credit for prior learning. However, there are policies in place for this.	▪ Yes
FSW	▪ XCEL-IT has had no success with placing interns.	▪ NA
	▪ There has been no success for providing credit for prior learning for XCEL-IT students. However, there are policies in place for this.	▪ Yes.
NFCC	▪ Students are placed in internship opportunities based on instructor's recommendation.	▪ Yes. Through the Office of Economic Development and Technical Programs
PBSC	▪ Now, there are different ways, in case of IT/Computer Science, if a student possesses an industry-recognized certification (like CompTIA's Network+), the student may be eligible for prior learning credits. This process, using certifications as prior learning, must be approved by the Department chair and by the Dean of Business and Computer Sciences. ▪ The BAS and AS internship programs. Both internship programs are considered a 3-credit course and part of the curriculum.	▪ Yes. Internships are being handled by each program
SJRSC	▪ The SJRSC Workforce Services team, headed by the Workforce Services Director; assisted by three Workforce Advisors, a Career Transitions Specialist, and a strong support staff. This staff has built strong partnership with the Career Services Committee and the local WIB. The WIB has offices on two campuses. This, as well as SJR State's projected growth in Career Services, will help ensure that placement and internship coordination will continue. ▪ SJRSC is committed to helping students earn credit for prior learning experience. However, only one XCEL-IT student was awarded for it.	▪ Yes
SFSC	▪ XCEL-IT has increased credit for prior education and experience at SFSC. Working with instructors, department chairs and the registrar's office we awarded 42 credit hours.	▪ Yes. Proactive advisors will be able to continue these efforts.

Note. This is a summary of feedback obtained from College Coordinator reports in the last quarter of the grant.
NR means No Response for this particular item.

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