Retraining the Gulf Coast through Information Technology Pathways

Final Implementation Evaluation Report

Table of Contents

Introduction

The Retraining the Gulf Coast Workforce through Information Technology (IT) Pathways Consortium project is a four-year project funded by the Department of Labor's (DOL) Round Two Trade Adjustment Community College and Career Training (TAACCCT) grants program. The grant was awarded in September 2012 to Bossier Parish Community College, which led a consortium of eight additional colleges across the states of Louisiana and Mississippi to implement the grant through March of 2016. The project's objective was to capitalize on the region's growing IT sector and the increased demand for skilled labor by training almost 2,000 TAA eligible workers, veterans, and individuals with basic skills needs for jobs.

In designing the project, the consortium conducted an extensive labor market analysis to identify the sub-sectors and occupations that were most in-demand in each college's region. As a result of this analysis, the consortium chose to focus on three IT specialty areas: health information technology, cyber security, and industrial information technology. Moreover, the consortium chose to focus on integrated IT career pathways as a key approach to this project. Integrated career pathways incorporate contextualized and integrated instruction, team teaching between adult education and college and career technical education (CTE) instructors, and provide enhanced support services at community colleges.

This final implementation evaluation report covers three years of the Gulf Coast IT Consortium (GCITC) TAACCCT Project – from fall of 2013 to spring of 2016. The report highlights findings from the consortium's implementation of the grant, with a particular focus on how colleges designed and delivered IT-integrated career pathways to connect students to job opportunities in the Gulf Coast region. An overview of the pathways offered and strategies that supported pathway delivery--including integrated instruction and the provision of support services--is described in detail. This report also examines how the consortium leveraged partnerships with local, state and national stakeholders to support GCITC implementation efforts. Finally, this report closes with observations about how GCITC colleges were able to leverage the TAACCCT investment to improve their capacity and support innovation to build the skills and employment of the students they serve.

Overview of Implementation Evaluation Methodology

The Aspen Institute Workforce Strategies Initiative (AspenWSI), in collaboration with the Ray Marshall Center for the Study of Human Resources at the Lyndon B. Johnson School of

Public Affairs at the University of Texas at Austin (Ray Marshall Center), conducted both an implementation study and quasi-experimental impact analysis to assess the effectiveness of the project. The study period began in fall of 2013 and ended in spring of 2016.

AspenWSI, the lead for the implementation study, focused the evaluation on how the colleges designed and delivered the IT-integrated career pathways and what factors either facilitated or hindered implementation. The Ray Marshall Center, the lead for the impact analysis, assessed the impacts on educational and labor market outcomes for students who participated in the GCITC project.[1]

Theory of Change and Implementation Research Questions

AspenWSI analyzed the work of the consortium at the student, institution, and state levels. At the student level, the evaluation focused on the type of students who accessed pathways, and documented how the delivery of integrated instruction paired with support services may have influenced students' academic and labor outcomes. At the institutional level, the evaluation documented the changes in culture and practice that took place in order for the colleges to design and implement the core IT-integrated curriculum and career pathways that offered students latticed credentials and different entry and exit points. At the state level, evaluators examined the consortium's pursuit of policy and financing changes to help scale and sustain the work of consortium colleges in both Louisiana and Mississippi. AspenWSI developed the theory of change diagram displayed in Figure 1, which portrays the consortium's proposed plan for implementation. Throughout the study period, we used this theory as a guide to address the following four research questions:

1. How are the consortium colleges designing and delivering the integrated IT career pathways? How are the designs improving or expanding over the course of the grant?

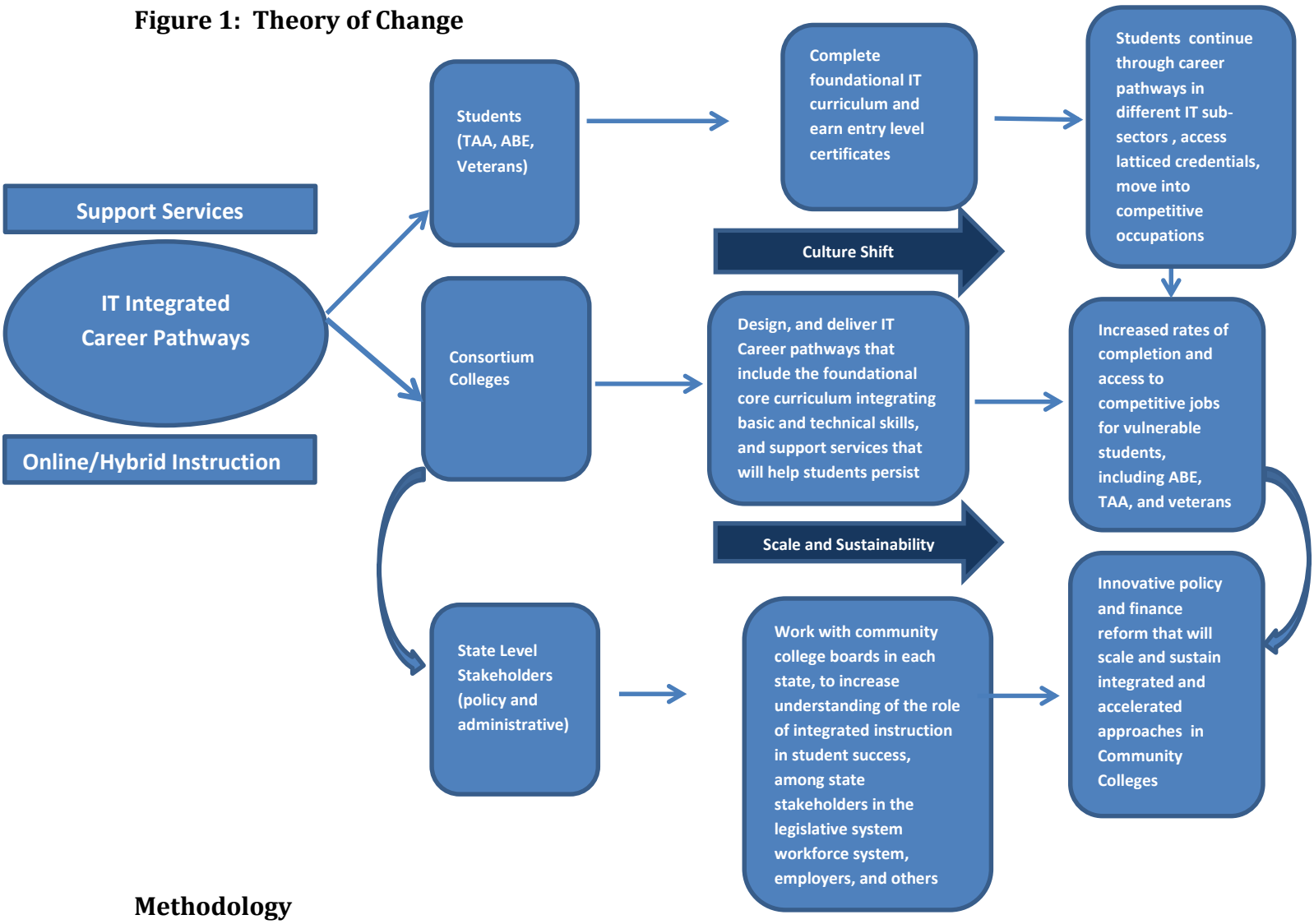
2. Who is the target population for the integrated IT pathways, and how does this align with the population traditionally served by the colleges? How are colleges recruiting and enrolling students into the program?

3. What support services are colleges providing to students in the integrated IT pathways? How are these services coordinated?

[1] See Patnaik Ashweeta and Heath Prince, "Retraining the Gulf Coast through Information Technology Pathways: Final Impact Evaluation Report", Ray Marshall Center, 2016.

4. How are partners such as public workforce agencies and employers involved with the project, and what kind of contributions do they provide? What factors contribute to partners' involvement or lack of involvement in the program?

Figure 1: Theory of Change



Methodology

The implementation evaluation consisted of multiple forms of data collection, including: reviews of project documents; phone calls with GCITC college and state leads; site visits to participating colleges; and two college-level surveys. The data gathered through this process informed how project design and implementation unfolded over the course of implementation at GCITC colleges. Phone calls and project document reviews occurred on a regular basis. Site visits took place in fall of 2013, fall of 2014 and spring of 2015. During site visits to the colleges, the evaluation team interviewed multiple stakeholders to better understand how each college developed and implemented integrated IT pathways using the proposed project strategies. College stakeholders interviewed included a variety of college staff, such as college leadership, GCITC college grant managers, CTE and adult education instructors and other staff from other college departments, such as admissions and student services. Site visits also provided an opportunity to conduct interviews or

focus groups with students and observe classes. In addition, the evaluation team met with GCITC partners, such as employers and representatives from public workforce agencies, during site visits. Finally, the first college-level survey was administered in April of 2014 and covered programming for the 2013-2014 academic year at all nine colleges. The second college-level survey was administered in March of 2016 and covered programming through December 2015. These college-level surveys captured data related to: the program of study and specific training components; staffing patterns and professional development; engagement of partners such as the workforce investment system and employers; the use of learning networks; student outreach and recruitment efforts; the provision and coordination of student support services; plans to sustain programming beyond the period of the grant, and institutional changes made by the colleges to implement the program.

Overview of the Retraining the Gulf Coast Workforce through Information Technology (IT) Pathways Consortium project

The overall goal for this four-year project was to train students across Mississippi and Louisiana for the growing regional demand for skilled labor in the IT sector. College leadership and staff interviewed during site visits agreed on this general objective, and noted that the grant provided an opportunity to either build or enhance existing infrastructure for IT programs and improve the delivery of support services for students. Although in general agreement on the overall purpose of the grant, there was some variation on the reasons why each institution chose to participate in the consortium. For instance three out of the nine colleges reported that they had pursued this grant to increase the number of Adult Basic Education (ABE) students transitioning into college level courses. Two other colleges indicated their participation in the grant was based on an increase the number of students graduating from the college that have the skills that employers are looking for. Other reasons reported included increasing student access to higher wages and better connecting students to support services in the community.

During interviews, college leadership across the consortium also indicated that their institutions chose to be involved with GCITC because the grant's goals were aligned with key state-level priorities. In Louisiana, college representatives mentioned that the work of the GCITC grant was aligned with their focus on student retention and completion outcomes. In Mississippi, college leadership reported that the grant was consistent with other efforts to address state-wide issues of secondary-degree attainment and access to post-secondary training for harder to reach populations such ABE students.

Consortia Colleges and Career Pathways Implemented

All nine participating colleges implemented at least one career pathway in an IT specialty area. Specialty areas included cybersecurity, health information technology, and industrial IT. In total, 21 pathways were in operation during the grant's implementation. Table 1 shows each college and the IT programmatic area(s) it offered supported by TAACCCT grant resources. Results from a 2014 survey of the colleges reflected that the pathways supported a range of occupations. Common occupations targeted in the cyber-security pathway included computer support specialist, help desk technician, computer repair technician, and network security and administration. Occupations targeted in the health information pathway included front-desk staff, health care data entry administrator, medical coder and biller, and health information technician. Occupations in the industrial technology pathway included heating, ventilation and air conditioning technician, automation and control technician, precision machining technician, CNC Operator, drill press operator, and lathe operator.

College staff noted that they considered several factors while selecting the pathways to implement, and emphasized that local labor market demand was the most important driving force in pathway selection. In addition to using local labor market information, college staff also noted the importance of working directly with area employers to learn about employment demand and get their input as they selected and designed programs.

With the exception of two colleges in Mississippi, all colleges implemented pathways in which students could earn college credit. The two colleges that opted to implement the grant program as non-credit indicated that doing so allowed them to be more nimble and responsive to student and employer needs. For example, non-credit programming allowed for training of shorter duration than a typical term and for which the curriculum could be more customized to a local employer's hiring needs. College staff interviewed also pointed out that for students, the admissions process for non-credit programming can be easier to navigate, offering more flexibility over the time of day these workforce classes take place. From the perspective of these colleges, non-credit courses were better suited for adult-learner populations such as incumbent workers and/or adults with other personal work and family obligations.

Table 1: Overview of Consortia Colleges and Pathways

College Name	State	Cyber Networking and Security	Health information technology	Industrial Technology
Bossier Parish Community College	LA	•	•	•
Copiah-Lincoln Community College	MS	•		•
Delgado Community College	LA	•	•	•
LA Delta Community College	LA	•	•	
Meridian Community College	MS	•	•	
Mississippi Delta Community College	MS	•	•	•
Northeast MS Community College	MS	•	•	•
Pearl River Community College	MS		•	
South Louisiana Community College	LA	•		•
Source: 2016 College Survey				

Target Population and Students Enrolled

Per TAACCCT grant program requirements, the main target population for the consortium's work was TAA-impacted workers, including workers who had been displaced from jobs in declining regional industries such as automobile manufacturing. In our 2016 survey, all nine colleges reported that the students targeted for TAACCCT-supported programs were

different from the students they typically enroll. Colleges indicated that for the GCITC grant they collaborated with local community-based organizations and adult basic education programs to recruit students who could benefit from the extra support built into the TAACCCT-funded programs.

Consortium colleges also noted that, in addition to TAA-impacted workers, colleges targeted special populations such as veterans, low-income students, and students with low-basic skills such as adult basic education students (ABE) who do not have a high school credential. When serving ABE students, colleges dually-enrolled or co-enrolled students in ABE classes and career pathway technical courses.

According to our 2016 survey, throughout the grant period, all colleges were able to dually enroll students, with two of the colleges dually enrolling the majority of their TAACCCT-supported students. The other seven colleges dually enrolled up to about 25 percent of their TAACCCT participants. During interviews, college staff noted that they had intended to dually enroll more adult education students into their programs. However, the elimination of the Pell grant's "Ability to Benefit" provision[2] in 2012 was a development that limited colleges' ability to enroll ABE students (because it meant that students without high school credentials could not qualify for federal financial aid). Colleges had to find other resources, such as foundation funds, to support the enrollment of adult basic education students.

GCITC colleges also reported that the TAACCCT grant facilitated the development of internal partnerships that supported the enrollment of non-traditional students into college courses. In particular, several of the colleges noted that, prior to the TAACCCT grant, their ABE departments operated on their own "islands" separate from the rest of the college. Over the course of implementation, the GCITC grant helped colleges' ABE and workforce departments form relationships with student services, financial aid, and admissions departments to support non-traditional student population recruitment enrollment, and persistence efforts.

[2] See http://sites.ed.gov/octae/2015/06/05/new-guidance-on-ability-to-benefit/, Accessed September 26, 2016

How Did the Consortium Colleges Design and Deliver the Integrated IT Career Pathways?

The Retraining the Gulf Coast Workforce through Information Technology (IT) Pathways Consortium project called for consortium colleges to implement IT career pathway programs that provided sequences of educational and training options leading to employment and the ability to advance over time in a given IT industry sector or occupation. In order to accomplish this, the consortium concentrated on five core strategies for Round 2 TAACCCT projects.[3] This section describes the consortium's process for adapting the first four strategies to its goals, and analyzes the consortium's overall implementation of each strategy to build IT pathways. The fifth core strategy, which involves alignment with a variety of partners to support implementation, is discussed in detail in the later section that discusses experiences with partnering.

The four strategies that the consortium leveraged to build IT career pathways are as follows:

1.) To develop and institutionalize an evidence-based, integrated IT career pathway design
2.) To offer a continuum of completion by stacking certificates and building a full career pathway leading to a variety of occupations
3.) To integrate hybrid and online learning and supports tailored to the needs of trade-impacted workers
4.) To build transferrable and portable credentials with degree articulation among consortium member colleges and with other institutions

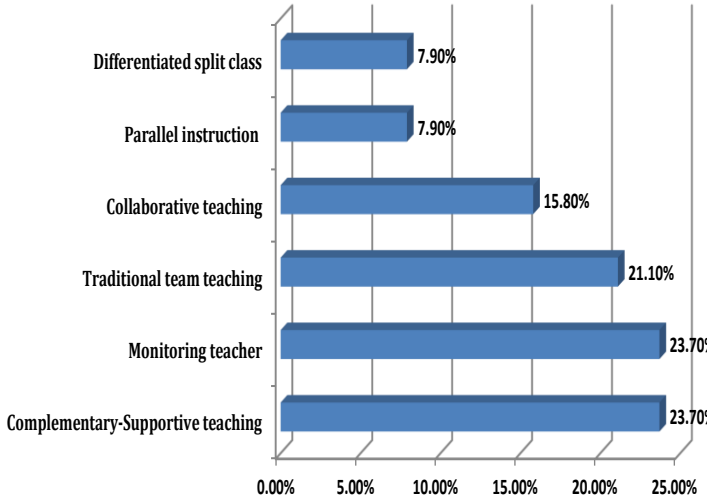
Evidence-Based Integrated IT Career Pathways

As stated by a variety of consortium stakeholders, both Mississippi and Louisiana have a large number of adults with low educational attainment. This in turn was a primary factor in the decision by consortium colleges to develop integrated career pathways using the evidence-based Integrated Basic Education and Skills Training (I-BEST) model[4]. I-BEST, a nationally recognized model developed in Washington State, pairs two instructors in the classroom, one focused on basic skills and the other on technical/academic skills. This approach is meant to help students strengthen both their basic skills and technical skills so they can gain credentials and access job opportunities at a quicker pace. The I-BEST model has been used to support English language learners as they strengthen their language skills

[3] See https://www.doleta.gov/taaccct/ Accessed September 26, 2016

[4] See http://www.sbctc.edu/colleges-staff/programs-services/i-best/. Accessed September 22, 2016

Figure 2: Team Teaching Approaches



Source: 2014 college survey

Complementary-supportive teaching: One teacher is responsible for teaching the content to the students. A second teacher provides follow-up activities on related topics or on study skills.

Monitoring teacher: One teacher is responsible for instructing the entire class. The other teacher circulates around the room, watching and monitoring students' to gauge comprehension.

Traditional team teaching: Two or more teachers share responsibility for content and skill instruction in the same classroom at the same time with the same group of students. Each teacher performs a different but equally important instructional task.

Collaborative teaching: Team teachers work together to teach material not via traditional lecture, but by exchanging and discussing ideas and theories with learners. The course uses group-learning techniques such as small-group work, student-led discussion, and collaborative test-taking.

Differentiated split class: A class with more than one teacher is divided into smaller groups according to learning needs. Instructors provide their group with the type of instruction required to meet their learning needs.

Parallel instruction: The class is divided into two groups, and each teacher is responsible for teaching the same material to one of the groups. This model is usually used in conjunction with other forms of team teaching.

while also acquiring technical skills, and it has also been employed to help ABE students strengthen their technical skills while they work toward their high school equivalency credential. When using I-BEST as an instructional method, instructors can use a variety of team teaching styles that range from both teachers sharing full responsibility for instruction to one teacher leading instruction and the other providing supplemental assignments to students. The range of team teaching styles are further described in Figure 2.

In order to provide further support to students with basic skills needs, the consortium also set out to jointly develop a core foundational IT curriculum that would adopt the I-BEST approach and be implemented at all campuses. This core curriculum would provide students with the basic foundational skills they need to be prepared to access and advance in one of the three IT program specialty areas. All colleges participated in developing the 12-credit core foundational IT curriculum through a combination of face-to-face meetings, webinars, and conference calls. For the colleges, the process involved identifying the common competencies that the courses would cover and conducting an inventory of their existing courses that addressed these competencies.

Consortium colleges agreed that the first six credits of the foundational curriculum would be common across all colleges and target work readiness and digital literacy needs. After the completion of these initial six credits, students would earn the nationally-

accredited career readiness certificate and the IC3 certification. The other six credits would be specific to the IT specialty area implemented by the college and prepare students to either continue their training in that area or find an entry-level position or internship related to their training.

GCITC Implementation of Evidence-Based Integrated IT Career Pathways

During the initial stages of the grant, consortium colleges developed the infrastructure to deliver integrated instruction and address the needs of low-basic level skills students, by providing training on I-BEST instruction to college faculty and staff and developing the core curriculum. This work was intensive, with colleges having to adapt to the new curriculum and new instructional approaches fairly quickly. The next section examines how colleges implemented these strategies over the course of the GCITC grant.

Building Integrated Career Pathways: The Use of the I-Best Model

The use of the I-BEST model was a principal component of the consortium's overall strategy. During the grant's first years, colleges spent a considerable amount of time learning about the model and the various instructional approaches and figuring out how to implement it at their institutions. College staff pointed out that this different way of delivering instruction presented a steep learning curve for some faculty. It took time for some faculty members to become accustomed to sharing instructional planning and delivery responsibilities with another instructor. Moreover, a number of faculty interviewed indicated that at first they were unsure of whether ABE students could be successful in college-level courses. However, college leaders and faculty and staff noted that the more experience they gained using I-BEST, the more attitudes toward the ability of ABE students to succeed in college-level courses improved.

Based on 2016 survey results, all consortium colleges used I-BEST throughout the life of the project and implemented team teaching in a number of their GCITC core curriculum courses. During interviews, college staff indicated that they chose to implement team teaching in courses where they considered students might need extra support – either with academic skills or with college and job readiness skills. In some institutions, the courses utilizing a team teaching approach varied from semester to semester, depending on where college staff saw a need to address student basic academic skills levels.. Colleges that dually enrolled students in Adult Education and CTE courses generally reported that team teaching was useful because the second instructor could focus on basic skills and provide students with additional attention. Colleges that enrolled lower numbers of students from ABE programs indicated that team teaching was most useful to reinforce skill-building focused on academics and work readiness.

The working relationships and instructional styles of team teachers also varied from course to course. In the 2014 survey, we asked colleges to report on different team teaching approaches used. At the time, colleges reported that complementary supportive team teaching, monitoring team teaching, and traditional team teaching were the most common methods used by instructors. During site visits, college staff described the process of settling on teaching approaches was organic for each team, and that each pair of teachers implemented team teaching in the manner they believed would be most effective given the content to be taught and the characteristics of the students enrolled in a course.

In the 2016 survey, seven out of the nine consortium colleges reported that they had successfully developed integrated career pathways. Although three out of the four Louisiana colleges in the consortium indicated that they might not continue implementing I-BEST in their IT programs once the TAACCCT grant ends, college staff and leaders viewed team teaching as an effective approach. Louisiana colleges that do not plan on implementing I-BEST in their IT programs in the future pointed to budgetary restrictions. In order to use I-BEST approaches, funds must be available to pay for the second classroom instructor. Staff from these colleges reported that by using the I-BEST approach, they had learned about the importance of additional academic and work readiness supports, such as communication skills. For instance, college staff at two of the Louisiana consortium colleges indicated that they plan to integrate more work readiness activities and lessons into the curriculum of technical courses.

In Mississippi, consortium colleges will continue implementing I-BEST practices. In 2015, Mississippi received a six million dollar grant from the Kellogg Foundation, which will allow consortium colleges to continue to use and scale the I-BEST model in their institutions. This initiative is called the Mississippi Integrated Basic Education and Skills Training (MI-BEST) program[5]. Mississippi consortium colleges reported that foundation funds will also allow the state to scale I-BEST to other colleges. Based on their experience being part of GCITIC, the Mississippi consortium colleges are in a position to provide support to these institutions as they learn about the model.

[5] The MI-BEST Initiative is supported by a grant from the W.K. Kellogg Foundation and will be implemented at 15 community and junior colleges in Mississippi. MI-BEST's goal is to speed up the rate at which Adult Basic Education students advance to college-level occupational programs; complete credentials of value in the labor market; and move into high-demand jobs offering good wages and opportunities for career advancement.

Core Curriculum

The GCITC consortium intended for the core curriculum to be the first step in students' paths toward training in their chosen IT career pathway—cybersecurity, health information technology, or industrial maintenance. GCITC colleges also designed the core curriculum to prepare students to access an entry-level internship or job in their selected IT specialty area after earning their first 12 credits and the certifications associated with the courses in the curriculum.

Although all colleges designed their first six credits to provide students with one class focused on professional development skills and one class focused on foundational computer skills, implementation of this core curriculum looked slightly different from college to college. For example, a number of the colleges found that many of their new enrollees had prior knowledge of computer fundamentals, one of the key learning gaps meant to be addressed by the core curriculum. For these students, college staff realized that enrollment in specific core classes did not accelerate learning and instead created unnecessary coursework. Thus these colleges made the first six credits optional. Other colleges, particularly those that enrolled older students returning to college, found that many students actually needed additional supports with digital literacy beyond the core curriculum. At least three of the consortium colleges reported adding an extra digital literacy boot camp or tutor to support these students.

It should also be noted that many consortium colleges noted that their students opted to continue their studies after the first initial 12 credits and planned to pursue an Associate's degree or higher level certificate that would prepare them for higher-paying employment. College staff attributed this trend to the extra academic supports that students received through the program, which helped students feel more confident about their academic potential.

Building a full career pathway that offers a continuum of completion by stacking certificates

Colleges in the consortium committed to designing career pathways that would give students multiple entry and exit points and also provide students with the opportunity to earn stackable credentials. In order to better meet student needs, especially for older returning students and veterans, consortium colleges also set out to develop prior learning assessment (PLA) policies, or strengthen them if the college already had policies in place. PLA policies permit students to earn academic credit by applying previous educational or professional experience, allowing students to enter a career pathway program at a point that aligns with their knowledge and skill levels.

GCITC Design and Implementation of Career Pathways with Stackable Credentials

During site visits and other project interviews, a number of college staff identified the process of designing IT career pathways with stackable credentials as an important accomplishment. This is primarily because this strategy provided their institutions a way to offer students an option that better connects their educational experiences to local job opportunities. To some extent, all GCITC colleges embedded industry-recognized credentials into different coursework within the IT career pathways that they implemented. For example, one of the GCITC colleges designed a healthcare information career pathway in which a student can work toward earning a 60-credit associate's degree. But students can also exit the pathway at 30 credit hours and earn Business Technology Certificates that allow them to work as medical office assistants. Overall, college staff indicated that the use of career pathways ensures that wherever students are on the continuum, they can earn useful credentials such as the IC3 or A+ certification and qualify for job opportunities related to their area of study. Integrating PLA as an option in career pathways was also a major component of the grant work. With technical assistance support from the National College Transition Network (NCTN) and the National Council for Workforce Education (NCWE), throughout the grant period colleges conducted an assessment of current best practices related to PLA and either developed new policies or strengthened existing ones. For instance, NCTN and NCWE consultants supported institutions as they developed appropriate challenge exams to assess student competence in different certain content areas. Developing PLA policies was noted as especially helpful by colleges implementing TAACCCT programs on the non-credit side of the institution. With PLA in place, non-credit students had a mechanism for translating their non-credit coursework into academic credit.

In interviews and site visits, college stakeholders admitted that, although it had been helpful to develop PLA policies, fewer students than anticipated took advantage of this opportunity. College staff discussed the need to market the policy more broadly to ensure students understand that this option could help them obtain college credit and advance through their coursework at a quicker pace.

Enhance hybrid and online learning to support underprepared students to enter IT pathways

Consortium colleges committed to implementing hybrid and online learning strategies as a way to accelerate and complement the academic support that students received from participating in I-BEST or similar courses.

GCITC Colleges' Implementation of Hybrid and Online Learning

Survey results from 2014 indicated that all colleges implemented some type of online learning component through their core curriculum courses. Online learning provided students flexibility to complete coursework in non-school settings and during hours that better aligned with their work and family obligations. Some colleges, however, reported that implementing online courses for non-traditional students was challenging because many of these students lacked access to a computer or had low digital literacy skills. In particular, consortium colleges in more rural settings noted the challenge posed by the absence of technology to support online learning at home.

To build transferrable and portable credentials with degree articulation among consortium member colleges and with other institutions of higher learning across the region

The consortium's decision to focus on building transferrable and portable credentials with degree articulation across the region was designed to give workers the flexibility to continue their education if they moved within Mississippi and Louisiana or between Mississippi and Louisiana.

GCITC Colleges' Implementation of Transferable and Portable Credits

In the first year of implementation, consortium colleges finalized articulation agreements among themselves. Interviewees pointed to the benefits of this work, but also noted that designing articulation agreements was not an easy process. In many cases, it involved convincing a variety of stakeholders of the utility of this practice, including state officials and college administrators. Consortium members expressed that the support of their respective state community college system offices was especially critical as they engaged in this work.

Comprehensive Student Supports and the Provision/Coordination of Services

The provision of support services was a key component of the consortium's approach to building integrated IT career pathways. These services were particularly helpful given that consortium colleges recruited and enrolled populations such as dislocated workers, incumbent workers, and ABE students seeking a dual enrollment option. The comprehensive support services--academic, career and personal--provided extra assistance to help students balance school, work and family commitments.

This section of the report describes the types of supports that were offered to TAACCCT-enrolled students and the coordination and provision of these supports. Results from the 2016 College Survey and interviews with college staff inform this section.

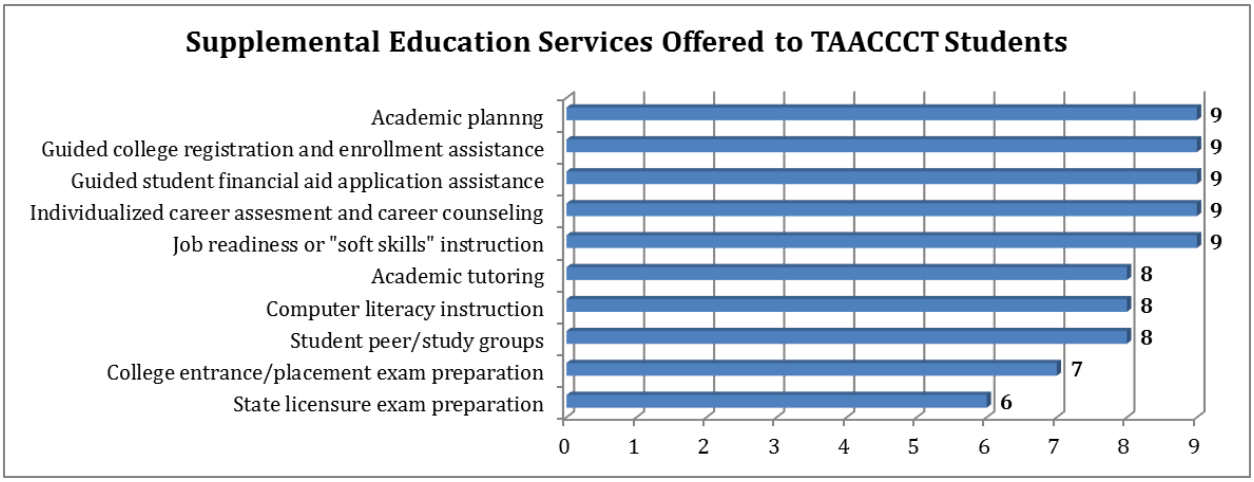
GCITC Colleges' Implementation of Support Services

Types of Support Services Offered to Students

The 2016 College Survey asked colleges about the various kinds of services offered to students through the fall 2015 semester. According to survey results, all colleges reported offering TAACCCT students a combination of support services. The following summary provides a description of service offerings in the areas of supplemental education services, job placement services, and other support services.

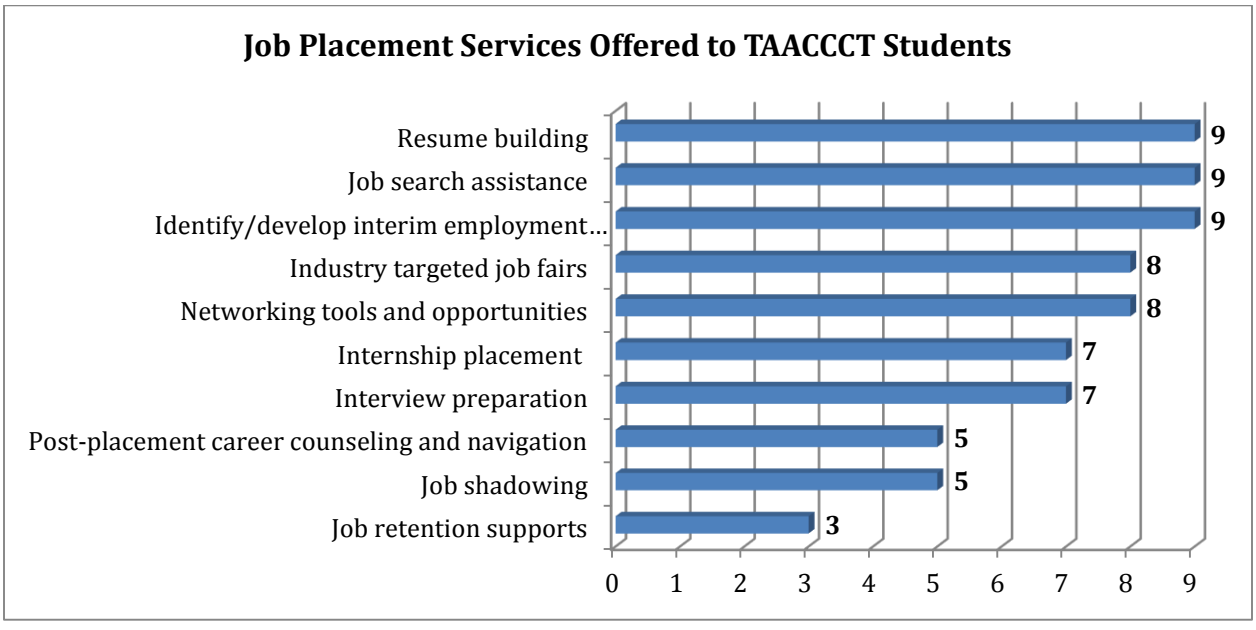
As indicated in Figure 3, all of the consortium colleges offered some type of supplemental education services to students. All of the colleges reported offering college navigation supports, such as academic planning services to help students choose among course offerings; individualized career assessment and career navigation counseling services; and assistance with college registration and financial aid applications. The vast majority of colleges also offered tutoring supports to help students prepare for and successfully complete course requirements, licensure and other credential examinations.

Figure 3



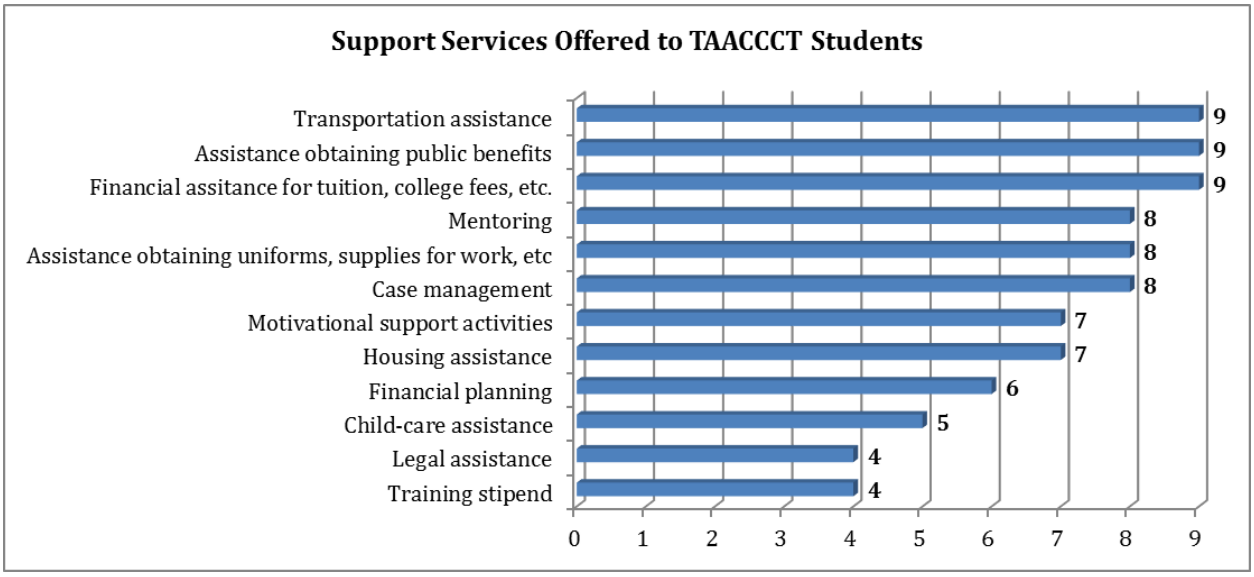
Moreover, colleges reported providing a range of job placement services to GCITC students. All of the colleges noted offering assistance with developing resumes, job search assistance, and support to help students find interim employment opportunities while in training. The vast majority of colleges also reported supporting opportunities for students to meet with employers through networking and job fairs. A smaller number of colleges noted that they provided supports to students after they were placed in jobs. These types of supports included job retention and career counseling and navigation supports. Figure 4 provides a detailed description of the types of job placement supports offered to TAACCCT students.

Figure 4



Colleges also helped connect GCITC students to other support services, such as case management, transportation assistance, and connections to public benefits. The provision of these types of support services can be a key resource in helping students persist in and complete the IT pathway coursework. Figure 5 provides a detailed summary of the types of assistance offered to students.

Figure 5



Coordination and Provision of Services

Consortium college staff helped coordinate the provision of these services to TAACCCT-enrolled students. According to the survey, several of the colleges noted that GCITC staff worked directly with students, and in some instances also helped link students with supports from other college departments and/or community-based organizations. In general, consortium college staff directly supported the provision of job-related services, such as individualized career assessment and planning, job readiness or "soft skills" instruction, resume building, and internship placement. Consortium college staff also directly supported case management, mentoring, transportation assistance, and financial assistance for tuition, college fees, books, and licensure fees. For other support services, such as legal assistance, housing, and childcare, consortium colleges noted that their staff often helped connect students to services at other organizations in the community.

Navigators also played a key role in the delivery of these services. All of the colleges had at least one navigator staff position as part of the GCITC grant. During interviews, several of the colleges referred to navigators as "paramount" to student success in the IT programming. Navigators were viewed as a key resource to help troubleshoot issues that could affect a students' ability to succeed in the classroom and provide the wrap-around supports to help students complete the TAACCCT program. In particular, colleges noted a key element of navigators' work was building relationships with students. These relationships allowed staff to support students beyond traditional academic advising services. Interviews with GCITC students further supported this notion, as students noted that the navigators were able to develop more personal relationships with them that extended beyond the classroom.

During interviews, colleges and GCITC students also identified instructors as a source of support for students. Several colleges noted their I-BEST instructors provided supports similar to navigators. Not only were they able to provide academic assistance during instructional time, but they also developed relationships with students to help them with both academic and non-academic issues outside of the classroom.

Finally, colleges reported on the development of a student support handbook as part of the GCITC grant. This handbook provides a list of resources available in the community and identifies providers and their contact information. Colleges indicated that they used this handbook to identify and connect GCITC students to supports. Several consortium college staff also noted sharing the handbook with other colleagues both within their academic departments and in student support roles.

The Role of Partnerships in Supporting Consortium Colleges

The fifth core strategy for Round 2 TAACCCT grants involves alignment with a variety of partners to support implementation. In order to support the colleges' implementation of the overall project, the consortium and individual consortium colleges leveraged an array of local, state, and national partners to provide their expertise and align resources and initiatives with GCITC goals. Consortium partners and goals for partnering, include:

- Jobs For the Future (JFF), National College Transition Network (NCTN), National Council for Workforce Education (NCWE), and the Washington State Board for Technical and Community Colleges(SBCTC): to support the development of integrated career pathways
- The Louisiana Community and Technical College System and the Mississippi Community College Board: to support policy change to facilitate implementation and sustainability
- The workforce system in both states__ The Mississippi Department of Employment Security and the Louisiana Workforce Commission ---- to collaborate on program referrals and leverage job placement services at the college level, and collaborate on data sharing at the consortium level]
- Local and regional employers: to provide input on curriculum development and hire TAACCCT students and, at the consortium level, to support curriculum alignment with employer needs and provide internships for students.

The partnerships noted above relate to the consortium's fifth strategy, which involves alignment with a variety of partners and systems to support project implementation and ensure that the integrated career pathways meet the area's growing demand for skilled IT workers. This section describes how these different types of partners have been engaged at both the consortium level and local level.

Partnerships: National Experts

Because the Retraining the Gulf Coast Workforce through Information Technology (IT) Pathways Consortium project was strongly aligned with the Accelerating Opportunity (AO) Initiative that aimed to help low-skilled students access and complete post-secondary training through the use of the I-BEST model,[6] consortium colleges had opportunities to connect with national partners such as JFF, NCTN, NCWE, and SBCTC. Staff and faculty had

[6] See: http://www.jff.org/initiatives/accelerating-opportunity, Accessed September 22, 2016

access to training on I-BEST and support services through a variety of fora, including NCTN's online academy and JFF's AO Institute. During interviews, several of the colleges expressed appreciation for NCTN's help with developing the student support handbook mentioned above. Navigators and other consortium college staff noted that having all of the information about community resources in one place was of great help when a student support need was identified. College staff also noted appreciation for NCWE and NCTN's technical assistance with developing PLA policies. Even though most of the colleges had PLA policies in place prior to the TAACCCT grant, many of these policies were out-of-date and colleges had limited experience using them. Finally, across the consortium, members mentioned the value of the local Labor Market Information (LMI) studies coordinated by JFF on an annual basis.

Partnerships: State Community College Systems

The Louisiana Community and Technical College System (LCTCS) and the Mississippi Community College Board (MCCB) were important partners to the consortium overall. Both system-level offices were originally engaged to provide support around transferability and articulation agreements, as well as to ensure that the necessary policies were in place at the state level to build, sustain, and scale the work of the colleges involved in the grant. In each state, the grant supported liaison positions at the board to help further these goals. The evaluation team found that, across the two states, the systems strived to make sure that the work resulting from the grant was consistent with statewide higher education priorities.

In Louisiana, LCTCS worked to align this grant to other statewide initiatives, particularly the Accelerating Opportunity Initiative. Over the course of implementation, LCTCS supported Louisiana consortium colleges in several ways: by communicating with college leadership, promoting policies and practices that supported GCITC goals, and providing colleges with professional development consistent with GCITIC instructional models. In fact, LCTCS has developed a framework to describe its support for the use of integrated career pathways at community colleges in their system, known as "Train to Attain". Both the GCITC grant and AO are aligned with this framework.

LCTCS also supported grant implementation by coordinating statewide data system efforts between workforce, college, and adult education systems. In Mississippi, stakeholders interviewed noted that this particular TAACCCT grant provided an opportunity to address long-standing barriers faced by low-skilled workers in their state with innovative methods like I-BEST and stacked credentials. MCCB board staff also added that colleges that were not part of the consortium had a chance to learn and benefit from the resources and innovations of GCITC. As a result of the grant, the board was able to implement a policy in December 2013 to facilitate full-time equivalency (FTE) reimbursement for students dually

enrolled in ABE programs and at Mississippi community colleges. This policy will be especially important in helping colleges enroll students without a high school credential and in sustaining the implementation of integrated pathways beyond the GCITC grant. MCCB's involvement with the GCITC project also helped colleges prepare for the implementation of the Mississippi Integrated Basic Education and Skills Training (MI-BEST) Initiative.

Partnerships: the Workforce System

The GCITC consortium prioritized a partnership with the public workforce system for multiple reasons. First, the workforce system has connections to local employers and is the administrator of WIA/WIOA funds. The workforce system is also a referral source for students in need of training, especially TAA-designated workers, and can provide funds and other resources to support training. At the state level, LCTCS and MCCD facilitated connections to the state workforce system. At the local level, individual colleges were responsible for engaging local workforce investment boards and one-stop centers.

Over the course of implementation, all of the colleges noted having a partnership with their local workforce system. Several of the GCITC colleges noted the importance of cultivating these relationships in order to support successful outcomes. In particular, college staff noted that these partnerships were especially helpful in engaging employers to participate in industry meetings to help inform and design curriculum offerings, providing 'inside' information about employers with potential interest in hiring TAACCCT students, and recruiting and in some instances providing funds to support student enrollment.

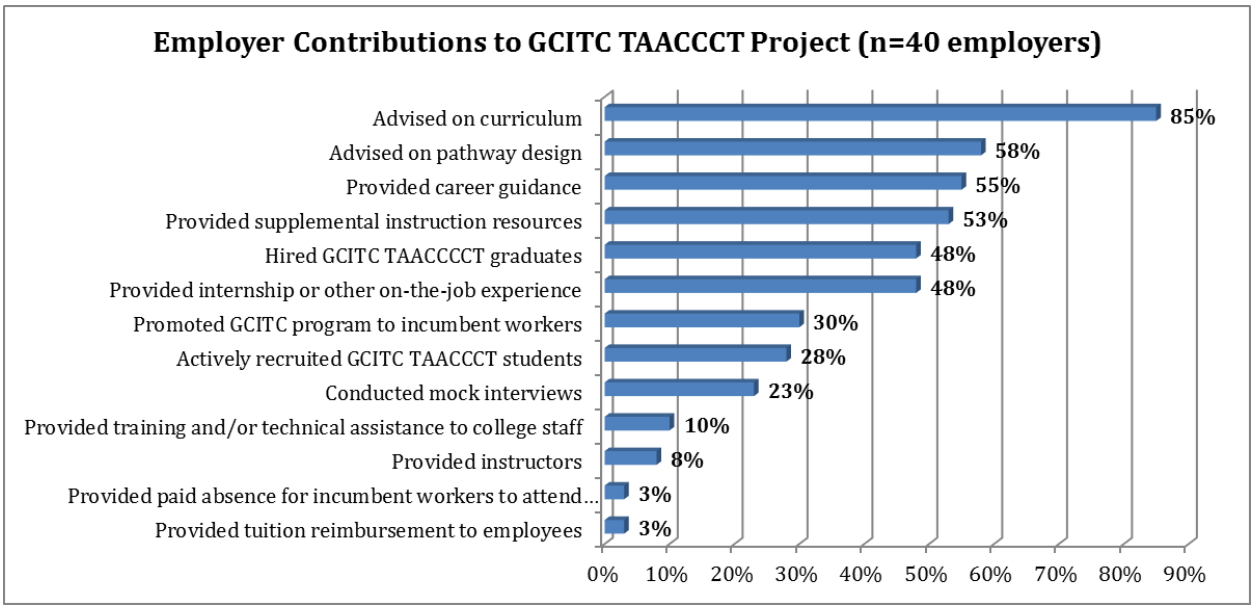
Partnerships: Employers

Colleges considered alignment with employers integral for both developing curricula responsive to business needs and for ensuring students would have access to employment opportunities following the program. During interviews, GCITC college leads noted how this grant helped them make considerable progress in building relationships with local employers.

The 2016 College Survey asked colleges to identify up to five employer partners that were engaged in response to the GCITC TAACCCT grant. According to survey results, all of the colleges reported partnering with at least one local employer. In fact, the nine colleges reported 40 employer partners altogether. Figure 6 summarizes the colleges' responses about the range of employer contributions over the course of project implementation. The majority of program contributions were in the area of advising on curriculum and pathway design. To a lesser extent, colleges also noted that employers directly advised them on job preparation and provided work experiences. Colleges noted that more than half of the

employer partners (55 percent) provided students with career guidance, 48 percent provided internships or other on-the-job work experiences, and 23 percent conducted mock interviews with students. Finally, while none of the colleges reported an employer partner that guaranteed an interview or job placement for students, some colleges identified employer partners who actively recruited and/or hired GCITC TAACCCT graduates.[7]

Figure 6



Conclusion

The Retraining the Gulf Coast Workforce through Information Technology (IT) Pathways Consortium project provided nine colleges in Louisiana and Mississippi the opportunity to create pathways toward employment in the region's growing IT sector and help adult learners gain skills and post-secondary credentials of value to the local labor market. Over the course of implementation, the nine participating colleges implemented 21 pathways in the specialty areas of cybersecurity, health information technology and industrial IT and designed and developed a career pathways approach using the I-BEST model. In addition,

[7] For information about student employment outcomes, see the companion report, Patnaik Ashweeta and Heath Prince, "Retraining the Gulf Coast through Information Technology Pathways: Final Impact Evaluation Report", Ray Marshall Center, 2016.

colleges furthered GCITC goals by bolstering their institutions' ability to deliver comprehensive support services to students such as career and college navigation, intensive case management, and transportation assistance.

Implementation of the project required considerable planning efforts and coordination both at the consortium and college levels. At the consortium level, GCITC colleges came together to develop the core IT foundational curriculum. This process was time- and resource-intensive and required each institution to assess its IT program offerings and local labor market needs. Furthermore, consortium colleges collaborated with the other consortium institutions to identify the core competencies and skills students need to access entry-level IT job opportunities in the region. GCITC colleges also worked with their respective state community college systems and workforce systems to fine-tune processes to collect and manage data in order to be able to track student outcomes. Although the process of establishing effective avenues to collect and manage academic and employment data was at times challenging, it spurred many of the participating institutions to strengthen their internal data management systems as well as their relationships with state entities such as the workforce system or their community college board.

At the college level, efforts to dually enroll ABE students in CTE programs and implement the I-BEST model were also significant activities that required each institution to examine and adapt its current systems and staffing structures. For example, college leadership supported ABE and CTE departments as they navigated the development of new processes to allow ABE students to enroll in technical college level courses, which included brokering relationships with Admissions and Financial Aid departments. Individual consortium colleges also dedicated significant time and resources to the introduction and implementation of I-BEST. Beyond supporting faculty and staff to obtain training needed to implement I-BEST, college leadership also supported their staff and faculty as they adapted their curriculum and instructional methods to include team teaching or to incorporate work-readiness activities, such as job shadowing, into courses. Finally, over the course of implementation, colleges enhanced their student support service strategies. Consortium colleges provided an array of services – academic, career and personal – to support participants in training as they balanced school, work and family commitments. In providing these services, navigators played a key role and were identified both in survey and interview findings as important for student success.

The GCITC project represented a significant undertaking by all nine participating colleges. GCITC colleges used grant resources to support building new or strengthening existing IT training programs in the Gulf Coast region. Our documentation efforts throughout the life of the project showed that GCITC institutions focused their grant-supported efforts toward improving or strengthening systems to better connect students to training and on aligning

training with local labor market demand. At the same time, as colleges implemented activities under the grant, they were working within distinct institutional contexts. They adapted strategies they believed would best address their students' needs, and importantly, they built foundations necessary to continue the work started through this grant.