Johnson County Community College TAACCCT

Final Evaluation Report

October 1, 2014 – September 30, 2018

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Overview of the Project

The Johnson County Community College (JCCC) Trade Adjustment Assistance Community College and Career Training (TAACCCT) project, titled *Accelerated, Collaborative Technology Training Services* (ACTTS), created innovative information technology (IT) training to serve TAA-eligible workers, eligible veterans and their spouses, and other adults in the Kansas City Metropolitan (KC Metro) Area.

The project aimed to: 1) create a more flexible IT curriculum, designed to meet students' scheduling and learning needs; 2) engage local employers in curriculum development, professional development, and job forecasting; and 3) provide enhanced student support services for ACTTS programs, including career coaches to create individually customized educational plans for student success.

The project expanded JCCC's institutional capacity to train workers to meet growing IT sector needs in the KC Metro Area by creating accelerated and enhanced programs in four key career pathways that made the most of professional skills that TAA-eligible, veterans, and other adults already possessed. The four career pathways, through which ACTTS students could pursue eight certificates and six associate's degrees, were: Computer Information Systems/Programming, Information Technology Networking, Web Development and Digital Media, and Health Information Systems.

Overview of the Evaluation Design

The Office of Educational Innovation and Evaluation (OEIE) at Kansas State University (K-State) served as the third-party evaluator for the JCCC TAACCCT project. The evaluation approach included:

1) An implementation analysis aligned with Department of Labor (DOL) Solicitation for Grant Applications (SGA) questions, consisting of: a) methods to assess the progress and process of implementation; and b) qualitative methods to assess specific project components
2) An analysis of participant outcomes based on quantitative metrics consistent with DOL outcome measures, including comparison to non-participants

OEIE created a project logic model for use as a planning tool, to clarify and graphically display what the project intended to do and describe anticipated accomplishments/impacts. OEIE used the logic model and 11 evaluation questions to guide the evaluation. The findings sections (below) list the evaluation questions, which include the four DOL SGA and four other implementation questions, and three outcomes questions.

The goal of the evaluation was to provide feedback about how the innovation unfolded at JCCC and help identify effective principles to inform practices at the college and for a larger audience. The evaluation included formative evaluation to assess project performance and provide timely feedback to improve the project, as well as summative evaluation to assess and document major achievements and stakeholder outcomes. OEIE utilized multiple evaluation approaches, drew on both quantitative and qualitative methods, and sought input from various stakeholders to ensure capturing and representing salient issues from multiple perspectives.

OEIE collaborated with JCCC to determine the best methods for collecting evaluation data and develop instrumentation, to ensure the evaluation collected feedback that would be most useful for program planning and demonstrating project impact. OEIE also provided guidance to JCCC as they tracked DOL metric and demographic data for the TAACCCT and control student groups. OEIE analyzed available outcome data for a comparison study.

Implementation Study Findings - SGA Implementation Questions

1. How was the particular curriculum or activity selected, used, or created?

- JCCC selected the IT curriculum due to regional demand for a skilled IT workforce. Portions of the curriculum existed prior to receiving the TAACCCT grant; the focus of the grant was on accelerating curriculum delivery.
- Modifications included a Bridge course and implementation of Competency-Based Education (CBE).
- JCCC worked with industry representatives on curriculum revisions to ensure alignment with industry needs.

2. ***How were programs/program designs improved/expanded using grant funds? What delivery methods were offered? What was the program administrative structure? What support/other services were offered?***

- JCCC expanded programs by accelerating curriculum delivery through the Bridge course, Web certificate, and CBE as well as through equipment/materials purchases like the NetLab, collaboration furniture, and Tableau.
- JCCC's TAACCCT project offered classes in traditional, hybrid (blended), and online formats.
- The TAACCCT grant was housed in the Computing Sciences and Information Technology (CSIT) Department. The Assistant Dean supervised the grant director and faculty. The grant director supervised the grant team comprised of the research analyst, administrative assistant, and career coaches.
- Grant team members, including career coaches, worked with and provided resources from the following JCCC offices: math resource center, writing resource center, Veteran Services, Counseling, and Financial Aid along with Kansas Workforce. Career coaches served as liaisons and navigators for student services.
- Career coaches provided academic support by helping students make connections with resources and faculty. They also helped students with study and time management skills.
- Career coaches connected students with the Career Services department, and they also provided support for students through employment processes (e.g., resume, interview). Additionally, career coaches were links to networking opportunities. The grant had a blog for posting hints and suggestions on employability and on the tech field as well as employment in the area.

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

- JCCC had an established policy of using an ACCUPLACER exam or other placement exam(s) (e.g., ACT, PLA) for students seeking to enroll at the college. The college administered these exams.
- The grant team developed a process for students seeking enrollment in the TAACCCT grant program that included extensive, in-depth self-assessment tools related to students' skills and abilities. Assessments were administered and analyzed by career coaches, typically face-to-face with the student.
- The skills and abilities assessments were helpful in determining if the student's background and interests were a good fit for particular IT programs. Career coaches notified students if the results indicated that IT was not the right fit for them and redirected them appropriately.
- Additional assessments were administered to determine milestones for CBE and the Bridge course.

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

- The advisory board, or Business and Industry Leadership Team (BILT), comprised primarily of representatives from the IT industry, helped with program design and delivery. They provided input about what was going on in the industry and identified competencies and skills that students need to be employable in the workforce.
- Many partners, including BILT members, the Overland Park Chamber of Commerce, and LaunchCode promoted JCCC's IT programs through websites, newsletters, and sharing information with their partners.
- BILT members were involved in the IT courses and training by being guest speakers in classes to share real-world experiences, serving as mentors in capstone projects, participating in the employer speaker series, and participating in grant information sessions that highlighted an employer each semester.
- Austin and Sinclair Community Colleges provided JCCC staff with training and guidance on implementing CBE.
- Business sustainability and community interest were the biggest factors impacting partners' involvement.
- Employers' greatest contributions included: providing internships and job opportunities to students, sharing skills necessary for students to gain employment, and interacting with students and faculty.

Implementation Study Findings - Other Implementation Questions

1. ***What is the progress toward implementing a program that meets the needs of student participants and industry, and what are the operational strengths and weaknesses?***

- Successes and strengths of the grant included: the career coach model, academic/educational coaching and guidance, career coaching/preparation, connections to student services/resources, accelerated training options, the blended/hybrid class format, establishment of cohorts to provide peer support, employers providing input on curriculum, employers interacting with students and faculty, workshops/events, physical spaces and technology/equipment, the grant team, and collaboration/support within the college.
- Challenges included: promoting/increasing awareness of the program, gaining participation in activities, gaining initial faculty support, gaining access to student data, and meeting industry's changing needs.
- Students rated their overall satisfaction with the ACTTS program between "Satisfied" and "Very Satisfied." Students reported that the ACTTS program was interesting, provided both content and experiences that were relevant to the current industry, and was well worth the time required. Most frequently, students indicated the best components of the program were: career coach support, resources (equipment, classrooms), employment support/preparation, class availability, and academic programs/paths.
- External partners reported being satisfied with the amount of information shared and the progress made toward the organization/implementation of the project.
- Employers gained access to a broader pool for recruiting and training/upgrading skills for current employees, plus decreased on-the-job training time/cost. ACTTS hires provided value to their businesses by being job ready, possessing new knowledge in the field, providing new ideas, understanding business needs, and being equipped with necessary skills (critical thinking, collaboration) and experience (hands-on, real-world).

2. ***What are the vision and values that guide innovation?***

- The grant's vision and values were to: meet students' needs, provide accelerated learning/training opportunities, align with JCCC's overall mission/vision, be a leader in rigor and innovation for training, meet the needs of/benefit the community, and collaborate/build relationships.

3. ***What are the institutional conditions and environment within which activities occur?***

- Most team members had all the resources and support they needed for their work on the grant. Some team members remarked that additional support, information, or resources would have been helpful.
- Students' reasons for enrolling in the ACTTS training program most often related to: opportunities to complete a degree or certificate faster than a traditional program, opportunities in multiple career pathways, access to employment assistance services through an ACTTS career coach, and exposure to industry representatives and information about industry.
- Over 4/5 of student respondents agreed that JCCC's faculty/instructors: promote a respectful classroom environment, are up-to-date on knowledge of the industry, allow time in class for discussion, and communicate clearly about important course topics, among other qualities.
- Students agreed that their classes provided adequate hardware/equipment, software, and space for learning.
- External partners agreed that JCCC's facilities and equipment were adequate to meet project objectives. They also agreed the curriculum was relevant to industry and there was adequate market demand for graduates.

4. ***What factors affect and guide ongoing innovation and development?***

- JCCC will sustain grant components that have demonstrated successful outcomes, for which there are people/ staff and budget to move them forward, and an industry need.
- JCCC staff reported plans for sustaining the following grant components in some fashion: career coach model, curriculum/CBE model, equipment/technology, guided pathways, relationships with external partners, collaborations across campus, internships, some grant-related hires, and student data tracking.
- Employers requested JCCC sustain current components such as internships, job fairs, and relationships with the community, as well as continue updating curriculum to meet their needs.
- Lessons learned from this project frequently related to the importance of: having the right team in place, building relationships, communicating with partners, and maintaining momentum.

Outcomes Study Findings

1. What is the difference in persistence, completion, and employment outcomes among students who utilize program services and those in a benchmarked program at JCCC?

- The JCCC TAACCCT grant served 396 unique students; 93 students (23.5%) completed one or more of the TAACCCT programs (i.e., credentials), including 53 incumbent workers (i.e., employed at enrollment).
- Of 40 TAACCCT students who completed TAACCCT programs and were not incumbent workers, 17 students entered employment in the quarter after exiting JCCC; 16 of these students were retained in employment.
- Twenty completers pursued further education, either at JCCC (*n* = 13) or another institution (*n* = 7).
- Of 230 incumbent workers, 159 (69.1%) received wage increases after enrolling in the TAACCCT program.
- TAACCCT students completed 120 credentials, including 50 degrees and 70 certificates. Most frequently, students completed the Information Technology-Network AAS degree (*n* = 30), Web Technologies certificate (*n* = 25), and Health Information Systems Implementation & Support Specialist certificate (*n* = 19).
- The evaluation team completed five Pearson chi-square analyses to statistically compare DOL metrics for the TAACCCT and control groups. Higher proportions of TAACCCT students (compared to control) completed a program of study, were retained in a program of study, completed credit hours, and earned credentials. However, a higher proportion of control students pursued further education after program completion.

JCCC TAACCCT vs Control Group Targeted Outcome Measures			
Targeted Outcome Measures	**TAACCCT**	**Control**	**Statistic**
1 – Total Number of Unique Participants Served	396	685	[no comparison possible]
2 – Total Number of Participants Who Have Completed a Grant Program of Study	93 (of 396) (23.5%)	76 (of 685) (11.1%)	χ^2 (1, *N* = 1081) = 29.21 *p* < .001 Cramer's *V* = .16
3 – Total Number of Participants Still Retained in Grant Program of Study (non-completers only)	245 (of 303) (80.9%)	270 (of 609) (44.3%)	χ^2 (1, *N* = 912) = 109.80 *p* < .001 Cramer's *V* = .35
4 – Total Number of Participants Completing Credit Hours	337 (of 396) (85.1%)	526 (of 685) (76.8%)	χ^2 (1, *N* = 1081) = 10.77 *p* = .001 Cramer's *V* = .10
5 – Total Number of Participants Earning Credentials	93 (of 396) (23.5%)	76 (of 685) (11.1%)	χ^2 (1, *N* = 1081) = 29.21 *p* < .001 Cramer's *V* = .16
6 – Total Number of Participants Pursuing Further Education After Program of Study Completion	20 (of 93) (21.5%)	27 (of 76) (35.5%)	χ^2 (1, *N* = 169) = 4.10 *p* = .043 Cramer's *V* = .16
7 – Total Number of Participants Employed After Program of Study Completion (non-incumbent only)	17 (of 40) (42.5%)	-	Data unavailable for comparison
8 – Total Number of Participants Retained in Employment After Program of Study Completion (non-incumbent only)	16 (of 17) (94.1%)	-	Data unavailable for comparison
9 – Total Number of Those Participants Employed at Enrollment Who Receive a Wage Increase Post-Enrollment (incumbent only)	159 (of 230) (69.1%)	-	Data unavailable for comparison
Note. The percentages for each metric are based on different total values, with each representing the total possible number for each metric (e.g., whether based on incumbent only, completers only, etc.). These numbers do not represent JCCC's "final" data so may differ from JCCC's final performance report.			

- The evaluation team also compared TAACCCT and control group responses from the Year 4 student data collections. Only TAACCCT students mentioned: career coach assistance, program design, course format, and class availability/flexibility contributed to meeting their goals; career pathways provided a clear route to obtaining a job; and career coaches and professional development opportunities (e.g., employer presenters, reverse career fair) contributed to gains (or impacts) from the program. Only control group students suggested hiring more faculty, restructuring programs, and educating career services staff on their programs and fields.

2. How have career pathways, academic instruction, & student support services improved student outcomes?

- JCCC staff reported the most significant student outcomes and impacts were that students gained jobs and internships, were better prepared/skilled/marketable, completed programs/graduated, experienced an accelerated learning process, and were more engaged in the college. Faculty reported that students came to class better prepared, were more focused, and asked better questions.

- Career pathways helped students achieve educational and/or employment goals through: courses aligned with industry/employer needs as well as pathways that prepared students for designated job fields and provided a clear route to obtain a job. Students also shared that career coaches or faculty provided assistance by guiding students through the program and into careers.
- Academic instruction contributed to students achieving educational and/or employment goals through: course format (e.g., online, hybrid, in class), class availability/flexibility, and quality of content and faculty.
- Some students found JCCC's resource centers (e.g., writing, math, career services) a support in achieving their educational and employment goals, through access to the quiet environments and helpful staff. Students found the writing center helpful with correcting grammar, organizing writing content, and writing research papers. Students also indicated appreciation of services from the career center such as resume reviews.
- Students indicated gains in knowledge and skills with technology, software, networking, and programming languages, including: HTML, CSS, SEO, JavaScript, Adobe Creative Suite, Cisco, C++, and Windows. Gains also encompassed increased knowledge about IT job/career/field opportunities and the skills employers expect, as well as the completion of degrees (for some leading to the pursuit of higher degrees). Additional gains included gaining confidence, new understanding of career preferences, networking opportunities, and support from peers. Contributing to students' gains were courses/curriculum, faculty, peers, career coaches, advisors, hands-on exposure to technology/software/programming, and professional development opportunities (e.g., presenters, resources, reverse career fair).
- Participation in the ACTTS grant influenced some students' plans following completion of the program, including helping them identify pursuits of interest, providing a guide to a career path, or affecting the decision to continue their education. The majority of ACTTS students planned to either obtain employment or continue their education through certificates or advanced degrees.

3. How has the program leveraged resources to improve student outcomes?

- JCCC leveraged internal resources through a variety of relationships/collaborations with other departments on campus (e.g., advising, financial aid, admissions) to provide student referrals, collect and report on student data, develop CBE, offer student events, gain support for new equipment purchases, and promote the grant.
- JCCC leveraged external resources for the grant through relationships/collaborations with external partners regarding internship and employment opportunities for students, input on modifying curriculum, resume resources, and interactions with students (e.g., mock or hiring interviews, career events, classroom visits).

Conclusions

Key lessons from the TAACCCT grant, including its strengths, that will inform future projects at JCCC include:

- Plan grants strategically to align with the college's initiatives and increase collaboration across campus offices during the proposal development phase.
- Build a strong grant team and maintain it throughout the grant; have a plan for turnover.
- Pursue professional development opportunities; learn from others to strengthen grant implementation.
- Initiate earlier communication and collaboration with both internal and external partners.
- Focus on increasing stakeholders' awareness and understanding of the grant (i.e., promote the program more effectively to internal and external partners and students to gain buy-in and participation).
- Maintain ongoing communication throughout the grant, sharing successes and learning about impacts.
- Be flexible and willing to adapt to the needs of the project.
- Keep the momentum moving forward with successful components.
- Be proactive and organized with a process for tracking key student data.

Implications for future work include:

- Implementation of the grant influenced JCCC, providing an opportunity to test new approaches/models (e.g., career coach, CBE). Successes can be expanded and/or adapted for other academic departments.
- The grant resulted in increased collaborations among JCCC staff across the college. TAACCCT grant staff did a good job building relationships to leverage resources for the success of this grant. Moving forward, these newly established relationships will continue to be assets that may be leveraged for future projects, whether grant funded or initiated by the college.

Overview of the JCCC TAACCCT Project

The Johnson County Community College (JCCC) Trade Adjustment Assistance Community College and Career Training (TAACCCT) project targeted TAA-eligible workers in the bi-state Kansas City Metropolitan (KC Metro) Area, with a focus on Johnson, Franklin, Leavenworth, Linn, Miami, and Wyandotte counties in Kansas. JCCC's *Accelerated, Collaborative Technology Training Services* (ACTTS) created innovative information technology (IT) training to serve TAA-eligible workers, eligible veterans and their spouses, and other adults in the KC Metro Area.

ACTTS goals were to:

1. create a more flexible IT curriculum, designed to meet students' scheduling and learning needs;
2. engage local employers in curriculum development, professional development, and job forecasting; and
3. provide enhanced student support services for ACTTS programs, including career coaches to create individually customized educational plans for student success.

The TAACCCT project expanded JCCC's institutional capacity to train workers to meet growing IT sector needs in the KC Metro Area. JCCC's TAACCCT project provided training in IT occupations that met the KC Metro Area's needs by creating accelerated and enhanced programs in four key career pathways that made the most of professional skills that TAA-eligible workers, veterans, and other adults already possessed. The four career pathways and the eight certificates and six associate's degrees, including four Associate of Applied Science (AAS) and two Associate of Science (AS), were:

- Computer Information Systems/Programming Pathway
    - Computer Information Systems AAS
    - Computer Support Specialist AAS
    - Emphasis in Information Systems Technology AS
    - Computer Information Systems-Software Developer Certificate
    - Computer Support Specialist A+ Certificate
    - Computer Support Specialist Networking+/Security+ Certificate
- Information Technology Networking Pathway
    - Information Technology-Network AAS
- Web Development and Digital Media Pathway
    - Web Development & Digital Media AAS
    - Digital Media Certificate
    - Web Technologies Certificate
    - Web Development Certificate
- Health Information Systems Pathway
    - Emphasis in Health Information Systems AS
    - Health Information Systems Workflow Management & Training Specialist Certificate
    - Health Information Systems Implementation & Support Specialist Certificate

Overview of the JCCC TAACCCT Evaluation

The Office of Educational Innovation and Evaluation (OEIE) at Kansas State University (K-State) served as the third-party evaluator for the JCCC TAACCCT project and was responsible for monitoring and evaluating the implementation and impact of the project. OEIE came on board as the evaluator during the proposal phase. Appendix 1 contains the original evaluation plan submitted with JCCC's TAACCCT proposal.

The Office of Educational Innovation and Evaluation

Founded in 2000, and affiliated with K-State's College of Education, OEIE provides a variety of independent evaluation services for an extensive range of projects in the fields of science, agriculture, education, health, and workforce development. OEIE is a full service evaluation office with 20 full-time professional staff members including evaluators, evaluation assistants, project development specialists, computer specialists, as well as 13 part-time graduate and undergraduate research assistants. OEIE's multidisciplinary team complements each other's skills and possesses the education, fieldwork experience, and evaluation and research expertise relevant to the nature and scope of diverse projects.

OEIE's goal is to provide comprehensive evaluation services that:

- Strengthen projects by providing ongoing, systematic information that enhances evaluation of projects during their life cycle, and whenever possible, outcome data to assess the extent of change
- Use multidisciplinary approaches with a range of techniques to address important project questions
- Address contextual issues to identify problems and opportunities
- Create a participatory process that values multiple perspectives and involves a representation of people who care about the project
- Allow for flexibility to adapt and adjust to the needs of an evolving and complex project
- Build capacity that encourages ongoing self-reflection and dialogue on the part of every person involved with the evaluation

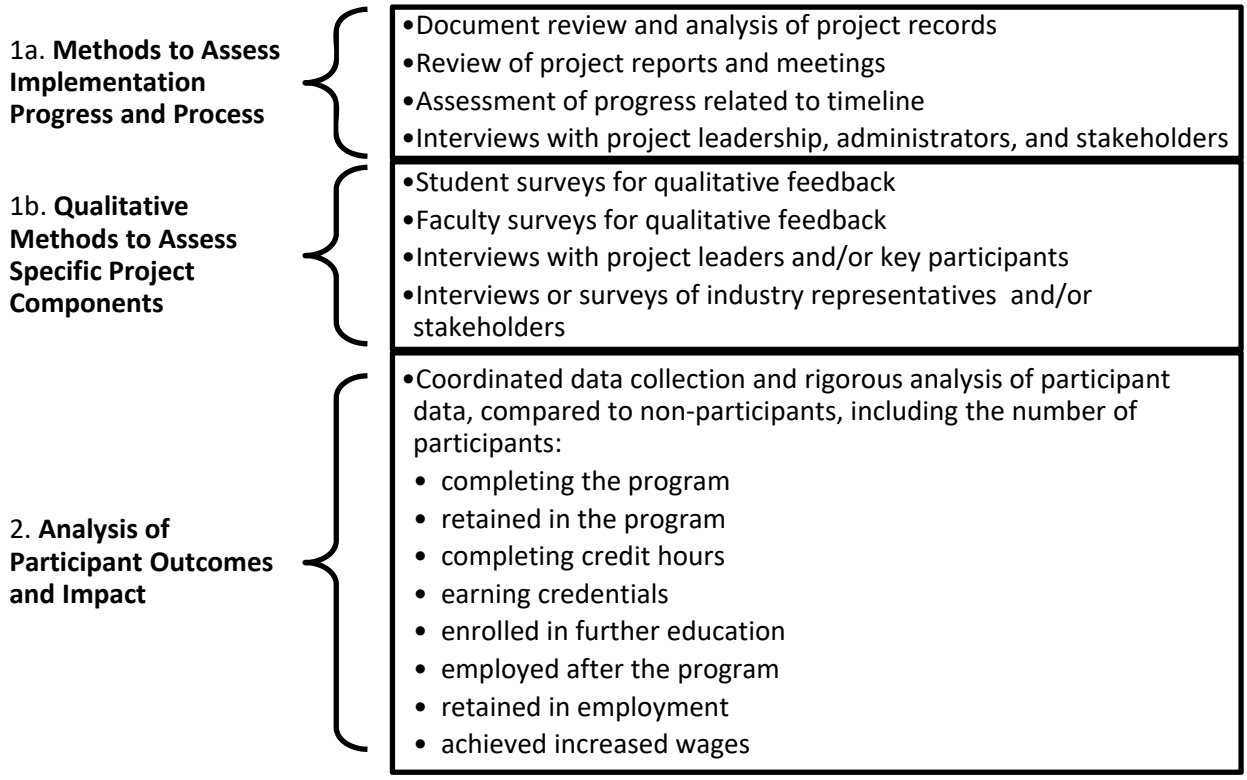
OEIE adheres to the American Evaluation Association's Guiding Principles for Evaluators and the Program Evaluation Standards of the Joint Committee on Standards for Educational Evaluation. Additional details about funded projects and services are available on OEIE's website (www.oeie.ksu.edu).

OEIE designed and implemented the evaluation for the JCCC TAACCCT project. OEIE also served as the third-party evaluator on one Round 2 consortium and one Round 2 single-institution TAACCCT grants, and one Round 3 single-institution TAACCCT grant.

The Evaluation Approach

The JCCC TAACCCT evaluation approach included:

1) An implementation analysis aligned with Department of Labor (DOL) Solicitation for Grant Applications (SGA) questions, with:
    a. Methods to assess the progress and process of implementation
    b. Qualitative methods to assess specific project components
2) An analysis of participant outcomes based on quantitative metrics consistent with DOL outcome measures, including comparison to non-participants



The Logic Model

During the planning stage of the project, OEIE created a logic model for JCCC's TAACCCT project that could be used as a planning tool, to clarify and graphically display what the project intended to do, and to describe anticipated accomplishments and impact. The logic model was included in the detailed evaluation plan submitted to DOL in the project's first year (see Appendix 2, page 7).

The Evaluation Questions

The evaluation was guided by implementation questions and outcomes/impacts questions. OEIE used the four implementation questions outlined by DOL in the Round 4 SGA and four other questions to guide the implementation study, and three questions to guide the outcomes/ impacts study.

Round 4 SGA Implementation Questions

1. How was the particular curriculum or activity selected, used, or created?
2. How were programs/program designs improved or expanded using grant funds? What delivery methods were offered? What was the program administrative structure? What support services and other services were offered?
3. Are in-depth assessment of participant's abilities, skills, and interests conducted to select or enroll participants into the program? What assessment tools and processes were used? Who conducted the assessments? How were the assessment results used? Were the assessment results useful in determining the appropriate program and course sequence for participants? Was career guidance provided, and if so, through what methods?
4. What contributions did each of the partners (employers, workforce system, other training providers and educators, philanthropic organizations, and others as applicable) make in terms of: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging of resources, and 8) commitment to program sustainability? What factors affected partners' involvement or lack of involvement? Which contributions from partners were most critical to the success of the grant program? Which contributions from partners had less of an impact?

Additional Implementation Questions

1. What is the progress toward implementing a program that meets the needs of student participants and industry, and what are the operational strengths and weaknesses?
2. What are the vision and values that guide innovation?
3. What are the institutional conditions and environment within which activities occur?
4. What factors affect and guide ongoing innovation and development?

Outcomes/Impacts Questions

1. What is the difference in persistence, completion, and employment outcomes among students who utilize program services and those in a benchmarked program at JCCC?
2. How have career pathways, academic instruction, and student support services improved student outcomes?
3. How has the program leveraged resources to improve student outcomes?

Summary of Evaluation Activities

Descriptions of evaluation activities conducted for JCCC's TAACCCT grant appear below. Appendix 3 provides a comprehensive list of evaluation activities completed and deliverables provided to JCCC's ACTTS team over the four years of the grant. The list is organized by products (evaluation plan design, instrumentation, and reports/documents) and services (data collections, meeting/ event attendance, and consultations). OEIE provided similar lists of evaluation deliverables to JCCC's ACTTS team at the end of each quarter. Appendix 4 presents timelines for each project year of JCCC's TAACCCT evaluation, highlighting events, data collections, and report submissions.

Development of the Detailed Evaluation Plan

OEIE collaborated with JCCC's ACTTS team to develop and submit a detailed evaluation plan to the DOL, in May 2015. Appendix 2 contains the detailed evaluation plan. The evaluation design was aligned to DOL expectations, and it was informed by current research and integrated into all components of the project, with the rigor and complexity needed for meaningful assessment. The evaluation incorporated a developmental evaluation approach and ongoing evaluation capacity building. The evaluation included formative evaluation to assess performance of project activities and provide timely feedback to improve the project, as well as summative evaluation to assess and document major achievements of the project and outcomes for stakeholders. The evaluation utilized multiple evaluation approaches and drew on both quantitative and qualitative methods, triangulating data for more robust findings where possible. The evaluation sought input from various stakeholders to ensure capturing and representing salient issues from multiple perspectives. The goal of the evaluation was to provide feedback about how the innovation unfolded at JCCC and help identify effective principles that could be used to inform practice, both at the college locally and for a larger audience.

DOL approved the evaluation plan on August 31, 2015. DOL also provided feedback on additional information that could strengthen the evaluation plan. OEIE revised the evaluation plan based on this feedback. JCCC submitted the revised evaluation plan to DOL on October 15, 2015.

Submission of the Institutional Review Board (IRB) Application

In August 2015, OEIE prepared and submitted an application for the K-State Institutional Review Board (IRB) to gain permission to collect evaluation data from stakeholders of JCCC's TAACCCT project. OEIE submitted draft instrumentation with the application. OEIE received IRB approval from the K-State Compliance Office on September 8, 2015.

Participation in Meetings

Throughout the project, OEIE participated in meetings related to JCCC's TAACCCT project, both virtually and in person. Topics of evaluation meetings included the evaluation scope of work, evaluation plan, evaluation activities, data collection instruments/timelines, project implementation, student data collection/management, and the outcomes study.

OEIE also participated in three TAACCCT-related meetings regarding the possibility of taking a statewide approach to TAACCCT performance reporting. Other groups participating in the meetings included representatives from JCCC, Butler Community College, Washburn University, Wichita Area Technical College, and the Kansas Board of Regents.

Instrument Development and Data Collection

The evaluation team collaborated with JCCC's ACTTS team to determine the best methods for collecting evaluation data and develop instrumentation. Collaboration on instruments ensured the evaluation was collecting the types of information and feedback that would be most useful for program planning and demonstrating project impact. The evaluation team considered the evaluation questions in the development and design of all instrumentation seeking to collect evidence of progress and impact. Appendix 5 contains a sample of items used in evaluation instrumentation.

The evaluation team also collaborated with JCCC's ACTTS team to coordinate details of data collections. Survey methodologies were based on the Dillman Method (2014) and focus groups incorporated the Krueger and Casey (2009) approach to organizing and conducting effective qualitative research. Participants and response rates for each data collection are listed below.

- The Year 2 Business and Industry Leadership Team (BILT) survey gained responses from 10 of 25 (40.0%) BILT members.
- The Year 2 team member interviews included Computing Sciences and Information Technology (CSIT) faculty (*n* = 6), college administrators (*n* = 5), and ACTTS grant staff (*n* = 5), with a 100% participation rate.
- The Year 2 ACTTS student survey gained participation from 46 of 125 (36.8%) current ACTTS students.
- The Year 3 faculty survey gained responses from 11 of 16 (68.8%) CSIT faculty.
- The Year 3 external partner survey gained responses from 15 of 29 (51.7%) of partners.
- The Year 3 ACTTS student survey gained responses from 50 of 203 (24.6%) current and exited ACTTS students.
- The Year 3 team member interviews included college administrators (*n* = 11) and ACTTS grant staff/administrators (*n* = 6), with a 100% participation rate.
- The Year 4 employer interviews gained participation from 5 of 8 (62.5%) employers of ACTTS students/completers.

- The Year 4 JCCC staff focus groups gained participation by 5 of 6 (83.3%) ACTTS grant staff/administrators, 7 of 11 (63.6%) college administrators/staff, and 3 of 4 (75.0%) CSIT faculty chairs, for an overall response rate of 71.4%.
- The Year 4 student focus groups gained participation from 2 ACTTS students and 16 control group students.
- The Year 4 ACTTS student follow-up survey gained participation from 36 of 161 (22.4%) current ACTTS students.
- The Year 4 student telephone interviews gained participation from 2 of 73 (2.7%) exited ACTTS students and 3 of 64 (4.7%) exited control group students.

OEIE used the results of these data collections to determine aspects of the project that were valuable and to provide information for improving the project during implementation. JCCC's ACTTS team assisted by recruiting and encouraging participation of stakeholders in the data collections as well as developing schedules and coordinating logistics for onsite data collections.

Professional Development

OEIE participated in a variety of TAACCCT-related professional development activities, including events organized through DOL's TAACCCT National Evaluation Team, other TAACCCT grantees, and the Transformative Change Initiative (TCI) Evaluation Collaborative. In addition to the professional development events, the evaluation team also reviewed TAACCCT-related documents and materials provided through these organizations.

National TAACCCT Evaluation Team Webinars and Virtual Roundtables

In Year 1, the TAACCCT National Evaluation Team regularly hosted webinars to provide learning opportunities for grantees and third-party evaluators to exchange information and gain ideas to strengthen their evaluations. They also offered one of these learning opportunities in Year 2 and one in Year 3. OEIE staff members attended eight of these webinars. These TAACCCT webinars were on the topics of:

- Introduction to the Round 4 TAACCCT evaluation
- Detailed evaluation plans for Round 4
- Evaluating partnerships in TAACCCT
- Adapting evaluation designs to reality
- Qualitative methods and implementation analysis
- Visualization techniques for presenting evaluation data
- Introduction to the Round 4 outcomes study
- Final evaluation reports

Other TAACCCT Convenings/Conferences

Members of the evaluation team also participated in eight other TAACCCT convenings.

An OEIE staff member attended a DOL TAACCCT convening in Washington, DC on June 11, 2015 titled "Success From the Start". This meeting was for Round 4 grantees and evaluators specifically, providing information and resources relevant to the evaluation and an opportunity for JCCC ACTTS team members to connect with a member of the evaluation team in person.

Members of the evaluation team also attended two TAACCCT On! conferences during Year 1. TAACCCT On! was organized and hosted by TRAC-7, a TAACCCT Round 1 consortium led by Washburn University. Washburn University was awarded a Round 4 TAACCCT grant in 2014, and their conference was hosted by their Round 4 consortium KanTRAIN as well. A TAACCCT On! conference was hosted on October 1-2, 2014 at Washburn University in Topeka, KS. Two OEIE staff members attended the conference, including sessions related to data management and evaluation. TAACCCT On! was held again on September 23-24, 2015. Two OEIE staff members participated in this conference and attended sessions pertinent to the evaluation. This conference provided OEIE the opportunity to connect with JCCC ACTTS team members in person, to discuss project updates and plans for Year 2.

OEIE team members also attended five convenings organized by the Transformative Change Initiative (TCI), led by the Office of Community College Research and Leadership (OCCRL) at the University of Illinois at Urbana-Champaign. The TCI has an Evaluation Collaborative component, which creates opportunities for third-party evaluators on TAACCCT projects with a transformative change focus to connect and discuss issues around evaluating such projects. The group held face-to-face meetings where evaluators shared strategies and best practices from their projects and learned from others. The events provided an opportunity to network and gain ideas and strategies useful for evaluating TAACCCT projects. Meetings attended by OEIE representatives included:

- A pre-meeting at the American Evaluation Association's (AEA) annual conference, in Denver, Colorado on October 15, 2014, focused on evaluation of collective impact, transformative research, and discussion about evaluation theories and perspectives related to TAACCCT evaluations.
- A Learning Lab on February 17-18, 2015 in Baltimore, Maryland, that brought together all rounds of TAACCCT consortium grantees as well as other education, workforce, policy, employer, evaluation, and other stakeholders to focus on the topics of scaling and sustaining innovations beyond TAACCCT.
- A research symposium held in conjunction with the AEA annual conference titled "Evidence of What Works from TAACCCT" on November 10, 2015, in Chicago, Illinois, that brought together evaluators, governmental representatives, funders, and others. OEIE prepared a research paper and shared a presentation of evaluation results obtained on a Round 2 consortium grant that OEIE evaluated.
- A meeting held alongside the AEA annual conference titled "Approaches to Evaluation that Foster Transformative Change" on November 11, 2015, in Chicago, Illinois, that focused on fostering educational innovation through evaluation practices, using mixed methods, organizational evidence, and evidence-based storytelling.
- A meeting held June 22 & 23, 2016, in Chicago, Illinois, that provided an opportunity to learn about the TCI's research related to Round 1 TAACCCT grants and to discuss

continuing collaboration on compiling lessons learned about transformative change within community colleges based on experiences working on TAACCCT grants (e.g., how various components were developed and implemented) and how the topics may impact community colleges in general (beyond TAACCCT).

TAACCCT Resource Documents/Materials

The TAACCCT National Evaluation Team hosted online learning communities (www.taacccteval.org, https://taaccct.workforcegps.org) on which they posted helpful resources related to TAACCCT evaluations, such as webinar recordings and documents that provided guidance on the evaluation. The team also distributed updates and links to resources through their listserv. OEIE reviewed performance reporting technical assistance resources related to student outcome tracking and reporting, including the Compilation of TAACCCT FAQs and TAACCCT TA Guide for Reporting Documentation, as well as guidance documents on preparing the content and structure of final evaluation reports.

Document Review/Analysis

As part of the effort to monitor important shifts in program development and maturation, the OEIE evaluation team conducted a document review through the systematic examination of relevant materials provided by JCCC's ACTTS team via e-mail. Documents discussing program processes, evidence of goals met, and outcomes achieved were determined to be appropriate for the document review.

Throughout the four-year project, OEIE entered key information about 405 documents into an Excel spreadsheet, organized by four major categories: Meetings, Reports, Products/Outputs, and Operations/Processes. Details about each document were entered, including file date and name, document category, project year and date the document was sent, team member who sent the document, and which project Work Plan activities applied. OEIE used this format for organizing archival documents throughout the grant to provide a comprehensive summary of key documents for the project, and provided the document review spreadsheet to JCCC's ACTTS team annually. OEIE shared the final spreadsheet along with this report.

The following list provides a breakdown of the 405 documents by major category, and the table on the next page presents the number of documents relevant to each Work Plan Activity.

- Meetings 305
- Operational/Processes 56
- Outputs/Products 22
- Reports 22

Work Plan Activity	Number of Documents
1. Create prior learning assessment instruments, including 1) a prior learning self-assessment, and 2) a prior learning exam for "Programming Fundamentals."	60
2. Develop and pilot new modules, courses, and degrees – 1) 4 contextualized, remedial IT math modules; 2) 4 competency-based courses in IT Networking leading to Cisco certification; 3) a modular certificate in Web Technologies; and 4) a modular bridge course in Computer Programming.	81
3. Design and provide collaborative, technological learning environment for industry-based experiential coursework in JCCC-ACTTS degree programs.	110
4. Engage BILT in assessing, mapping, and updating JCCC's IT curriculum; training JCCC faculty; and interacting with JCCC students.	143
5. Hire career coaches to coach students one-on-one, provide customized educational plans, and run the IT orientation and the "Never Miss Class" program.	231
Note. Individual documents could be relevant to none, one, or more than one of the work plan activities.	

Reporting

With the submission of this Final Evaluation Report, OEIE prepared a total of 24 evaluation reports and summaries for JCCC's ACTTS team. These reports included: 11 event-specific reports containing results of evaluation data collections, 9 quarterly summaries, 2 annual evaluation reports (in Year 1 and Year 3), as well as the Interim Evaluation Report (in Year 2) and Final Evaluation Report (in Year 4).

When reporting to JCCC, OEIE's goal was to prepare reports in a timely fashion to provide the ACTTS team with an accurate picture of the program and activities, by presenting feedback and results in ways that would be easy to process and useful to the project. Much of the data collected early in the project were formative in nature, which was important as the project was implemented to help illustrate how the program was developed at JCCC; these data were presented in the Interim Evaluation Report. More recent data collections in Years 3 and 4 continued to collect feedback on implementation but increased focused on outcomes and impacts; these data are presented below in support of each of the evaluation questions.

Evidence Supporting the Evaluation Questions

Implementation Study Results

SGA Implementation Questions

In summer 2018, OEIE collected updates to the SGA questions from the ACTTS team. The team's responses appear below (in blue text) along with supplemental evidence from OEIE's other evaluation data collections (in black text), as available.

1. How was the particular curriculum or activity selected, used, or created?

The IT curriculum was selected due to the regional demand for a skilled IT workforce. Portions of the curriculum existed prior to receiving the TAACCCT grant; the focus of the grant has been on accelerating curriculum delivery. Curriculum modifications are in place and have been well received by faculty and students. A change in JCCC's Chief Academic Officer caused a slight delay related to curriculum modifications. Two of the modifications have been the Bridge course and implementation of Competency-Based Education (CBE).

The purpose of the Bridge course is to accelerate students who are in the programming software development program. The Bridge course allows a student familiar with one programming language the ability to "bridge" into other programming courses. In other words, because the student already has an understanding of language, they do not need to start at the beginning of an introductory course. Instead, they can start the course at the level at which they need to learn or gain knowledge. The Bridge course is in some ways similar to Prior Learning Assessments (PLA), but the student does not completely "quiz out" of a course and completes only the portions that are currently "new" information in a shorter course and timeframe.

The purpose of CBE is to provide an accelerated learning program that is competency based to online students. Prior to participating in CBE-designed coursework, students demonstrate they can handle a particular level of the accelerated, online delivery method. The modification consists of setting milestones for students to ensure they are reaching goals. Additionally, activities and extra resources are provided for student assistance with the online courses. For example, one instructor is developing videos for support. These courses are primarily designed to facilitate learning for second-career learners who only need specific courses or for those already employed whose employer wants them to learn a specific skill.

Additional evidence in support of this evaluation question was collected through the Year 3 team member interviews, external partner survey, and faculty survey as well as the Year 4 employer interviews.

Through the Year 3 team member interviews (*N* = 17), participants shared that grant staff built internal relationships at JCCC and external relationships (e.g., with industry/employers) to support curriculum development/revision.

Through the Year 3 external partner survey (*N* = 15), five (33.3%) participants shared that the greatest value of their partnership with JCCC was assisting with program/curriculum development, specifically in aligning curriculum with industry needs.

Through the Year 3 faculty survey (*N* = 11), six respondents (54.5%) reported that they helped create and/or select ACTTS curriculum, and five (45.5%) did not. Two individuals helped with both the creation and selection of curriculum, while three others helped only with creation and one helped only with selection of curriculum. Alignment with industry was considered when both selecting and creating curriculum.

Through Year 4 employer interviews (*N* = 5), respondents shared that they assisted with curriculum development/review (*n* = 4, 80.0%).

2. How were programs/program designs improved or expanded using grant funds?

JCCC expanded programs by accelerating curriculum delivery through the Bridge course, Web certificate, and CBE as well as through equipment and materials purchases. The grant purchased NetLab through the Cisco program for IT Networking. NetLab is an online virtual networking lab. Its purpose is to create convenience for students' schedules, allowing them remote access to the lab 24/7, without having to be in a lab or on campus.

The grant purchased furniture so students could work collaboratively with each other or their instructors on projects. The furniture was placed to create collaborative workspaces in an effort to reflect a typical work environment. Additionally, students have capstone projects that require working with employers, and the collaborative spaces provide an area for students to work with employers. The grant also purchased Tableau software for students. Tableau is drag-and-drop software that allows users the ability to create visually appealing data products.

Additional evidence in support of this evaluation question was collected through the Year 3 team member interviews. Grant staff/administrators (*N* = 6) described four grant processes related to working with ACTTS students, including student recruitment/outreach, student intake, provision of student services, and student follow up. They shared the following ideas:

- Student recruitment/outreach
    - Recruitment activities/events (e.g., Cav Craze, classroom visits, peer interactions, opportunities to meet employers) (*n* = 5)
    - Career coach services to students (*n* = 5)
    - Online or electronic advertising/promotions (*n* = 3)
    - Connection to other resources or faculty communication/support (*n* = 2)

- Student intake
    - Student fills out application (*n* = 5)
    - Refer student to career coach and faculty (*n* = 5)
    - Career coach determines eligibility for TAACCCT participation (*n* = 5)
    - Career coach makes initial contact with student within 1-2 days (*n* = 4)
    - Enter student into database (*n* = 3)
    - Send student a welcome letter (*n* = 3)
    - Establish career coach advising process (*n* = 2)
- Provision of student services
    - Utilize existing services on campus to help students (*n* = 5)
    - Connect/direct students through career coach services (*n* = 5)
    - Collaborate amongst grant team (*n* = 1)
- Student follow up
    - Is the responsibility of the career coach (*n* = 4)
    - Provide information on upcoming events/jobs/services (*n* = 2)
    - Collaborate with Institutional Research (IR) on student data collection process (*n* = 2)
    - Are working to improve collection of student employment/post-graduation data (*n* = 2)
    - Send exit surveys (*n* = 1)

- **What delivery methods were offered?**

Classes are offered in traditional, hybrid, and online formats.

Additional evidence in support of this evaluation question was collected through the Year 3 faculty and student surveys.

In the Year 3 faculty survey (*N* = 11), all but one of the eleven respondents reported that they taught courses relevant to the ACTTS program through a blended format (*n* = 10, 90.9%), while five taught through an all online format (45.5%), and one taught through a traditional format (9.1%). One respondent taught using all three formats, while three respondents used two formats, and seven only used one format.

In the Year 3 student survey (*N* = 50), respondents indicated the class formats they experienced during the ACTTS program. The online format was selected most frequently (*n* = 31, 62.0%), followed by traditional face-to-face (*n* = 24, 48.0%), then blended (*n* = 22, 44.0%). Respondents most frequently selected one class format (*n* = 20, 40.0%), while some selected two (*n* = 15, 30.0%) or all three (*n* = 9, 18.0%).

- **What was the program administrative structure?**

The TAACCCT grant is housed in the Computing Sciences and Information Technology (CSIT) Department. The Assistant Dean supervises the grant director and faculty. The grant director supervises the grant team, which is comprised of the research analyst, administrative assistant, and career coaches. The signatory for the grant is JCCC's Grants Office Director.

Additional evidence in support of this evaluation question was collected through the Year 3 team member interviews (*N* = 17). ACTTS team members shared that they have a variety of roles related to the grant. When speaking of their roles, both grant staff/administrators and high-level college administrators mentioned similar topics. Typically, the high-level administrators were providing support to the grant staff who needed to fulfill these roles for the grant. Roles mentioned were: providing support to students (e.g., connect to resources, transition to workplace) (*n* = 4), overseeing the grant (e.g., budget, compliance) (*n* = 3), reporting data to JCCC or DOL (*n* = 3), processing student paperwork/records (*n* = 2), scheduling/organizing meetings (*n* = 2), marketing (*n* = 2), and providing academic/curriculum support (*n* = 2).

- **What support services or other services were offered?**

Grant team members, including career coaches, work with and provide resources from the following JCCC offices: math resource center, writing resource center, Veteran Services, Counseling, and Financial Aid along with Kansas Workforce.

The career coaches serve as liaisons and navigators for student services. Related to academic support, the career coaches help students make connections with resources and faculty. They also help students with study skills and time management skills. Related to employment and employability, the career coaches connect students with the Career Services department, but they also provide support for students as they go through employment processes (e.g., resume, interview). Additionally, career coaches are links to networking opportunities. The grant has a blog for posting hints and suggestions on employability as well as updates on the tech field and employment in the KC area.

Additional evidence in support of this evaluation question was collected through the Year 3 student survey (*N* = 50). Respondents selected student services they had utilized during JCCC's ACTTS training program. The number of student services selected ranged between zero (*n* = 3, 6.0%) and eight (*n* = 1, 2.0%) services. Most frequently, respondents reported utilizing three student services (*n* = 15, 30.0%). Over three-quarters (*n* = 38, 76.0%) used more than one service.

- The most frequent selections, used by over one-half of respondents, were: ACTTS career coach academic services (*n* = 35, 70.0%), ACTTS career coach employment services (*n* = 26, 52.0%), and Career Development Center (*n* = 26, 52.0%).
- Over three-quarters (*n* = 39, 78.0%) of respondents were using career coach services, including academic services (*n* = 13), employment services (*n* = 4), or both (*n* = 22). The remaining 11 respondents (*n* = 11, 22.0%) were not using career coach services, with 3 of these respondents not using any services (*n* = 3, 6.0%).

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

JCCC has an established policy of using an ACCUPLACER exam or other placement exam(s) (e.g., ACT, PLA) for students seeking to enroll at the college. The exams are administered by the college.

The grant team developed a process for students seeking enrollment in the TAACCCT grant program that includes extensive, in-depth self-assessment tools related to students' skills and abilities. These assessments are administered and analyzed by the career coaches, typically face-to-face with the student. In addition, the skills and abilities assessments are helpful in determining if the student's background and interests are a good fit for particular IT programs. The career coaches notify students if the results indicate that IT is not the right fit for them and redirect them appropriately. Additional assessments are administered to determine milestones for CBE, and the grant has plans to develop an assessment to determine milestones for the Bridge course.

4. **What contributions did each of the partners (employers, workforce system, other training providers and educators, philanthropic organizations, and others as applicable) make in terms of: 1) program design, 2) curriculum development, 3) recruitment, 4) training, 5) placement, 6) program management, 7) leveraging of resources, and 8) commitment to program sustainability?**

The advisory board, or Business and Industry Leadership Team (BILT), which is comprised primarily of representatives from the IT industry, helped with program design and delivery. They provided input about what is going on in the industry and identified competencies and skills that students need to be employable in the workforce.

It was difficult for the grant team to determine where participants were coming from except in cases where students self-report or are receiving third-party financial assistance (e.g., Workforce) or, for example, when a company like Sprint laid off employees. Many partners, including advisory board members, the Overland Park Chamber of Commerce, and LaunchCode (currently a big name in recruitment for the KC area) are promoting the JCCC IT programs through websites, newsletters, and sharing information with their partners. Additionally, the career coaches reached out to partners and represented the grant at external events with partners.

Advisory board members were involved in the IT courses and training by being guest speakers in classes to share real-world experiences, serving as mentors in capstone projects, participating in the employer speaker series, and participating in grant information sessions that highlight an employer each semester. Career Services helped students get ready for job interviews. Also, Austin Community College's dean provided CBE training and a presentation. Sinclair Community

College shared a CBE version of their IT NetLab, including how to work with it within the Networking curriculum, and what it means in CBE.

Partners contacted JCCC with job openings and the career coaches contacted partners inquiring about job openings. Additionally, the career coaches attend monthly Chamber of Commerce breakfasts and events to interface with the community and employers. Attending these functions helped gain leads on jobs and internship opportunities. Several employers were pleased with new hires from JCCC and approached the grant team when looking to hire again. Placements also occurred through job/career fairs. The grant team set up career fairs for individual companies to come in and talk to students individually. Through Reverse Career Fairs in the fall and spring, students gained an opportunity to have their resumes reviewed by industry representatives as well as garner information about workforce needs.

Partners were not involved with program management. Related to leveraged resources, the Chamber of Commerce hosted a breakfast meeting and advisory board members hosted advisory meetings. Additional leveraging of resources occurred internally at JCCC with the IR and Information Services (IS) departments related to gaining access to and collecting data.

Additional leveraging occurred with program review of the IT Networking program. All JCCC programs participate in the Program Review process whose purpose is to improve the curriculum by examining the program, its relevance in meeting workforce expectations, and reviewing various student indicators (e.g., completion, retention).

The grant team also partnered with Career Services to host events. Career Services conducted sessions on LinkedIn and resumes. Student Services is now implementing a new organizing strategy that seems very similar to the grant's career coach model. They are dividing 1,400 incoming freshmen between six people using the career coach model, although not as intrusively as the grant's career coaches.

At this time, the grant team sees the partnerships with industry, Workforce, and the Chamber of Commerce being sustained and believes the employer partners want to see the accelerated portion of the programs continue. The grant team would like to see the employability development (e.g., mock interviews) sustained as well.

- **<u>What factors affected partners' involvement or lack of involvement?</u>**

Business sustainability and community interest have been the biggest factors impacting partners' involvement. For example, the Sprint Corporation has undergone multiple organizational changes, resulting in struggles to sustain involvement with the program.

- **Which contributions from partners were most critical to the success of the grant program?**

The greatest contributions from employers was the ability to provide internships and job opportunities to students. Another contribution was the sharing of skills necessary for students to be prepared for employment.

- **Which contributions from partners had less of an impact?**

The active engagement from partners has been most impactful. Continued dialogue with partners regarding how they can be best involved continues along with continued outreach to engage more/different partners.

Additional evidence in support of this evaluation question was collected through the Year 3 team member interviews and external partner survey, and the Year 4 employer interviews.

The Year 3 team member interviews collected the following evidence from grant staff/administrators (*N* = 6):

- Their most valuable internal collaborators on the grant were grant team members (*n* = 4), career coaches (*n* = 4), program/department chairs (*n* = 4), college personnel (*n* = 4), faculty (*n* = 1), and students (*n* = 1).
- Internal partners' greatest contributions to the grant were providing support/being flexible (*n* = 6) and promoting the grant (*n* = 2).
- The most valuable external collaborators on the grant were BILT members (*n* = 4).
- External partners' greatest contributions to the grant were increasing involvement with the college (e.g., through BILT) (*n* = 4), engaging/interacting with students (e.g., at events) (*n* = 4), and engaging/interacting with faculty (*n* = 1).

The Year 3 external partner survey (*N* = 15) provided the following evidence:

- External partners selected among 20 activities to indicate the types of interactions they or their organization had with the ACTTS program. Individual respondents selected between one and eleven activities, although they most frequently selected three activities. Activities selected by at least two-thirds of respondents were: participating in BILT meetings (*n* = 12, 80.0%) and shaping the vision and direction of the ACTTS project (*n* = 10, 66.7%). Other frequent responses were: providing subject matter experts for the JCCC employer speaker series (*n* = 6, 40.0%) and sharing job openings with ACTTS staff (*n* = 6, 40.0%).
- Three external partners reported hiring ACTTS students. Two of these partners indicated hiring ACTTS students for internships, and one also hired an ACTTS student for a full-time position. The third partner did not report the types of positions they hired.

The Year 4 employer interviews (*N* = 5) provided the following evidence:

- When asked which ACTTS programs were relevant to the work they do, employers most frequently associated with the Computer Information Systems/Programming (*n* = 4, 80.0%) and Web Development and Digital Media (*n* = 4, 80.0%) programs.
- Employers indicated that their involvement with the ACTTS grant ranged from one year (*n* = 1) to serving on a JCCC advisory board prior to the grant (*n* = 2); all except one employer had been an ACTTS partner for two or more years (*n* = 4, 80.0%).
- Employers indicated their involvement in ACTTS activities. All employers participated in job fairs and shared job openings (*n* = 5, 100% for both). Additional activities included giving presentations at JCCC, interviewing ACTTS students, providing internship/training opportunities, assisting with curriculum development/review, providing feedback on industry needs, and promoting ACTTS programs in the community (*n* = 4, 80.0% for all). A majority also reported hiring ACTTS program completers, participating in advisory board/BILT meetings, and reviewing capstone projects (*n* = 3, 60.0% for all). Two employers (40.0%) reported working with co-lab or working groups.

Other Implementation Questions

1. **What is the progress toward implementing a program that meets the needs of student participants and industry, and what are the operational strengths and weaknesses?**

Progress Compared to Proposed Work Plan

JCCC's TAACCCT proposal contained a Work Plan. One component of the evaluation entailed documenting progress made toward project activities within proposed timeframes, as specified within the work plan. The table below presents information from JCCC's Work Plan, along with new columns regarding achievement of the goal and sources of evidence supporting the achievement. JCCC achieved all proposed Work Plan activity milestones.

Achievement of Proposed Work Plan Activities			
Milestones	**Proposed Timeframe**	**Achieved**	**Sources of Evidence of Achievement**
Goal 1: Flexible Curriculum			
Activity 1: Create prior learning assessment instruments, including: 1) a prior learning self-assessment, and 2) a prior learning exam for "Programming Fundamentals." *Deliverable 1: Replicable models of 1) an online prior learning self-assessment, and 2) a "Programming Fundamentals" prior learning exam.*			
Draft viable prior learning assessment instruments	Summer 2015	✓	ACTTS document review, interviews with ACTTS team members (Years 2 & 3), ACTTS student survey (Year 2 & 3), ACTTS student information session (Year 3), focus group with faculty (Year 4)
Pilot instruments	Fall 2015 – Spring 2016	✓	
Evaluate and modify instruments as appropriate	Spring 2016	✓	

Achievement of Proposed Work Plan Activities			
Milestones	**Proposed Timeframe**	**Achieved**	**Sources of Evidence of Achievement**
Activity 2: Develop and pilot new modules, courses, and degrees – 1) 4 contextualized, remedial IT math modules; 2) 4 competency-based courses in IT Networking leading to Cisco certification; 3) a modular certificate in Web Technologies; and 4) a modular bridge course in Computer Programming. *Deliverable 2: Curricular models of 1) 4 remedial IT math modules, 2) 4 competency-based IT Networking courses, 3) a modular certificate in Web Technologies, and 4) a modular bridge course in Computer Programming.*			
Modularize Web Technologies Certificate	Fall 2014	✓	ACTTS document review, interviews with ACTTS team members (Years 2 & 3), ACTTS student survey (Years 2 & 3), faculty survey (Year 3), focus groups with JCCC staff (Year 4)
Create remedial IT math modules and Computer Programming bridge course	Spring 2015	✓	
Convert IT Networking courses to competency-based	Spring 2015 – Summer 2015	✓	
Pilot Web Technologies Certificate	Spring 2015	✓	
Pilot remedial IT math modules, Computer Programming bridge course, and competency-based IT Networking courses	Fall 2015	✓	
Evaluate modules, courses, and certificates and modify as needed	Spring 2016 – Summer 2016	✓	
Goal 2: Employer Engagement			
Activity 3: Design and provide collaborative, technological learning environment for industry-based experiential coursework in JCCC-ACTTS degree programs. *Deliverable 3: Twelve industry-based, experiential lesson plans for IT.*			
Renovate computer environment and additional spaces to accommodate new technology	Summer 2015	✓	ACTTS document review; JCCC facility tour (Year 2); interviews with ACTTS team members (Years 2 & 3); ACTTS student survey (Years 2 & 3); external partner survey (Year 3); faculty survey (Year 3); focus group, survey, and interviews with ACTTS students (Year 4); focus groups with JCCC staff (Year 4); interviews with employers (Year 4)
BILT members provide experiential learning projects for students	Fall 2015 – Fall 2017	✓	
Draft and pilot industry-based experiential lesson plans and hire student tutors	August 2015 – 2017	✓	
Implement and evaluate lesson plans	Fall 2015 – Summer 2017	✓	
Activity 4: Engage BILT in assessing, mapping, and updating JCCC's IT curriculum; training JCCC faculty; and interacting with JCCC students. *Deliverable 4: An industry-driven IT curriculum outline that trains students and faculty to meet current employer needs, including 1) maps of student competencies and skill sets, and 2) models of industry-based professional development events.*			
BILT meetings held quarterly	2014 – 2015, 2015 – 2016, 2016 – 2017	✓	ACTTS document review; BILT survey (Year 2); interviews with ACTTS team members (Years 2 & 3); ACTTS student survey (Years 2 & 3); external partner survey (Year 3); faculty survey (Year 3); focus group, survey, and interviews with ACTTS students (Year 4); focus groups with JCCC staff (Year 4); interviews with employers (Year 4)
Faculty professional development events	2015 – 2016, 2016 – 2017	✓	

Achievement of Proposed Work Plan Activities			
Milestones	**Proposed Timeframe**	**Achieved**	**Sources of Evidence of Achievement**
Goal 3: Student Support			
Activity 5: Hire career coaches to coach students one-on-one, provide customized educational plans, and run the IT orientation and the "Never Miss Class" program. *Deliverable 5: Replicable models of 1) a customized educational plan, and 2) interdisciplinary IT orientation session.*			
Career coaches hired	Spring 2015	✓	ACTTS document review; JCCC facility tour (Year 2); interviews with ACTTS team members (Years 2 & 3); ACTTS student survey (Years 2 & 3); faculty survey (Year 3); student information session (Year 3); focus group, survey, and interviews with ACTTS students (Year 4); focus groups with JCCC staff (Year 4)
First IT orientation and "Never Cancel Class" offered	Fall 2015	✓	

Evidence from Additional OEIE Data Collections

Additional evidence in support of this evaluation question was collected through the Year 3 team member interviews as well as surveys with external partners, faculty, and students, and the Year 4 employer interviews, JCCC staff focus groups, and student data collections.

The Year 3 team member interviews (*N* = 17) provided the following evidence:

- Grant staff/administrators (*N* = 6) shared ACTTS components perceived to be most helpful to students: support from career coaches (*n* = 6), establishment of cohorts to provide peer support (*n* = 1), faculty supportiveness of the grant (*n* = 1), CBE (*n* = 1), accelerated learning options (*n* = 1), and collaboration tables (*n* = 1).
- Grant staff/administrators and high-level college administrators (*N* = 17) shared ways that their expectations of the project were or were not met:
    - Project components were in place (*n* = 11)
    - Overall expectations were met (*n* = 10)
    - Helped students, built relationships, and saw them succeed (*n* = 9)
    - Did not have expectations but observed positive outcomes (*n* = 6)
    - Increased awareness/support for TAACCCT components on campus (*n* = 6)
    - Did not meet some initial expectations (*n* = 3)
    - Would be nice to do more/have more time for grant/student participation (*n* = 3)
    - Changed expectations due to evolving role on grant (*n* = 2)

The Year 3 external partner survey (*N* = 15) provided the following evidence:

- All but one partner reported that they understood what the ACTTS project needed from them or their organization (*n* = 14, 93.3%) and that they were satisfied with the amount of information about the project that had been provided to them (*n* = 14, 93.3%).
- Over three-quarters of respondents agreed that they were satisfied with the amount of progress made toward project goals (*n* = 12, 80.0%), and a little over half agreed they were satisfied with the extent to which their contributions had been productive to

achieving desired outcomes (*n* = 8, 53.3%). The remaining respondents indicated they "neither disagree nor agree" with these statements (i.e., they responded neutrally).

- Two partners indicated the following outcomes/impacts of partnering with JCCC for the ACTTS program: decreased on-the-job training time/cost (*n* = 2), gained access to a broader pool for recruiting (*n* = 1), and reduced recruiting costs for entry-level ACTTS-related positions (*n* = 1).
- One of three partners who had hired an ACTTS student strongly agreed that their organization would hire another student from the ACTTS program. This person also agreed that job applicants who are ACTTS students have a competitive edge being hired at their organization, and that their organization would recommend that other employers hire students from the ACTTS program. The other two partners who had hired ACTTS students responded neutrally to these items.
- Nine partners reported being BILT members and provided feedback on the BILT.
    - All BILT members (*n* = 9, 100%) agreed or strongly agreed that they were satisfied with the amount of communication/information shared related to the BILT, and all but one (*n* = 8, 88.9%) agreed or strongly agreed that they were satisfied with the amount of work being accomplished through the BILT.
    - All but two partners (*n* = 7, 77.8%) agreed or strongly agreed that they were satisfied with the amount of time and effort others were and that they themselves were putting into the BILT.
    - To improve BILT operations, individual partners suggested offering a call-in option for attending meetings (*n* = 1), implementing ideas from those who attend (*n* = 1), and providing more frequent updates on the program (*n* = 1).

The Year 3 faculty survey (*N* = 11) provided the following evidence:

- Respondents perceived the quality of the new components introduced into programs and courses for the ACTTS program to be "high" (*M* = 4.0 on the 5-point scale). All but two respondents (*n* = 9, 81.8%) indicated the quality of the components to be "high" (*n* = 5, 45.5%) or "very high" (*n* = 4, 36.4%).
- A new component that two faculty perceived to be working well was: the blended/hybrid class format (*n* = 2). Two faculty/instructors noted it was too early to tell if new components were working well because they were still in development (*n* = 2).
- When reporting on components that were not working as well as hoped, the only emerging theme was "none" (*n* = 2).
- The faculty group agreed that the ACTTS programs' content and structure/ format both met industry needs in the local community. Nine of 10 respondents (90.0%) agreed or strongly agreed the ACTTS programs met industry needs in these ways.

The Year 3 student survey (*N* = 50) provided the following evidence:

- When respondents rated their overall satisfaction with JCCC's ACTTS training program, the mean rating was 4.1, on a 5-point scale (between "satisfied" and "very satisfied"). Just over three-quarters of respondents selected "satisfied" (*n* = 19, 38.8%) or "very satisfied" (*n* = 19, 38.8%).

- When rating agreement with a series of nine statements about the ACTTS program achieving desired outcomes, at least three-quarters (ranging from 75.0% to 92.0%) of respondents agreed or strongly agreed with each statement. All mean ratings met or exceeded a 4 (the Agree level). The highest agreement ratings received were for:
    - The ACTTS program is interesting. (*n* = 45 agreed or strongly agreed, 90.0%; *M* = 4.4)
    - The ACTTS program provides content that is relevant to the current industry. (*n* = 46, 92.0%; *M* = 4.3)
    - I would recommend the ACTTS program to a friend or coworker. (*n* = 43, 86.0%; *M* = 4.3)
    - The ACTTS program is well worth the time required. (*n* = 42, 84.0%; *M* = 4.3)
    - The route to a technical certificate is clear within the ACTTS program. (*n* = 42; 84.0%, *M* = 4.2)
    - The ACTTS program provides experiences that are relevant to the current industry. (*n* = 42, 84.0%; *M* = 4.1)
- Most frequently, respondents indicated the best components of the program were: career coach support (*n* = 14), resources (equipment, classrooms) (*n* = 6), employment support/preparation (*n* = 5), class availability (*n* = 5), and academic programs/paths (*n* = 5).
- Respondents shared similar numbers of negative (*n* = 9) and positive (*n* = 8) unexpected experiences/outcomes. However, the most frequent response was that they did not have any unexpected experiences or outcomes (*n* = 12).
    - Negative experiences were most frequently related to faculty (*n* = 3), course difficulty (*n* = 2), or just an overall negative experience with the program (*n* = 2).
    - Positive experiences most frequently related to career coaches/staff/faculty being helpful (*n* = 4), availability of job opportunities (*n* = 3), and the amount learned in the program (*n* = 2).
- Things that JCCC could do to make the JCCC program more successful most frequently related to: improving the quality of faculty/staff (*n* = 8), increasing course availability (*n* = 6), offering more employment supports (*n* = 6), and enhancing the curriculum (*n* = 5). Another frequent response was that nothing needs to be improved (*n* = 6).

The Year 4 employer interviews (*N* = 5) provided the following evidence:

- Employers shared strengths of ACTTS students and provided examples of ways ACTTS students met their needs. Most frequently, employers indicated that ACTTS students provided value to their business (e.g., they were job-ready, had new knowledge in the field, provided new ideas, and understood business needs) (*n* = 4, 80.0%) and were equipped with skills (e.g., thinking critically, collaborating, giving presentations, working on hands-on projects) (*n* = 4, 80.0%). In addition, a majority of employers shared that JCCC's non-traditional students brought real-world experience (*n* = 3, 60.0%).
- Employers shared qualities or skills they expected ACTTS students to possess upon employment that they did not possess. The majority of employers (*n* = 3, 60.0%) shared lacking qualities/skills but clarified that these concerns were not specific to ACTTS

students and instead related to any labor pool (lack of experience or communication skills due to recent graduation from college). Two employers shared comments specific to the ACTTS program related to: a lack of in-depth analysis/problem-solving skills (*n* = 1) and the limited number of students enrolled in application training making her/him unable to fill all of the available positions at her/his organization (*n* = 1).

- Employers shared impacts on their businesses/organizations due to their partnership with JCCC's ACTTS program. All except one of the employers indicated they gained access to a broader pool for recruiting (*n* = 4, 80.0%) and two employers each noted a decrease in on-the-job training time/cost (*n* = 2, 40.0%) and gained access to training or upgrading skills for current employees (*n* = 2, 40.0%).

The Year 4 JCCC staff focus groups (*N* = 15) with grant staff/administrators, faculty chairs, and high-level administrators provided the following evidence:

- A major success related to meeting student needs mentioned by all three groups was the career coach position (i.e., student advocates). Major successes mentioned by two groups were: one-on-one coaching/intrusive advising, academic/educational coaching or guidance, career coaching/preparation, connections to student services/resources, accelerated training options, and workshops/events.
- When reflecting on major successes related to meeting industry needs, all three groups mentioned employers provided input into programs (i.e., programs were focused on industry needs). Two groups mentioned employers gained access to students through events (e.g., reverse career fair).
- Grant strengths mentioned by all three groups included: the career coach model (one-on-one advising); dedicated, high-quality grant personnel and leadership; interdepartmental collaboration/support; and employers/partners connecting with students and faculty. Grant strengths mentioned by two groups included: faculty support; physical spaces, technology, and equipment; intentional/focused process planning; and advisory board/ industry sharing input on curriculum.
- A challenge mentioned by all three groups was promoting a new program/increasing awareness. Grant challenges mentioned by two groups included: gaining student participation in activities, gaining faculty support, gaining access to student data/ information, and meeting the industry's changing needs.

In Year 4, current ACTTS students (*N* = 38) shared:

- Among the most interesting things ACTTS students learned about or experienced during their time in the program were: various technologies/software (e.g., C++, HTML, JavaScript, networking platforms), IT field/careers (e.g., how large it is, demand for certain skills, career diversity, options for specialization), and class/course material (e.g., hands-on experiences, labs, Professional Skills course).
- The program met many students' educational and/or employment goals, frequently through: career coach assistance (e.g., resume and interview preparation, guidance and support, providing job opportunities), program design (i.e., ability to earn an associate's degree and work toward a bachelor's degree), and training in specific technologies or

programs. However, several students were unsure how their program had assisted them, and others indicated that their program had not assisted them in achieving their goals.
- Support or services that students believed would better help them in achieving their educational and/or employment goals included more tutors in the co-lab, mock technical interviews, internship opportunities, and one-on-one interactions with faculty.

In Year 4, exited ACTTS students (*N* = 2) shared:
- The most interesting things exited ACTTS students learned about or experienced during their time in the program were: software development/programming and starting a company.
- Most helpful in achieving educational and/or employment goals were learning through involvement in projects and exposure to workplace tasks/challenges.
- Support or services that would have better helped students in achieving their educational and/or employment goals included: teaching theories in addition to technology, applying what students are learning to gain experience, building and modifying sites throughout the program, setting up hack-a-thons, providing students with more exposure to industry opportunities, and offering more video classes.

2. What are the vision and values that guide innovation?

Evidence in support of this evaluation question was collected through the Year 3 team member interviews (*N* = 17). Both grant staff/administrators and high-level college administrators shared their thoughts regarding the vision and values that guided innovation on the grant. The vision and values were to:
- Meet students' needs (e.g., service-oriented, support student exploration and success) (*n* = 14)
- Provide accelerated learning/training opportunities (*n* = 5)
- Align with JCCC's mission/vision/overall efforts (*n* = 5)
- Be a leader in rigor and innovation for training (*n* = 5)
- Meet needs of/benefit the community (*n* = 4)
- Collaborate/build relationships (*n* = 4)

3. What are the institutional conditions and environment within which activities occur?

Evidence in support of this evaluation question was collected through the Year 3 team member interviews as well as the faculty, external partner, and student surveys, and the Year 4 staff focus groups.

Through the Year 3 team member interviews (*N* = 17), participants shared that:
- The grant staff formed a strong team that is cohesive and productive, and they developed effective approaches to project implementation (e.g., related to student interaction such as intake/enrollment, intrusive advising, and outcome data tracking).

- A large amount of collaboration happened between the grant staff and other JCCC staff and faculty as well as with external BILT partners.
- Some grant staff members mentioned additional information that may be helpful to have for implementation of the grant. This information related to providing student services, collecting/tracking student data, and wrapping up the grant. Some staff reported no additional support was needed.

The Year 3 faculty survey (*N* = 11) provided the following evidence:

- Most frequently, respondents reported participating in the following professional development activities for ACTTS: self-guided professional development (*n* = 5, 50.0%), employer speaker series (*n* = 5, 50.0%), and training provided by other higher education partners (*n* = 3, 30.0%). From a list of eight professional development activity options, two respondents selected participating in three activities, while five selected two activities, and two selected one activity.
- The employer speakers series (*n* = 2) was most frequently cited as the most effective or beneficial activity for preparing faculty to teach programs/courses that were relevant to the ACTTS grant.
- All respondents (*n* = 10, 100%) agreed or strongly agreed that the courses they teach contributed to the achievement of project goals and that they had sufficient resources/support to teach their courses that were relevant to the grant.
- All but one respondent agreed or strongly agreed that they understood the goals of the ACTTS project and that they received sufficient communication/information about the ACTTS project.
- No respondents reported experiencing any challenges or barriers to teaching programs/ courses that were relevant to the ACTTS grant due to professional development not being available (*n* = 0, 0%).
- When reporting on feedback they received from students, respondents most frequently shared that they received positive feedback in general (*n* = 2) and that students appreciated the interactions with employers/industry (i.e., the real-world aspect) (*n* = 2).
- When encountering students who were struggling with academic success, respondents most frequently referred the students to ACTTS career coaches (*n* = 4).
- Faculty/instructors assisted with the placement of ACTTS students by: networking/ collaborating with employers (*n* = 2), bringing employers into classrooms to meet students (*n* = 2), reviewing or helping with students' resumes (*n* = 2), and emailing job postings to students (*n* = 2).

The Year 3 external partner survey (*N* = 15) provided the following evidence:

- When presented with a list of seven statements regarding the project achieving desired outcomes, partners generally agreed with the statements (all mean ratings were on the positive side of the scale). Mean ratings for all but two statements surpassed the "agree" level (i.e., were above a 4 on a 5-point scale).

- The group agreed most strongly with the following four statements. In fact, no respondents disagreed with or responded neutrally to these statements (although some respondents selected "Do Not Know").
  - The ACTTS programs facilities are adequate to meet program and project objectives (*M* = 4.6). Two respondents did not know.
  - There is adequate market demand to support the employment of the ACTTS programs' graduates (*M* = 4.6). One respondent did not know.
  - The ACTTS programs' equipment is adequate to meet program and project objectives (*M* = 4.6). Four respondents did not know.
  - The ACTTS programs' curriculum is relevant for today's industry (*M* = 4.4). One respondent did not know.
- The only statement that any participants disagreed with was that the ACTTS programs were marketed and promoted effectively (*M* = 3.6). Two partners disagreed with the statement, and explained they were unaware of current efforts. Three additional partners indicated that they "do not know" about this outcome.
- The group's mean rating for one other statement approached but did not surpass the "agree" level: Graduates of the ACTTS programs will possess the knowledge, skills, and abilities for an entry-level position (*M* = 3.9).

The Year 3 student survey (*N* = 50) provided the following evidence:

- Less than one-third of respondents (*n* = 15, 30.0%) had experience working in an industry related to their program of study before enrolling in ACTTS.
- Upon entry into ACTTS, respondents' educational goals most frequently were to obtain a 2-year degree (*n* = 29, 58.0%), followed by gaining enough training to obtain employment (*n* = 24, 48.0%) and eventually obtaining a 4-year degree (*n* = 20, 40.0%).
- Reasons for enrolling in the ACTTS training program most often related to: opportunities to complete a degree or certificate faster than a traditional program (*n* = 26, 52.0%), opportunities in multiple career pathways (*n* = 25, 50.0%), access to employment assistance services through an ACTTS career coach (*n* = 24, 48.0%), and exposure to industry representatives and information about industry (*n* = 21, 42.0%).
- When rating agreement with a series of 12 statements about JCCC's faculty/instructors within the ACTTS program:
  - At least two-thirds (ranging from 67.3% to 89.8%) of respondents agreed or strongly agreed with each statement. The highest agreement ratings were received for statements that JCCC faculty/instructors within the ACTTS program:
    - Communicate clearly about important course topics (*n* = 44, 89.8%)
    - Promote a respectful classroom environment (*n* = 43, 87.8%)
    - Are up-to-date on their knowledge of the industry (*n* = 43, 87.8%)
    - Allow time in class for discussion (*n* = 41, 83.7%)
  - The lowest agreement ratings were received for statements that JCCC's faculty/instructors within the ACTTS program:
    - Talk about multiple career pathways available through ACTTS (*n* = 37, 75.5%)

        - Provide guidance or direction on JCCC's ACTTS programs and certificates (*n* = 35, 72.9%)
        - Share information about courses that are available through other ACTTS programs (*n* = 33, 67.3%)
- When rating agreement with a series of five statements about JCCC's classes within the ACTTS program, at least two-thirds (ranging from 67.3% to 81.6%) of respondents agreed with each statement. All mean ratings exceeded a 4 (the Agree level). The highest agreement ratings were received for statements that JCCC's classes within the ACTTS program:
    - Provide adequate hardware/equipment for me to learn (*n* = 38, 77.6%; *M* = 4.5)
    - Provide adequate software for me to learn (*n* = 40, 81.6%; *M* = 4.4)
    - Provide adequate space for me to learn (*n* = 38, 77.6%; *M* = 4.4)

Four data collections provided evidence related to how the project impacted the college.

The Year 3 team member interviews (*N* = 17) provided the following evidence:

- All team members (*N* = 17) described the most significant outcomes or greatest impacts of the project for the college:
    - Demonstrated the effectiveness of the career coach model (e.g., intrusive counseling, personal support, individualized plans) (*n* = 10)
    - Collaborated/built relationships across the college (*n* = 5)
    - Piloted the CBE model (was a learning experience for the college) (*n* = 4)
    - Grant informed the college-wide pathways initiative (*n* = 3)
    - Updated curriculum/programs (*n* = 3)
    - Increased awareness of CSIT efforts in the college (*n* = 2)
    - Collaborated/built relationships with external partners/industry (*n* = 1)
- Grant staff/administrators (*N* = 6) described unanticipated outcomes they experienced related to the project, both positive and negative.
    - Positive outcomes were: excitement/support/validation across campus (*n* = 2), development of CBE model for the college (*n* = 2), the career coach component became a model for success at the college (*n* = 1), the grant allowed purchase of equipment (e.g., NetLab, collaboration tables) (*n* = 1), personal pride in the grant's success (*n* = 1), and having a great project team (*n* = 1).
    - Negative outcomes were: students were not using some resources (*n* = 2) and challenges collecting student data (*n* = 1).
- Grant staff/administrators (*N* = 6) shared their perspectives on whether the grant improved the college's relationships with regional employers or enhanced its visibility in workforce development. They shared:
    - Enhanced relationship with workforce development (*n* = 5)
    - Enhanced existing advisory boards (*n* = 4)
    - Communicated to employers the purpose of the grant was serving needs of students and employers (*n* = 2)
    - Enhanced visibility/awareness of college's efforts (e.g., TAACCCT and more generally) (*n* = 2)

    - Employers provided internship opportunities for students (*n* = 2)
    - Employers provided assistance with curriculum development to better prepare students for workforce (*n* = 1)
    - Workforce referred students to the ACTTS program (*n* = 1)
    - Employers engaged/interacted with students (*n* = 1)
- Grant staff/administrators (*N* = 6) shared their perspectives on whether the grant influenced the college's institutional environment (i.e., changes in operations/structures within CSIT and more broadly for the college). They shared:
    - Increased collaboration across disciplines/departments/offices within the college (*n* = 5)
    - Established CBE (*n* = 2)
    - Changed approach related to student data collection/tracking (*n* = 1)
    - Incorporated classroom visits to connect with students (*n* = 1)
    - Received recognition of the grant from the college president (*n* = 1)

The Year 3 external partner survey (*N* = 15) provided the following evidence:

- Changes in partners' relationships with JCCC due to the ACTTS project included: more involvement with JCCC faculty/staff/students (*n* = 3) and a stronger partnership with JCCC (*n* = 3).
- These partners desired the following outcomes within the next year of the project: JCCC students have internships and other experiential learning opportunities (*n* = 5), JCCC curriculum is developed (education is improved) (*n* = 4), and JCCC gains input/feedback from industry (*n* = 4).

The Year 3 faculty survey (*N* = 11) provided the following evidence:

- Two respondents reported changes in interactions with employers or the local workforce. They cited a better awareness of industry needs and alignment of courses to those needs (*n* = 1) and increased interactions with employers and information about job opportunities (*n* = 1).
- Three faculty (*n* = 3) experienced more interdepartmental collaboration or cohesion at JCCC because of the grant. Another respondent had more connections on campus (*n* = 1).

Through the Year 4 JCCC staff focus groups (*N* = 17), JCCC staff discussed the project's impacts on the college. Impacts mentioned by all three groups included continuation of aspects established through the grant: the career coach model, collaborations established within JCCC, and connections developed with industry partners. Impacts mentioned by two groups included continuation of: curriculum modifications (CBE, Bridge model), the pathways initiative, faculty/ personnel supporting the grant, events (e.g., reverse career fair), and student tracking.

4. What factors affect and guide ongoing innovation and development?

Evidence in support of this evaluation question was collected through the Year 3 team member interviews and faculty survey as well as the Year 4 employer interviews and staff focus groups.

The Year 3 team member interviews (*N* = 17) provided the following evidence:

- Grant staff/administrators (*N* = 6) described things they would implement differently if they had the opportunity to start the project over, which included:
    - Have better/earlier communication/collaboration with external partners (*n* = 3)
    - Pursue more professional development about providing student services (*n* = 2)
    - Communicate/share information with other TAACCCT grant awardees to learn from experiences (*n* = 2)
    - Promote common understanding/investment during team's onboarding process (e.g., hire team in closer timeframe, share current college resources) (*n* = 2)
    - Promote better student understanding of the grant (e.g., benefits/resources available, communication/follow-up requirements) (*n* = 2)
    - Market better/increase visibility (*n* = 1)
    - Obtain wage/employment data when enrolling students (*n* = 1)
    - Create college-wide buy-in earlier in project (*n* = 1)
    - Require more accountability of whole team to help measure success (*n* = 1)
    - Align grant year with academic year (*n* = 1)
    - Provide grant to all CSIT students (not require students to sign up) (*n* = 1)
- Grant staff/administrators (*N* = 6) also described things they would keep the same if they had the opportunity to start over:
    - Grant personnel/team (are invested/productive/cohesive) (*n* = 4)
    - Processes with students (*n* = 4)
        - Process for student enrollment/intake (*n* = 2)
        - Intrusive advising (i.e., student focus) (*n* = 1)
        - Use of Access database for student tracking (*n* = 1)
    - Support/collaboration of others on campus (*n* = 3)
    - Purpose of grant (*n* = 1)
    - Collaboration with external entities about TAACCCT (*n* = 1)
    - Everything (*n* = 1)
- Grant staff/administrators and high-level college administrators (*N* = 17) shared grant components that would be sustained or embedded in the college in some way, which included: career coach model (*n* = 11), curriculum/CBE model (*n* = 6), any successful components (*n* = 5), equipment/technology (*n* = 5), guided pathways (*n* = 4), relationships with external partners (*n* = 4), collaborations across campus (*n* = 4), internships (*n* = 2), good project team/leadership (*n* = 2), new faculty teaching grant courses (*n* = 1), and student data collection components (*n* = 1).
- Grant staff/administrators and high-level administrators (*N* = 17) shared lessons learned related to project implementation and sustainability, including:
    - Keep momentum/move forward with successful components (e.g., career coach model, intrusive advising, tracking, communication, internships) (*n* = 8)

    - Keep in mind the importance of communication/collaboration (*n* = 8)
    - Get the right team/leadership in place like this grant has (*n* = 5)
    - Recognize the importance and difficulty of keeping in communication with students (*n* = 5)
    - Plan new grants strategically (e.g., earlier involvement of larger groups, use data to inform application, have data analyst on team) (*n* = 4)
    - Grants are good because they benefit students/the college and allow innovation (*n* = 3)
    - Remain flexible to change/modify plans if needed (i.e., be open-minded) (*n* = 3)
    - Get college-wide buy-in (*n* = 2)
    - Consider grant staff turnover (*n* = 2)
    - Learn college-wide effects of grant (*n* = 2)
    - Share student successes (i.e., gaining job) with other departments (*n* = 2)
    - Importance of mentors/relationships (*n* = 1)
    - Need to allocate more money for marketing (*n* = 1)
    - Need to decide earlier on a better student tracking process (*n* = 1)
    - The grant helped understand DOL grants, which can help the college (*n* = 1)
- Both grant staff/administrators and high-level college administrators (*N* = 17) remarked on the factors that will affect and guide ongoing innovations for the project (i.e., determine whether components will be continued/sustained). They shared components are more likely to be continued if:
    - There are people/staff to move it forward (*n* = 10)
        - Faculty decide to continue the curriculum (*n* = 3)
        - IS helps decide equipment/technology enhancements to keep (*n* = 2)
        - Counseling decides how to integrate the career coach model (*n* = 1)
    - There is budget/funding to support it (*n* = 8)
    - Value/outcomes have been demonstrated to JCCC (*n* = 7)
    - Industry trends dictate a need (i.e., adjust curriculum/approach based on trends) (*n* = 4)
    - External partners provide feedback that it works/is beneficial (*n* = 2)
    - Curriculum has been approved through committee (*n* = 1)

The Year 3 faculty survey (*N* = 11) provided the following evidence:

- If starting the project over, two components of the ACTTS grant that faculty would keep are: the ACTTS team's leadership (*n* = 2) and collaboration with external partners (*n* = 2).
- On the other hand, two faculty expressed an interest in taking a somewhat different approach with course design (*n* = 2), if the grant started over.

The Year 4 employer interviews (*N* = 5) provided the following evidence:

- Employers' advice for JCCC moving forward with IT program innovations after funding for the ACTTS grant ends included:
    - Maintain current components (internships, job fairs)
    - Maintain relationships, specifically community relationships
    - Build industry certificates into the curriculum (e.g., CompTIA, Microsoft)

    - Incorporate OutSystems into the curriculum
    - Expose students to both open source and native development
    - Increase student awareness of how entire development process comes together
    - Have internship projects tie back to classwork
    - Provide more faculty interaction during internships
    - Keep the goal of employing students/building the workforce
- All employers (*n* = 5, 100%) indicated they plan and want to continue their relationship with JCCC.

The Year 4 JCCC staff focus groups (*N* = 17) collected suggestions related to implementing projects. Suggestions mentioned by all three groups were: form earlier/stronger internal partnerships at JCCC (e.g., admissions, faculty, counselors) and improve communication between internal college partners. Suggestions mentioned by two groups were: develop grant activities/deliverables sooner, retain personnel for the life of the grant (career coaches, faculty), increase communication with employers, target potential student participants strategically, and align strategically with JCCC initiatives/offices.

Outcomes/Impacts Study Results

1. What is the difference in persistence, completion, and employment outcomes among students who utilize program services and those in a benchmarked program at JCCC?

JCCC's ACTTS team tracked data for the DOL metrics and demographics, for both the TAACCCT and control group students. JCCC provided these data files to OEIE in July (control group) and August (TAACCCT group) 2018 to allow inclusion of the analysis in this final evaluation report.

The TAACCCT data file contained all demographic variables and academic outcome variables as well as some employment outcome data. The file was missing employment data related to earning a wage increase; however, these data were provided in aggregate by email. The data file included students enrolled in ACTTS between September 30, 2015 and March 30, 2018.

The control group data file contained some demographic variables and some academic outcome variables. The file was missing demographic data related to incumbent status, veteran status, disability status, and TAA status, and the file was missing all employment variables (i.e., gaining employment, being retained in employment, and earning a wage increase). The data file included students who enrolled in the control group programs between August 2015 and January 2018.

OEIE analyzed each data file (TAACCCT and control) separately, and then conducted statistical comparisons between the groups using the DOL metrics. The results of these analyses appear below. It is important to note that JCCC's ACTTS staff continued collecting data for the DOL metrics after sharing the data files with OEIE. Therefore, the numbers presented in this final evaluation report may not represent JCCC's "final" data, so they may differ from numbers in JCCC's final performance report to DOL.

TAACCCT Group Student Profile

The TAACCCT group's participant outcomes (i.e., DOL metrics) and population characteristics are presented below. Appendix 6 contains an infographic presenting key data points.

- The ACTTS grant served 396 unique students. Participant enrollment by grant year was:
    - 37 students (9.3%) in Year 1
    - 132 students (33.3%) in Year 2
    - 143 students (36.1%) in Year 3
    - 84 students (21.2%) in Year 4
- Ninety-three students (23.5%) completed one or more of the ACTTS credentials (i.e., certificates or degrees), with over half (*n* = 53, 57.0%) of these students being incumbent workers (i.e., employed at enrollment).
- Three hundred thirty-seven students (85.1%) completed a total of 8,394 credit hours.
    - For all 396 ACTTS participants, the number of credit hours completed ranged between 0 and 183 credit hours, with an average of 21.2, a median of 13.5, and a mode of 0 credit hours completed.
    - Among the group of 337 students who completed credit hours, the number of credit hours completed ranged between 1 and 183 credit hours, with an average of 24.9, a median of 16, and a mode of 13 credit hours completed.
- Of the 396 students, 93 (23.5%) students earned a total of 120 credentials.
    - Students completed a total of 50 degrees and 70 certificates.
    - Students earned one (*n* = 75), two (*n* = 9), or three (*n* = 9) credentials.
    - Students either completed a certificate credential type only (*n* = 43), a degree credential type only (*n* = 39), or both credential types (*n* = 11).
    - Students completed one degree (*n* = 39), one certificate (*n* = 36), one degree and two certificates (*n* = 9), two certificates (*n* = 7), or one degree and one certificate (*n* = 2).
    - Students earned degrees (*n* = 50), certificates designed to take less than one year (*n* = 51), and/or certificates designed to take more than one year (*n* = 4). [Please note these frequencies do not sum to 93 (the total number of students completing a TAACCCT program) because some students completed multiple types of TAACCCT credentials (e.g., degree and certificate, two certificates).]
- Of 303 students who did not complete an ACTTS credential, 245 students (80.9%) were retained in a grant program.
- Following ACTTS program completion, 20 ACTTS completers pursued further education, including at JCCC (*n* = 13) or these other institutions (*n* = 7):
    - University of Kansas (3 completers)
    - University of Kansas - Medical (1 completer)
    - Emporia State University (1 completer)
    - Park University (1 completer)
    - University of Central Missouri (1 completer)
- Seventeen ACTTS completers obtained employment in the quarter following completion; 16 (94.1%) of these students were retained in employment in the next two quarters.

ACTTS Program's Targeted Outcome Measures		
Targeted Outcome Measures	**Goal**	**Count Obtained**
1 – Total Number of Unique Participants Served	480	396
2 – Total Number of Participants Who Have Completed a Grant Program of Study	122	93
3 – Total Number of Participants Still Retained in Grant Program of Study (non-completers)	340	245
4 – Total Number of Participants Completing Credit Hours	293	337
5 – Total Number of Participants Earning Credentials	100	93
6 – Total Number of Participants Pursuing Further Education After Program of Study Completion	32	20
7 – Total Number of Participants Employed After Program of Study Completion (non-incumbent)	50	17
8 – Total Number of Participants Retained in Employment After Program of Study Completion (non-incumbent)	47	16
9 – Total Number of Those Participants Employed at Enrollment Who Receive a Wage Increase Post-Enrollment (incumbent)	32	159

Students most frequently completed the Information Technology-Network AAS (*n* = 30) and Web Technologies Certificate (*n* = 25).

ACTTS Credential Completion Summary	
Credential	**Count**
Degrees	*50*
Information Technology-Network AAS	30
Web Development & Digital Media AAS	11
Computer Information Systems AAS	4
Emphasis in Health Information Systems AS	3
Emphasis in Information Systems Technology AS	2
Certificates	*70*
Web Technologies Certificate	25
Health Information Systems Implementation & Support Specialist Certificate	19
Health Information Systems Workflow Management & Training Specialist Certificate	10
Web Development Certificate	8
Digital Media Certificate	3
Computer Information Systems-Software Developer Certificate	3
Computer Support Specialist A+ Certificate	1
Computer Support Specialist Networking+/Security+ Certificate	1
Total Credentials Completed	***120***
Note. The 120 credentials were completed by 93 students. Students completed one degree (*n* = 39), one certificate (*n* = 36), one degree and two certificates (*n* = 9), two certificates (*n* = 7), or one degree and one certificate (*n* = 2).	

The majority of ACTTS students were: Male (66.9%), White (67.4%), Not Hispanic/Latino (85.1%), and/or part-time school status (61.6%). Over half of students were employed at enrollment (i.e., incumbent workers) (58.1%). Very few were TAA Eligible (2.8%) and/or Eligible Veterans (4.8%).

ACTTS Student Demographics (*N* = 396)			
Demographic Variable	**Options**	**Frequency**	**Percent**
Gender	Male	265	66.9%
	Female	131	33.1%
Race	American Indian or Alaskan Native	4	1.0%
	Asian	24	6.1%
	Black or African American	54	13.6%
	Hawaiian Native or Pacific Islander	-	-
	White	267	67.4%
	More Than One Race	13	3.3%
	No self-disclosure	34	8.6%
Hispanic/Latino Ethnicity	Yes	29	7.3%
	No	337	85.1%
	No self-disclosure	30	7.6%
School Status	Full-time	152	38.4%
	Part-time	244	61.6%
Incumbent Worker Status	Yes	230	58.1%
	No	166	41.9%
	No self-disclosure	-	-
Eligible Veteran Status	Yes, Eligible Veteran	19	4.8%
	No	377	95.2%
Individual with a Disability	Yes	29	7.3%
	No	356	89.9%
	No self-disclosure	11	2.8%
Pell-grant Eligible	Yes	160	40.4%
	No	227	57.3%
	No self-disclosure	9	2.3%
TAA Eligible	Yes	11	2.8%
	No	385	97.2%

Age at enrollment ranged from 17 to 63, spanning 47 years. The average age was 31.8 years.

ACTTS Student Age at Enrollment	
Statistic	**Value**
Minimum	17
Maximum	63
Average	31.8
Median	30
Mode	28

Control Group Student Profile

The control group's participant outcomes (i.e., DOL metrics) and population characteristics are presented below.

- The control group included 685 unique students. Student enrollment by grant year was:
  - 291 students (42.5%) in Year 1
  - 198 students (28.9%) in Year 2
  - 179 students (26.1%) in Year 3
  - 17 students (2.5%) in Year 4
- Seventy-six control group students (11.1%) completed an AAS control degree program.
- Five hundred twenty-six control group students (67.8%) completed a total of 7,013 credit hours.
  - For all 685 control group students, the number of credit hours completed ranged between 0 and 52 credit hours, with an average of 10.2, a median of 7, and a mode of 0 credit hours completed.
  - Among the group of 526 students who completed credit hours, the number of credit hours completed ranged between 1 and 52 credit hours, with an average of 13.3, a median of 10, and a mode of 3 credit hours completed.
- Of the 609 control group students who did not complete a degree, 270 students (44.3%) were retained in a control program (based on their enrollment in the spring 2018 semester or later).
- Of the 76 program completers, 27 (35.5%) students went on to pursue further education. Fifteen completers (8 from Animation Entertainment & Game Art Design and 7 from Game Development) pursued further education at JCCC, and 12 completers enrolled at these other institutions:
  - University of Kansas (2 Game Development graduates; 2 Animation Entertainment & Game Art Design graduates)
  - University of Missouri – Kansas City (3 Game Development graduates)
  - Missouri Western State University (2 Animation Entertainment & Game Art Design graduates)
  - Brightwood College – Riverside (1 Game Development graduate)
  - University of Central Missouri (1 Game Development graduate)
  - Savannah College of Art and Design (1 Animation Entertainment & Game Art Design graduate)

Control Group Targeted Outcome Measures	
Targeted Outcome Measures	**Count**
1 – Total Number of Unique Participants Served	685
2 – Total Number of Participants Who Have Completed a Control Program of Study	76
3 – Total Number of Participants Still Retained in Control Program of Study (non-completers)	270
4 – Total Number of Participants Completing Credit Hours	526
5 – Total Number of Participants Earning Credentials	76
6 – Total Number of Participants Pursuing Further Education After Program of Study Completion	27
7 – Total Number of Participants Employed After Program of Study Completion (non-incumbent)	-
8 – Total Number of Participants Retained in Employment After Program of Study Completion (non-incumbent)	-
9 – Total Number of Those Participants Employed at Enrollment Who Receive a Wage Increase Post-Enrollment (incumbent)	-
Note. Students were retained if their last term was the spring 2018 semester or later. Control group students' incumbent status and employment data were unavailable, so the final three metrics could not be determined.	

Seventy-six control group students completed 76 AAS degrees: Animation Entertainment and Game Art Design AAS (*n* = 39) and Game Development AAS (*n* = 37).

Control Group Credential Completion Summary	
Credential	**Count**
Degrees	*76*
Animation Entertainment and Game Art Design AAS	39
Game Development AAS	37
Certificates	-
Total Credentials Completed	***76***
Note. The 76 credentials were completed by 76 students; all students completed one degree.	

The majority of control group students were: Male (73.6%), White (75.8%), Not Hispanic/Latino (83.1%), and/or full-time school status (75.9%). None were Pell grant eligible.

Control Group Student Demographics (*N* = 685)			
Demographic Variable	**Options**	**Frequency**	**Percent**
Gender	Male	504	73.6%
	Female	180	26.3%
	No self-disclosure	1	0.1%
Race	American Indian or Alaskan Native	7	1.0%
	Asian	23	3.4%
	Black or African American	49	7.2%
	Hawaiian Native or Pacific Islander	1	0.1%
	White	519	75.8%
	More Than One Race	34	5.0%
	No self-disclosure	52	7.6%
Hispanic/Latino Ethnicity	Yes	68	9.9%
	No	569	83.1%
	No self-disclosure	48	7.0%
School Status	Full-time	520	75.9%
	Part-time	165	24.1%
Incumbent Worker Status	Yes	-	-
	No	-	-
	No self-disclosure	685	100%
Eligible Veteran Status	Yes, Eligible Veteran	-	-
	No	-	-
	No self-disclosure	685	100%
Individual with a Disability	Yes	-	-
	No	-	-
	No self-disclosure	685	100%
Pell-grant Eligible	Yes	-	-
	No	685	100%
	No self-disclosure	-	-
TAA Eligible	Yes	-	-
	No	-	-
	No self-disclosure	685	100%

Age at enrollment ranged from 17 to 64, spanning 48 years. The average age was 22.5 years.

Control Group Student Age at Enrollment	
Statistic	**Value**
Minimum	17
Maximum	64
Average	22.5
Median	21
Mode	19

TAACCCT and Control Group Comparison

DOL Metrics

The evaluation team completed five Pearson chi-square analyses to statistically compare the DOL metrics for the TAACCCT and control groups. Results are presented in the table below. All five comparisons revealed statistically significant differences. Higher proportions of TAACCCT students completed a program of study, were retained in a program of study, completed credit hours, and earned credentials (all *p*s < .05). However, a higher proportion of control group students pursued further education after program completion ($p < .05$).

JCCC TAACCCT vs Control Group Targeted Outcome Measures			
Targeted Outcome Measures	**TAACCCT**	**Control**	**Statistic**
1 – Total Number of Unique Participants Served	396	685	[no comparison possible]
2 – Total Number of Participants Who Have Completed a Grant Program of Study	93 (of 396) (23.5%)	76 (of 685) (11.1%)	χ^2 (1, *N* = 1081) = 29.21 *p* < .001 Cramer's *V* = .16
3 – Total Number of Participants Still Retained in Grant Program of Study (non-completers only)	245 (of 303) (80.9%)	270 (of 609) (44.3%)	χ^2 (1, *N* = 912) = 109.80 *p* < .001 Cramer's *V* = .35
4 – Total Number of Participants Completing Credit Hours	337 (of 396) (85.1%)	526 (of 685) (76.8%)	χ^2 (1, *N* = 1081) = 10.77 *p* = .001 Cramer's *V* = .10
5 – Total Number of Participants Earning Credentials	93 (of 396) (23.5%)	76 (of 685) (11.1%)	χ^2 (1, *N* = 1081) = 29.21 *p* < .001 Cramer's *V* = .16
6 – Total Number of Participants Pursuing Further Education After Program of Study Completion	20 (of 93) (21.5%)	27 (of 76) (35.5%)	χ^2 (1, *N* = 169) = 4.10 *p* = .043 Cramer's *V* = .16
7 – Total Number of Participants Employed After Program of Study Completion (non-incumbent only)	17 (of 40) (42.5%)	-	Data unavailable for comparison
8 – Total Number of Participants Retained in Employment After Program of Study Completion (non-incumbent only)	16 (of 17) (94.1%)	-	Data unavailable for comparison
9 – Total Number of Those Participants Employed at Enrollment Who Receive a Wage Increase Post-Enrollment (incumbent only)	159 (of 230) (69.1%)	-	Data unavailable for comparison
Note. The percentages for each metric are based on different total values, with each representing the total possible number for each metric (e.g., whether based on incumbent only, completers only, etc.).			

Year 4 Student Feedback

Additional evidence in support of this evaluation question was collected through the Year 4 student data collections.

During spring 2018, the evaluation team collected qualitative data from TAACCCT students (*N* = 40) as well as students in the control group (*N* = 19), including current and exited students in each group. The data collections allowed a comparison between the TAACCCT and control students' feedback on their experiences in the programs. Differences in the wording of questions between the TAACCCT and control group questions typically related to the use of "ACTTS" vs "JCCC" when referring to the programs. The evaluation team analyzed the groups' responses to each question for key concepts/themes and compared the groups' responses, noting similarities as well as differences, which are presented below.

- The evaluation team observed some similarities in experiences and impacts reported by ACTTS and control group students, including:
    - Among the most interesting things that ACTTS and control group students learned or experienced during the program were technology/tools/software, industry information, and class/course material.
    - ACTTS and control group students were achieving goals due to the quality of class content and faculty.
    - ACTTS and control group students gained knowledge and skills related to technology, software, and employer/career expectations.
    - Both groups cited course content, faculty, and exposure to technology as contributing to these gains.
    - ACTTS and control group students suggested additional content to include within the programs and increasing exposure to industry connections/opportunities.
    - ACTTS and control group students reported their programs helped them identify pursuits of interest and provided a guide to a career path as well as plans to pursue employment in their fields.
- Differences observed in ACTTS and control group students' experiences aligned with some specific ACTTS program intervention components (i.e., career coaches, career pathways, flexible course offerings, professional development opportunities). These differences included:
    - Only ACTTS students mentioned career coach assistance and program design contributed to meeting goals.
    - Only ACTTS students shared that course format (i.e., online, hybrid) and availability/flexibility of classes contributed to meeting goals.
    - Only ACTTS students reported that career pathways provided a clear route to obtain a job.
    - Only ACTTS students reported that career coaches and professional development opportunities (employer presenters and reverse career fairs) contributed to gains.
    - Only comparison students suggested hiring more faculty, restructuring programs, and educating career services staff on their programs and fields.

2. How have career pathways, academic instruction, and student support services improved student outcomes?

Evidence in support of this evaluation question was collected through the Year 3 team member interviews as well as the faculty and student surveys, and the Year 4 ACTTS student data collections.

The Year 3 team member interviews (*N* = 17) provided evidence of what grant staff/ administrators and high-level administrators considered the most significant outcomes or greatest impacts of the project for students. They mentioned:

- Students gained jobs/internships (*n* = 6)
- Students were better prepared/skilled/marketable (*n* = 5)
- Students completed programs/graduated (*n* = 4)
- Students experienced an accelerated learning process (*n* = 3)
- Students were more engaged in the college (*n* = 3)

The Year 3 faculty survey (*N* = 11) provided the following evidence:

- Two respondents reported their interactions with students changed in that students came to class more prepared (*n* = 2). By reading material before class, students could focus on labs and ask better questions in class.
- Additionally, faculty were more engaged with industry representatives (*n* = 1) and had greater awareness of students' struggles (*n* = 1).

The Year 3 student survey (*N* = 50) provided the following evidence:

- Respondents reported completing 2 degrees and 16 certificates.
- Over one-quarter of respondents (*n* = 14, 28.0%) indicated that their educational and/or career goals had changed since starting the training, in the following ways: they developed more specific goals (*n* = 4), changed career paths (*n* = 4), improved attitude/ excitement for field (*n* = 3), and decided to pursue additional education (*n* = 1).
- When rating agreement that six student services would be helpful for <u>completing</u> the program, all but one mean rating exceeded the Agree level (a 4 on the 5-point scale).
    - The highest agreement was received for these student services: ACTTS information session with the career coach (*n* = 39, 79.6%; *M* = 4.3), one-on-one work with the career coach (*n* = 37, 75.5%; *M* = 4.3), accelerated learning programs (*n* = 30, 61.2%; *M* = 4.2), and individual educational planning with the career coach (*n* = 32, 66.7%; *M* = 4.2).
    - The lowest mean rating, which did not reach the Agree level, was for tutoring assistance (*n* = 17, 34.7%; *M* = 3.8), which only one-third of respondents perceived would be helpful for completing the program.

- When rating agreement that five student services would be helpful for gaining employment after finishing the program, three mean ratings exceeded the Agree level and two did not.
    - The highest agreement ratings were for these student services: resume/interview preparation (*n* = 29, 59.2%; *M* = 4.2) and one-on-one work with the career coach (*n* = 33, 67.3%; *M* = 4.1).
    - The lowest mean agreement rating, which did not reach the Agree level, was for: group/team project work using the collaborative tables in RC335 (*n* = 21, 42.9%; *M* = 3.9).
- Those using the ACTTS career coach academic services most frequently reported the services helped or impacted them by: gaining information about programs/paths/ resources (*n* = 8). Seven respondents shared the career coaches had been generally helpful/supportive (*n* = 7). Two respondents each (all *n*s = 2) reported impacts of gaining: information about employment opportunities, guidance on scheduling courses, knowledge/skills, and encouragement.
- Those using the ACTTS career coach employment services most frequently reported the services helped or impacted them by: gaining employment (*n* = 6), preparing for job searches (e.g., resume/interview preparation) (*n* = 4), and increasing awareness of job opportunities (*n* = 3). Three respondents shared the career coaches were helpful in general (*n* = 3).
- Exited and currently enrolled students were asked separately about their interactions with industry employers while in JCCC's ACTTS program. Three-quarters of exited student respondents (*n* = 3, 75.0%) and one-quarter of current student respondents (*n* = 12, 27.3%) reported interacting with employers who were not their own employer during the program.
    - For exited students, the types of employer interactions most frequently included students visiting employer organizations by themselves (*n* = 2), employers visiting the college (*n* = 2), and students interfacing with employers online (*n* = 2). For current students, the employer interactions most frequently included employers visiting the college (*n* = 12), employers visiting class (*n* = 8), students interviewing with employers for internship or regular job positions (*n* = 6), and students visiting employer organizations by themselves (*n* = 3).
    - All exited (*n* = 3, 100.0%) and two-thirds of current (*n* = 8, 66.7%) students who had employer interactions during the program reported these interactions were "very" or "extremely" helpful.
    - The employer interactions helped or impacted the exited students by: changing jobs (*n* = 1) and learning about different career opportunities (*n* = 1). The interactions helped current students by increasing understanding of job requirements and employer expectations (*n* = 3), learning more about the industry (*n* = 3), gaining first-hand experience interacting with employers (*n* = 2), and narrowing their industry focus (*n* = 1). Another impact on a current student was becoming concerned with how employers treated male classmates more seriously than female classmates (*n* = 1).

Through the Year 4 data collections, current ACTTS students (*N* = 38) shared the following evidence:

- The program met many students' educational and/or employment goals. However, several students were unsure how their program had assisted them, and others indicated that their program had not assisted them in achieving their goals.
    - Career pathways helped students achieve educational and/or employment goals through: courses aligned with industry/employer needs as well as pathways that prepared students for designated job fields and provided a clear route to obtain a job. Students also shared that career coaches or faculty provided assistance by guiding students through the program and into careers. However, some students were unaware of the availability of career pathways.
    - Ways ACTTS classes are taught that contributed to students achieving educational and/or employment goals were: course format (e.g., online, hybrid, in class), class availability/flexibility, and quality of content and faculty. Some students had challenges with the ways classes were taught, such as the use of outdated technology or non-working programming code, the minimal face-to-face interaction in the hybrid model, a lack of additional/in-depth content, or lack of course availability.
    - Some students found JCCC's resource centers (e.g., writing, math, career services) a support in achieving their educational and employment goals, through access to the quiet environments and helpful staff. Students found the writing center helpful with correcting grammar, organizing writing content, and writing research papers. Students also indicated appreciation of services from the career center such as resume reviews. Nearly one-third of students did not use JCCC's resource centers.
- ACTTS students indicated gains in knowledge and skills with technology, software, networking, and programming languages, including: HTML, CSS, SEO, JavaScript, Adobe Creative Suite, Cisco, C++, and Windows. Gains also encompassed increased knowledge about IT job/career/field opportunities and the skills employers expect, as well as the completion of degrees (for some leading to the pursuit of higher degrees). Additional gains included gaining confidence, new understanding of career preferences, networking opportunities, and support from peers.
    - Contributing to students' gains were courses/curriculum, faculty, career coaches, advisors, hands-on exposure to technology/software/programming, and professional development opportunities (e.g., presenters, resources, reverse career fair).
- Participation in the ACTTS grant influenced some students' plans following completion of the program, including helping them identify pursuits of interest, providing a guide to a career path, or affecting the decision to continue their education. The majority of ACTTS students planned to either obtain employment or continue their education through certificates or advanced degrees.

In Year 4, exited ACTTS students (*N* = 2) shared:

- Career pathways helped them achieve their educational and/or employment goals through preparing them for designated job fields, building an online presence, and providing them with experience.
- Ways classes were taught, such as the breadth of content, was somewhat helpful to students in achieving their educational and/or employment goals.
- The exited ACTTS students did not find JCCC's resource centers particularly helpful in achieving educational and/or employment goals.
- Exited students indicated gains in knowledge and skills with technology, software, and networking. Gains also included increased skills such as how to type, learn, and focus.
    - Contributing to gains were lab work (physical and virtual), peers, and faculty.
- Participation in the ACTTS grant influenced the exited students' plans following completion of their programs. Neither student was able to obtain employment in their field. However, one started a company.

3. How has the program leveraged resources to improve student outcomes?

The Year 3 team member interviews (*N* = 17) provided evidence for this question. Grant staff/administrators and high-level college administrators shared ways the ACTTS program leveraged resources, internally and externally, to improve student outcomes. They shared:

- Internally
    - Relationships/collaborations with other departments/resources on campus (*n* = 12)
        - Advising/counseling/student success (*n* = 7)
        - Academic/faculty (*n* = 5)
        - Information Services (IS)/Information Technology (IT) (*n* = 4)
        - Financial aid (*n* = 4)
        - Career development center (*n* = 4)
        - IR (*n* = 3)
        - Registration/registrar (*n* = 3)
        - Admissions (*n* = 2)
        - Legal (*n* = 2)
        - Grants office (*n* = 2)
        - Marketing (*n* = 1)
        - Resource centers (*n* = 1)
    - Collaboration on topics of:
        - Student referrals (*n* = 4)
        - Data collection (*n* = 3)
        - CBE (*n* = 2)
        - Student events (*n* = 2)
        - Support for equipment (*n* = 2)
        - Student reporting needs (*n* = 2)
        - Increase awareness of grant opportunities (*n* = 1)

    - Leveraged knowledge gained through the grant about career coach model to benefit JCCC (*n* = 4)
    - Grant gave students flexibility to choose how they learn (e.g., on campus vs. distance) (*n* = 2)
    - Leveraged knowledge gained through grant about the NetLab to benefit the community (*n* = 1)
    - Grant funds allowed purchases (e.g., software, hardware, furniture) (*n* = 1)
    - Students could skip levels, which opened up faculty time for other students (*n* = 1)
- Externally
    - Relationships/collaborations with external partners/employers (*n* = 8)
        - Provided employment opportunities for students (*n* = 4)
        - Provided internship opportunities for students (*n* = 3)
        - Gave presentations (*n* = 2)
        - Provided input on curriculum (*n* = 2)
        - Visited classrooms (*n* = 1)
        - Participated in career events (*n* = 1)
        - Shared resume resources (*n* = 1)
        - Conducted mock interviews (*n* = 1)
        - Conducted hiring interviews (*n* = 1)
    - Increased external partnerships in general (*n* = 2)

Evaluation Observations

The evaluation team offers the following observations for JCCC's consideration in wrapping up the TAACCCT grant and moving forward with future projects. JCCC's project demonstrated many successes and best practices, while experiencing some challenges as well. Similarly, there were strengths and limitations with the project's evaluation. These areas of strength and weakness are described below, followed by JCCC's lessons learned, plans for sustaining grant initiatives, and finally some potential implications for JCCC's future endeavors.

Project Successes/Best Practices

- Team members shared the following successes and strengths of the grant:
    - Career coach model, with one-on-one intrusive advising
    - Academic/educational coaching or guidance
    - Career coaching/preparation
    - Connections to student services/resources
    - Accelerated training options
    - Blended/hybrid class format
    - Establishment of cohorts to provide peer support
    - Employers providing input on curriculum
    - Programs focused on employers' needs

    - Employers and partners connecting with faculty and students
    - Workshops/events
    - Physical spaces, technology, and equipment
    - Dedicated, high-quality grant personnel and leadership
    - Intentional/focused process planning
    - Faculty support of the grant
    - Interdepartmental collaboration/support
- TAACCCT students shared that:
    - The ACTTS program was interesting, provided both content and experiences that were relevant to the current industry, and was well worth the time required.
    - Most frequently, students indicated the best components of the program were: career coach support, resources (equipment, classrooms), employment support/ preparation, class availability, and academic programs/paths.
- The grant demonstrated outcomes and impacts that benefitted students, external partners, and the college.
    - The most noteworthy outcome for students was gaining employment. Through the grant, students enhanced knowledge, skills, and experience through curriculum and equipment relevant to industry needs. They also gained access to information about career fields and available job opportunities as well as interactions with employers.
    - Employers gained access to a broader pool for recruiting as well as training or upgrading skills for current employees, plus decreased on-the-job training time/cost. ACTTS hires provided value to businesses by being job ready, possessing new knowledge in the field, providing new ideas, understanding business needs, and being equipped with necessary skills (critical thinking, collaboration) and experience (hands-on, real-world).
    - The college demonstrated the effectiveness of the career coach model, built collaborations within and outside of the college, became better informed of industry needs, updated curriculum/programs, enhanced equipment, and established a CBE model.

Project Challenges

- Team members reported the following challenges related to the grant:
    - Promoting and increasing awareness of the new program
    - Gaining student participation in program activities
    - Gaining faculty support of the grant initially
    - Gaining access to student data/information (for DOL-required variables)
    - Meeting the industry's changing needs
- Students shared that JCCC needed to do the following things to make the program more successful: improve the quality of faculty/staff, increase course availability, offer more employment supports, and enhance the curriculum.

- Students also mentioned additional supports or services that would better help students achieve their goals: more tutors in the co-lab, mock technical interviews, internship opportunities, and one-on-one interactions with faculty. Additional ideas included: teach theories in addition to technology, apply what students are learning to gain experience, build and modify sites throughout the program, set up hack-a-thons, provide students with more exposure to industry opportunities, and offer more video-based classes.
- Employers shared that ACTTS students lacked some desired qualities or skills (i.e., lack of experience or communication skills) but clarified these qualities are frequently lacking in new hires. Some employers noted other challenges related to ACTTS students, including a lack of in-depth analysis or problem-solving skills and a lack of students available to fill open positions.

Strengths of the Evaluation Methods and Data

- The evaluation team collected stakeholder feedback throughout the implementation of the grant intervention (in Years 2 through 4), gaining formative feedback that JCCC's TAACCCT team could use for project planning and improvement as well as evidence of outcomes and impacts.
- Many stakeholder voices were represented among the data collections, including JCCC's TAACCCT staff and administrators; JCCC high-level college administrators; CSIT faculty; external partners (BILT members, employers); and students.
- Each year, the evaluation collected feedback from JCCC's internal grant team members who played key roles in grant implementation in that project year, through face-to-face interviews or focus groups. These annual data collections gained formative feedback on the grant approach and evidence of impacts for the college and other stakeholders.
- Participation in evaluation activities by JCCC's internal grant team members (TAACCCT grant staff and administrators, high-level administrators, CSIT faculty) was consistently high, among individuals who were invited to participate.
- The evaluation also collected feedback from current and former TAACCCT students each year, which provided an opportunity to hear directly from the students about their experiences with and impacts of the grant.
- Collecting feedback from external stakeholders, including BILT members and TAACCCT students' employers, provided important suggestions for program improvement and evidence of impacts.
- The comparison study for the evaluation involved statistical testing to compare TAACCCT and control students on key DOL academic metrics.
- During Year 4, the evaluation team collected feedback from control group students through focus groups, which allowed for a comparison of the TAACCCT and control students beyond just the DOL metrics collected by JCCC's TAACCCT staff.

Limitations of the Evaluation Methods and Data

- Although strong participation was gained from JCCC's grant staff and administrators, lower levels of participation was achieved with other stakeholder groups. Gaining more feedback from these stakeholders may have strengthened the evaluation.
    - Response rates of external partners were low: 40.0% (Year 2 BILT survey), 51.7% (Year 3 external partner survey), and 62.5% (Year 4 employer interviews). Gaining more feedback from external partners throughout the grant could have provided more ideas for and strengthened project implementation as well as evidence of impact.
    - TAACCCT student survey response rates also were low: 36.8% (Year 2 survey), 24.6% (Year 3 survey), and 22.4% (Year 4 survey). Further, in Year 4, only two current TAACCCT students participated in a focus group, and two exited TAACCCT students (2.7%) participated in telephone interviews. Gaining feedback from additional TAACCCT students, both current and exited, would have provided a more complete picture of TAACCCT students' experiences with the grant, including grant impacts.
- Student data profiles for the TAACCCT and control group students are based on data collected and provided by JCCC's ACTTS grant staff. It should be noted that demographic and academic data points were more easily obtained by JCCC. On the other hand, employment data were more difficult to obtain and were missing in some cases (i.e., retained in employment, increased wages). It should be noted that numbers available to support the metrics do not necessarily mean that only those numbers of students achieved those metrics (e.g., obtained employment); it reflects only the evidence JCCC was able to obtain through their student tracking efforts.
- Due to missing metric data, OEIE was able to conduct quantitative analyses to statistically compare the TAACCCT and control groups on only five of the eight DOL metrics. OEIE could not complete comparisons on the three employment metrics. Gains in employment and retention in employment were available for some TAACCCT students, and receipt of wage increases was available in aggregate for the TAACCCT students. No employment data were available for control group students. Having additional metric data to allow making comparisons on the employment metrics would have strengthened the comparison study.
- Due to low response rates on the Year 2 and Year 3 TAACCCT student surveys, the evaluation team worked with JCCC's TAACCCT staff to identify alternate methods for collecting student feedback in Year 4 (i.e., focus groups). When the focus group approach also did not achieve good response rates from current TAACCCT students, OEIE reverted to a survey methodology to supplement current TAACCCT student responses. Use of different methods with the TAACCCT (focus group and survey) and control group (focus groups) students reduced the evaluation team's ability to make quantitative comparisons between the groups for the comparison study. Thus, comparisons were limited identification of qualitative concepts that were similar or different between the groups. The ability to include additional quantitative comparisons to supplement the DOL metric comparisons would have strengthened the comparison study.

Lessons Learned

Team members shared the following lessons that can be applied to strengthen future projects at JCCC or other institutions, based on their experiences working on the TAACCCT grant, including aspects of the project that worked well for JCCC:

- Plan grants strategically to align with the college's initiatives and increase collaboration across campus offices during the proposal development phase.
- Build a strong grant team (productive, cohesive, collaborative) and maintain it throughout the life of the grant; have a plan for turnover.
- Pursue professional development opportunities; learn from others to strengthen grant implementation.
- Initiate earlier communication and collaboration with both internal and external partners.
- Focus on increasing stakeholders' awareness and understanding of the grant (i.e., promote the program more effectively to internal and external partners and students to gain buy-in and participation).
- Maintain ongoing communication throughout the life of the grant, including sharing grant successes and learning about grant impacts.
- Be flexible and willing to adapt to the needs of the project.
- Keep the momentum moving forward with successful components.
- Be proactive and organized with a process for tracking key student data (i.e., students are difficult to connect with once they leave the college).

Sustainability

- JCCC will sustain components that have demonstrated successful outcomes, for which there are people/staff and budget to move them forward, and an industry need.
- JCCC staff reported plans for sustaining the following grant components in some fashion:
    - The career coach model
    - Curriculum/CBE model
    - Equipment/technology
    - Guided pathways
    - Relationships with external partners
    - Collaborations across campus
    - Internships
    - Some grant-related hires
    - Student data tracking
- Employers requested JCCC sustain current components such as internships, job fairs, and relationships with the community, as well as continue updating curriculum to meet their needs.

Implications for the Future

- Implementation of the grant influenced JCCC. The grant provided JCCC an opportunity to test new approaches and models (e.g., career coach, CBE, industry partnerships, student data tracking). Successes can be expanded and/or adapted for other academic departments.
- The grant resulted in increased collaborations among JCCC staff across the college. TAACCCT grant staff did a good job building relationships to leverage resources for the success of this grant. Moving forward, these newly established relationships will continue to be assets that may be leveraged for future projects, whether grant funded or initiated by the college.
- JCCC could be more proactive related to gaining student data on future grants. For example, JCCC could initiate conversations and develop relationships necessary for collecting data early in the process and consider ways that participation in data collection activities could be bolstered, such as through the use of signed participant agreements where students agree to report back on employment data and/or by offering incentives for participation.

References

Dillman, D.A., Smyth, J.D., & Christian, L.M. (2014). *Internet, Phone, Mail and Mixed-Mode Surveys: The Tailored Design Method, 4th edition*. Hoboken, NJ: John Wiley.

Krueger, R.A., & Casey, M.A. (2009). *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks, CA: Sage Publications.

Appendix 1

Original Summary Evaluation
Plan Submitted with Proposal

Summary Evaluation Plan – Johnson County Community College: Accelerated, Collaborative Technology Training Services (JCCC-ACTTS)

This project will implement a **comprehensive evaluation plan** informed by current research, integrated into all project components, and designed with the rigor and complexity needed for meaningful assessment of the JCCC ACTTS project. Components of the evaluation plan, described herein, are summarized in the following graphic.

Program Evaluation Plan Components
Outcomes Analysis of Participants: analysis of participant outcomes based on quantitative measures consistent with DOL metrics, including benchmark comparison to non-participants
Program Implementation Assessment: analysis of project implementation (process and progress), including fidelity of implementation methods

The evaluation plan aligns with JCCC-ACTTS project goals, as well as the TAACCCT national program priorities, and is intended to provide evidence regarding effective workforce education and training strategies that can be replicated broadly to serve TAA-eligible and other adult workers. Formative feedback is an overarching element of evaluation to provide project leadership with data for continuous improvement, monitor success, and enhance outcomes.

The Office of Educational Innovation and Evaluation (**OEIE**) will design and execute the evaluation as an independent, third-party evaluator, in collaboration with project leadership. As an experienced TAACCCT evaluator, OEIE is cognizant of DOL reporting needs and will align evaluation reports to the project reporting schedule; including annual and final evaluation reports that address required data analysis, as well as information to inform JCCC's quarterly performance reports to DOL. See Figure 1 for proposed evaluation timeline (page 5).

A first step in evaluation will be working with project leadership to create a logic model based on JCCC activities, objectives, and anticipated outcomes. OEIE employs the **logic model**

approach to program evaluation, which builds on the W.K. Kellogg Foundation framework (Kellogg 2004)[1]. The logic model provides a graphic representation of project activities, anticipated outputs, and short- and long-term outcomes of the program. Strategies for assessing program effectiveness will: 1) utilize multiple evaluation approaches, 2) draw on both qualitative and quantitative methodologies, 3) employ multiple evaluative research methods, and 4) triangulate data for more robust findings where possible.

Analysis of Participant Outcomes – DOL Metrics: A critical component of evaluation is assessing participant outcomes based on quantitative metrics consistent with specific DOL outcome measures, including comparison to non-participants. The project will collect and analyze DOL-defined metrics, support standardized methodology, and assure rigorous evaluation throughout the grant period. The goal for participant outcome evaluation design is to understand the JCCC program's influence on student participants in terms of education retention and completion, and job placement, retention and earnings, compared to students not in the JCCC grant-funded program.

A random selection, experimental design would not be appropriate for this setting. While a quasi-experimental design can be a rigorous alternative for comparative analyses, small sample size can impact these types of studies. As described in the technical proposal, the projected number of students served by JCCC ACTTS is relatively small, limiting sample sizes for cohort comparisons. Therefore, the evaluation proposes to conduct a descriptive outcomes analysis that can be benchmarked against other IT programs at the college to demonstrate the level of performance or success of the JCCC ACTTS students.

Through conversations with college staff, four existing IT programs at JCCC have been identified as a comparison cohort. These programs are: Interactive Media (technical certificate and AAS), Animation-Entertainment and Game Art Design (AAS), and Game Development

(AAS). These programs are similar in length and credentials earned to the JCCC ACTTS programs and target similar skill sets. As part of the descriptive analysis, a detailed demographic profile will be developed for each cohort, including the variables that are most likely to affect the outcomes such as age, education level, years of employment, socioeconomic factors, race/ethnicity, and gender.

Outcome indicators for the JCCC ACTTS program participant and comparison cohorts will be tracked for reporting purposes through the grant period's end. The project will collect and analyze data regarding number of participants: served by the program, completing program, retained in the program, completing credit hours, earning credentials, enrolled in further education, employed after program, retained in employment, and realizing wage increases. Workforce data will be obtained from multiple sources including the Kansas Department of Labor, Kansas Department of Commerce, and the Work Force Partnership of the Workforce Investment Board. Participant education and demographic data will be obtained from JCCC's Registrar's transcripts, Banner Software and a new Client Management System, as well as student tracking and surveys developed by OEIE. OEIE evaluators will work in collaboration with JCCC project leadership for a seamless approach to capturing and analyzing outcome metrics listed above for participant and comparison cohorts. Collection of institutional data, such as enrollments and completions, will be scheduled to align with the college's existing reporting deadlines for state and federal agencies (academic year, term, etc.).

Program Implementation Assessment: Evaluation of program implementation and formative feedback from OEIE is integrated into project management to strengthen program planning and management over the course of this project. This assessment is designed to evaluate project progress and processes, to understand successes and stumbling blocks, and to answer DOL questions about project progress noted in the SGA *(V.D.1.b*). Evaluation methods and data

sources to assess implementation include: review of project outputs and activities compared to the timeline/workplan; feedback from interviews of project leadership, college representatives, and stakeholders; document analysis of project records; and assessment of project implementation strategies (e.g. operational strengths/weaknesses and implementation related to curriculum, delivery methods, program design). The assessment will also include fidelity of implementation methods to compare actual program implementation with the project plan and further address DOL questions. OEIE will work with JCCC-ACTTS leadership to assess performance and to provide ongoing feedback for continuous project improvement. This assessment is also designed to provide information to funding agencies regarding outcomes and assessment of the program as a model for broader application.

The evaluation plan also includes a focus on qualitative aspects of the JCCC-ACTTS project related to: student experiences; faculty training; student satisfaction with training/services; industry/partnership experiences; and feedback from these stakeholders regarding key components of the program. Student surveys will assess student satisfaction with prior learning assessments and customized educational plans, curriculum, career pathways, and student support services, etc. Faculty surveys will provide feedback regarding curriculum, student support services, and program components. Interviews and/or surveys of industry representatives and stakeholders will also provide project feedback. Survey methodology will be based on the Dillman Method (2009)[2] and focus groups will incorporate the Krueger and Casey (2009)[3] approach to effective qualitative research. Results of the surveys/interviews will be available to the project after each assessment and summarized in the quarterly evaluation briefs and reports mentioned earlier.

Independent, Third-Party Evaluator: The evaluation will be designed and implemented by external evaluator, OEIE, in collaboration with project leadership. Established at Kansas State

University in 2000, OEIE has provided evaluation services for over 250 projects totaling over $250 million sponsored by a broad range of federal funding agencies. The office currently serves as external evaluator for two **TAACCCT** Round 2 and one Round 3 projects, and has specific expertise regarding DOL program goals and expectations. Evaluation design and implementation at OEIE adheres to the American Evaluation Associations Guiding Principles for Evaluators and the Program Evaluation Standards of the Joint Committee on Standards for Program Evaluation. OEIE is a full service evaluation center with sixteen full-time professional staff members including evaluators, coordinators, project development and technology specialists, as well as part-time graduate and undergraduate research assistants. For additional details regarding OEIE see the OEIE website www.oeie.ksu.edu.

Figure 1: Proposed Evaluation Timeline

	Year 1				Year 2				Year 5				Year 4			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalize Logic Model & Communication Network	■															
Final Evaluation Design to DOL	■															
Implementation Analysis	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Formative Feedback	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Quarterly Evaluation Briefs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Data Collection: DOL Metrics	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Data Collection: Student, Faculty/Administration, Industry/Stakeholder Surveys (semi-annual)		■	■		■		■		■		■		■		■	
Annual/Interim Report					■				■				■			■
Final Report (9/30/18)																■

[1] W.K. Kellogg Foundation, (2004). Using Logic Models to Bring Together Planning, Evaluation, and Action, Logic Model Development Guide
[2] Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). Internet, Mail and Mixed- Mode Surveys: The Tailored Design Method, 3rd edition. John Wiley: Hoboken, NJ.
[3] Krueger, R. A., & Casey, M. A. (2009). Focus Groups: A Practical Guide for Applied Research, Thousand Oaks, CA: Sage Publications.

Appendix 2

Detailed Evaluation Plan

Trade Adjustment Assistance Community College and Career Training Grant Program
Johnson County Community College
Accelerated Collaborative Technology Training Services
TAACCCT Round 4
Detailed Evaluation Plan

I. Table of Contents

Figures and Tables

II. Introduction

Johnson County Community College's (JCCC) Trade Adjustment Assistance Community College and Career Training (TAACCCT) project Accelerated, Collaborative Technology Training Services (ACTTS) will create innovative, information technology (IT) training that will serve TAA-eligible workers, eligible veterans and their spouses, and other adults in the Kansas City Metropolitan Area. ACTTS' goals are to: 1. create a more flexible IT curriculum, designed to meet students' scheduling and learning needs; 2. engage local employers in curriculum development, professional development, and job forecasting; and 3. provide enhanced student support services for ACTTS programs, including career coaches to create individually customized educational plans for student success. The TAACCCT project expands JCCC's institutional capacity to train workers to meet growing IT sector needs in the KC Metropolitan Area, provide support services that enhance student persistence, and keep faculty up-to-date in the latest IT industry advancements.

Evaluation Design and Overview: The JCCC TAACCCT project will implement a **comprehensive evaluation plan**, designed with the rigor and complexity needed for meaningful assessment, and aligned with Department of Labor (DOL) expectations. The evaluation design is informed by current research and integrated into all project components. Using a developmental evaluation approach (Patton, 2011), the ACTTS and evaluation teams will work together to interpret evaluation findings, analyze implications, and apply results to the next implementation stage. This approach will support the development of innovations and adaptations of interventions in the complex, dynamic environment by collecting/reporting data on the implementation, progress, and outcomes of the project to inform policy and program decision-making. The evaluation **goal** is to provide timely feedback about how the innovation unfolds at JCCC and identify effective principles to inform practice, at the college and for a broader audience. The ACTTS team will be engaged in ongoing evaluation capacity building.

Overarching **evaluation/research questions** to guide the implementation and outcomes analyses are:

1. What is the progress toward implementing a program that meets the needs of student participants and industry, and what are the operational strengths and weaknesses?

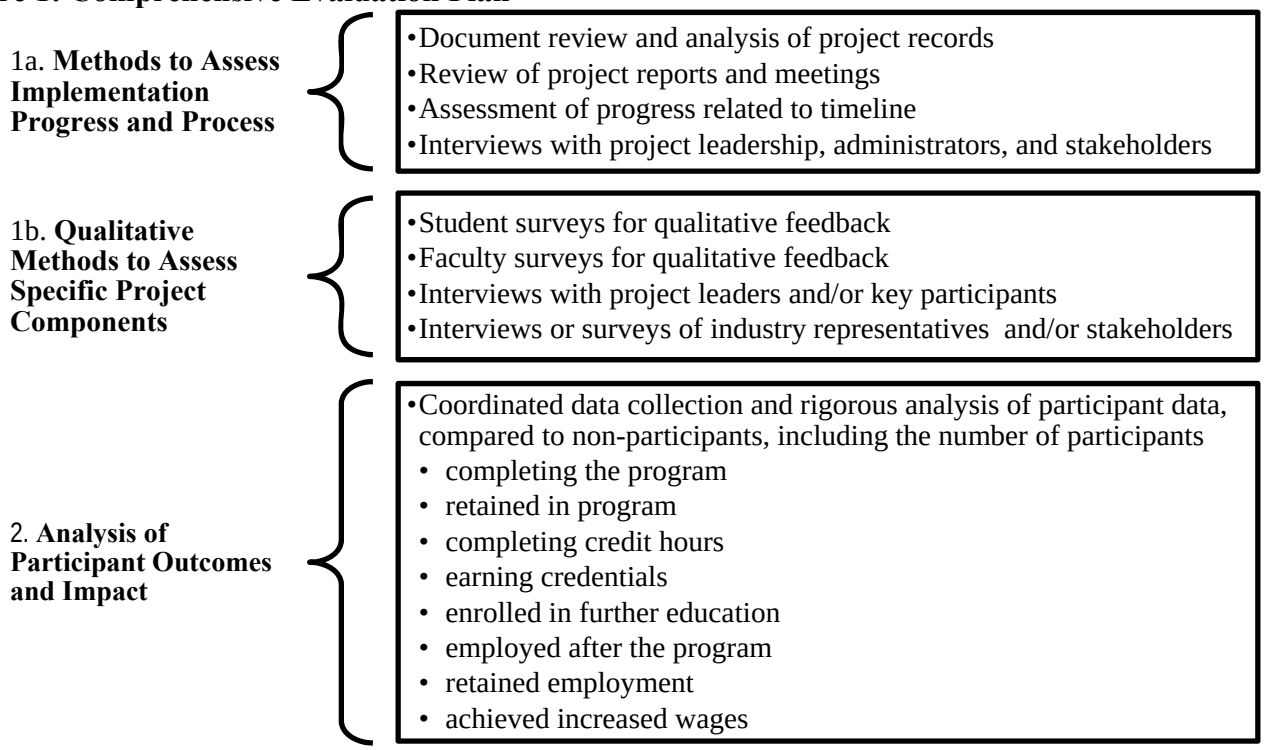
2. What are the vision and values that guide innovation?
3. What are the institutional conditions and environment within which activities occur?
4. What factors affect and guide ongoing innovation and development?

These questions will be supplemented with additional questions specific to the outcomes and implementation analyses. Questions will be refined as needed as implementation progresses.

Components of the evaluation plan, described herein include: 1.) **Implementation analysis** aligned with the DOL SGA questions, consisting of: a.) methods to assess the implementation progress and process, b.) qualitative methods to assess specific project components; and 2.) Detailed **analysis of participant outcomes** (consistent with DOL outcome measures), including comparison to non-participants.

Data to analyze participant outcomes will be collected through JCCC's Sunguard Banner System, ACTTS intake forms, the National Student Clearinghouse, and Kansas Department of Commerce's KANSASWorks data system. The evaluation plan delineates meaningful reporting of evaluation results and feedback throughout the project to improve project management. Components and data elements of the evaluation plan are summarized below (Figure 1) and discussed in more detail later in this document.

Figure 1: Comprehensive Evaluation Plan



Evaluation **strategies** for assessing program implementation and effectiveness include: 1. utilizing multiple evaluation approaches; 2. drawing on qualitative and quantitative methodologies; 3. employing multiple evaluative research methods; and 4. triangulating data for more robust findings, where possible. This mixed-methods evaluation plan aligns with JCCC project objectives and design elements, and TAACCCT program priorities. The third-party evaluator, the Office of Educational Innovation and Evaluation (OEIE), employs the **logic model** approach to program evaluation, building on the W.K. Kellogg Foundation framework (Kellogg 2004). OEIE will work with JCCC to finalize the logic model.

Reporting: OEIE is cognizant of DOL reporting needs and will align evaluation reports to JCCC's project reporting schedule, including Interim and Final Evaluation Reports that address required data analysis regarding program participants, and quarterly and annual briefs/reports on evaluation activities. Quarterly briefs of evaluation activities and implementation progress will be provided to project leadership to inform JCCC's Quarterly Narrative Progress Report to DOL. Annual Reports provided in Years 1 and 3 will contain descriptions and results of evaluation activities conducted in that year. The Interim Evaluation Report will contain preliminary analyses of participant outcomes, compared to non-participants, on the DOL metrics (in Figure 1); the Final Evaluation Report will contain full analyses. Evaluation briefs/reports will be delivered to JCCC 7 days after the end of each reporting quarter.

Institutional Review Board (IRB), data security/confidentiality: OEIE will submit an application to Kansas State University's (K-State) IRB prior to collecting student participant data or feedback from any stakeholder groups. The project will follow IRB requirements for data management and retention; all OEIE staff hold a training certificate. OEIE complies with K-State policies for: *Human Subjects Research IRB, Responsible Conduct of Research (RCR),* and *Confidential/Sensitive Research (C/SRC).*

OEIE surveys are administered via a secure on-line survey system (Qualtrics). Interviews and focus groups will be conducted by professional evaluators. Data related to evaluation will be collected and managed by OEIE and maintained on the secure K-State network in compliance with the K-State Office of Information Security and Compliance regulations. All information is password-protected, and backups are made daily according to university data retention policies. Any information regarding the

identity of participants obtained from interviews, focus groups, and/or survey contact information will be kept confidential. Aggregated data will be made available for reporting and/or publication purposes; the level of aggregated data or cell size will assure confidentiality. Dissemination of evaluation results will be coordinated with JCCC and will include ongoing information to JCCC to facilitate project planning and improve project management, with quarterly briefs and annual reports of evaluation findings and other dissemination methods recommended by JCCC and/or DOL.

Third-Party Evaluator - OEIE: The evaluation is designed and executed by OEIE, in collaboration with ACTTS leadership. Since 2000, OEIE has provided evaluation services for over 250 projects exceeding $250 million sponsored by a range of federal funding agencies. OEIE has a successful track-record of effective, meaningful program evaluations that provide sound evidence of program impact by understanding what works, under what circumstances, and why. OEIE evaluates four TAACCCT projects: a Round 2 consortium; and Round 2, Round 3, and JCCC's Round 4 single-institution projects. OEIE adheres to the American Evaluation Association's (AEA) Guiding Principles for Evaluators and the Program Evaluation Standards of the Joint Committee on Standards for Program Evaluation. OEIE's full service evaluation center has 14 full-time professional staff members including evaluators, evaluation projects coordinators, project development and computer specialists, and part-time graduate and undergraduate research assistants. OEIE has strong commitment to research-based decision-making and rigorous evaluation methods. The website has additional details regarding OEIE: www.oeie.ksu.edu.

III. Intervention

JCCC's intervention provides training in IT occupations to meet KC Metro Area needs by creating accelerated and enhanced programs in computer information systems/programming, IT networking, web technologies, and health IT that make the most of professional skills that TAA-eligible workers, veterans, and other adults possess (e.g., strong administrative and computer skills). ACTTS makes it easy for all students to get training needed to succeed in the current job market. ACTTS will: 1. create more flexible IT programs that use an online prior learning self-assessment, contextualized remedial education, and competency-based curricula to meet needs/goals of the individual student; 2. engage

major area employers to help shape the IT curriculum, provide faculty professional development, and create programming for a collaborative, technological learning lab where students can practice teamwork, problem-solving, and process-improvement skills; and 3. create enhanced student support services in the IT area with hiring two career coaches who lead IT orientation sessions, create customized educational plans, and collaborate with industry to support student employment. Achieving these goals will address skills deficits in the current IT workforce.

Use of Evidence in Program Design: ACTTS is a data-driven program, **based on strong, moderate, and promising evidence** of the beneficial impact on students' success made by components of the TAACCCT intervention. ACTTS will include multiple methods of prior learning assessment; customized learning plans that lead to clear career pathways that include contextualized remedial and competency-based curricula; and the incorporation of intrusive advising, experiential learning activities, and industry sector engagement strategies. JCCC currently offers all five methods of prior learning assessment proven by CAEL to improve student success and will, for ACTTS, create an online self-assessment to engage students in the prior learning and IT orientation process. ACTTS includes career coaches to create customized student learning plans that lead to clearly outlined career pathways, which include contextualized remedial and competency-based curricula based on the I-BEST model and CAEL best practices for competency-based program design. ACTTS also engages students through intrusive advising; provides collaborative, experiential learning activities in a real-world business setting; and uses labor market data and a Business and Industry Leadership Team to guide program design/ revision.

The ACTTS project builds JCCC's **institutional capacity** through updated equipment and curriculum to meet the needs of the regional IT industry and educational needs of students, while keeping faculty up-to-date in the latest IT industry trends. Student support services will improve student persistence through customized education plans while assisting students to find jobs in the IT sector.

The ACTTS **target population** is TAA-eligible workers, veterans, and other adults. The largest numbers of TAA participants in the service area are from Interstate Brands Corporation, which closed multiple facilities in 2012, and T-Mobile USA, which outsourced customer service positions overseas in

2011-2012. Participants are **recruited** through JCCC's marketing department efforts with outreach materials (e.g., brochures, social media) and employer mailing lists; the new online prior learning assessment; and JCCC's partnerships with the Mid-America Regional Council, Overland Park Chamber of Commerce, United Way Vet Alliance, and Kansas City Women in Technology.

In addition to outcomes analysis (see section V), the evaluation includes qualitative methods to describe experiences and effectiveness of industry collaborations, faculty professional development, and program sustainability. Qualitative evaluation methods (surveys, interviews, focus groups) with students, faculty, industry partners, and project leadership will assess all intervention components to document implementation and perceptions regarding progress and outcomes, including what works and under what circumstances, to provide formative feedback for project improvement.

IV. Implementation Analysis Design

The evaluation plan aligns with ACTTS project design and goals and TAACCCT program priorities to "build educational programs that meet industry needs, improve retention and achievement, and strengthen online learning." The evaluation documents project design and progress and analyzes data on experiences/satisfaction of students, faculty, project leadership, and industry partners, to identify successes and challenges. Data will be collected through document reviews; student surveys; and surveys/interviews/focus groups with faculty, career coaches, project leadership, and other stakeholders.

The evaluation is grounded on a **logic model** to fully assess the impact of the project compared to anticipated outcomes, project goals, and DOL-TAACCCT program goals/priorities. The logic model (next page) provides a visual map of how project components accomplish these goals, and a graphic representation of project activities, anticipated outputs, and short- and long-term program outcomes.

The evaluation is aligned with JCCC's **project work plan** and timeline, including strategies to assess the success of steps taken to create and run the JCCC training program, and operational strengths and weaknesses of project components and overall implementation. Feedback will be provided in a timely fashion to allow strengthening implementation, and care will be taken to document major changes to the student intervention, so these may be accounted for in the outcomes analysis.

Figure 2: Johnson County Community College ACTTS TAACCCT - Logic Model for Evaluation

Inputs ►	Activities ►	Outputs ►	Outcomes ►	Impact
• TAA-eligible workers, eligible veterans & spouses, other adults in KC Metro Area • TAACCCT grant • Local IT Employers • Business & Industry Leader Team (BILT) • JCCC's Sunguard Banner System • JCCC Faculty, ACTTS Project Director, Research Analyst, Grant Team • Office of Institutional Research • Career Coaches (2) • Academic Achievement Center/Learning Centers/Tutors • Sinclair Community College • Kansas Dept.'s of Labor & Commerce • Workforce Partnership/WIOA Liaison • Third-party Evaluator-OEIE	• Create a more flexible IT curriculum • Provide enhanced student support services • Create an online prior learning assessment self-assessment that evaluates student skills, interests & past experiences • Pilot new courses & degrees • Design & provide collaborative, technological learning lab for experiential, capstone coursework • Engage BILT in assessing, mapping, & updating IT curriculum; training faculty; & interacting with students • Hire career coaches to coach students one-on-one, provide customized educational plans, & run the IT orientation & the "Never Cancel Class" program • Professional development activities for faculty	• Industry-driven IT curriculum, including remedial IT math course based on the IBEST model & competency based IT Networking course courses • Training in 10 growing IT occupations • Customized educational plans for students • Clear career pathways • Intrusive Advising • Accelerated & enhanced programs in computer information systems/ programming, information technology networking, web technologies, & health information systems • Online prior learning assessment • Interdisciplinary IT orientation session • Modular AAS degree in Web Technologies • 12 experiential problem-based lesson plans for IT shared on OERcommons.org • Work-based learning/job placement opportunities • Faculty attend IT roundtables/networking events, participate in industry-focused experiences, and competency-based education sessions • Student & employer recruitment videos • Annual & summative evaluation reports	• Student scheduling & learning needs met • Students gain IT skills • Students learn teamwork, problem-solving, process-improvement, professional skills • Students gain real-world experience • Faculty up-to-date on cutting edge industry technologies • Faculty trained in competency-based education • Program models & curricula shared with other community colleges • New curriculum integrated into annual program review process • ACTTS completion rates rise to 40%; graduation or credential attainment will rise to 30% **<u>Outcome Metrics/Targets:</u>** 480 unique participants 122 complete program 340 retained in program 293 complete credit hours 100 earn credentials 32 enrolled in further education 50 employed after program 47 retain employment 32 increase wages	• Students connected with employers • Students find employment • Students competitive & succeed in current IT job market • New curricula meets industry standards • Faculty able to meet student and industry needs • Johnson County and KC Metropolitan Area's IT sectors have employees with skills & education needed • ACTTS continues to benefit TAA-eligible workers, veterans & their families, & other students at JCCC & across the nation • Improved regional & state economic indicators • Reduction in Kansas' shortage of IT workers

IV.A. Implementation Analysis Research Questions

Program Implementation Evaluation: Evaluation of program implementation is integrated into project management to strengthen program planning and management over the course of this project. This assessment is designed to document and evaluate project progress and processes, to understand successes and challenges, and to answer central questions about project progress. See the table below for indicators and methods aligned with the DOL Implementation Research Questions from the SGA (V.D.1.b).

Table 1: Implementation Research Questions, Assessment Indicators, Data Sources, & Methods

Implementation Research Questions	Assessment Indicators	Data Sources/Methods
1) Curriculum: *How was the particular curriculum selected, used, and/or created?*	• Documentation of the design and implementation of IT curriculum aligned with evidence-based design • Assessment of curriculum use and delivery (online implementation, evidence-based design, etc.) • Feedback from faculty, project leadership, and industry stakeholders • Feedback from students regarding content	• Project implementation reporting • Document review of curriculum materials/ products/qualitative information • Interviews with leadership and stakeholders • Interviews or surveys of project leadership, faculty, and stakeholders • Surveys of students
2) Program design, delivery, & administration. Student support: *How were programs and program designs improved or expanded using grant funds? What delivery methods were offered? What was the program administrative structure? What support services or other services were offered?*	• Assessment of program implementation related to timeline and project plan • Assessment of institutional capacity changes • Documentation of innovative online & technology-enabled learning • Assessment of career pathways created • Feedback from students regarding program and support services	• Project implementation reporting • Document review • Interviews with Project Leadership • Document review: new credentials/certificate/degree structure • Interviews with administrators, project staff, faculty regarding articulation/career pathway/delivery process • Surveys of students

Implementation Research Questions	Assessment Indicators	Data Sources/Methods
3) Prior learning assessment. Career guidance: *Are in-depth assessment of participants' abilities, skills, and interests conducted to select or enroll participants into the program? What assessment tools and processes were used? Who conducted the assessment? How were the assessment results used? Were the assessment results useful in determining the appropriate program and course sequence for participants? Was career guidance provided, and if so, through what methods?*	• Assessment of implementation related to timeline and project plan • Feedback from leadership/ staff regarding PLA and guidance • Feedback from students regarding PLA and guidance **JCCC currently offers all five methods of prior learning assessment. Evaluation will focus on the development and implementation of a new online self-assessment tool.*	• Project implementation reporting • Interviews with Project Leadership • Interviews or surveys of career coaches • Surveys of students
4) Partnership Contributions: *What contributions did each of the partners (employers, workforce system, other training providers and educators, philanthropic organizations, and others as applicable) make in terms of:* *1) program design,* *2) curriculum development,* *3) recruitment,* *4) training,* *5) placement,* *6) program management,* *7) leveraging of resources, and* *8) commitment to program sustainability? What factors affected partners' involvement or lack of involvement? Which contributions from partners were most critical to the success of the grant program? Which contributions from partners had less of an impact?*	• Assessment of partnership contributions and implementation related to timeline and project plan • Feedback from leadership/ staff regarding partnership and contributions • Feedback from students and participants regarding training, guidance, work-based learning/employment	• Project implementation reporting • Document review related to partnership • Interviews with Project Leadership and training providers • Interviews or surveys of career coaches • Surveys of students

Implementation Research Questions	Assessment Indicators	Data Sources/Methods
5) Institutional Capacity: *What is the progress toward implementing a program that meets the needs of student participants and industry, and what are the operational strengths and weaknesses?* *What are the vision and values that guide innovation?* *What are the institutional conditions and environment within which activities occur?* *What factors affect and guide ongoing innovation and development?*	• Assessment of collaboration and capacity building related to timeline and project plan • Feedback from leadership, administrators, and staff regarding capacity, collaboration, and implementation • Feedback from industry regarding student skills • Feedback from faculty, staff, project leadership, and students regarding new equipment • Assessment of faculty professional development activities • Feedback from faculty regarding professional development opportunities	• Project implementation reporting • Document review related to collaboration/institutional capacity • Interviews and/or surveys with project leadership, faculty, staff, and industry partners • Strategies to collect qualitative information at JCCC meetings/events

IV.B. Implementation Analysis Data Strategies

The evaluation will utilize data collected from the following institutional records and new agreements with agencies that collect the needed data information.

1. JCCC's Sunguard Banner Administrative System to track students within the institution (e.g., age, gender, race/ethnicity, Pell status, Veteran status, program major, GPA, term-to-term retention, credential completion, individual course grades, credits attempted, credits completed, and time to credential completion)
2. National Student Clearinghouse to track students who transfer to other academic institutions
3. A new participant intake form to document student TAA-eligibility, employment status, and wage at entry into the ACTTS program (OEIE will work with JCCC to develop)

4. Kansas Department of Commerce's KANSASWorks data system to provide information on student employment upon entering the program, exiting the program, in the quarters after completing the program, as well as student wages

Evaluation methods and data sources specific to the implementation analysis will include:

- document review and analysis of project records and outputs (regarding program design/delivery/administration, course/module development, student support, prior learning assessment, partnership contributions, institutional capacity)
- review of project activities and products, including a checklist compared to the project timeline/workplan (e.g., online prior learning assessment, career pathways, accelerated /enhanced programs, articulation agreements, learning lab, student support services)
- interviews from project leadership, college representatives, and industry stakeholders (for feedback on recruitment efforts, enhanced courses, collaborations, relationships with industry, satisfaction with the success and impact of the ACTTS project)
- interviews or surveys of faculty, career coaches, and other student-support staff (for feedback regarding project components, including professional development)
- surveys of student participants (for feedback regarding satisfaction with and success of project components, meeting the needs of older students, and overall impact) – The survey will assess utilization of and satisfaction with grant-funded student services, which will be primarily delivered by the career coaches (i.e., one-on-one coaching, customized educational plans, IT orientation, "Never Cancel Class" program) and to a lesser extent by student tutors. One career coach will focus on academic success, and the second coach will focus on helping students gain work-based learning and employment. The survey will also seek feedback on the career coaches' role as a liaison between

ACTTS students and other JCCC student services that are not grant supported (e.g., Counseling Center, Career Services, Financial Aid, Math and Writing Resource Centers) and area employers and other industry stakeholders.

- strategies to gather information and feedback at ACTTS TAACCCT meetings (e.g., focus groups and other methods to assess collaboration, capacity building, and implementation)
- assessment of project implementation strategies (e.g., operational strengths/weaknesses, implementation of curriculum, program design/delivery, prior learning assessment)

The assessment will include fidelity of implementation methods to compare the actual program implementation with the project plan and further address the DOL questions. OEIE will work with the project leadership to assess performance and to provide ongoing feedback to improve project success. This assessment is also designed to provide information for funding agencies regarding outcomes and assessment of the program as a model for broader application.

Qualitative Project-Specific Assessment: Qualitative methods will assess the impact of the JCCC project related to: student experiences; faculty professional development; student satisfaction with training/services; industry/partnership experiences; and feedback from students, industry, and college representatives regarding key components of the program. Student surveys will assess student satisfaction with the curriculum, method of delivery, career pathways, and other program-wide variables. Faculty surveys will provide feedback regarding curriculum, faculty professional development, and program components. Interviews and/or surveys of industry representatives and stakeholders will also provide feedback regarding project impact. Results will be used to assess project components and enhance outcomes and project impact.

Survey methodology will be based on Dillman (2009) and focus groups will incorporate the Krueger and Casey (2009) approach to effective qualitative research. For the surveys, Dillman

recommends multiple contacts and the use of social exchange theory to increase survey response. OEIE typically uses this approach in survey development and administration, and often achieves a 50-60% response rate. Similarly, Krueger and Casey have provided a framework for organizing and conducting effective focus groups. OEIE plans to utilize these resources in this evaluation. Data will be analyzed with descriptive statistics; qualitative data will be coded for themes. Results of surveys/interviews will be summarized in the evaluation briefs and reports.

A primary goal of the evaluation is to help programs use the evaluation results, make adjustments during project implementation, and to understand what works and under what circumstances. The feedback and evaluation recommendations will contribute to data-based decision-making as the project moves forward.

OEIE will provide feedback to the project leadership, highlighting findings that may improve project management or details of the program. This type of feedback generally results in strategies to fine-tune a program or process, rather than major changes to the approach or program design. However, OEIE will coordinate the assessment of implementation with the assessment of outcomes, to ensure that any major changes to program implementation will not affect the outcome assessment. This includes documentation of what happens and when, including any major changes to program design. The analysis of outcomes will consider each student cohort independently based on version of intervention received, if major changes occur during the course of project implementation. This will enable the results of the formative feedback to be overlaid with the implementation so as not to skew the overall outcome results.

V. Outcomes/Impact Analysis Design

The goal for the participant outcome evaluation design is to understand the ACTTS program's influence on student participants in terms of education retention and completion, and job placement, retention, and earnings, compared to other similar IT students.

Two existing IT programs at JCCC have been identified as comparison cohorts. These programs are: Animation-Entertainment and Game Art Design (AAS) and Game Development (AAS). These programs are similar to the ACTTS programs in terms of length, credentials earned, and targeted skill sets. These programs draw from the same population base as the ACTTS program, and completers from all programs generally stay in the region to pursue employment in the IT sector.

The projected number of students served by ACTTS is relatively small, which may increase the potential for limited sample sizes for cohort comparisons in some instances. The projected numbers are: enrollment (*N*=480) and program completion (*N*=122). The evaluation team proposes use of a **quasi-experimental design** for the outcomes analysis. Outcomes will be analyzed using descriptive, non-parametric inferential, and content analyses. A quasi-experimental design was selected as the most rigorous option possible given JCCC is not randomly assigning students into the ACTTS program vs. comparison programs. Students are self-selecting into the ACTTS program, making a true experimental design impossible. JCCC allows students control over choosing their own academic path, including in which degree/certificate programs or grant projects to enroll, making random assignment not feasible.

JCCC has analyzed the TAACCCT and control IT programs, including program details and student demographics, finding many similarities (described later on page 18). Given similarities between the groups, and although it will be less strongly supported by the lack of random

assignment, it is reasonably expected that differences between the groups at the conclusion of the grant will be due to the ACTTS students' exposure to the intervention (i.e., student services delivered through the two career coaches).

One component of the proposed evaluation will be to conduct a descriptive outcomes analysis that can benchmark the ACTTS program against other IT programs at the college for the range of DOL metrics and key demographic variables, to demonstrate the level of performance or success of the ACTTS students. To explore the make-up of the cohorts, the evaluation team will use cohort-level descriptive statistics in the analyses of treatment and comparison group outcomes, and create cohort profiles containing data for each DOL metric and key demographic variables.

OEIE plans to conduct non-parametric inferential analyses on the DOL metrics for which there are sufficient power in the study (i.e., high enough sample size in the ACTTS and comparison groups). The comparative analyses will allow observing whether outcomes (completion, retention) are similar or different based on group membership. As a preliminary power analysis, using resources from the National TAACCCT Evaluation, a minimum detectable effect (MDE) for wage data in this study would be $885.44 (based on N=960, assuming all students have data). This may be a reasonable wage increase to expect over the course of beginning through completing a program of study, but we do not expect wage data will be received for all students, limiting the ability to find noticeable differences. See section V.D. for more discussion.

OEIE believes that power should be sufficient to conduct inferential statistics to compare the groups on the DOL metrics for academic outcomes. However, power may be lower for the employment outcomes. In instances of low power, OEIE will not conduct the comparative analyses, and instead limit analysis to descriptive statistics (i.e., cohort profiles). Further, if OEIE

is not able to receive individual-level employment outcomes on the comparison group, such comparative analyses also could not be pursued with the aggregate data.

OEIE also will conduct content analyses on the qualitative responses from the focus groups and surveys to answer the outcomes research questions #2 and #3 presented in section V.A. Further details about the outcome analysis are described in the following sections.

V.A. Outcomes/Impact Analysis Research Questions

These research questions will guide the data collection/analysis for the outcomes analysis design:

1. What is the difference in persistence, completion, and employment outcomes among students who utilize program services and those in a benchmarked program at JCCC?
2. How have career pathways, academic instruction, and student support services improved student outcomes?
3. How has the program leveraged resources to improve student outcomes?

V.B. Outcomes Analysis

A quasi-experimental design will be used in the outcomes analysis. See section V.D. for details.

V.C. Experimental Design

Experimental design was not selected as the method for the Outcome/Impact analysis. Please see section V.D. for information on the proposed methods for the outcomes analysis.

V.D. Non-Experimental Design

The evaluation proposes to use a **quasi-experimental design**, which will allow benchmarking the ACTTS program to similar IT programs to examine the effects of the program on the participants. Non-parametric inferential analyses will be pursued to allow statistical comparison of the ACTTS and comparison groups, where possible.

A critical component of the evaluation is assessing participant outcomes based on quantitative metrics specified by the DOL. As described in the technical proposal, the innovations included in program design are intended to improve participant outcomes. For example, the student support services are designed to enhance retention, increase number of credit hours earned, and improve credential attainment. In addition, local industry and employers will be engaged for the purpose of enhancing career pathways in the IT field in the KC Metropolitan Area.

To answer research question #1, JCCC will collect and OEIE will analyze data regarding outcomes for ACTTS participants and comparison cohorts on the DOL metrics (see Figure 1). It is **hypothesized** that the ACTTS program will lead to:

- Better student academic outcomes such as increased student persistence and completion rates, based on comparison to the benchmark programs
- Better student employment outcomes such as an improvement in the numbers of graduates who are employed, retained in employment, and receive a wage increase, based on comparison to the benchmark programs

To address research questions #2 and #3, OEIE will review project documentation as well as conduct annual surveys, focus groups, and/or interviews with JCCC students, faculty, and ACTTS project leaders to collect such data. Qualitative data will be analyzed for content (i.e., themes), and quantitative data will be analyzed using descriptive statistics. It is **hypothesized** that the intervention components and leveraging of resources will both contribute to improved student outcomes, by providing guidance and support to the student participants.

JCCC currently offers certificates, AS degrees, and AAS degrees in computer information systems/programming, information technology, web technologies, and health information systems technology, to which the ACTTS programs can be benchmarked or compared. The

ACTTS intervention seeks to address challenges historically experienced by these IT programs (e.g., their one-size-fits-all approach and low graduation rates). Recognizing these challenges, JCCC's approach with ACTTS is qualitatively and systemically different than the approach to other programs in their IT training division. The ACTTS project is intended to improve student outcomes through implementation of the intervention (see section III).

As noted in section V., two existing IT programs at JCCC have been identified as potential comparison cohorts. Again, these programs are: Animation-Entertainment and Game Art Design (AAS) and Game Development (AAS).

These programs are similar to the ACTTS programs in terms of length, credentials earned, and targeted skill sets. These programs draw from the same population base as the ACTTS program, and completers from all programs generally stay in the region to pursue employment in the IT sector. Given that students in most of the IT programs are essentially the same in socioeconomic status, readiness for college, age, gender, it is possible to aggregate the other IT programs into a larger comparison group, if necessary.

The Logic Model for Evaluation, included earlier in this plan, provides a framework for the comparative analysis. The comparison IT programs will not seek the same inputs, will not act on those inputs effectively to achieve the same outputs, create the same outcomes, or have the same impact as the college expects from ACTTS. The comparative analysis will proceed along two lines: a) an evaluation of the structure and operations of the comparison programs and b) an assessment of student success. The evaluation of structure/operations includes gaining input from college representatives about how courses and programs are offered, including program requirements and other activities available related to the programs (e.g., student groups/clubs, employer interactions), to provide a sense of what a typical program looks like in comparison to

the ACTTS intervention. Another avenue for data collection could be surveying students in the comparison group, to allow gaining their experiences in the typical IT programs. The student success component will focus on the DOL metrics in the outcomes analysis, but may also be supplemented with surveys of students, including those in the comparison group if allowed.

Students in both the ACTTS program and the comparison IT programs will self-select into their programs. JCCC currently has the capacity to enroll the projected number of program participants in ACTTS, allowing entry to any student who meets program requirements. The evaluation design will use a quasi-experimental approach, statistically comparing the ACTTS group to the comparison IT group whenever possible. However, when small sample size limits the power of the analysis, a descriptive benchmarking approach will be used to compare students within the ACTTS program to those in the identified comparison IT programs.

Through intake forms, JCCC will collect pre-program academic and employment data points on students, which will be used to create cohort profiles for the ACTTS participant group and the comparison program. Given the small sample size limitations, participants in these cohorts will not be matched; rather, the groups' data will be used in aggregate for the study. Key attributes that may be likely to affect outcomes, such as socioeconomic factors, years of employment, education level, age, race/ethnicity, and gender will be included in these profiles to provide a comprehensive view of each cohort. Once the context is established, participant outcomes can be benchmarked to the comparison program data to show effects of ACTTS.

To ensure fidelity of implementation, once an ACTTS participant has been identified in the study, these individuals will be counted towards the ACTTS group for the remainder of the study regardless of whether or not they complete their certificate or degree program, if they transfer to

another program prior to completion, or if they start a new program following completion. Rules are provided to give more details about which students will count toward which groups:

- If a student drops out of the ACTTS program, they will be counted for the ACTTS group and will be followed up with on a quarterly basis once exiting the college. This rule will hold true even if a student drops out of ACTTS and enrolls in a comparison group IT program. They will be counted as a participant served by ACTTS. They will not be counted as a participant served by the comparison program because they are already a member of the ACTTS group, and they may have been influenced in some way by the intervention experienced while in the ACTTS program. Including these students as a participant served by the comparison programs is not advisable given that any follow-up data cannot be counted (it would place a disadvantage on the comparison group to count a participant as served but not be able to count them as completed, retained, or employed). Follow-up data for these students will be counted toward the ACTTS group.
- If a student drops out of a comparison group IT program to enroll in the ACTTS program, they will be removed from the control group and counted instead as an ACTTS participant, and their follow-up data will be included only in the ACTTS group.

This approach will allow an individual to be counted toward the total number of unique participants served in one group only, ensuring that the two student groups will not be overlapping and contributing to outcome data for both groups (ACTTS and comparison). The students who have received any portion of the TAACCCT intervention will be counted toward the ACTTS group and will not be providing feedback or contributing to the comparison group data in any way. It is possible for group membership to change over the duration of the project, for a student moving from the comparison group to the ACTTS group, but not vice versa.

V.E. Outcomes/Impact Data Collection and Analysis

OEIE evaluators will work with ACTTS leadership to develop a seamless approach to capturing and analyzing the outcome metrics for ACTTS and comparison cohorts. JCCC will collect and track data by term and/or quarter, and will provide data to OEIE for review annually. JCCC will share institutional data, such as enrollments and completions, as well as employment data.

Much of the data required for the outcomes analysis is currently being captured in the JCCC Sunguard Banner student information system. Participant education and demographic data will be obtained from JCCC's Registrar's transcripts, Banner Software, and a new Client Management System (Marketplace), and through surveys developed by OEIE. The evaluation team will collaborate with ACTTS project leadership to develop a formalized intake process and form for ACTTS students. This process will help ensure that the project is able to collect data from these students, such as pre-program earnings or employment status. JCCC will gain anticipated follow-up data on ACTTS participants and comparison cohort students through the KANSASWorks data system. KANSASWorks will provide information on student employment upon entering the program, exiting the program, and in the quarters after completing the program; student retention in employment in the quarters after completing the program; and student wage rates.

The evaluators will work in collaboration with the project team to maximize utility of the Sunguard Banner data system at JCCC to track outcome data. Through a formalized intake process, JCCC will flag ACTTS participants in the system to streamline collection efforts as many of the data are currently in the Sunguard Banner system. Student enrollments are projected to begin in Year 1 of the project, and JCCC will begin to track academic outcomes at that time. However, the nature of many of the outcomes will require data to be tracked over multiple

academic terms (i.e., number of program completers, number of credentials earned, etc.). As a result, JCCC will compile measures annually, and OEIE will review and document the measures annually to ensure that all data points are being captured. Employment outcomes will be collected quarterly from the Kansas Department of Commerce's KANSASWORKS data system. In addition to self-report data collected from participants, employment and wage data will be requested through an agreement with the Kansas DOL. Preliminary outcome analyses will be included in the Interim Evaluation Report. However, the full analyses of outcomes will not be conducted until the end of the project period in the final evaluation phase.

OEIE will work with ACTTS leadership for a seamless approach to capturing data, which JCCC will provide to OEIE for analysis of the outcome metrics for participant and comparison cohorts. JCCC will provide OEIE with de-identified data electronically. Personally identifiable data will be removed by JCCC prior to transmittal to OEIE (e.g., date of birth will be replaced by age).

Outcomes will generally be analyzed using descriptive, non-parametric inferential, and content analyses. To explore the make-up of the cohorts, the evaluation team will use cohort-level descriptive statistics (i.e., frequencies, percentages) in the analyses of treatment and comparison group outcomes. Cohort profiles will include frequencies and relevant percentages related to each DOL metric as well as the breakdown of key demographic variables (TAA status, age, etc.). A detailed demographic profile will be developed for each cohort, including the variables that are most likely to affect the outcomes such as age, education level, years of employment, socioeconomic factors, race/ethnicity, and gender. OEIE will review each profile to identify differences between groups in these key demographic variables. If differences are found, the differences will be documented and data will not be further broken down by these variables, to **avoid effects of selection bias**.

Considering the nature of the DOL metrics (i.e., counts of participants), OEIE plans to conduct non-parametric inferential analyses on the DOL metrics for which there is sufficient power in the study (i.e., high enough sample size in the ACTTS and comparison groups). Through the innovations planned as part of this TAACCCT project, including student support services, use of online/blended learning environments, and increased focus on career pathways, the college does anticipate seeing an improvement in participant outcomes. OEIE will test whether these higher counts are statistically significant using chi-square analyses. Chi-square tests are appropriate for using categorical data like the DOL metrics (i.e., counts) to make comparisons between groups (e.g., to see whether the groups differ in the number of students employed in first quarter vs. not). Any continuous variables (e.g., wage increases) will be analyzed for group differences using independent-samples *t*-tests or Mann-Whitney *U* tests. *T*-tests are appropriate for using continuous data to make comparisons between groups when the data meet requirements for parametric tests (e.g., normal distribution), and Mann-Whitney *U* test are appropriate when parametric requirements are not met. The comparative analyses will allow observing whether outcomes (completion, retention) are similar or different based on group membership.

As a preliminary review, the evaluation team utilized resources from the National TAACCCT Evaluation webinar held on April 1, 2014, "Understanding Sample Sizes Needed for Impact Analysis." Using the formulas and values provided in this session, the team plugged in participant projections from JCCC to see what the minimum detectable effect (MDE) would be for this small sample study. Based on the project estimates for the number of unique program participant served outcome, the team assumed the N for the study would be 960, with half of the people in the treatment group and half in the comparison (480 members each). If they all have wage data on file, using standard values for the other variables (see table below) in a two-tailed

test, the minimal detectable effect (MDE) would be $885.44. This may be a reasonable wage increase to expect over the course of beginning through completing a program of study. However, it is also important to consider the low likelihood that wage data will be received for all students, based on experiences evaluating previous round TAACCCT project, which further limits the ability to find noticeable differences. Instead, differences would have to be much larger to be noticeable with smaller sample sizes. Particularly for a new training program, it is anticipated that impacts will not be especially large, which may limit the differences observed.

Table 2: MDE Calculations

MDE Calculations for Continuous Variable – Not RCT						
Z	Sigma	R^2	P	N	R^2_A	MDE
2.8	4899	0.2	0.5	960	0.2	$885.44

There may be instances where low sample size will contribute to a high risk of making a type 2 error – not being able to reject the null hypothesis, even though there is an effect. In other words, such as design would likely limit the project to only seeing the large differences, or big "effects" that would be needed in such a comparative analysis. In those instances, OEIE will not conduct the comparative analyses, and instead limit analysis to descriptive statistics.

Additionally, OEIE will conduct content analyses on the qualitative responses from the focus groups and surveys to answer the outcomes research questions #2 and #3 presented in section V.A. Content analyses will involve reviewing the qualitative data for themes, and including frequencies with which those themes are encountered through the data collections.

The next table shows the outcomes analysis research questions along with methods and data sources, and planned analyses.

Table 3: Outcome Analysis Questions, Methods/Data Sources, and Analysis

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Outcomes Analysis Research Questions	**Method/Data Sources**	**Analysis**
What is the difference in persistence, completion and employment outcomes among students who utilize ACTTS program services and those in other IT programs at JCCC?	(see below)	(see below)
1. Unique Participants Served	Review of Student Data based on spreadsheet provided by JCCC (data from Sunguard Banner system)	Descriptive data analysis of each cohort's quantitative data, as well as non-parametric analysis (chi-square, Mann-Whitney U) to allow benchmarking/ comparing ACTTS students and other IT students not in this program
2. Participants who have Completed a TAACCCT-Funded Program		
3. Participants Still Retained in Their Program of Study or Another TAACCCT-Funded Program		
4. Participants Completing Credit Hours		
5. Participants Earning Credentials		
6. Participants Enrolled in Further Education After Grant-Funded Program of Study Completion		
7. Participants Employed After Grant-Funded Program of Study Completion	Review of Student Data based on spreadsheet provided by JCCC (data from Sunguard Banner system and KANSASWorks)	Descriptive data analysis of each cohort's quantitative data, as well as non-parametric analysis (chi-square, Mann-Whitney U) to allow benchmarking/ comparing ACTTS students and other IT students not in this program
8. Participants Retained in Employment After Program of Study Completion.		
9. Participants Employed at Enrollment who Receive a Wage Increase Post-Enrollment		
How have career pathways, academic instruction, and student support services improved student outcomes?	Survey and focus groups - program participants, project staff, college staff	Content analysis of qualitative responses Descriptive data analysis
How has the program leveraged resources to improve student outcomes?	Focus groups and document review of project materials and records – project staff, college administration, project partners (industry and employers)	Content analysis of qualitative responses Descriptive data analysis

VI. Limitations

The overall design is solid, but there are challenges and limitations relating to its execution:

1. Small Sample Size. As a single institution awardee, all participants will come from JCCC. Projections for participation and completion of the ACTTS program of study are 480 and 122, respectively. These figures will provide the college with substantive feedback on the development of a new program, but are not large enough to employ more advanced causal analyses preferred by the DOL for the outcomes analysis. The proposed quasi-experimental and descriptive benchmark design allow the project to review outcomes from the ACTTS participants against students in the comparison cohort IT programs at JCCC. The intent is by providing the descriptive analyses, and inferential analyses where appropriate, in conjunction with the more qualitative aspects of the developmental evaluation, the project will have substantive data to examine and make adjustments to its innovations.
2. Institutional Data Reporting Timelines. The Kansas Board of Regents (KBOR) is the coordinating body for public two-year institutions in the state. As such, KBOR requires community colleges to track and report a variety of data for state and federal reporting. Many of the data points that will be tracked in the TAACCCT project are included in the state reporting system. While this will be helpful to the overall evaluation process, timelines for data collection and reporting will need to be coordinated to best optimize the data systems already in place. Currently, institutions submit data annually in September for the prior academic year. For example, JCCC will submit the 2014-2015 data to KBOR by September 30, 2015. For OEIE to be able to include outcome results in the Interim and Final Evaluation Reports (due end of September), the evaluation team will need access to the data earlier than September. Thus, it may be possible the evaluation team will need to work with preliminary

data from the institution. Although this may be an issue, the evaluation team does not anticipate it being a problem, especially due to the small number of programs in this project.

3. Ability to Collect TAA/WIOA status. As noted, most of the educational outcomes for the project are already being tracked through JCCC's data system. Through the use of a formalized intake process, additional variables such as TAA or WIOA status can be collected for the ACTTS participants. However, these types of data will not be as readily accessible for students in the comparison group. The project plans to explore ways to partner with the local workforce center, which may provide opportunities to capture these data, but currently this is a limitation. The project will also coordinate with other prior TAACCCT grantees to see what other alternatives have been employed in this regard.
4. Ability to Collect Employment/Wage Data. JCCC contracted with the Kansas Department of Commerce/America's Job Link Alliance (AJLA) to collect data for ACTTS outcomes analysis and reporting. JCCC is negotiating the contract with AJLA to collect these data. It is hoped that KANSASWorks will provide information on student employment upon entering the program, exiting the program, and in the quarters after completing the program; student retention in employment in the quarters after completing the program; and student wage rates. It is unknown whether the data will be at the individual or aggregate group level.
5. Agency Data Reporting Timelines. Beyond the timeline from the institution, wage data, typically from UI records, may also be delayed by a quarter or more. Given the outcome measure definitions, the project will develop a tracking system to record quarters of completion and employment. Depending on how quickly these data are reported to the DOL, the project may be required to track certain metrics for multiple quarters.

VII. Reports

The developmental evaluation approach provides a framework to report results from both implementation and outcomes analyses. OEIE will provide feedback to ACTTS leadership, highlighting findings that may improve project management or program details. OEIE will coordinate assessments of implementation and outcomes, to ensure major changes to program implementation do not affect outcome assessment. This includes documenting what happens and when, including major changes to program design, and considering student cohorts independently based on version of intervention received (if major changes occur). This enables overlaying formative feedback from implementation without skewing overall outcome results.

OEIE will provide quarterly briefs of evaluation activities and implementation progress to project leadership to inform JCCC's Quarterly Narrative Progress Reports. These will be delivered to JCCC one week after quarter end (see Figure 3), allowing JCCC to meet the DOL submission deadline of 45 days after each quarter.

OEIE will provide Evaluation Reports annually. Evaluation reports will be submitted to JCCC one week after the end of every fourth quarter, with the Year 4 report submitted on the final day of the project period (September 30, 2018). Content will be as follows:

- Annual reports for Years 1 and 3 will have descriptions/results of that year's activities.
- The annual report for Year 2 will be the Interim Evaluation Report required by DOL, encompass progress made from project outset, and include preliminary outcome analyses.
- The Year 4 annual report will be the Final Evaluation Report required by DOL, encompass all progress made for the project duration, and include full outcome analyses.

Annual reports will include information about evaluation design, analysis of implementation and outcomes, and evaluation findings-to-date regarding required research questions and efforts to

expand institutional capacity. Interim and Final Reports also will include outcome analyses on ACTTS participant outcomes, compared to students in other IT programs, regarding DOL metrics. The evaluation team will present results from the implementation and outcomes studies separately, but also provide a synthesis section that integrates findings from both studies that are relevant to specific project components. As an example, OEIE will incorporate any relevant data about student employment from the outcomes study (DOL metrics) and the implementation study (evidence from surveys/interviews with staff, employers, and students). Preliminary analyses on available metrics will be included in the Interim Report. Full analyses will be conducted at the end of the evaluation, in the fourth year. Briefs/reports will include aggregate data on program participants and stakeholders.

Figure 3: Proposed Evaluation Reporting Timeline

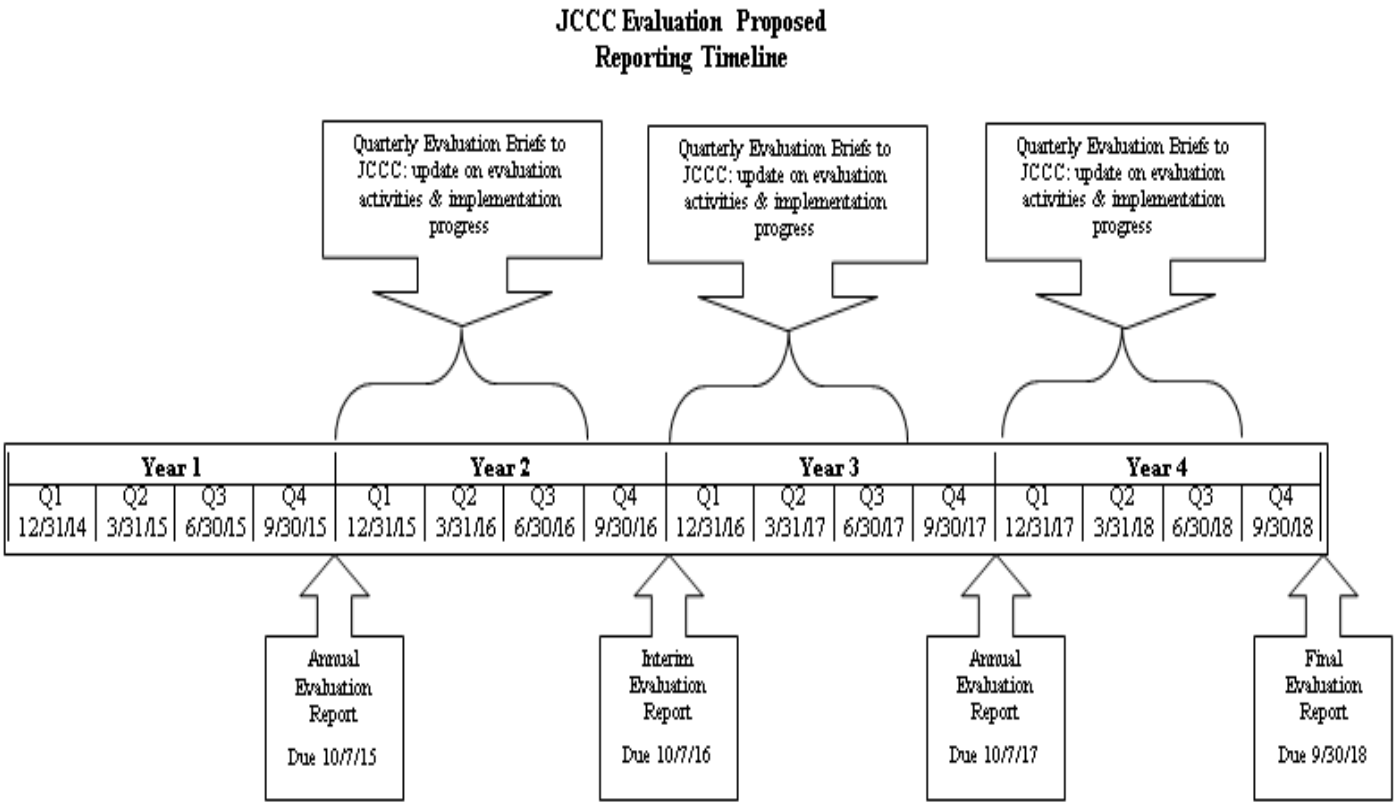

Table 4, on the next page, outlines evaluation activities, deliverables, and milestones.

Table 4: Proposed Preliminary Evaluation Timeline

PROPOSED PRELIMINARY EVALUATION TIMELINE – Johnson County Community College Accelerated, Collaborative Technology Training Services (JCCC-ACTTS) TAACCCT Project KEY: X = primary work; x = follow-up & on-going	2015		2015/16				2016/17				2017/18			
	Mar-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep
Evaluation Plan Design and Start-up														
Develop/finalize evaluation plan and develop the **communication network** with JCCC-ACTTS leadership *(Deliverable: Detailed Evaluation Plan for DOL, strategies, and timeline.)*	X	X	X				X				X			
Implement the evaluation plan in **collaboration** with JCCC-ACTTS leadership *(Deliverable: Meetings and online communication; collaborate with JCCC-ACTTS leadership regarding evaluation activities.)*	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Refine research questions or **modify** evaluation plan as needed		X	X				X				X			
Instrument Development, Establish Protocols, Collaborate														
Collaborate with JCCC-ACTTS leadership to establish **protocols and project reporting needs** and develop a process for collecting and sharing project records, documents, and other resources	X	X	X				X				X			
Design survey and/or interview instruments (below) to assess **program components and outcomes**; collaborate with JCCC-ACTTS team for contacts and process *(Deliverable: Survey and/or interview instruments specific to group/project component.)*	X	X			x				x				x	
1) Student Surveys: feedback regarding competency-based/modularized curricula, instructional design and delivery, online & technology-enabled learning tools, certificate/degree programs, student support services, customized learning plans, prior learning assessments, career pathways, connections to local employers		X			x				x				x	
3) Faculty/Administrators: feedback regarding ACTTS program, new courses and degrees, curriculum, professional development, transferability, and articulation		x			x				x				x	
4) Industry/Employers: feedback about engagement and collaboration			X			X				X			X	
Collaborate with JCCC-ACTTS leadership regarding **student data & DOL metrics**: review & assess JCCC-ACTTS data collection system to assure it captures the data needed to assess and track student outcomes; finalize protocols for collecting quantitative data aligned with specific DOL measures *(Deliverable: Benchmarking comparison cohort.)*	X	X	x	x	x	x	x	x	x	x	x	x	x	x
Data Collection and Analysis														
Assess project implementation: document analysis of project records and outputs; checklist related to timeline & workplan; interviews with project staff; gather information at JCCC-ACTTS meetings and via correspondence. *(Deliverable: Formative feedback to the JCCC-ACTTS leadership. Report/findings regarding project progress. Documentation for project reporting.)*		x	X	x	x	X	X	x	x	X	X	x	x	x
Obtain data from JCCC-ACTTS and **analyze quantitative data** regarding student participation, credentials earned, employment, and other participant outcomes aligned with specific DOL outcome measures. *(Deliverable: Report/findings of comparative analysis of quantitative data regarding student participation and outcomes aligned with DOL metrics.)*			x	x	x	x	x	x	x	x	x	x	x	x
Administer surveys/interviews listed above, analyze results, and summarize feedback from: 1) students; 2) faculty/administrators; 3) industry/employers *(Deliverable: Summary of analysis/results of specific surveys/ interviews with reports.)*		X	X		X		X		X		X		X	
Reporting and Project Coordination														
Communicate with JCCC-ACTTS leadership team on an ongoing basis. Provide **formative feedback.** *(Deliverable: Quarterly Project Monitoring meetings, presentations, communication, and other involvement activities for formative feedback.)*	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Provide **quarterly briefs** on evaluation activities and findings to inform DOL quarterly progress reports. *(Deliverable: Quarterly Evaluation Briefs, including data collection plan for next quarter)*	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Provide **evaluation reports** based on the results of assessment and evaluation activities, including analysis of implementation and outcomes. *(Deliverable: Annual Evaluation Reports, Interim Evaluation Report, and Final Evaluation Report; annual and interim reports will include data collection plan for next duration of project)*			X				X				X			X
Participate in **DOL TAACCCT** webinars, conferences, and stay informed through TAACCCT evaluator/online resources. Communicate with and respond to DOL national evaluator if requested.	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Assist with capacity building so JCCC-ACTTS will be able to assess outcomes beyond grant period and **sustain the program.** *(Deliverable: Project-specific evaluation tools for use by the college after grant period.)*										X	X	X		

VIII. Reference List

American Evaluation Association. (2004). *American Evaluation Association Guiding Principles for Evaluators.* Retrieved from www.eval.org.

Dillman, D.A., Smyth, J.D., & Christian, L.M. (2009). *Internet, Mail and Mixed-Mode Surveys: The Tailored Design Method, 3rd edition*. Hoboken, NJ: John Wiley.

Krueger, R.A., & Casey, M.A. (2009). *Focus Groups: A Practical Guide for Applied Research.* Thousand Oaks, CA: Sage Publications.

Patton, M.Q. (2011). *Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use*. New York, NY: The Guilford Press

Yarbrough, D.B., Shulha, L.M., Hopson, R.K., & Caruthers, F.A. (2011). *The Program Evaluation Standards, 3rd edition*. Thousand Oaks, CA: Sage: Publications.

W.K. Kellogg Foundation (2004). *Logic Model Development Guide*. Battle Creek, Michigan: W.K. Kellogg Foundation.

Appendix 3

Evaluation Deliverables -
Years 1 - 4

Johnson County Community College TAACCCT
Final Evaluation Report
OEIE Evaluation Deliverables
10/1/14 to 9/30/18

Products Delivered	Date
Evaluation Plan Design:	
MOU/Evaluation Scope of Work (contract), with reporting timeline	2/27/15
Draft Detailed Evaluation Plan, with logic model	5/4/15
Revised Detailed Evaluation Plan, with logic model	5/4/15
Revised/Final Detailed Evaluation Plan, with logic model	5/13/15
IRB application submitted to K-State Compliance Office	8/10/15
Approval received for K-State IRB application (letter dated August 20, 2015)	9/8/15
Individual-level confidentiality agreements (CDA) signed by OEIE staff, on file with K-State PreAwards office	9/10/15
Revised Detailed Evaluation Plan (version with tracked changes, and version with additions highlighted)	10/13/15
Revised Detailed Evaluation Plan (version with additions highlighted, and clean version)	10/15/15
Fully executed Scope of Work for Years 3 & 4	10/21/16
Year 3 Evaluation Timeline	12/8/16
Year 3 Evaluation Timeline revision	12/21/16
Year 3 Evaluation Timeline revision	1/24/17
Notes from Year 4 planning meeting	11/21/17
Year 4 evaluation timeline	11/21/17
Evaluation Instruments:	
Instruments developed for submission with K-State IRB application	8/10/15
Interview questions for JCCC staff (versions for grant staff, faculty and administrators) draft	12/30/15
Student Feedback Survey draft	12/30/15
BILT Survey draft	12/30/15
Student Feedback Survey (revised based on feedback)	1/22/16
BILT Survey (revised based on feedback)	1/22/16
Student Feedback Survey (revised based on feedback)	1/25/16
Confirmation emails with interview questions sent to 16 ACTTS team members	2/16/16
Updated ACTTS program listing on Student Feedback Survey	4/5/16
DOL Implementation Questions included in SGA shared with JCCC-ACTTS staff	7/7/16
External Partners Survey draft	12/8/16
Faculty Survey draft	12/8/16
Student Feedback Survey draft	12/8/16
Interview questions for JCCC staff (ACTTS staff and administrators) draft	12/8/16
JCCC Staff Collaborators Survey draft	12/8/16
Student Feedback Survey (revised based on feedback)	12/21/16
Faculty Survey (revised based on feedback)	1/24/17
Student Feedback Survey (revised based on feedback)	1/24/17
Interview questions for internal JCCC staff (revised based on feedback)	1/24/17
Interview questions for JCCC high-level administrators draft	1/24/17
Faculty Survey revision (revised based on feedback)	2/10/17

Johnson County Community College TAACCCT
Final Evaluation Report
OEIE Evaluation Deliverables
10/1/14 to 9/30/18

Student Feedback Survey (revised based on feedback)	2/14/17
Student incentive sign-up form draft	2/14/17
Re-sent interview questions for internal JCCC staff (ACTTS staff/administrators and high-level administrators)	5/5/17
Program chair focus group questions draft	1/31/18
ACTTS grant staff focus group questions draft	1/31/18
JCCC high-level administrator focus group questions draft	1/31/18
ACTTS student focus group questions (current and exited) draft	1/31/18
Comparison student focus group questions (current and exited) draft	1/31/18
Employer interview questions draft	1/31/18
Round 4 TAACCCT SGA implementation questions updates document	1/31/18
Program chair focus group questions (revised based on feedback)	2/6/18
ACTTS student focus group questions (current and exited) (revised based on feedback)	2/6/18
Comparison student focus group questions (current and exited) (revised based on feedback)	2/6/18
Round 4 TAACCCT SGA implementation questions updates document	2/6/18
Evaluation Reports/Documents:	
Reporting timeline, included within MOU/Evaluation Scope of Work	2/27/15
Year 1 Annual Evaluation Report	10/7/15
Year 1 Document Review Spreadsheet	10/7/15
Revised Annual Evaluation Report (programs updated)	10/13/15
Year 2 Quarter 1 Evaluation Summary	1/6/16
BILT Survey Report	3/15/16
Year 2 Quarter 2 Evaluation Summary	4/6/16
Team Member Interviews Report	4/18/16
Student Feedback Survey Report	5/19/16
Year 2 Quarter 3 Evaluation Summary	7/5/16
Interim Evaluation Report	10/3/16
Document Review Spreadsheet (Years 1 & 2)	10/3/16
Revised Interim Evaluation Report	10/12/16
Year 3 Quarter 1 Evaluation Summary	12/29/16
Student Information Session Summary	3/22/17
Faculty Survey Report	3/23/17
Year 3 Quarter 2 Evaluation Summary	4/3/17
External Partner Survey Report	4/21/17
Student Feedback Survey Report	5/23/17
Year 3 Quarter 3 Evaluation Summary	7/3/17
Team Member Interviews Report	8/9/17
Year 3 Annual Evaluation Report	10/3/17
Document Review Spreadsheet (Years 1 – 3)	10/3/17
Year 4 Quarter 1 Evaluation Summary	1/4/18
Year 4 Quarter 2 Evaluation Summary	4/3/18

Johnson County Community College TAACCCT
Final Evaluation Report
OEIE Evaluation Deliverables
10/1/14 to 9/30/18

Notes from two comparison student focus groups	6/11/18
Employer Interviews Report	6/25/18
JCCC Staff Focus Groups Report	7/3/18
Year 4 Quarter 3 Evaluation Summary	7/3/18
ACTTS and Comparison Group Student Feedback Report	8/17/18
Final Evaluation Report (draft)	9/14/18
Document Review Spreadsheet (Years 1 – 4)	9/14/18
Final Evaluation Report (revised)	9/19/18
Final Evaluation Report (revised)	9/21/18
Services Rendered/Provided	**Date**
Data Collections:	
Document review	2/16/15-9/14/18
BILT Feedback Survey (online)	2/11/16-2/26/16
ACTTS team member interviews (Overland Park, KS)	2/25/16-2/26/16
Student Feedback Survey (online)	4/5/16-5/6/16
DOL SGA Implementation Questions Interview (Overland Park, KS)	7/19/16
Observation of student information session (Overland Park, KS)	2/9/17
Faculty survey (online)	2/14/17-2/28/17
External partner survey (online)	2/24/17-3/31/17
Student survey (online)	3/29/17-4/26/17
ACTTS team member interviews (Overland Park, KS)	6/6/17-6/7/17
ACTTS team member interview (telephone)	6/13/17
Current ACTTS and comparison student focus groups (Overland Park, KS)	4/11/18
Current ACTTS student survey (due to low response at focus groups) (online)	4/16/18-5/1/18
Employers of ACTTS trainees telephone interviews	5/2/18-5/18/18
Exited ACTTS and comparison student telephone interviews	5/3/18-6/19/18
JCCC staff focus groups (grant staff, CSIT faculty chairs, administrators) (Overland Park, KS)	5/7/18
Round 4 TAACCCT SGA implementation question updates (email)	6/11/18
Meetings/Events: (e.g., professional development, planning meetings)	
TAACCCT On! Conference (at Washburn University, Topeka, KS)	10/1/14-10/2/14
Transformative Change Initiative (TCI) Evaluation Collaborative meeting (pre-meeting at American Evaluation Association annual conference in Denver, CO)	10/15/14
TAACCCT evaluation webinar (Evaluating Partnerships in TAACCCT)	12/16/14
TAACCCT evaluation webinar (Introducing the Round 4 TAACCCT Evaluation)	1/7/15
TCI Learning Lab meeting (Baltimore, MD)	2/17/15-2/18/15
Face-to-face meeting with JCCC staff (Overland Park, KS)	2/27/15
TAACCCT evaluation webinar (TAACCCT Detailed Evaluation Plan for Round 4)	3/3/15
TAACCCT evaluation webinar (Adapting Evaluation Designs to Reality)	4/21/15
Face-to-face meeting with JCCC staff at TAACCCT convening (Washington, DC)	6/10/15
TAACCCT Round 4 Convening: Success from the Start (Washington, DC)	6/11/15
TAACCCT evaluation webinar (Qualitative Methods and Implementation Analysis)	6/30/15

Johnson County Community College TAACCCT
Final Evaluation Report
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Face-to-face meeting with JCCC staff (Overland Park, KS)	7/16/15
TAACCCT evaluation webinar (Visualization Techniques for Presenting Evaluation Data)	9/22/15
TAACCCT On! Conference (at Washburn University, Topeka, KS)	9/23/15-9/24/15
Face-to-face meeting with JCCC staff (at TAACCCT On!, Topeka, KS)	9/24/15
Conference call with JCCC TAACCCT team to discuss outcomes data and upcoming data collections	10/13/15
TCI Evaluation Collaborative Research Symposium (Evidence of What Works from TAACCCT) (Chicago, IL)	11/10/15
TCI Evaluation Collaborative Meeting (Approaches to Evaluation that Foster Transformative Change) (Chicago, IL)	11/11/15
Videoconference call with JCCC TAACCCT team to discuss upcoming data collections/instruments	1/12/16
TAACCCT evaluation webinar (Introduction to the TAACCCT Round 4 Outcomes Study)	3/10/16
TAACCCT Data Meeting (Washburn University)	4/13/16
TCI Meeting (Chicago, IL)	6/22/16-6/23/16
Face-to-face meeting with JCCC staff about student data (Overland Park, KS)	7/19/16
Year 3 evaluation planning meeting (Overland Park, KS)	11/3/16
TAACCCT outcomes data meeting at KBOR (Topeka, KS)	1/12/17
Meeting with ACTTS staff to discuss spring data collections/instruments (Overland Park, KS)	1/23/17
BILT meeting (videoconference)	2/24/17
Discussion with Daniel Epley about student data file transfer requirements (telephone)	5/1/17
DOL webinar (Final Evaluation Reports)	6/1/17
Meeting with ACTTS staff regarding comparison group data (telephone)	7/14/17
Conference call with KBOR, JCCC, and Butler about statewide approach to TAACCCT performance reporting (employment metrics)	8/14/17
Discussion with ACTTS research data analyst about control group data (phone)	10/10/17
Year 4 planning meeting with ACTTS staff/administrators (Overland Park, KS)	11/14/17
Discussion with ACTTS director about scheduling spring data collections (phone)	2/20/18
Consultations (Capacity Building/Technical Assistance):	
Shared DOL Round 4 Detailed Evaluation Plan Technical Assistance Document	5/4/15
Shared information about reporting, including TAACCCT Reporting Handbook	5/4/15
Shared ideas related to capturing enrollment date in student data file	7/17/15
Provided feedback on student application form	7/17/15
Sent information on types of documents to include in the document review	7/17/15
Shared TAACCCT Round 2, 3, 4 FAQ 5 – What is a participant?	7/17/15
Shared draft confidentiality agreement	7/17/15
Shared contact information for Round 2 National Aviation Consortium staff	7/17/15
Shared feedback on student application form definitions	7/17/15
Shared announcement about upcoming TAACCCT On! Conference	7/31/15
Shared information on ability to transfer student data through FTP upload	9/4/15

Johnson County Community College TAACCCT
Final Evaluation Report
OEIE Evaluation Deliverables
10/1/14 to 9/30/18

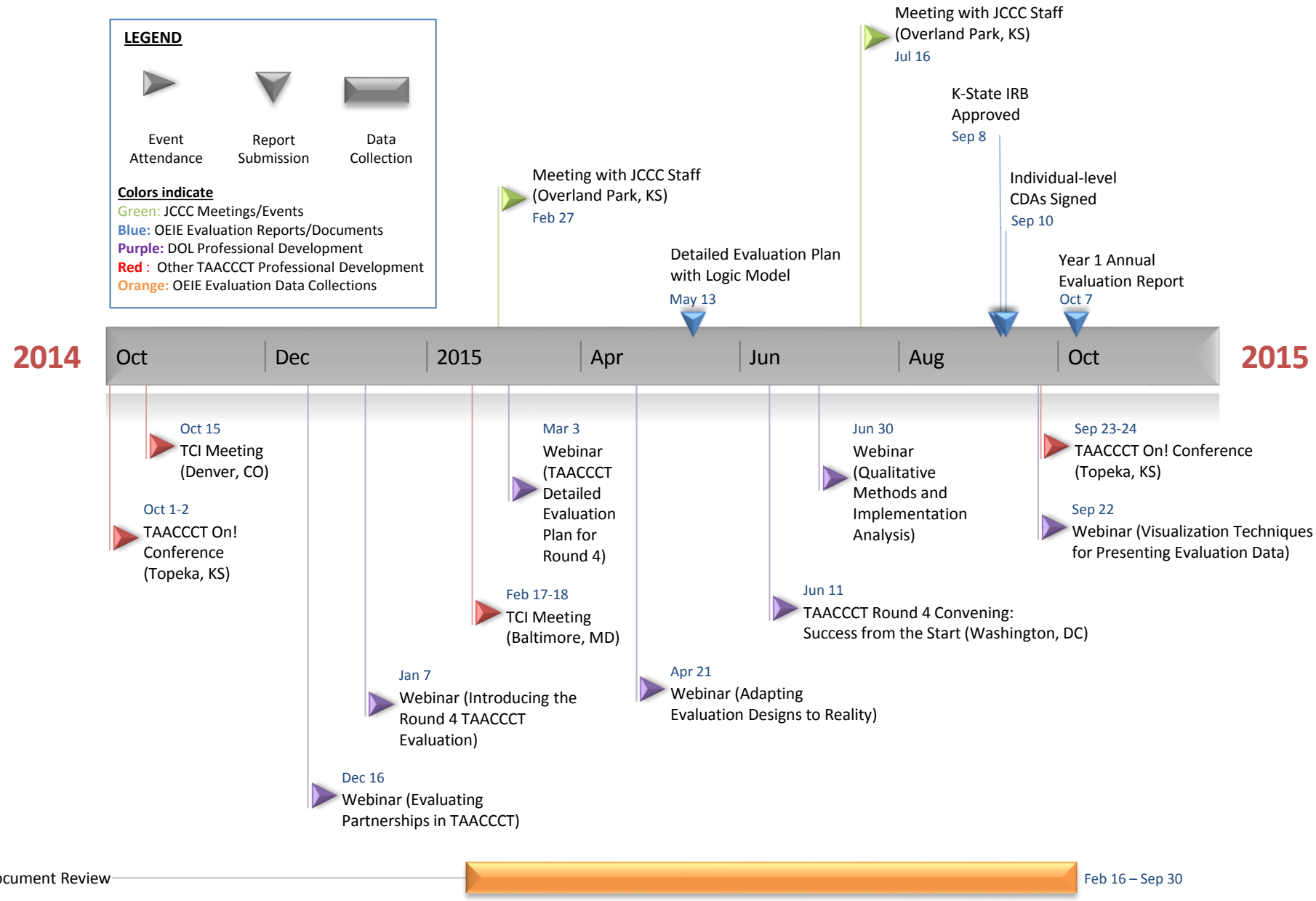
Shared draft nondisclosure agreement	9/8/15
Sent feedback on student data spreadsheet	1/12/16
Shared interview scheduling worksheet and language for recruiting interview participants	1/22/16
Shared advice related to gaining BILT members' participation in survey	2/10/16
Shared advice related to gaining student participation in survey	4/18/16
Provided guidance on format and types of student data for outcomes analysis	7/19/16
Shared TAACCCT Compliance Checklist developed by Washburn University's TRAC-7 staff	11/7/16
Prepared discussion points/agenda for meeting with ACTTS staff	1/23/17
Sent Year 2 evaluation interview questions (for comparison to Year 3 draft)	1/24/17
Provided feedback on incentives for student survey	1/30/17
Provided feedback on ACTTS participant flow chart	1/26/17
Provided feedback on ACTTS participant flow chart	2/8/17
Provided link and instructions on using student incentive sign-up form	2/15/17
Suggested approach for encouraging faculty to respond to survey	2/21/17
Provided announcement and explanation about evaluation and external partner survey to BILT members	2/24/17
Provided feedback about sharing student contact information	3/10/17
Provided feedback on approach to gaining additional responses to external partner survey	3/14/17-3/17/17
Shared sample script for contacting external partners about receipt of survey	3/17/17
Shared link for accessing list of student who signed up for the survey incentive	4/6/17
Shared feedback on whether new students should participate in the survey	4/14/17
Shared details about what identifiers are needed for student data files	4/18/17
Shared feedback on methods for gaining additional student survey responses	4/20/17-4/21/17
Shared student survey reminder message for April 26th event	4/25/17
Re-sent Year 2 evaluation interview questions (for comparison to Year 3 drafts)	5/5/17
Shared feedback on how to transfer student data files	5/9/17
Shared feedback related to preparing interview schedule	5/11/17-5/18/17
Shared feedback related to comparison group data	7/10/17
Shared information and plan related to final evaluation report	8/6/17
Shared feedback on control group data file	10/10/17
Shared feedback related to TAACCCT national evaluation employer study	2/2/18
Provided guidance on logistics of scheduling spring data collections	2/6/18-3/29/18
Coordinated on scheduling spring data collections	2/15/18-3/29/18
Consulted on changing exited student data collections to telephone interviews	3/6/18
Coordinated related to scheduling spring data collections	4/2/18-5/22/18
Coordinated related to timeline for sharing the DOL performance metric data	6/11/18-6/12/18
Consulted on document review	6/21/18
Consulted on final evaluation report	6/26/18
Consulted on performance metric file (telephone)	8/16/18

Appendix 4

Evaluation Timelines
– Years 1 - 4

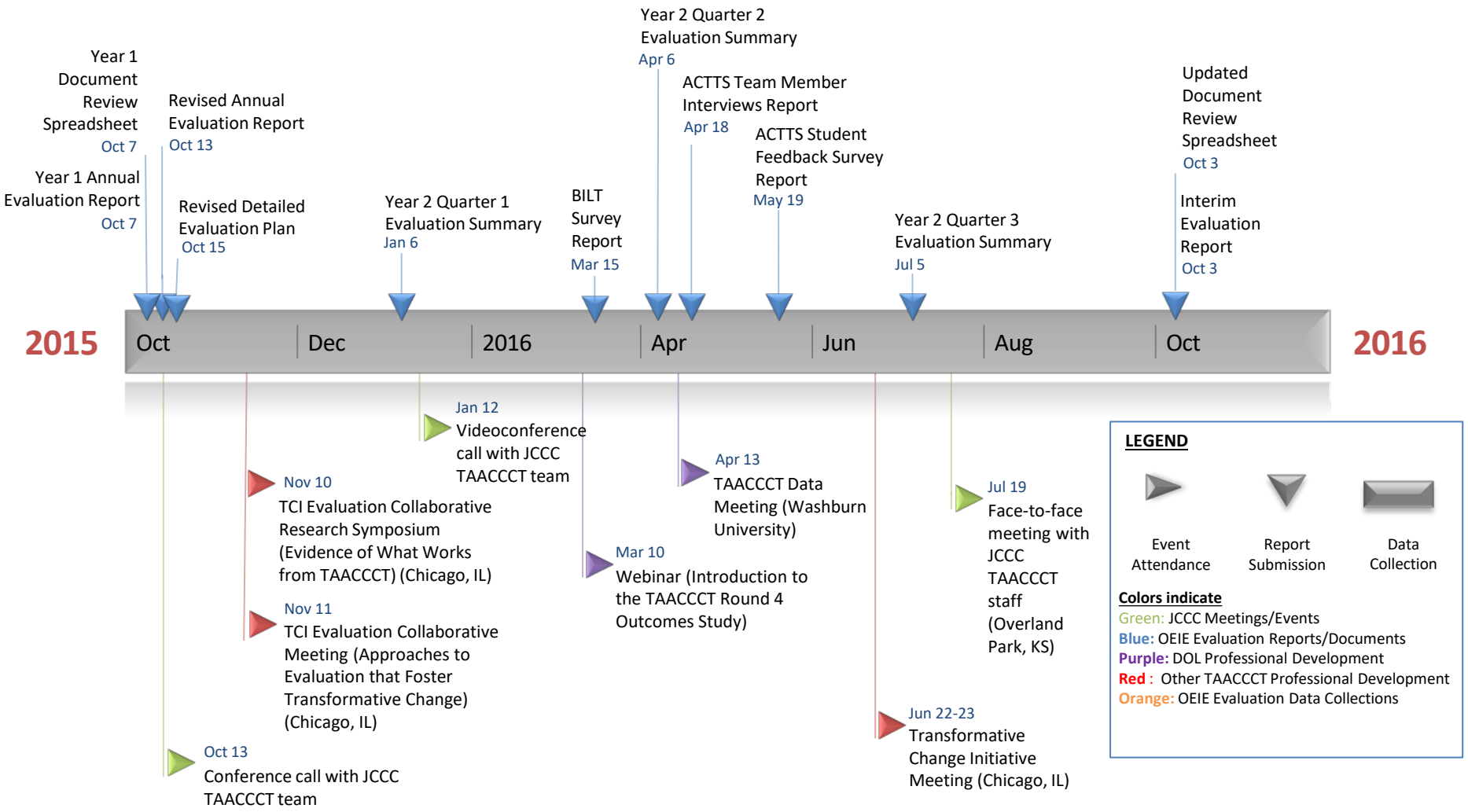
Johnson County Community College TAACCCT Year 1 Evaluation Activities

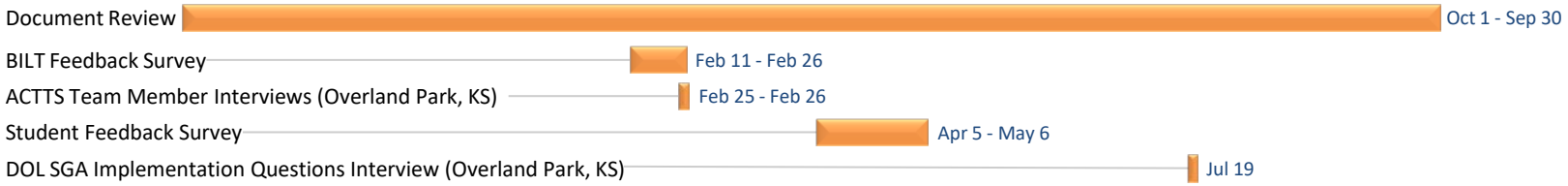
Events, Data Collections, and Reports



Johnson County Community College TAACCCT Year 2 Evaluation Activities

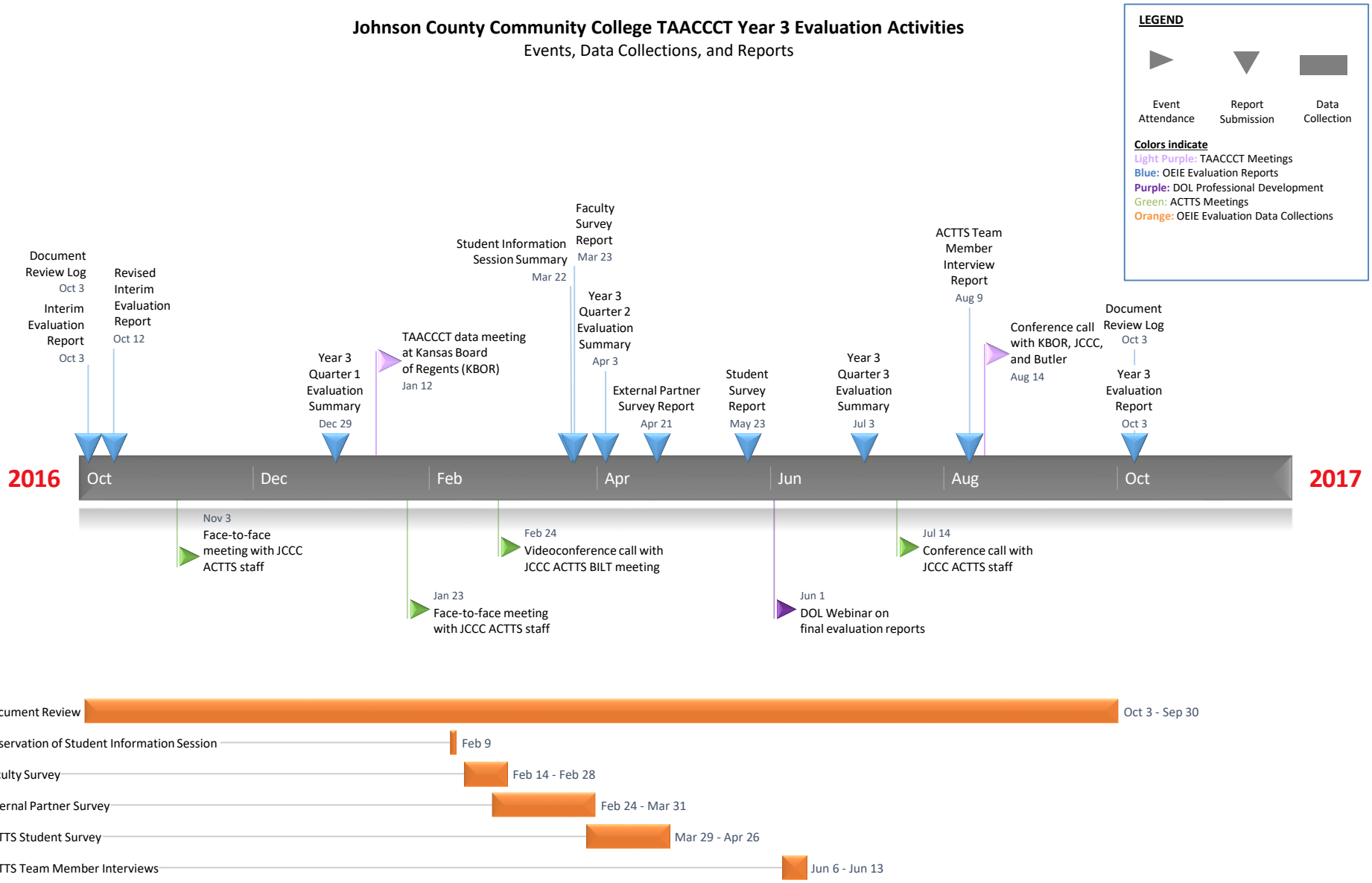
Events, Data Collections, and Reports





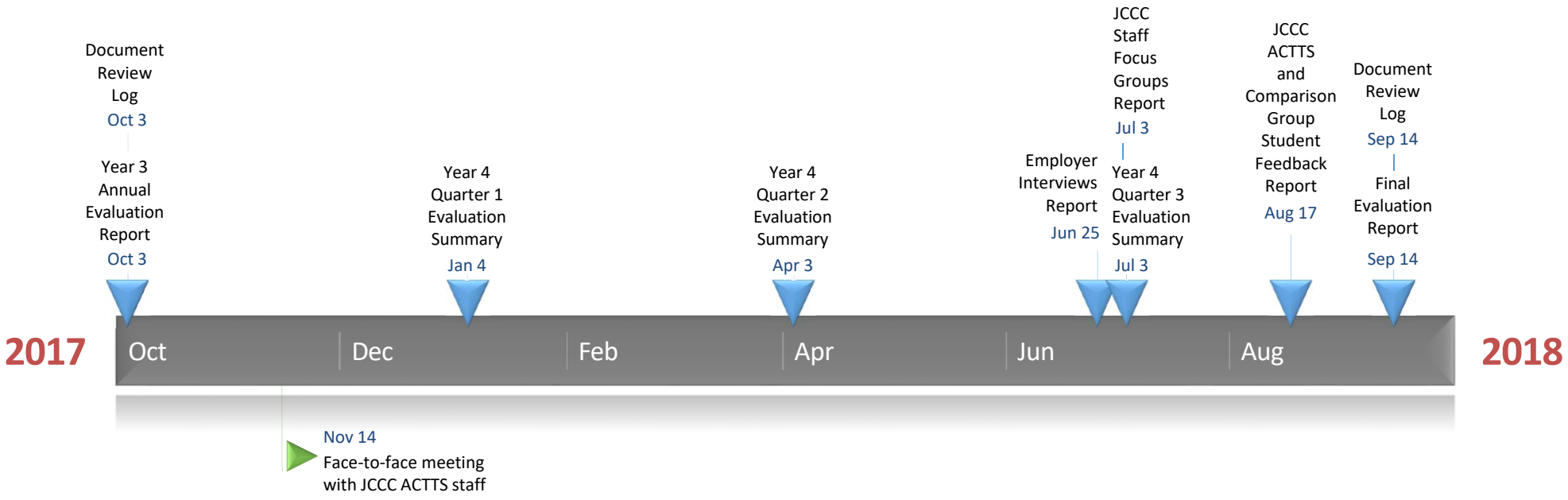
Johnson County Community College TAACCCT Year 3 Evaluation Activities

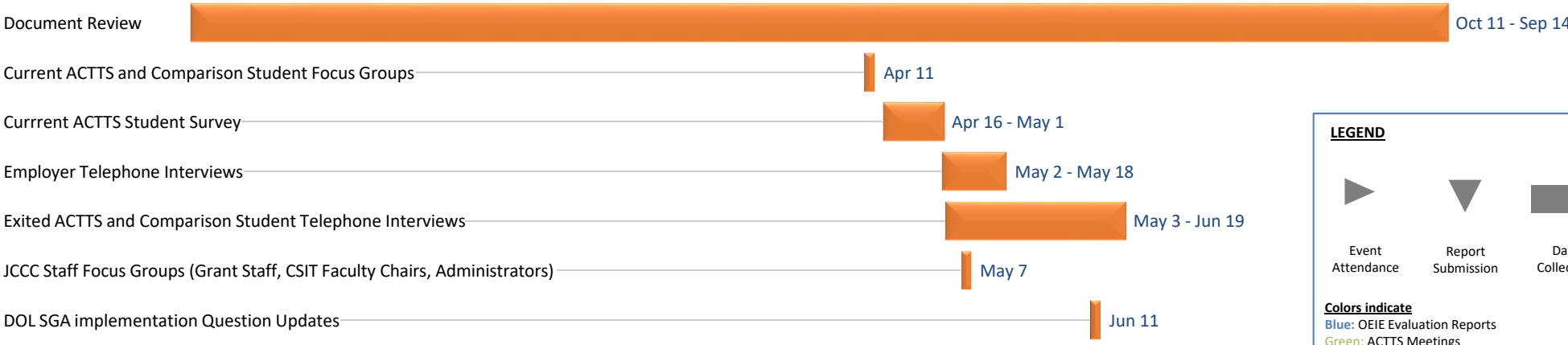
Events, Data Collections, and Reports



Johnson County Community College TAACCCT Year 4 Evaluation Activities

Events, Data Collections, and Reports





LEGEND

Event Attendance

Report Submission

Data Collection

Colors indicate

Blue: OEIE Evaluation Reports

Green: ACTTS Meetings

Orange: OEIE Evaluation Data Collections

Appendix 5

Sample Items from Evaluation Instruments

Johnson County Community College TAACCCT
Sample Evaluation Questions

Grant Team Questions

1) Please describe your involvement in the project, including: When did you get involved? What are your primary roles related to the ACTTS project?
2) Describe your ACTTS communication strategies *internally* at JCCC (administration, faculty, staff, students) and *externally* (employers, workforce/community partners, potential students). (For example, with whom do you communicate, with what frequency, about what topics, and using what methods?)
3) Are the ACTTS team's current communication strategies working well (are they sufficient for keeping team members/stakeholders informed and moving forward with project implementation)? If not: What changes are needed to communication for the ACTTS project?
4) Considering your role on the project, please describe strategies/efforts you are pursuing for TAACCCT project implementation, to ensure the project progresses toward grant-related goals/requirements. (This could include any strategies you have used to alter the course of project implementation, when necessary.)
5) Have you found any specific strategies for project implementation particularly effective? (What are your lessons learned at this point in the project?)
6) Who do you consider your most valuable collaborators? *Consider internal collaborators at JCCC (administrators, faculty, staff) and/or external partners (employers, workforce/community partners, higher education partners).*
7) What vision and values guide the innovation for the ACTTS project?
8) Please describe ACTTS processes related to:
   - Student recruitment/outreach
   - Student intake
   - Provision of student services
   - Student follow up (during the program and after exiting)
9) In what ways has the ACTTS program leveraged resources to improve student outcomes? *Consider ways resources may have been leveraged with internal partners at JCCC and/or with external partners.*
10) From your perspective, what have been ACTTS partners' greatest contributions? (What contributions have been most critical to the grant's success?) *Consider contributions of internal partners at JCCC and/or external partners.*
11) From your perspective, does the JCCC-ACTTS team have sufficient resources/supports available for project implementation (program deployment, employer engagement, etc.)? If not: What additional support/professional development would help with project implementation?
12) What ACTTS components are most helpful to students (contribute the most to success/completion)?
13) What have been the most significant outcomes or greatest impacts of the ACTTS project (for the college, for students, for faculty, for partners)?
14) Describe any unanticipated outcomes, positive or negative, you have observed related to the ACTTS project. (Has anything surprised you?)
15) To what extent do you think having the ACTTS grant has improved the college's relationships with regional employers, or enhanced the college's visibility in workforce development? (Has it or not, explain)
16) In what ways has the TAACCCT grant influenced the institutional environment at JCCC? (How have operations/structures changed (e.g., in departments with ACTTS programs, in offices offering student support?))

17) To what extent have your expectations about project impacts been met (in what ways have they or not, why)? *Consider expectations you may have had related to impacts on students, faculty, staff, the college, partners (employers, community, etc.).*
18) Describe any suggestions you have for improvements (overcoming challenges) related to the implementation of this project (this could include any additional assistance you need).
19) If you were starting the project over today:
    a. What two or three things would you implement differently? (Consider: What changes do you think would better contribute to success of the grant at JCCC? What would be more helpful to students for achieving success – completion/employment?)
    b. What two or three things would you keep the same? (Consider: What aspects have been most critical to success of the grant at JCCC?)
20) Please describe your thoughts/efforts regarding sustainability of this initiative. You might consider:
    a. What do you believe will happen with this initiative (what does the future hold)?
    b. What efforts have you taken to institutionalize the curriculum and/or credentials?
    c. Where do you see the project going after the grant ends?
    d. Where would you like to see the project move?
    e. What do you believe might be the best strategies to retain if this process were replicated?
    f. Are you aware of any grant activities, positions, or partnerships that will be sustained?
    g. How has the grant work been embedded in other areas of the college?
    h. What factors affect and guide ongoing innovation for the project? (What factors determine whether project components will be continued/sustained?)
    i. Do you have any lessons learned that may be key to sustainability?

Administrator Questions

1) Please describe your involvement in the project, including: When did you get involved? What are your primary roles related to the ACTTS project?
2) Describe your ACTTS communication strategies *internally* at JCCC (administration, faculty, staff, students) and *externally* (employers, workforce/community partners, potential students). (For example, with whom do you communicate, with what frequency, about what topics, and using what methods?) Are any specific to JCCC-ACTTS (were any not used before this grant)?
3) Are the ACTTS team's current communication strategies working well (are they sufficient for keeping team members/stakeholders informed and moving forward with project implementation)? If not: What changes are needed to communication for the ACTTS project?
4) Considering your role on the project, please describe strategies/efforts you are pursuing for TAACCCT project implementation, to advance project goals. Are any of these new strategies/efforts specific to TAACCCT project implementation (different than those used prior to the TAACCCT project)? If so, please describe.
5) Have you found any specific strategies for project implementation particularly effective? (What are your lessons learned at this point in the project?)
6) Where do you look to gain support for project implementation? (Who are valuable collaborators/resources? Who are the local champions?)
7) Considering the resources available to support JCCC's efforts at *program deployment* and *employer engagement*, from your perspective, does the JCCC-ACTTS team have sufficient resources/supports available for project implementation? If not: What additional support/professional development would help with project implementation?
8) What vision and values guide JCCC's innovations for the ACTTS project?

9) In what ways has the ACTTS program leveraged resources to improve student outcomes? *Consider ways resources were leveraged internally at JCCC and/or with external partners.*
10) What have been the most significant outcomes or greatest impacts of the ACTTS project for the college?
11) Looking back to when you first got involved with the ACTTS project, to what extent have your expectations been met (in what ways were they or not, why)? *Consider expectations related to students, staff, the college, partners, etc.*
12) Considering your expectations when you started working on this project, describe any unanticipated experiences, positive or negative, you are having related to this project (these could be related to employer engagement, program deployment, or any other aspects of the project). (Has anything surprised you?)
13) Describe any suggestions you have for improvements (overcoming challenges) related to the implementation of this project (this could include any additional assistance you need).
14) What have been the major successes of the grant for the college in terms of:
    a. Meeting student needs?
    b. Meeting industry needs?
    c. Anything else?
15) How has the ACTTS grant influenced or changed the college?
    a. In what ways has the grant influenced JCCC's operations/structures or institutional environment for training?
    b. Which new initiatives introduced due to the grant will JCCC continue?
    c. Which new initiatives introduced due to the grant will JCCC expand (e.g., to non-CSIT divisions)?
16) What have been ACTTS partners' greatest contributions to the grant? (What contributions have been most critical to the grant's success?) Consider contributions, including any leveraged resources, of:
    a. Internal partners at JCCC
    b. External partners (e.g., workforce system, industry/employer partners)
17) What are the biggest lessons learned from the grant? If you could go back and start the grant over today:
    a. What would you change, or implement <u>differently</u>? (Consider: What changes do you think would better contribute to success of the grant at JCCC? What would be more helpful at meeting students' needs? What would be more helpful at meeting industry needs?)
    b. What would you <u>keep the same</u>? (Consider: What aspects have been most critical to success of the grant at JCCC?)
18) What will happen with the initiative at JCCC after the grant ends? What does the future hold?
    a. What factors affect and guide ongoing innovation for the project? (What factors determine whether project components will be continued/sustained?)

Faculty Questions

1) Please describe your involvement in the project, including: When did you get involved? What are your primary roles related to the ACTTS project?
2) Which of these options best describes your work background in industry?
   - I previously worked in industry before becoming an instructor.
   - I currently work in industry in addition to being an instructor.
   - I have not worked in industry.
3) Describe your ACTTS communication strategies *internally* at JCCC (administration, faculty, staff, students) and *externally* (employers, workforce/community partners, potential students). (For example, with whom do you communicate, with what frequency, about what topics, and using what methods?) Are any specific to JCCC-ACTTS (were any not used before this grant)?
4) Are the ACTTS team's current communication strategies working well (are they sufficient for keeping team members/stakeholders informed and moving forward with project implementation)? If not: What changes are needed to communication for the ACTTS project?
5) Considering your role on the project, please describe strategies/efforts you are pursuing for TAACCCT project implementation, to advance project goals. Are any of these <u>new</u> strategies/efforts specific to TAACCCT project implementation (different than those used prior to the TAACCCT project)? If so, please describe.
6) Have you found any specific strategies for project implementation particularly effective? (What are your lessons learned at this point in the project?)
7) Where do you look to gain support for project implementation? (Who are valuable collaborators/ resources? Who are the local champions?)
8) Considering the resources available to support JCCC's efforts at *program deployment* and *employer engagement*, from your perspective, does the JCCC-ACTTS team have sufficient resources/supports available for project implementation? If not: What additional support/professional development would help with project implementation?
9) Considering your expectations when you started working on this project, describe any unanticipated experiences, positive or negative, you are having related to this project (these could be related to employer engagement, program deployment, or any other aspects of the project). (Has anything surprised you?)
10) Describe any other suggestions you have for improvements (overcoming challenges) related to the implementation of this project (this could include any additional assistance you need).
11) Describe any initial efforts at JCCC for sustaining the project efforts (programs, positions, student support services, etc.) so they continue when grant funding is no longer available.
12) Please describe how the curriculum was selected.
13) Please describe how the curriculum was created. (How were JCCC programs or program designs improved or expanded?)
14) Which of these options best describe the delivery approaches of the courses you teach that are relevant to the ACTTS grant? (Select all that apply.)
    - Traditional – all instruction for the course happens face-to-face in classroom
    - Online – all instruction for the course happens online
    - Blended – course includes both classroom time and online instruction
15) What have been the major successes of the grant for JCCC's CSIT division in terms of:
    a. Meeting student needs?
    b. Meeting industry needs?
    c. Anything else?

16) In which of the following activities did you participate? (Select all that apply.)
    - Self-guided professional development
    - Training/orientations provided by ACTTS project staff
    - Training provided by BILT members
    - Training provided by other higher education partners (e.g., Sinclair CC, Austin CC)
    - Training provided by other DOL TAACCCT grantees
    - Employer speaker series
    - Professional conferences
    - Other (please specify):
17) Please describe any role you play in assisting with the placement of ACTTS students into the local workforce.
18) In what ways have your interactions with students changed as a result of your participation in the ACTTS project? (Are there things you do differently, do more of, or do less of?)
19) In what ways have your interactions with employers or the local workforce changed as a result of your participation in the ACTTS project? (Are there things you do differently, do more of, or do less of?)
20) In what ways have your interactions with JCCC offices/departments changed as a result of your participation in the ACTTS project? (Are there things you do differently, do more of, or do less of?)
21) From your perspective, to what extent have the following components of the grant contributed to student successes (i.e., improved students' academic and employment outcomes)?
    a. Career pathways (e.g., defined courses and certificates/programs leading to a variety of positions and fields/industries)
    b. Academic instruction (e.g., experiential lessons, bridge course, competency-based education, NetLab, online math support lessons)
    c. Student support services (e.g., career coach, advising, individual educational planning, resume and interview preparation, notice of job opportunities)
    d. Are there additional components that were critical to student success?
22) How has the ACTTS grant influenced or changed the CSIT division?
    a. In what ways has the grant influenced CSIT's operations/structures or institutional environment for training?
    b. Which new initiatives introduced due to the grant would you like to see JCCC continue in CSIT?
    c. Which new initiatives introduced due to the grant would you like to see JCCC expand beyond CSIT?
23) What have been ACTTS partners' greatest contributions to the grant? (What contributions have been most critical to the grant's success?) Consider contributions, including any leveraged resources, of:
    a. Internal partners within JCCC
    b. External partners (e.g., workforce system, industry/employer partners)
24) What resources were underutilized or missing that could have enhanced project success?
25) What are the biggest lessons learned from the grant? If you could go back and start the grant over today:
    a. What would you change, or implement differently? (Consider: What changes do you think would better contribute to success of the grant at JCCC? What would be more helpful at meeting students' needs? What would be more helpful at meeting industry needs?)
    b. What would you keep the same? (Consider: What aspects have been most critical to success of the grant at JCCC?)

Student Questions

1) Why did you choose to enroll in the JCCC-ACTTS training program?
2) Please indicate your educational goal(s) when you started the JCCC-ACTTS training program. (Select all that apply)
   - No goal
   - Gain enough training to obtain employment
   - Retraining or advance within current employment
   - Obtain a technical certificate (less than 2 years)
   - Obtain a 2-year degree
   - Eventually obtain a 4-year degree
3) What is your current employment status?
   - Not currently employed.
   - Employed part-time in an industry that is related to my program of study.
   - Employed full-time in an industry that is related to my program of study.
   - Employed part-time in an industry that is not related to my program of study.
   - Employed full-time in an industry that is not related to my program of study.
   - Other (please describe):
4) What program are you currently working on at JCCC?
   - Computer Information Systems
   - Health Information Systems
   - Information Technology
   - Web Development
   - Other (please specify):
5) Why did you choose to enroll in JCCC's ACTTS training program? (What was your motivation?) (Please note, we are not asking why you enrolled in JCCC in general, but why you decided to enroll in the ACTTS training program specifically.) Select all options that apply.
   - Access to a Prior Learning Self-Assessment to assist with determining the most applicable CS/IT program for you
   - Opportunities to complete a degree or certificate faster than a traditional program (i.e., accelerated programming, short-term certificates)
   - Availability of multiple class formats (traditional classroom, online, and blended)
   - Opportunities to earn stackable credentials (shorter-term certificate programs built into longer-term degree programs)
   - Access to multiple exit points from ACTTS programs (short-term certificate or longer-term degree options)
   - Opportunities in multiple career pathways (a variety of positions and fields/industries)
   - Access to academic support services (advising, individual educational planning) through an ACTTS career coach
   - Access to employment assistance services (e.g., resume and interview preparation, notice of job opportunities) through an ACTTS career coach
   - Exposure to industry representatives and information about industry
   - Opportunities for learning within a collaborative, experiential learning environment like that found in industry
   - Hearing about the good reputation/quality of the ACTTS program
   - Receiving encouragement from JCCC staff to enroll in the ACTTS program

6) JCCC's ACTTS training program offers 3 AAS degrees, 2 AS degrees, and 6 certificates. We would like to know which of these degrees or certificates you may be working toward or have already completed.
   a. Please indicate a status for each AAS or AS degree program within JCCC's ACTTS program (whether you are working on the programs or whether you have already completed them). Please use the "Not Applicable" option if you have never pursued that program.
   b. Please indicate a status for each certificate program within JCCC's ACTTS program. Please use the "Not Applicable" option if you have never pursued that certificate.
7) Please rate your level of agreement with the following statements: [Likert scale from Strongly Disagree = 1 to Strongly Agree = 5.]
   a. The ACTTS program provides **content** that is relevant to the current industry.
   b. The ACTTS program provides **experiences** that are relevant to the current industry.
   c. The ACTTS program/course options meet my **scheduling** needs.
   d. The ACTTS program/course options meet my **learning** needs and goals.
   e. The route to a **technical certificate** is clear within the ACTTS program.
   f. The route to a **career** following completion of the ACTTS program is clear.
   g. The ACTTS program is well worth the **time** required.
   h. The ACTTS program is **interesting**.
   i. I would **recommend** the ACTTS program to a friend or coworker.
8) Which of the following class formats did you experience during JCCC's ACTTS program? (Select all that apply.)
   - Traditional face-to-face (all parts of the class were in a classroom)
   - Online (all parts of the class were online)
   - Blended (some parts of the class were online, and some were in the classroom)
9) Please rate your level of agreement with the following statements: JCCC's **faculty/instructors** within the ACTTS program: [Likert scale from Strongly Disagree = 1 to Strongly Agree = 5]
   - Communicate clearly about important course topics.
   - Are helpful in guiding me to understand course topics in ways that clarify my thinking.
   - Are up-to-date on their knowledge of the industry.
   - Make connections between course topics and their relevance to the industry.
   - Allow time in class for discussion/interaction.
   - Are willing to meet with students outside of class (to answer questions, provide guidance).
   - Tell students about services available through the ACTTS program (career coach, job search assistance, resume and interview preparation).
   - Let students know about potential job opportunities.
   - Talk about multiple career pathways available through ACTTS.
   - Share information about courses that are available through other ACTTS programs.
   - Provide guidance or direction on JCCC's ACTTS programs and certificates.
   - Promote a respectful classroom environment.
10) What have you gained from participating in the program so far? (These gains might be things you learned, skills you developed, connections you made, etc.)
11) What about the program contributed to these gains? (These might be people, equipment, curriculum, activities, or services.)
12) What do you believe are the best components of JCCC's ACTTS program?

13) Which student services have you utilized during the JCCC-ACTTS training program? (Select all that apply).
    - ACTTS Career Coach academic services (academic advising, customized educational plan)
    - Career Development Center
    - ACTTS Career Coach employment services (resume/interview preparation, job search assistance)
    - Counseling Center
    - Language Resource Center
    - Financial aid
    - Math Resource Center
    - Vet Services Center
    - Writing Resource Center
    - Other: please specify
14) Please select the interaction(s) you had with IT industry employers. (Select all that apply.)
    - I visited employer organization(s) by myself.
    - I visited employer organization(s) in a student group.
    - Employer(s) visited class (e.g., to give a presentation).
    - Employer(s) visited the college (e.g., for a presentation, job fair, etc.)
    - I interfaced with an employer online.
    - I completed a job shadow with an employer.
    - I interviewed with employer(s) for internship or regular job position(s).
    - I participated in an internship with an employer.
    - I worked for an employer at a regular part-time position.
    - I worked for an employer at a regular full-time position.
    - Other (please describe)
15) What are your plans following completion of your program? How did participation in the program influence your plan? [Did your plan change at all while in the program? If so, how/why?]
16) Have you had any unanticipated outcomes or experiences, either positive or negative, related to your participation in the JCCC-ACTTS program? (Did you experience anything that you were not expecting or that surprised you?) Please describe.
17) What else does JCCC need to do to make the ACTTS program more successful? (For example, what should JCCC keep or make stronger, or what should JCCC remove? Please be as specific as possible.)

External Partner Questions

1) Please describe your roles related to JCCC-ACTTS BILT.
2) Please briefly describe what your business/organization does, including which of JCCC's ACTTS programs are relevant. ACTTS programs are: Computer Information Systems/Programming, Information Technology Networking, Web Development and Digital Media, and Health Information Systems.
3) What types of activities have you (or your organization) engaged in to advance JCCC-ACTTS project goals? (Select all options that apply, and write in any others.)
   - Shaping the vision and direction of ACTTS
   - Participating in the Business Industry Leadership Team (BILT) meetings
   - Providing meeting space for BILT meetings
   - Identifying/mapping skills and competencies for ACTTS programs
   - Assisting with ACTTS curriculum development and program design
   - Providing subject matter experts for the JCCC employer speaker series
   - Providing tours of industry facilities for ACTTS students/faculty
   - Allowing access to networking and/or training events for ACTTS students/faculty
   - Providing professional development opportunities for ACTTS faculty
   - Promoting/marketing ACTTS programs in the community
   - Recruiting/referring students to ACTTS programs
   - Assisting with job forecasting for ACTTS students
   - Sharing job openings with ACTTS staff
   - Participating in a recruitment event/job or career fair
   - Interviewing ACTTS students
   - Interacting with ACTTS students for course-related projects
   - Hiring ACTTS students
   - Interacting with ACTTS students (e.g., talking or providing advice, one-on-one or to a group)
   - Donating equipment, materials, or supplies
   - Other: (please describe)
4) Please indicate your level of agreement with each of the following statements. If you do not have enough information to respond to the item, please select "Do Not Know": [Likert scale from Strongly Disagree = 1 to Strongly Agree = 5]
   - The ACTTS programs' curriculum is relevant for today's industry.
   - The ACTTS programs are positioned to meet the employment needs of area employers.
   - There is adequate market demand to support the employment of the ACTTS programs' graduates.
   - The ACTTS programs are marketed and promoted effectively.
   - The ACTTS programs' facilities are adequate to meet program and project objectives.
   - The ACTTS programs' equipment is adequate to meet program and project objectives.
   - Graduates of the ACTTS programs will possess the knowledge, skills, and abilities for an entry-level position.
5) Please describe any impacts on your organization due to your partnership with JCCC related to the ACTTS project. Some to consider:
   - Access to a broader pool for recruiting
   - Reduced recruiting costs for entry-level ACTTS-related positions
   - Decreased on-the-job training time/cost
   - Improved employee retention/reduced turnover
   - Access to training or upgrading skills for current employees

6) What do you believe is the greatest value of being a partner with JCCC for the ACTTS project?
7) What specific outcome(s) do you hope will be achieved in the next year of the grant?
8) What specific challenge(s) do you think JCCC may have to overcome related to implementing the ACTTS project?
9) What ideas or suggestions do you have to potentially address challenge(s)?
10) Please rate your agreement with these statements. [Likert scale from Strongly Disagree = 1 to Strongly Agree = 5]
    - Job applicants who are ACTTS students have a competitive edge being hired at my organization.
    - Participation in an ACTTS program influences new hires' starting salary in my organization (they get a higher starting salary).
    - My organization would hire another student from the ACTTS program.
    - My organization would recommend that other employers hire students from the ACTTS program.
11) Based on your experiences, what are strengths of JCCC's ACTTS students? (In what ways do they meet your needs as an employer?)
12) What, if any, qualities or skills did you expect JCCC's ACTTS students to possess upon employment that they did not? (In what ways do they NOT meet your needs?)
13) If JCCC's ACTTS project started over today, is there anything you would do differently? If so, what?
14) Do you have any advice for JCCC as they move forward with IT program innovations after funding for the ACTTS grant ends (e.g., components to sustain, new things to try)? Consider: Are there ways to: improve program/course content, strengthen relationships, enhance career pathways into the IT workforce, or increase the success/impact of the project in general or for your organization? Now that the grant is coming to an end, how would you like your relationship with JCCC to move forward?

Appendix 6

Infographic

JOHNSON COUNTY COMMUNITY COLLEGE

Department of Labor (DOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant

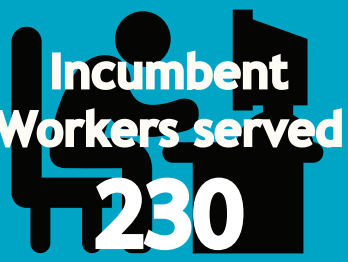
JCCC's *Accelerated, Collaborative Technology Training Services* project created innovative information technology (IT) training to serve TAA-eligible workers, eligible veterans and their spouses, and other adults in the Kansas City Metropolitan Area. The project expanded JCCC's capacity to train workers in order to meet growing IT sector needs, by creating accelerated and enhanced programs in key IT career pathways.

Demographic Snapshot

Average Age **32**

396 Students served

131 **265** Gender Distribution



Incumbent Workers served **230**

11 TAA Served

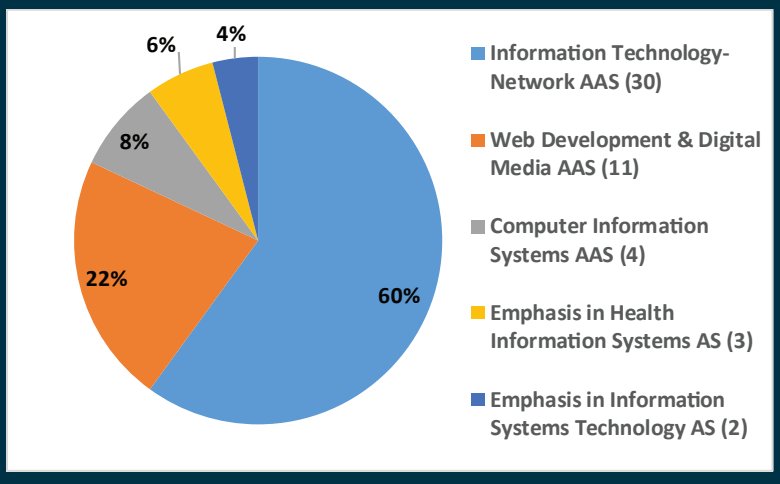
19 Veterans served

Gained Employment After Program Completion **17**

20 Continued Education After Program Completion

Program Completion Snapshot

50 Degrees Completed



70 Certificates Completed

- 25 Web Technologies
- 19 Health Information Systems Implementation & Support Specialist
- 10 Health Information Systems Workflow Management & Training Specialist
- 8 Web Development
- 3 Digital Media
- 3 Computer Information Systems-Software Developer
- 1 Computer Support Specialist A+
- 1 Computer Support Specialist Networking+/Security+

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Office of Educational Innovation and Evaluation