

**Online2Workforce (O2W)  
Elizabethtown Community & Technical College**

**TAACCCT Round II Grant**

**FINAL EVALUATION REPORT**

**FALL 2016**



University of Kentucky Evaluation Center  
College of Education  
859.257.1929  
jjensen@uky.edu

Principal Investigator: Jane Jensen, PhD  
Assisted by Jessica Horohov, MEd, and Christina Wright, PhD

## Executive Summary

The University of Kentucky College of Education Evaluation Center (CoEEC) served as third-party evaluator for Elizabethtown Community and Technical College's (ECTC) Online2Workforce (O2W) program, funded by a Trade Adjustment Assistance Community College Career Training (TAACCCT) grant through the United States Department of Labor. In November of 2012, Elizabethtown Community and Technical College, a SACS- accredited college within the Kentucky Community and Technical College System, was awarded a Round 2 TAACCCT Grant under Option 2 to ***“Develop or Enhance a program of Study with innovative Strategies.”*** The project, named Online to Workforce (O2W) received approval for its revised Statement of Work August 2013.

As an online program within a family of open entry online offerings, O2W was designed to offer participating students 24/7/365 access to their classes and materials from any location that has a computer and Internet access. Building upon an existing Kentucky Community & Technical College System (KCTCS) program called Learn on Demand (LOD), the O2W project proposed to:

- Modularize and reorient the LOD Business Services curriculum
- Provide Student Support Services via designated coaches

CoEEC worked collaboratively with the grantee college funded by TAACCCT to conduct a rigorous evaluation to measure the impact of the Business program of study and core strategies implemented by the grantee college. The evaluation team followed recommendations of the TAACCCT national evaluation researchers and technical advisors in development of the evaluation plan, incorporating quantitative and qualitative approaches such as case studies, focus groups, and interviews, along with non-randomized experimental design focusing on cohort comparisons using propensity score matching to address impact and effectiveness.

Results of the evaluation indicate that the grantee was successful in implementing all of the proposed strategies with the exception of offering open entry enrollment outside of traditional semester start dates for the last year of the grant. This obstacle to the project was caused by delays in anticipated changes to federal financial aid and therefore KCTCS financial aid policies allowing students to pursue coursework across semester start and end dates. Despite this structural setback, the program was able to implement the development and redesign of the modularized curriculum as planned and installed an exemplary coaching model that follows students from recruitment to placement. In addition, the program established a number of new partnerships with employer and community stakeholders and influenced changes to advising and career counseling at ECTC.

Analysis of outcome variables: course completion, credentials earned, credentials awarded, employment and changes in wages show that the O2W program had a positive impact on student success. As we expected, participants in the program did not experience a significant change in employment or wage increases from the comparison

group; however, they were far more successful in earning and completing credentials. This was true for both incumbent students already matriculated in a KCTCS college and students wholly served by O2W. The project strategies were most influential on helping students complete their educational goals.

Lessons learned from final exit interviews with staff and coaches as well as a review of the evaluation findings with regard to impact and institutional change are as follows:

- The project strategy to create a seamless pathway through a sequential set of curricular modules with competency based assessments allowed students in the O2W business sequence to complete credentials at a higher rate than those taking traditional semester-based online classes. This strategy, requiring focused attention to the purposeful design of credentials and modularized curriculum, holds promise for other areas of the KCTCS online curricular offering.
- Qualitative data describing the positive effects of the support offered by coaching were supported by our quantitative analysis of student outcomes in O2W relative to their peers taking similar courses without the coaching support. While requiring institutional resources to provide this personalized attention, the results indicate that students' success improves when they have "someone to talk to" in supplement to the instructional supports within the online curricular environment, especially if that assistance comes without waiting for the student to ask for help.
- The expanded roles of the coaches and treatment of them as holistic student support personnel (as opposed to separate roles for recruitment, advising, and placement) worked because of the team approach for the management of the coaching staff. This allowed individuals to focus their efforts on the area of coaching best suited to their skills while still collaborating—sharing ideas and best practices and taking ownership of the program goals.
- Due to the short timespan of the grant activity, the full impact of coaching on employment and wage earnings is unclear. Further research is needed to explore the ways in which expanded coaching for career counseling and placement might increase employment and wage increases for unemployed, under-employed, and busy adults in Kentucky.
- Although the O2W program met its recruitment and enrollment goals, recruitment of students was often met with difficulties due to competition for enrollments across college service delivery areas and among grant and government programs. Increased communication among service providers (e.g. employment centers, TAACCCT, and social service agencies) and resolving issues around competition for enrollment among colleges is needed.

Finally, now that federal policies regarding financial aid parameters for students studying across semesters are opening up, more research is needed on the efficacy of open entry enrollment to determine what impact this element of LOD has on student success.

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## 1. Introduction

The Online2Workforce (O2W) program at Elizabethtown Community and Technical College (ECTC), one of sixteen colleges in the Kentucky Community and Technical College System (KCTCS), was designed to meet the Round 2 TAACCCT Grant under Option 2: “Develop or Enhance a Program of Study with Innovative Strategies”. Based on a review of labor market needs and college strengths, the KCTCS administration chose the Business Services program of study hosted by ECTC for enhancement including seven certificate programs, two diplomas, and two tracks within the Associates in Business Administration Systems.

The first innovation provided an alternative to a semester based face-to-face curriculum building on an existing KCTCS program called Learn on Demand (LOD). The LOD model provides “just in time” delivery of a modularized curriculum with the intention of allowing students to begin course modules at any point in the calendar year. The O2W program revised the existing LOD Business Services curriculum from a concurrent model to a sequential model to increase efficiency and provide students a clear pathway to completion of a series of stacked credentials leading, if desired, to an Associates degree.

The second innovation proposed built upon the existing coaching model used in Learn on Demand by expanding the coaching services to include recruitment and career placement services. The coaching model was also designed to work collaboratively with community and state partners in employment and social services to maximize impact on participants’ employment potential.

The O2W program recruitment included students from across the commonwealth of Kentucky and O2W staff worked in collaboration with academic advisors, financial aid offices, and registrars at all 16 of the KCTCS campuses. Seven campuses in particular are hosts to other LOD degree pathways: Big Sandy, Elizabethtown, Hazard, Jefferson, Somerset, Southeast, and West Kentucky. Under instruction by the Department of Labor TAACCCT program office, the O2W coaching staff were required to be employed by and located at ECTC while serving the entire state. Students completing credentials in the O2W degree pathway were required to be enrolled at one of the LOD colleges even if they began their program of study at one of the other KCTCS colleges.

The O2W program set goals of serving 350 unique participants over the three year grant period. A total of 457 students were served over the length of the grant with 107 students receiving credentials from the program and 174 students completing the required courses needed (but may not have yet applied for formal credentials). As part of the grant strategies, three new courses were created in the LOD curriculum and five courses were redesigned. In addition, the O2W coaching model was fully developed with training materials and best practice guidelines. Further sustainability of the O2W business pathway specifically and Learn on Demand in general will depend upon the ongoing support of the KCTCS System Office and participating colleges.

The following report describes findings from implementation analysis of the two innovative strategies used in O2W and results of the impact analysis. Section 2 details the evaluation design. Section 3 provides background on the Learn on Demand program and the ways in which O2W built upon this program in the development of the Business Services pathway and expanded coaching model. Section 4 details the evaluation case study of the coaching model. Section 5 includes descriptive statistics of the program outcomes as well as results from two non-randomized analyses of a) impact on educational outcomes and b) changes in employment status and wages relative to a comparison cohort of students completing a similar online business services pathway. Section 6 discusses ways in which the project affected institutional policies and recommendations for the sustainability.

## 2. Evaluation Design

The evaluation of this program included two overlapping elements of mixed method design. The first phase of evaluation research was a qualitative study of program implementation and performance that provided formative assessment for the project team at ECTC as well as documentation of the efficacy of the program as it unfolded. The implementation study included examination of the development of the strategies, installation during the first two years, and initial implementation of all components in Fall 2014. Second, an impact analysis of student outcomes from full implementation of the program (Spring 2015-Spring 2016) was conducted in two parts: 1) analysis of course credits, retention, and credentials earned and 2) employment change and wage increase relative to a comparison cohort completing the same program of study within the same enrollment period as the participant cohort.

### Qualitative Case Study

The goal of the qualitative evaluation was to describe the implementation of proposed strategies for increasing student achievement and employment, institutional changes, and the impact of the project on campus policy and procedures. A case study design that included field data from multiple stakeholders at site and throughout the KCTCS system from which participants were recruited allowed the evaluation team to recognize obstacles and place-based interpretations of operations in the varied contexts of the project as well as contribute to the formal review of data produced by the project.

Guiding questions for the qualitative evaluation were:

- What were the specific challenges to the management of student progress (recruitment, funding, advising, transition to instructional setting, instruction, retention, and completion)?
- What were the specific impacts of the accelerated model on institutional policies and how were changes (if necessary) made for the sustainability of the program?
- In what ways did local employers and workforce development practitioners understand and interact with the accelerated model?
- What were potential issues that might affect the success of the proposed program.

The case study included semi-structured and focus group interviews with all staff including the O2W coaches, curriculum designers, project management, and stakeholders in KCTCS, the host college (ECTC), and community members. The evaluation team also attended (in person or by phone) regular O2W team meetings and events organized by O2W staff with other TAACCCT grant recipients and state Department of Labor representatives. Documentation of the project including training materials, recruitment materials, course development documentation, and communication among students, staff, and stakeholders. At the end of the grant period, follow up interviews were conducted with staff, and coaches. Surveys of employers and students were conducted during the final year of the grant; however, returns on these surveys were small. The above data were analyzed using an iterative process of open and closed coding (Emerson, Fretz, & Shaw, 1989) using a constant comparative method (Boeije, 2002).

## Outcome and Impact Analysis

Working with the project staff, the evaluation team developed a protocol for quantitative data collection and defined the scope of the project. From TAACCCT evaluation webinars, participating in conversations with other TAACCCT grant staff in Kentucky, and consulting with the program officer, the project team determined that the definition of TAACCCT eligible for this project was “TAA eligible, Veterans, unemployed, under-employed, busy adults.” This definition was clearly very broad and included almost any potential LOD student.

In recruitment, TAA eligible workers were identified as the primary target, followed by Veterans. Then, following the definition of eligibility above, the team identified the unemployed as a target population and the WIB One-Stop Centers as a potential recruitment location. Finally, “under-employed busy adults” were recognized as individuals who may already be working, but in positions that are vulnerable to lay-offs or seasonal variation and/or generally low paying unless the worker receives further training. In reality, this meant that just about any student interested in LOD Business Administration was a potential target for recruitment including incumbent workers.

The layers of organizational complexity surrounding LOD and the registration of LOD students in multiple colleges complicated the definition of who should be counted as an O2W participant. Although O2W was located at ECTC, it served the whole system. The team determined that all students in “TAACCCT touched” course modules developed or redesigned with grant funding and receiving grant funded coaching would be counted as TAACCCT grant participants regardless of “home” college as well as students directly recruited by O2W coaches.

Again working in collaboration with the grantee, the evaluation team defined the comparison cohort as those students enrolled in online semester-based business courses within KCTCS. The structure of the offer (modularized curriculum) and student support (coaching) differed. Non-Learn On Demand online courses in KCTCS - collectively known as Learn by Term - are semester-based courses delivered by Blackboard and designed by the instructor, with possible standardization within colleges (such as the same textbook). These can be from four weeks to sixteen weeks long and have set due dates. The level of interaction with instructor and classmates depends on the course design. A list of all students enrolled in Learn by Term business courses was further refined to include only those students who had declared one of the credentials specifically provided by the grant as their program of study, indicating an intent to get a credential in the Business Administration program. Many KCTCS students take business courses as electives, but this caveat focused the pool of students eligible for the comparison cohort on those who had the same stated goal as the Online2Workforce participants. Grant staff facilitated the communication and fulfillment of this request between the third-party evaluation staff and data personnel at the college resulting in a dataset of potential students to match that of the project participants described below.



**Sources of Data:** Information needed for performance reporting (e.g. quarterly reports), outcome evaluation (primarily descriptive data), and impact evaluation was identified and captured in a systematic manner through the development of a project database. The O2W team developed an intake form that aligns with the data collected in PeopleSoft, the software used by KCTCS for enrollment management. The project database was built independently from PeopleSoft that would keep not only a record of student contact and demographic information, but also provide space for coaches to record when they had made contact with the students, and the nature of that contact. Data points collected include demographic variables (gender, race, and ethnicity) and geographic information (zip code, county, and state). Other student data include Pell eligibility, TAA eligibility, Veterans status, and academic readiness (ACT or COMPASS). Disability status was not available due to privacy concerns. This dataset was provided without identifiers to the evaluation team following each semester. Data for the comparison cohort was provided at the end of the grant for impact analysis.

Current employment and income data were requested from all participants, but the self-reported data was variable and some participants declined to report this information. Employment and wage data were obtained as available through the Kentucky Center for Workforce Statistics (KCEWS). Due to state laws regarding access to this data, participant and comparison cohort student ID's were provided to KCEWS at the end of the grant with instructions for running analysis of employment status and wage changes. An aggregate report was then provided for this document.

To verify the data reported by the project team and to further develop the project dataset to include data regarding course enrollments and credentials completed, the O2W project team also provided full transcripts each semester for all participating students to the evaluation team. These transcript data were then analyzed to determine course completion and each student's completed coursework was matched against the program requirements for each degree program to determine earned credentials. Students who have completed all courses required for a credential are not, in KCTCS, automatically awarded that credential and there are a variety of reasons beyond the control of the grantee for why a student may not be awarded their certificate(s), diploma(s), or degree, including a lack of application for degree. Thus, for consistency, we created a variable for each student indicating credentials earned through completed courses to complement the data provided through PeopleSoft regarding credentials awarded by KCTCS. This transcript analysis also allowed the evaluation team to tag incumbent students completing developmental education courses.

### Description of Data and Variables Used in Outcomes Analysis

The nature of this intervention precludes randomized trials since the program is focused on the delivery system of an in-place training program (see Heckman et al, 1999; Mueser et al, 2007). For that reason, we conducted an evaluation based upon comparisons to important groups. We used data from students enrolled in comparable certificate programs during the same period of time described above. We refer to this as the comparison cohort. We used student demographic, academic, and employment records on

1,574 ECTC students for our analysis. Of these students, 457 participated in the Online-2-Workforce (O2W) program, while 1,117 served as comparison students.

We had five primary outcomes of interest: earned credit, earned credential, awarded credential, employment, and change in quarterly wages. Earned credit is a binary measure of whether or not a student earned at least one course credit while enrolled at ECTC. Earned credential is also a binary measure of whether or not a student completed enough credit hours to earn a credential while enrolled at ECTC. Awarded credential is a binary measure of whether or not a student was awarded a credential via a certificate, degree or diploma. We observed these three academic outcomes for all students. Employment is a binary measure of whether or not a student was employed and earning wages greater than \$0. Change in quarterly wages is a measure of each student's difference in quarterly wages prior to program start and after program completion. Employment and wage data are only available for students completing prior to the summer 2015 term due to data availability from the Kentucky Center for Education and Workforce Statistics (KCEWS).

In addition to our outcomes of interest, we used a number of demographic variables in our analysis. We used binary measures of a student's sex, whether or not they are a Pell Grant recipient, whether or not they are a Veteran, and whether or not they are a part-time student. We recoded each student's race/ethnicity into one of three categories: White, Black/African American, or Other Race (includes small numbers of each Latino, Asian/Pacific Islander, American Indian/Alaskan Native, or Multiracial students). We also use a categorical measure of the urbanicity of the student's home county in Kentucky, obtained from the USDA Economic Research Service Urban Influence Codes. We condensed these codes into six categories: Large Urban Metro (codes 1 & 2), Small Urban Metro (code 3), Urban Adjacent (codes 4 & 6), Urban Non-Adjacent (codes 5 & 7), Rural (codes 8 & 9), and out-of-state. We removed all out-of-state students prior to our analysis.

We also used a set of academic assessment variables in our analysis. One measure is each student's ACT composite score. A second set of measures are each student's Compass scores in Pre-Algebra, Algebra, Reading, and English. We standardized these assessment measures relative to the national mean and standard deviation of each assessment.

Across these background variables, many students have missing pieces of data. While the vast majority of students have valid reports for all of the demographic variables, slightly more than half of the students have either a valid ACT composite score or Compass percentile rank across subjects. If we were to include only those students who had valid measure for all variables into our analysis, we would be left with only 81 students. Thus, we opted to impute the missing data using multiple imputation by chained equations (MICE). The MICE process involves the estimation of a series of logistic and regression equations on available data to predict missing values for each variable, in sequential order of the variables with the fewest missing values to those with the most. We estimated fifty replications of the dataset using this process, pooling together the results of the propensity score analysis described in the following section.

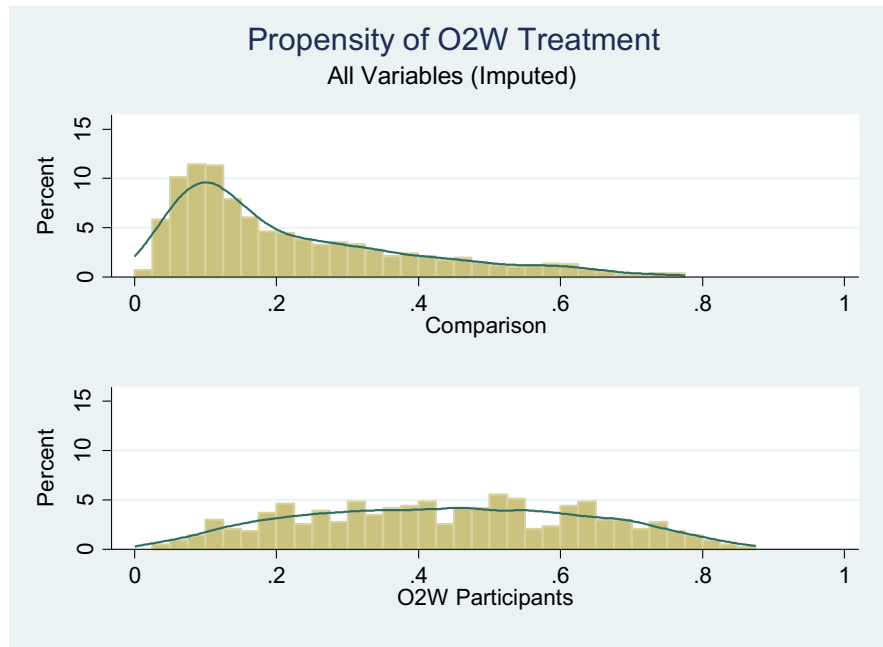
USDA Urban/Rural continuum codes were matched to the student's county of residence and used as a demographic variable in matching participant and comparison cohorts in the impact analysis (<http://www.ers.usda.gov/data-products/rural-urban-continuum-codes/.aspx>). The structure of the Kentucky Community and Technical College System is designed to provide service to even the most rural part of the Commonwealth and geography was included as a variable in the impact analysis. In a study of urban community college enrollments for non-traditional students, Jepsen & Montgomery (2008) found that if the typical resident had to travel three additional miles from home to college, enrollment could drop by as much as 14%. O2W included online modules to mitigate such effects; however, perceived distance to "school" and later to the workplace may have played a part in participation in the training program and in subsequent employment decisions, thus rurality of the participants' residence was considered in this design to acknowledge the ways that place matters. "Distance is a highly statistically significant factor in deciding whether to enroll in community college, and in which school to choose" (Jepsen & Montgomery, 2008).

**Impact Analysis Methods:** Our goal in this evaluation was to assess the impacts of ECTC students' participation in the O2W program on a number of educational and employment outcomes. Ideally, we would have randomly assigned students to either the O2W program or to continue their regular course of study. We would then be able to compare the educational and employment outcomes between groups in order to determine program effectiveness. However, random assignment was neither possible nor practical, so we turned to alternative methods recommended by the Department of Labor to account for selection bias resulting from program participation.

One quasi-experimental design for dealing with selection bias in non-experimental data is to use propensity score matching (PSM). With this approach, we used a linear composite of carefully chosen covariates that predict selection into the O2W program. Specifically, we used a logistic regression analysis to predict the likelihood that a student participates in the O2W program as a function of the student's age, sex, race/ethnicity, Pell Grant receipt, veteran status, part-time enrollment status, county urbanicity, ACT score, and Compass test score. The fitted values from this analysis serve as the probability, or propensity, that students in this sample will participate in the O2W program. We estimated the logistic regression models and predicted propensities individually on each of the fifty multiply imputed datasets individually before pooling together the results to estimate an average propensity score for each student that accounted for the variation across the imputed datasets.

The figure below displays the propensities, where a value of "0" indicates a student most likely to be in the comparison group and a value of "1" indicating a student more likely to be an O2W participant. We observed that the distributions of the propensities for the comparison and O2W students are markedly different from one another. These differences illustrate that the academic and demographic predictors described above strongly predict selection differences between O2W participants and comparison students. Despite the differences in these distributions, there is also a large region of

common support between values of 0.1 and 0.7, allowing us to move forward with matching students who share common background characteristics via their propensity of being an O2W participant.



After calculating each student’s propensity score, we used a one-to-one nearest-neighbor matching approach to compare O2W participants and comparison students. With this approach, we matched each O2W participant to one comparison student who shares a propensity score within a likelihood of  $\pm 0.02$ . If there were no comparison students within this range, the O2W student was left unmatched. Also, if there were multiple comparison students within the 0.02 likelihood range, the matching algorithm chooses one comparison student at random. Using this procedure, we were able to match 379 O2W students to 379 similar comparison students.

In order to ensure that we have matched O2W participant students and comparison students appropriately, we examined the descriptive statistics on each of the variables used to estimate the propensity scores. Across each of the covariates, we find no statistically significant differences between the matched O2W participant and comparison groups. These results suggest that we have matched students in a manner such that the O2W group is academically and demographically similar to the comparison group. We are now able to proceed with analyzing differences between the two groups on the three outcomes of interest.

### External Analysis of Employment and Wage Data

In Kentucky, wage and employment data from the Department of Labor are only available through a few select government agencies. The evaluation team contracted with the Kentucky Center for Workforce Statistics (KCEWS) to complete the impact

evaluation of change in employment status and change in wages. We sent the matched pairs of participants and comparison cohort students described above to KCEWS. KCEWS staff then matched these individuals with their employment records as available. Fortunately, most of the individuals in our dataset were found in the state employment database. A table was constructed showing employment status and quarterly wages (medians) at the beginning of the program and three months after separation/completion. KCEWS is not legally allowed to share individual level workforce data. These results are found in section 5.

### 3. Background and Implementation

The Kentucky Community and Technical College System (KCTCS) offers technical education and a pathway to the baccalaureate as well as community and adult learning programs. In “Stronger by Degrees,” the Kentucky Council on Postsecondary Education (CPE) articulated its strategic plan for 2011-15 focusing on four priority areas: efficiency/innovation, readiness, research, and student success. These goals are measured by CPE through metrics related to college readiness, degrees/credentials conferred, graduation rates and educational attainment with 2015 targets. CPE identified the sixteen colleges that make up the Kentucky Community and Technical College System as the primary institutions by which to increase college diploma, training and degree attainment and by doing so, increase the economic stability and vitality of the state. The push for increased post-secondary attainment in the state was driven by the recognition that not only do Kentucky youth need to aspire to post-secondary credentials in higher numbers, more Kentucky adults need to be encouraged to increase their skills to participate in the changing labor market. Kentucky’s higher education policy analysts have argued that as Kentucky’s population ages, more working adults need to be brought into college alongside traditional high school graduates to increase certificate, associate and bachelor degrees statewide.

As a matter of policy, KCTCS defines certificate programs as an organized program of study consisting of courses designed to meet a defined set of competencies, resulting in a marketable skill and is applicable to the requirements of an associate degree in the same or related field.<sup>1</sup> All KCTCS credentials including those earned through online courses are stackable and build toward an associate degree. Another innovation of the O2W program was to sequence the modules needed for each stackable credential so that students could move through the pathway as quickly as they were able, moving more swiftly by acquiring credit for prior learning through competency based assessments at the beginning of each module.

ECTC drew upon their prior work in developing the Business Administration coursework in designing O2W. As a matter of routine, industries that require specific employment needs communicate their need to the ECTC Business Administration Advisory Council. From here, particular job skills are identified and matched to the competencies taught in Business LoD courses. The certificates that were targeted in the O2W program were as follows:

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<sup>1</sup> KCTCS Administrative Policies, *Features and Characteristics of Certificate Programs*, 4.11.2.1. <http://legacy.kctcs.edu/employee/policies/volumeII/volII4-11-2.pdf>.

***Figure 2: Stacked Credentials in Business Administration***

Certificates:

- Advanced Business Administration
- Entrepreneurship
- Leadership
- Management
- Payroll Accounting Specialist
- Small Business Management
- Team Leadership

Diplomas:

- Organizational Leadership
- Small Business Management

Degrees\*:

- Associate in Business Administration Systems with Human Resources Management Track
- Associate in Business Administration Systems with Management Track

The O2W strategy of curricular realignment also drew upon state transfer policy. Kentucky's community college system has made significant strides in improving transferability of courses within the state. A new General Education Transfer policy went into effect in the fall of 2012. This policy reflects a phased response to state legislation requiring the establishment of common undergraduate course credits for the transfer and awarding of degrees. For general education credits, all state sponsored institutions of higher education are required by law to accept general education credits by a sister institution. Discipline-specific transfer credit is based on related transfer arrangements between the community college offering an applied associate program and the baccalaureate institution(s) offering relevant programs. Elizabethtown Community and Technical College maintains a transfer and articulation agreement with Western Kentucky University as well as several senior institutions across the state. Each element of the O2W curriculum is "stacked" to lead to eligibility for transfer.

## Learn on Demand and Learn by Term

As described above, the evaluation design required identifying a comparison group of students to the treatment group. Enrollment in Learn by Term semester based courses was considered the most similar group of KCTCS students. The following history of online education in KCTCS provides some background to how these two programs evolved.

Learn on Demand is the current iteration of an ongoing statewide initiative to increase online learning by KCTCS. Soon after the founding of the state system in 1997, there was no common policy distance learning or online education policy for KCTCS. Similar to the development of regular curriculum, at the time all the colleges in the system were developing and offering different online courses independently. In general, “online” courses were loosely defined as regular term courses offered with some kind of online or blended delivery.

In 2007, KCTCS established a centralized Virtual Learning Initiative (VLI) and over the following two years many of the processes and procedures used for a statewide modular credit system for online education were created. The VLI consisted of competency-based curricular modules. These modules could be packaged together to equal a multi-credit course. After a soft rollout in the spring of 2009, the system administrators renamed the initiative KCTCS Online. At the same time, the individual colleges within the system continued to offer online courses developed and taught by college staff.

The rapid changes and shifts from individual college development to system-wide initiatives created confusion. In 2010, system administrators developed the taglines “Learn on Demand” (LOD) and “Learn by Term” to clarify the differences between modularized and semester based offerings. In 2011, parent courses, in which the LOD modules could be paid for as bundled courses, were brought on line. Eventually, all of the VLI was renamed Learn on Demand; however, many students and practitioners still use the old VLI language. Semester based Learn by Term courses continued to be offered by individual colleges.

As of the O2W award in 2013, the Learn on Demand network included six charter colleges operated by the Kentucky Community and Technical College System. Those colleges were:

Big Sandy Community and Technical College  
Elizabethtown Community and Technical College  
Jefferson Community and Technical College  
Somerset Community College  
Southeast Kentucky Community and Technical College  
West Kentucky Community and Technical College

Each college in the network was responsible for one of the curricular areas available through Learn on Demand including curricular development, compliance with quality



assessment of the online courses, and instructional facilitation. For the period of this grant, Learn by Term business courses and O2W Learn on Demand modules and their parent courses were offered simultaneously. Our comparison cohort is drawn from these Learn by Term students.

**Curriculum Revisions & Instruction:** In addition to the goal of LOD of offering open enrollment where students could enroll at any time during the year, an additional strategy proposed for the O2W program was to reorient the flow of Business Administration courses from the concurrent course model used in KCTCS' existing, competency-based, Learn-on-Demand (LOD) program to a sequential course model. The reorientation to a linear sequence of modules based on Direct to Degree best practice, coupled with a specified course list, was intended to reduce credits lost to irrelevant or dropped courses and increase student performance, success and persistence as well as increasing the affordability of the degree.

The proposed program was not intended to invent or re-invent existing infrastructure but rather build on what already existed. By integrating the program with existing infrastructure, the intent was to build sustainability into the program design. As the O2W instructional designer revised and improved the modules, attention was paid to the flow of modules and parent courses following the direct to degree concept. The goal was a logically presented sequence that encouraged students to stack credentials for increased job preparedness. Some of these were used in the new KCTCS D2D Business Track rolled out in 2015. Thus each sequence of modules leads to credit in a parent course aligned to build toward specific credentials. See Appendix A for a listing of courses, date of initial certification, and date of redesign. All the O2W courses were resubmitted through the LOD quality control process.

In addition to reorienting the business certification pathways, O2W staff participated in other professional development which they applied to the module redesign. O2W staff and faculty involved with curriculum development attended the Jobs for the Future Bridging the Gap conference in New Orleans on April 8-9, 2015 as well as Storyboard training, a program used in Business Administration course modules. The curriculum developer also attended a "Story Based eLearning Design" training in Chicago. This attention to new and emerging online instructional design contributed to the quality of the O2W curriculum.

Most of the pathways proposed for O2W development or redesign were implemented successfully; however, the career pathway in real estate ran into significant issues during installation due to the need to integrate the academic coursework with the professional licensure process. The Real Estate licensure requirements in Kentucky include a specific number of hours in class and credit for prior learning is not allowed. Because LOD is competency based, it is possible for a student to get credit for prior learning and move through modules quickly. This makes it difficult to show class hours. Despite efforts to work with the local Realtor's Board and the course developer, the LOD career pathway in real estate was tabled in December 2014 was not offered as part of the O2W program due to the delay.

Instructors of LOD modules and their parent courses are hired and supported by the charter college responsible for their LOD curricular area. LOD instructors are called facilitators as the courses are designed for self-directed learning with facilitation from a knowledgeable content expert. Elizabethtown Community and Technical College hired and certified facilitators for LOD Business Administration course modules included in O2W. Almost all LOD instructors are either adjunct instructors or regular faculty teaching on overload. In a few rare cases, the LOD course developer is also the facilitator and the LOD course development and instruction process is included in the faculty member's regular load. All O2W LOD courses were facilitated by adjuncts or regular faculty working on overload.

**Innovations in Competency-Based Assessment:** In the LOD model, students are asked to apply learning to real-world tasks that demonstrate meaningful application of essential knowledge and skills. Student performance is aligned with pre-determined scoring rubrics, specifically pre-test and post-test assessments for each sub-unit within the module that allow students to move forward quickly based on prior knowledge as appropriate. With authentic assessments, student learning is measured against a pre-determined set of criteria, a rubric, or scoring scale, which shows the essential required criteria for the task and appropriate levels of performance for each criterion. Learning activities and assignments require students' active participation that help students develop a strong foundation in the selected area. The course design includes a combination of personalized content, embedded assessment, interactivity, and immediate student feedback designed to increase student engagement and improve learning outcomes through deeper learning experiences.

**Innovations in Advising:** Academic Success coaches have been part of LOD since 2009. Although each student formally has an assigned advisor based on their home college, when they enroll in an LOD course module, they are also assigned an LOD success coach. The O2W coaching strategy was an enhancement of this coaching structure for students in the LOD Business Administration Program.

Traditional LOD Success Coaches generally only interact with the instructor/facilitator when an issue arises the student's enrollment such as in adding the next course or the next module. For example, the student might not meet a pre-requisite or may be waiting on a grade from a previously completed module. Alternatively, the student may be having an issue getting access to the online class (and therefore has no relationship with the facilitator to ask for help). In this case, the coaches do problem solving. The coaches play an instrumental role in getting students enrolled in the next step at which point the facilitator will follow along with the student at key integral points in the online class. Facilitators do not usually contact the coaches unless they are doing some kind of reporting on the Starfish (online early alert system), which automatically sends a notice to everyone involved in the student's success. O2W extended this coaching relationship from recruitment to career advising.

Because of the self directed and competency based format of LOD, one of the roles of O2W coaches was to help students identify ways in which they may be eligible for KCTCS approved credit for prior learning as well as to remind students to complete the pretest/posttest process so that they may move successfully through modules to course completion. This process is not always intuitive, especially for students unfamiliar with the LOD model.

**Changes in Student Registration Status:** As of fall 2014 (six months after Initial Implementation of O2W) LOD underwent a substantive change. In order to address issues surrounding student's financial aid status and to find ways to accelerate student completion, students were re-categorized for administrative purposes from one large pool that included students who take all their classes through LOD and those that mix Learn by Term, LOD, and Face-to-Face classes into two groups: Hybrid and LOD Only.

Following the Federal Student Aid 2014 Training Conference in Atlanta, GA (see Campbell & Martin, 2014), KCTCS put the LOD-Only program on hiatus due to inconsistencies among the colleges concerning whether the modules fall under "non-term" or "nonstandard term" regulations, resulting in contradictions in how aid was being awarded to LOD-Only students. This also came as a result of recommendations from an outside consulting agency that KCTCS had hired in order to standardize financial aid processes across the sixteen colleges. As a result, as of December 2014, all LOD Only students were advised to complete all the modules of their courses as soon as possible and no LOD Only sections were scheduled for January, 2015.

The history of confusion over change in KCTCS online did not affect the development and redesign of the O2W sequential pathway. The evaluation team worked with the O2W staff to sustain rigorous data collection on all students defined as "TAACCCT-touched" and determined that enrollment in the original O2W curriculum would continue to be used to define O2W participation in the evaluation of the impact of the O2W strategies on student success. Based on this discussion, impact analysis included the fall semester of 2014 (the last semester of LOD-only designation) through to the end of the grant in Spring 2016.

In conclusion, innovations in the development and redesign of "parent courses" in a sequential modularized curriculum with extended coaching from recruitment to career placement entered full implementation in the Fall of 2014 with a slightly different administrative categorization of students and reduced availability of the "on demand" aspect of LOD in the Spring of 2015. In working with the project staff, the evaluation team felt comfortable that despite registration and financial aid issues, the curriculum as proposed was in place as well as the student support strategy of comprehensive coaching. The following section details the ways in which the program served participating students within the systemic changes happening around them.

## 4. Qualitative Case Study: The Coaching Model

O2W was designed to build from the existing LOD coaching model. Originally, the O2W coaches were designated to be located around the state similar to the LOD Coaches; however, in determining the scope of work the TAACCCT grant program officer requested that all O2W staff be located physically at the grantee college, ECTC. According to the proposal, the O2W coaching model expanded on LOD coaching by including recruitment (including preliminary outreach to potential employers), academic support following the LOD coaching model, and placement counseling. Furthermore, the O2W coaches were intended to have a smaller caseload allowing for more contact with participating students.

### Coach Training

At the beginning of the grant, there was no formal training for LOD coaches or O2W coaches established. Working with an experienced LOD coach, the O2W Director identified appropriate professional development and training to bring the O2W coaches up to speed, this included receiving training as Master Advisors. This provided them with information and protocols for all the elements of advising a student through their coursework. The Coaches were also provided with KCTCS credentials that give them access to the students' records, particularly the ability to help a student enroll and "see" their status in their courses and degree program; however, O2W coaches were not able to lift holds. A small difficulty in installation was working out what kinds of access the O2W coaches and staff needed from the PeopleSoft system.

Ongoing professional development of coaches continued throughout the grant. The TAACCCT grant staff attended the National Advising Conference held in Las Vegas in 2015 and was pleased to find that many of the strategies being used by the Student Success Coaches were best practices across the nation. O2W staff also attended the National Association for College Advisors (NACADA) conference in Las Vegas, Nevada in October 2015. A training manual for new success coaches was developed in July 2015. The manual provides orientation for new coaches and reference guide for veteran coaches.

In the last year of the grant, the staff launched a website that included: videos and bios of the student success coaches, videos of the course facilitators, business career maps, a blog focusing on employment skills and a blog focusing on specifics of Online2Workforce. These grant products should serve as useful tools in the expansion of the coaching model to other KCTCS online endeavors in the future.

### Recruiting

Unlike typical engagement of home college advisors or LOD coaches with LOD students that begins only at course registration, the flow of contact with O2W students began as early as recruitment and continued through to job placement. Thus O2W Student Success Coaches acted as admissions counselors, registrar assistants, and career planning specialists in addition to academic coaches during the students' course experience.

<p><b>What we offer:</b></p> <p>A Success Coach who will:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Assist you with program enrollment and course selection</li> <li><input checked="" type="checkbox"/> Provide curriculum and transfer guidance</li> <li><input checked="" type="checkbox"/> Provide career coaching and employment assistance</li> </ul> <p>What makes us different?</p> <ul style="list-style-type: none"> <li>• Our only job is to help students succeed— it's what we do</li> <li>• Two coaches who are military veteran specialists</li> <li>• We have relationships with faculty advisors as well as KCTCS LoD coaches</li> </ul> <p>Read about Learn on Demand at: <a href="http://learnondemand.kctcs.edu" style="color: white;">http://learnondemand.kctcs.edu</a></p>	<p><b>Contact Us</b></p> <p>[success coach name]  <b>Success Coach and Master Advisor</b></p> <p>[phone number]</p> <p>[email @kctcs.edu]</p>
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Description provided on O2W certificate information handout.

To support recruitment, the team identified a variety of events and communications channels to reach potential students as well as capitalizing on existing staff networks. Coaches went out in the community to meet other agencies and find resources for O2W recruitment. All believed it was important to go where the people who might most benefit from the grant were located. Coaches went to (un)employment centers, American Legion halls, National Guard centers, for example, as the underemployed and veteran community were targeted as possible recipients. They were a presence at community events. Both staff and coaches said this kind of outreach was atypical for ECTC and had not previously been done. They all felt they got the name of ECTC out in the community. Finally, the coaching staff conducted a number of events at local high schools. While traditional age college students were not the target for the grant, by having a presence in the local schools and emphasizing the potential of LOD in general and O2W specifically to all ages and backgrounds, the coaching staff felt they might be reaching parents as well as students.

Evaluating the efficacy of these efforts is only possible through capturing the number of students who register for classes. This does not capture, however, the ways in which the team's efforts may have changed perceptions among employers, students and their families, community partners, and other college staff about LOD.

An obstacle to recruitment came very early in implementation from within ECTC when another grant program working through Workforce Solutions (a non-credit employment training program) felt that the two grants were competing for the same students. Open communication within the college resolved this issue as the two programs were providing different kinds of services and, in fact, could be helpful to one another. For example, the Workforce Solutions staff attended a TAA rapid response meeting to which O2W was not invited. Eventually, these tensions were worked out between the different programs and by the end of the grant there was evidence of regular partnering.

One of the major obstacles to recruitment came from within KCTCS. The complicated relationship among the LOD charter colleges and the other colleges in the state resulted in questions regarding who would be allowed to recruit students to what program where. Initially, O2W coaches reached out wherever their experience and networks would allow; however, this caused friction with other colleges and subsequently, the KCTCS presidents agreed that the O2W coaches would only recruit within the service areas of LOD charter colleges. Coaches were allowed to speak at some local businesses that were interested in allowing their employees to sign up for the O2W program. Other forms of contact were more passive, involving leaving program brochures and materials in libraries and other public venues. This resulted in a restriction of the ability of the grantee to recruit statewide which is evident in the geographic distribution of the student data described in Section 5.

In the early days of the grant, a second obstacle to recruitment came, surprisingly, from TAA and the WIB. When attempting to recruit students at a rapid response meeting following a TAA eligible plant closing, the O2W staff members were turned away. This was due to a history of the Department of Labor controlling access by colleges to displaced workers to avoid the appearance of favoritism among post-secondary institutions competing for enrollments. This problem was subsequently resolved through communications with the TAA and WIB offices; however, as noted above, O2W staff continued to have difficulty gaining access to rapid response meetings. An apparently useful meeting was hosted by WIB to introduce all the TAACCCT grant recipients around the state and provide them with space to discuss obstacles and best practices. This kind of local communication is recommended if the TAA funded programs are to be integrated into recruiting activities.

### Coaching Roles

Due to the preexistence of a coaching model for all of Learn On Demand, an initial challenge was to clearly define for both the coaches and students how the roles differed between the LOD student success coaches and the O2W coaches, beyond the focus on business students. A flowchart was developed (see below) to clarify the different work responsibilities, and introductory emails to O2W students stated what role the O2W and LOD coach each played in supporting the student.

While the original plan was for coaches to all be cross-trained in recruitment, coaching, and placement for each of their respective service areas, some of the coaches recognized that they could be more effective teaming up and splitting the responsibilities across multiple service areas. An O2W coach who preferred being out of the office making contacts with area businesses shared students with another who enjoyed helping students who had already enrolled in classes. The flexible and mutually supportive team was able to adapt in ways that capitalized on the perceived strengths of individuals.

All members of the coaching team recognized that the majority of their processes came from collaboration in team meetings where coaches were able to share with each other what had and had not worked for them in their target areas. Some of the coaches focused on particular populations due to their previous experiences. Two coaches were

themselves veterans, so they were designated as the leads on making contacts with Fort Knox, the local base, and with those responsible for adding programs to the GoArmy website. Another coach had extensive experience with the Drug Court system in Hardin County, and thus was able to use her contacts to channel potential students into the program.

While most of the process of developing an enhanced coaching model was straightforward, the presence of existing LOD coaches required some negotiations regarding the differences between LOD and O2W (TAACCCT) Coaches and the administrative structure for supervision of the coaches.

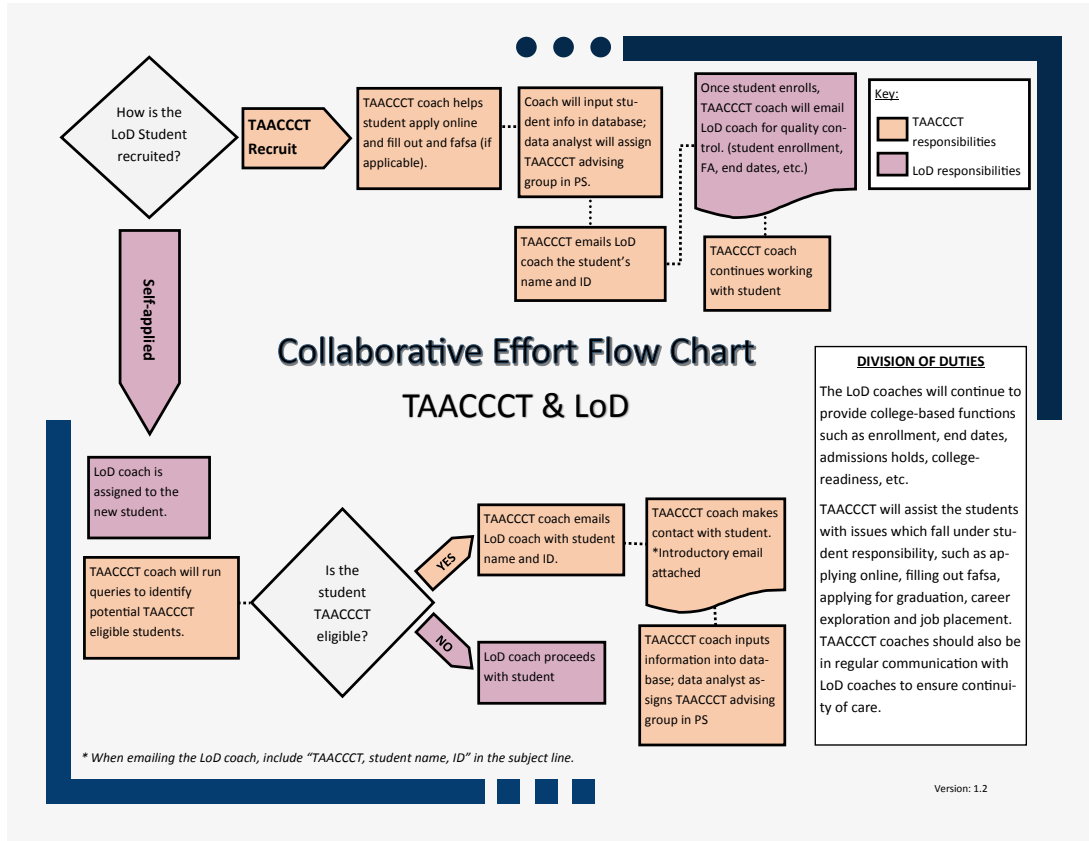
1. From an organizational point of view, every KCTCS student is assigned an advisor at his or her “home” college. These academic advisors fall under the supervision of their college’s chief academic officer generally and his or her division chair more specifically. Most colleges provide training through a system-wide program to be “master” advisors. The academic advisor is listed in the student’s record in PeopleSoft as his or her “primary” advisor.
2. At the point of installation of O2W, every LOD student was ALSO automatically assigned an LOD Coach based on their “home” college who contacts them via email as soon as they have registered for an LOD course. LOD Coaches report to the KCTCS system office regardless of their physical location around the state. Early in the grant, LOD Coaches are listed in the student’s record as his or her “secondary” advisor.
3. Again, at the point of installation of O2W, if the student was an LOD Business Administration student who meets the criteria for the TAACCCT grant, the student was ALSO assigned an O2W Student Success Coach. The O2W Coaches reported directly to the O2W Project Director. O2W Eligible students were “tagged” in the People Soft database as members of the TAACCCT Advising group; however, the O2W Coaches are listed in the student’s record as “Tier Three” advisor.<sup>2</sup>

While “home” college, O2W, and KCTCS administrative differences complicate the organizational relationships between the different types of advising and student support, the experience from the student’s point of view is more straightforward. Although every student was assigned an academic advisor from his or her “home” college, once identified as an LOD student, the primary advisor rarely had direct contact with the student. Furthermore, once identified as TAACCCT eligible, the LOD Coach would typically step aside and allow the O2W Student Success Coach to take the lead in helping the student. On occasion the two coaches would partner behind the scenes to help a student navigate particularly complicated organizational hurdles. These relationships were deeply affected

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<sup>2</sup> The re-categorization of students into Hybrid or LOD-Only registration types affected the ways in which the tiers of advising were assigned. Once a student was identified as eligible for O2W coaching, however, they were included in the O2W participant pool.

by changes in LOD enrollment and registration policies during the first year of implementation. In spirit, however, the following chart is a helpful description of how the student would experience the different levels of advising/coaching between LOD and O2W:



The evaluation staff developed a student survey to get feedback from participants in the program. It was distributed in March 2016 as the student services portion of the grant was ending. Coaches distributed the surveys to their students. Twenty-eight (28) responses were received, of which 16 identified Elizabethtown as their home school, 7 Jefferson, 2 Hopkinsville, and one each at Somerset, South Central Kentucky, and West Kentucky. Twenty-six (26) of the students were pursuing at least one associate’s degree, but fourteen (14) did not expect to graduate for at least another year. Twenty (20) of the students reported that they took all their courses online, and 19 were working full-time while enrolled.



Tables 4.1 & 4.2. Frequency and type of interactions with coaches.

How often do you contact your Online2Workforce success coach?	
Almost Daily	1
Once A Week	1
Whenever I needed help	20
I don't know who my coach is	6

Type of Coaching Activity	Number of Responders
Enrolling in classes	19
Applying for financial aid	9
Resolving issues with instructors	10
Career planning	14
Resume	4
Job search	6
Interview skills	2

Table 4.4. Student responses regarding the program overall.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Taking classes with Learn on Demand has helped me to finish my program faster.	20	5	1	2
Completing my program will help me earn a higher salary.	18	9	0	1
What I am learning in my program will help me in my future career.	20	6	2	0
When I have a problem, my success coach responds quickly.	20	5	1	1
My success coach has helped me to only take classes that I need.	18	5	3	1
I am able to manage my time well without set due dates.	20	6	2	0
I think I will find work quickly after graduating.	17	5	3	1
My program is taking longer than I expected to finish.	8	5	7	7
My prior knowledge of business has helped me complete courses faster.	14	9	4	0
I need the flexibility that Learn on Demand courses provide.	21	4	1	0

Open ended responses to the survey supported the feedback received by the coaches through emails compiled by the project director and heard by the coaches in their phone and face to face interactions. The students appreciated the online format of the program. One student responded:

“I thoroughly enjoy taking classes online and I am very happy that it is available to me and others. Otherwise, I would not have obtain [sic] my AAS in the short time it has taken me being a half-time student. Thanks!”

Another described the importance of having a success coach to navigating the multiple campuses and to having that personal connection:

“I loved working with [my coach]. I'm going to miss working with her on my classes. She is the one who is responsible for getting me in the LOD program. That's what I originally wanted and was told by Springfield that I couldn't do it through them. [She] got me right in through Elizabethtown. Really gonna [sic] miss her. [I]f you get to see this, I thank you so much for all you have done for me on my College journey. I wish you the very best.”

Some of the comments reflected positive feelings about access to education through online courses, but more typical complaints heard by many college students about general education:

“I feel like Learn on Demand is great because I can get the class done quickly. I think there should be a lot more classes that way. But I feel strongly discouraged about my degree because I'm having to take so many classes that aren't even teaching me anything that I will ever need. Like Bio, and humanities.”

**Too many cooks in the kitchen?** Obviously, students studying through Learn on Demand receive far more support than the average online student. They are assigned a home college advisor, an LOD coach, and—if LOD Business students—an O2W coach. The evaluation team did not, however, find any evidence that there were too many players in the supporting cast. Unlike the situation on some large campuses where students may feel bounced from person to person or receive conflicting advice, their O2W coach recognized his or her role as support to the whole enterprise. The coaches were cross trained to recognize the language, bureaucratic detail, and potential obstacles the students might hear or face regardless of home college and were prepared to help the students navigate that terrain.

### Credentialing Support & Career Counseling

Online2Workforce coaches continued to work with their students through goal completion. Completers were congratulated and informally surveyed by grant staff on their career plans and comments about the program. The project team worked to develop a student resource website for Online2Workforce that included the career maps for Business Administration and links to coach introduction videos. A pathway was also developed for the AAS degree that lined up composite certificates in the most cost effective way for students.

To promote continuing education, a representative from the University of Louisville gave a presentation to the O2W staff on a bachelor's program that gives students credit for technical courses and/or work experience. Transfer possibilities with Western Kentucky University were also discussed, but it is likely that students wishing to transfer will be pointed more often to the Associate in Arts degree (available through Learn on Demand) rather than the Associate in Applied Science for Business Administration. Sullivan

University and Western Kentucky University admissions officials attended staff meeting in June to discuss transfer possibilities for O2W students.

In addition to recruiting students, coaches were also “recruiting” businesses for both student references and future placement locations. This was a very different role from traditional LOD success coaches. When preparing to visit service areas, coaches would contact businesses to set up meetings with the Human Resources, or equivalent, office to discuss the O2W program. Some of the coaches were also able to reach multiple businesses at once by attending Chamber of Commerce meetings in the counties. Promotional materials were also given to these businesses for distribution to employees. Again, because of the diversity of skills of the different coaches, a set protocol for employer engagement was not formally developed; however, tips and strategies for effective employer engagement were regularly shared in team meetings.

The project team continued their efforts in employer outreach and strengthening O2W’s partnership with the Kentucky One Stop Career Center. Due to the statewide and online nature of the program, full extensions of student support have been challenging to provide, but new technology strategies are being developed to counter the issue.

Team members attended job fairs, made face-to-face contacts with local employers, and contacted remote employers through phone calls. One face-to-face meeting included the Cecilian Bank HR Director to discuss their openings for bank teller positions. Though this partnership is fruitful, it suffers from limitations of location (only Hardin County) and education required. Career maps geared towards the banking industry were created. Another potential new partner, Jack and Company, is a local business specializing in technology and marketing needs for small business owners. One success coach visited businesses who cover tuition costs for their employees along with a representative from the college’s billing office.

The partnership with the local workforce office involves a One Stop representative coming to the ECTC Hardin campus twice a month and an O2W coach going to the workforce office twice a month. The One Stop representative is available to help students with job searches, resume writing, and other career planning activities. By the end of the semester, 5-6 students were meeting with him at each visit. The partnership with the One Stop Career Center has been adopted by the college and will be sustained after the end of the O2W grant through the Office of Student Support Services.

In order to gauge the reception of the O2W program by employer partners, the evaluation team developed a survey instrument. This instrument included requests for employment needs and the skills associated with those needs. The purpose of this instrument in the evaluation was to triangulate the grant’s reports on employer engagement and to provide detailed feedback on how the curriculum in the program may be improved.

The employer survey (see Appendix B) was distributed in November 2015 through email using a list of employers with whom that grant staff had interacted. Of the employers contacted, four full responses were received, along with two partial responses. From

such a small response, a full evaluation of how O2W was received by employer partners was not able to be determined. However, analysis of the small dataset revealed that employers had received information about Online2Workforce and talked to O2W staff about their employment needs, but communication about the degree program may not have been sufficient for all employers (see Table 4.3 below). Employers also universally identified “soft skills” and personality as important traits they were looking for in employees.

*Table 4.3 - Table showing agreement of statements and the respondent’s industry.*

<b>Employer Industry</b>	<b>Bank</b>	<b>Insurance</b>	<b>Manufacturing</b>	<b>Communications</b>
ECTC/KCTCS meets employer needs in Kentucky.	Agree	Agree	Agree	Agree
In looking for new employees, I would contact ECTC/KCTCS for student referrals.	Agree	Agree	Agree	Strongly Agree
I would contact ECTC/KCTCS for training opportunities for my current employees.	Agree	Neither Agree nor Disagree	Strongly Agree	Agree
I would like the opportunity to talk to students in the classroom about job opportunities.	Neither Agree nor Disagree	Agree	Neither Agree nor Disagree	Strongly Agree
I am interested in working with ECTC/KCTCS to provide co-ops and apprenticeships to students.	Agree	Agree	Agree	Strongly Agree
I am familiar with the Learn on Demand program in ECTC/KCTCS.	Strongly Agree	Disagree	Disagree	Disagree
I am familiar with the Business Administration program at ECTC/KCTCS.	Strongly Agree	Agree	Disagree	Strongly Agree

## 5. Outcome and Impact Analysis

**Demographics:** As stated in Section Two, grant program staff created an in-house database to keep track of participants, their enrollment status, and demographic information, including whether or not they belonged to those groups targeted by the TAACCCT grant – TAA-eligible, veteran status, adult non-traditional student, and working student. The demographics below describe the total participants that the grant served as far as information was known for them. Certain information could be taken from a student’s application to KCTCS, while others were dependent upon self-reporting. As a result, certain variables such as disability status and enrollment in other support services could not be gathered. Enrollment and course performance data for each student were verified by the evaluation team through an analysis of each student’s transcript pulled directly from the college enrollment system.

Age: The average age of participants was 33 years old (N=450). 117 students were under 25 years old, and the average age of non-traditional student participants (defined as 25 or older) was 37.

Gender, Race & Ethnicity: 331 of the 457 participants were women. The majority of these were white (403 of 457), with 40 students self-reporting Black or African American; six (6) more than one race; four (4) choosing either Asian or Native American; and three (3) chose not to answer. Ten (10) students were reported as also being of Latino or Hispanic heritage.

Residency: 436 of the 457 participants were from Kentucky, including representatives from 85 of 120 counties. The three most represented counties were Hardin County with 74 (where ECTC’s main campus is located), 44 from Jefferson County (Louisville), and Grayson County with 22 (Leitchfield, where one O2W coach is located).

Eligibility for Federal Funding/Programs: 276 participants self-disclosed that they were eligible for Pell grant funding for the Fall 2015 semester. One student was identified as being eligible for TAA benefits. Twenty-four (24) were eligible for Veterans benefits.

College Readiness: According to data on students’ COMPASS placement test results, 68 students tested into remedial English, 68 into remedial reading, and 154 students tested into remedial math. 209 participants have taken at least one developmental course over their entire enrollment time at KCTCS. 128 students did not have reading or writing COMPASS or ACT scores, and 144 students did not have math COMPASS test records or ACT scores which may be explained by transfer credit or other evidence of college readiness.

Enrollment and Employment Status: Enrollment data could be monitored by coaches through the student information system of KCTCS, PeopleSoft, but employment data had to be self-reported by participants. Of the 332 students that were enrolled for classes in the final semester with a known course load, 105 were enrolled full-time (at least 12

credit hours per semester) and 227 were enrolled part-time. 137 students were working full-time and 44 were working part-time.

### Descriptive Comparisons

Prior to creating statistically comparable cohorts of participants and non-participant contemporary students through propensity-score matching, we identified a population from which to identify the sample cohort. The below charts compare the entire populations of Online2Workforce participants and other students in KCTCS who took traditional semester-based online business courses (Learn by Term) in pursuit of a business credential.

Table 5.1 shows the recruitment of new versus incumbent KCTCS students into the Online2Workforce program and into term-based online business courses. Percentages are given for a rough comparison given the difference in population size. Table 5.1 also shows the number of students enrolled for each term of full implementation of the O2W program and how many students earned credit in passing at least one course. The total number of courses taken was used to find the average number of courses taken by each student, which were comparable between Online2Workforce and non-participants. If a single course is assumed to be three (3) credit hours, the average load was nine credits each semester except for five in the summer – between half and full-time.

*Table 5.1. Incumbent Student Status and Course Outcomes*

	Online2Workforce				Non-LOD Online BAS Students			
	Fall 2014	Spring 2015	Summer 2015	Fall 2015	Fall 2014	Spring 2016	Summer 2015	Fall 2015
<b>Total Served</b>	431	442	444	454	960	1026	1035	1107
# Incumbent	373	431	442	444	795	960	1026	1035
% Incumbent	86.5%	97.5%	99.5%	97.8%	82.8%	93.6%	99.1%	93.5%
	Incumbent since start (373)			82.2%	Incumbent since start (795)			71.8%
<b>Students in Courses</b>	342	295	132	244	836	780	179	688
# Earned Credit	294	259	118	220	743	675	156	593
% Earned Credit	86%	87.8%	89.4%	90.2%	88.9%	86.5%	87.2%	86.2%
Total Courses	862	757	218	663	2252	2011	254	1761
Avg. # Courses	3	3	1.6	3	3	3	1.6	3

Students in KCTCS must complete a graduation application – often with an advisor signature and degree audit attached – in order to be awarded a credential, from one-course certificates to associate’s degrees. As a result, many students may be eligible for a credential but may not apply for it, either because they are not aware of their eligibility, they are postponing application until the end due to financial aid concerns, or are not informed of the added value of a credential to courses taken. Table 5.2 shows the added value of a coach who is regularly checking on a student’s progress toward credentials,

both in informing students when they are eligible and guiding them in taking courses in a sequence of stacking certificates leading to a diploma or associate’s degree.

*Table 5.2. Credential Outcomes*

	<b>Online2Workforce</b>	<b>Comparison</b>
<b># Students Eligible for Credentials</b>	165	281
% Total Students	36.3%	25.4%
<b># Student Awarded Credentials</b>	108	74
% Total Students	23.8%	6.7%
Total Earned Credentials	329	213

### Propensity-Score Matched Cohort Demographics

Gross comparisons between the entire populations of participants and contemporary non-Learn on Demand online business students are interesting regarding the program’s ability to recruit, enroll, and graduate students. Creating smaller matched cohorts enables a more statistically viable comparison of outcomes as demographic differences in the two groups can be lessened.

Table 5.3 compares the demographics of the two matched cohorts. Certain variables that were collected on Online2Workforce students are not collected from all students and thus could not be included. The bottom four rows regard the rurality of students based on the USDA’s score for their resident county in Kentucky. Out-of-state students were not included due to their rarity, reflecting the locality of community colleges, even in online classes. As mentioned above in the college readiness description of the entire population of Online2Workforce participants, students are not required to submit ACT scores and are only required to take the COMPASS placement test if they have no prior college credit or other accepted placement test scores. As a result, test scores are not available for all students. Pell grant eligibility, likewise, is only available for those students who submitted a FAFSA for the 2015-16 academic year.

*Table 5.3. Demographic Comparison of Propensity Score Matched Cohorts*

	<b>O2W</b>	<b>Comparison</b>
<b>Total Sample Size</b>	379	379
<b>Age</b>	32.5	32.9
<b>ACT Score*</b>	20.9	19.9
<b>Compass Algebra*</b>	28.9	27.7
<b>Compass English*</b>	76.1	71.8
<b>Compass Pre-Algebra*</b>	52.3	48.3
<b>Compass Reading*</b>	85.5	84.2

<b>% Female</b>	70.7%	69.9%
<b>% Black</b>	9.3%	12.0%
<b>% Other Race</b>	1.9%	2.1%
<b>% Pell Recipients</b>	66.4%	66.0%
<b>% Veterans</b>	6.0%	6.1%
<b>% Part-Time Students</b>	65.2%	67.0%
<b>% Small Urban Metro</b>	24.8%	23.0%
<b>% Urban Metro-Adjacent</b>	12.4%	12.9%
<b>% Urban Non-Metro-Adjacent</b>	21.6%	17.7%
<b>% Rural</b>	10.6%	11.6%

\* Not available for all students. Scores were standardized for outcome analysis.

### Educational Outcomes

In Table 5.4, we display the results of our analysis of educational outcomes. Over 90% of all O2W participant and comparison students earned at least one credit during while enrolled at ECTC, as shown in Panel A. Nearly twice the proportion of O2W participants (36.1%) earned a credential as compared to comparison students (16.5) ( $p < 0.001$ ).

When looking solely at propensity score matched students in Panel B (where the participant cohort and the comparison cohort have matching backgrounds and type of experience), we find similar results. While the proportion of students earning credit is roughly the same, approximately twice the proportion of O2W participant students earned (36.9%) or were awarded a credential (23.2%) relative to their comparison peers (20.3%, 11.6% awarded) ( $p < 0.001$  for each).

We further parsed out the propensity score matched students based on their exposure to the “mostly full” implementation of the O2W program, beginning in the fall 2014 semester.<sup>3</sup> In Panel C we removed all O2W and comparison students (35 each) whose last term at ECTC was prior to Fall 2014. These O2W students were never exposed to the full program implementation. After removing these students, our results remain virtually unchanged.

In Panels D and E, we split apart O2W students who were either partially or fully exposed to full program implementation. Students in the former group were first enrolled at ECTC prior to the fall 2014 semester, meaning that they were only partially exposed to the full O2W implementation. A greater proportion of these students earned (46.9%) or were awarded credentials (29.5%) than both their matched comparison peers ( $p < 0.001$  for each measure) or fellow O2W students exposed to full implementation. There remains no difference between the O2W and comparison students in terms of earned credit.

<sup>3</sup> In all instances where we divided students based on exposure to the O2W program, the covariates upon which we matched O2W participant and comparison students remained balanced.



Table 5.4. Educational Outcomes

	Comparison Students	O2W Participants	Difference (O2W-Comp)
<b>A. All Students</b>			
Earned Credit	91.4%	90.4%	-1.1%
Earned Credential	16.5%	36.1%	19.6%***
Awarded Credential	--	--	--
N	1107	457	
<b>B. All Matched Students</b>			
Earned Credit	91.0%	90.0%	-1.1%
Earned Credential	20.3%	36.9%	16.6%***
Awarded Credential	11.6%	23.2%	11.6%***
N	379	379	
<b>C. Matched Students Completing After O2W Full Implementation</b>			
Earned Credit	90.1%	91.6%	1.5%
Earned Credential	19.5%	38.7%	19.2%***
Awarded Credential	10.8%	25.3%	14.5%***
N	344	344	
<b>D. Matched Students with Partial O2W Implementation Exposure</b>			
Earned Credit	93.5%	94.8%	1.3%
Earned Credential	25.6%	46.9%	21.3%***
Awarded Credential	13.7%	29.5%	15.8%***
N	262	272	
<b>E. Matched Students with Full O2W Implementation Exposure</b>			
Earned Credit	79.3%	80.6%	1.3%
Earned Credential	0.0%	8.3%	8.3%**
Awarded Credential	1.2%	9.7%	8.5%*
N	82	72	

\* $p \leq 0.050$ , \*\* $p \leq 0.010$ , \*\*\* $p \leq 0.001$ . Hypothesis tests represent chi-squared test for difference in proportions between O2W participants and comparison students. Panel A displays outcomes for all students. There are no data on awarded credentials as the ECTC office only received information on matched students. Panel B displays outcomes for all propensity score matched students. Panel C includes only those O2W participant students (and their matched comparison peers) who finished after the “mostly full” implementation of the program (Fall 2014 or later). Panel D includes only those O2W students and their comparison peers who were partially exposed to full implementation of the program (started prior to Fall 2014 but finished in Fall 2014 or later). Panel E includes only those O2W students and their comparison peers who were exposed to full implementation of the program throughout their duration at ECTC (started and finished in Fall 2014 or later).

For the O2W students exposed to full implementation of the program, meaning that they first enrolled at ECTC during or after the fall 2014 semester, few students have earned or were awarded a credential. This is likely due to the fact that these students were only enrolled for a maximum of five semesters. However, a statistically significantly greater proportion of O2W have earned (8.3%,  $p=0.008$ ) or were awarded a credential (9.7%,  $p=0.018$ ) in that timeframe.

## Employment Outcomes

In Table 5.5, we display the results of our analysis of employment outcomes. For those students that the Kentucky Center for Education and Workforce Statistics had available data (shown in Panel A), a similar proportion of O2W (66.5%) and comparison (69.9%) students were employed at the program start. However, a significantly smaller proportion of O2W students (60.2%) were employed after program completion relative to their comparison peers (71.2%) ( $p=0.040$ ).<sup>4</sup> Regarding quarterly wages, we find no statistically significant mean differences between the groups despite O2W participants having higher median and mean quarterly wages prior to program start and after program completion.<sup>5</sup> Both the O2W (\$1,733) and comparison (\$1,474) groups of students experienced sizable increases in the median quarterly wage after program completion.

We also examined the employment outcomes for those students who were employed both prior to and after their enrollment at ECTC in Panel B. Of these matched students, 88 O2W students (54.7%) and 96 comparison students (62.7%) were employed in both time periods (no statistically significant difference;  $p=0.150$ ). As with all matched students, while O2W students have higher mean quarterly wages before (\$1,248) and after (\$1,355) program completion as well as a slightly larger mean increase in wages (\$107), there are no statistically significant differences between the O2W and comparison students.

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<sup>4</sup> Too few (<10) O2W or comparison students were unemployed prior to program start but were employed upon program completion. As a result, KCEWS suppressed the actual counts in their reporting to us to ensure confidentiality. Thus, we do not report these results.

<sup>5</sup> Due to data restrictions, KCEWS only provided us with aggregate descriptive information. Without the raw student-level data, we were unable to conduct special tests for the difference in medians between the O2W and comparison students. Given the small difference in median quarterly wages between the two groups, it is highly unlikely we would have detected statistically significant differences.

Table 5.5 Employment Outcomes

	Comparison Students	O2W Participants	Difference (O2W-Comp)
<b>A. All Matched Students with Employment Outcome Data</b>			
Employed at Program Start	69.9%	66.5%	-3.4%
Employed after Program Completion	71.2%	60.2%	-11.0%*
Median Qtly. Wage at Prog. Start	\$4,980	\$5,207	\$227
Mean Qtly. Wage at Prog. Start	\$5,933 [\$4,085]	\$6,750 [\$6,008]	\$817
Med. Qtly. Wage after Prog. Comp.	\$6,454	\$6,940	\$486
Mean Qtly. Wage after Prog. Comp.	\$7,095 [\$4,673]	\$8,447 [\$7,932]	\$1,352
Change in Median Quarterly Wage	\$1,474	\$1,733	\$259
% Change in Median Quarterly Wage	29.6%	33.3%	3.7%
N	153	161	
<b>B. All Matched Students Employed Before and After Program Completion</b>			
Employed at Program Start & Comp.	62.7%	54.7%	-8.0%
Mean Qtly. Wage at Prog. Start	\$6,193 [\$4,067]	\$7,441 [\$6,065]	\$1,248
Mean Qtly. Wage after Prog. Comp.	\$7,467 [\$4,801]	\$8,822 [\$7,992]	\$1,355
Change in Mean Quarterly Wage	\$1,274 [\$2,838]	\$1,381 [\$4,331]	\$107
% Change in Mean Quarterly Wage	20.6%	18.6%	-2.0%
N	96	88	

\*p<0.050, \*\*p<0.010, \*\*\*p<0.001. Chi-squared test for difference in proportions between O2W participants and comparison students used for percentage of students employed. T-test for difference in means used for wages. We did not use a hypothesis test to compare median wages. Panel A displays outcomes for all propensity score matched students. Employment data available for all students who completed by the summer 2015 term due to available data from Kentucky Center for Education and Workforce Statistics. Wage data are only available in the above time period for those students who were employed with quarterly wages >\$0. Panel B includes only matched students who were employed both before and after program completion (i.e. before and after first and last term at ECTC). The information about employment and wages applies to these students as well.

## 6. Impacts on Institutional Policies and Sustainability

O2W was located in a college, yet not part of the college. It was grant funded, but as a supplement to a larger curricular program, LOD, over which the grant administrators had no control. All of this was under the jurisdiction of the KCTCS system and its plans for online education, yet subject to federal policies guiding financial aid. In short, the potential for the O2W to significantly impact institutional policy or even to contribute to conversations about its own fate were limited.

The strength of the relationships of the O2W staff and coaches, however, with local stakeholders and college partners did result in a variety of small shifts in the ECTC culture. A primary example of this was the institutionalization of Kentucky Workforce Development (One Stop) monthly visits to campus. Coaches from the O2W program set these visits up initially for their students and ECTC decided to continue and expand it for all their students. Furthermore, courses created by for the O2W program are being downloaded by other schools from the Creative Commons website. Courses such as BAS 160 and BAS 284 have been downloaded several times as well as ACT 279. All the 31 courses have been submitted for CC licensure. In addition, Learn on Demand is now on the GoArmy portal signaling its approval for military tuition benefits.

Another significant impact of the program was the careful attention to the flow of the curricular pathway available to students through the new and redesigned courses. Most of the modules and their parent courses included in the O2W Business Administration curriculum had already been approved through the quality assurance process at the time of the award, therefore only the new modules needed QA approval. However, in order to assure the whole LOD Business Administration program of study under its new alignment met the highest level of quality, almost all of the courses in the program were resubmitted for QA by the program coordinator as part of the grant's activities.

### Recommendations

**Sustain the coaching model.** Both administrators and coaches stated the coaching component of the program should be sustained. Students who had regular contact with the coaches benefited from this intrusive advising. As one coach remarked: "Students need coaches, especially when students are entirely online." Intrusive coaching model benefited students by providing direction. This is seen as crucial when working with first generation, online students. Coaches provided a person touch. Their client services backgrounds provided not only crucial knowledge of the college but also a customer service model, which provided rapport and empathy. Other services provided alongside the advising were resume building, job placement contacts and mock interviews.

**Educate students about credentials.** Project staff recommended that KCTCS have a system in place that notifies students when they have completed credentials and provide information about the efficacy of those credentials in their local labor markets. The O2W Coaches often had to proactively inform student that they have the credits necessary for

certificates and sometimes had to explain how much further a student had to go. One student, for example, thought that taking classes for four years would translate into a four-year degree, but didn't realize what kinds of certifications he had already earned. From this experience, coaches wanted students to realize the credentials they had earned that could help them with their employment and help steer them into potential new jobs and opportunities.

**Provide regular professional development and allow coaches to work in teams.** The O2W met regularly and used these meetings for peer education as well as professional development. TAACCT also provided funds for national advising conferences in New Orleans and Las Vegas. At the Jobs for the Future conferences in DC, coaches presented on the successes of the intrusive advising model. This model's success had also been reinforced while attending the Las Vegas conference. Here coaches heard how many of the strategies they were using as success coaches were being implemented nationwide.

**Address system-wide negativity toward on-line education generally and LOD specifically.** With regard to the negative reputation of LOD when the grant began, one staff member explained, "We knew we were pushing a boulder up hill. We wish we would have known just how high that hill was". When O2W started at ECTCS, there was lingering negativity from the Learn on Demand program. The awarding of TAACCCT funding to one of the LOD partner colleges but not all compounded this negativity. In addition, ongoing competition for enrollments and tuition dollars meant caused difficulties for the O2W staff in recruitment and in educating advisors across KCTCS about the benefits of the program.

**Continue to press for true Learn on Demand with open entry enrollment and flexible course loads.** Federal financial aid policies and state level interpretations of those policies changed how students could enroll in O2W. When the program first started, students could enroll on any Monday and continue their studies for 6 weeks or until completion whichever came first, regardless of when the regular term ended. Later in the grant period this was changed to a regular semester schedule to match financial aid policies. Further research is needed to determine if the flexible enrollment of LOD has an impact on student progress and/or on employment. The variability of this aspect of the program during the grant period made this aspect of the evaluation difficult.

**Extend grant implementation period.** As with any program that enrolls a large number of under-employed individuals with busy schedules, two-three years is not enough time to see the full impact of the program activities. Just as the O2W program was gaining ground, the grant was coming to an end and coaches and staff had to pass students on to LOD program coaches.

### Moving Forward

The grant director and administrative assistant met with the KCTCS system office to develop a sustainability plan that includes the formation of a "Curriculum Development Lab" where the technology and software used by the grant will be housed in one place

and available on loan to faculty and staff as they continue to update, revise and improve the TAACCCT developed curriculum after the grant's end.

While it was confirmed that grant staff will not be kept on in the administrative or coaching positions due to college cuts and staff lay-offs, the strategies used to retain and support online learners will be passed along to those remaining at the college through training sessions, shadowing opportunities and informal one-on-one sharing of best practices.

Members of the O2W Project Team coordinated meetings with TAACCCT Round III and Round IV recipients from other colleges within the Kentucky Community & Technical College System. Subsequently, coaching training materials were shared with the other grantees. The O2W project director also formed connections with TAACCCT grants outside of Kentucky through conferences and personal contact. Lessons learned from the Online2Workforce project may be especially of interest to the Round IV grantee, Kentucky Consortia for Information Technology Job Pathways in Computer and Medical Fields, which is also based on the Learn on Demand program.

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# Appendices

## Appendix A: Course Development Chart

KCTCS Online Learn on Demand QA Review Timeline Elizabethtown			
Course/Module ID	Module Name	Original Certification Date	Re-submission Date
<b>ACC 201 – Margary Goodwin – ECTC Note: Submitted to KCTCS/Also D2D – at KCTCS – also D2D</b>			
ACC 2011	Accounting as an Information System	12/14/2008	10/31/2012
ACC 2012	Accounting for Merchandising Business	12/14/2008	10/31/2012
ACC 2013	Long Term Assets and Long Term Financing Activities	12/14/2008	10/31/2012
<b>ACC 202 – Margary Goodwin – ECTC Note: Submitted to KCTCS/Also D2D – at KCTCS – also D2D</b>			
ACC 2021	Cost Terms, Concepts, and Classifications	12/15/2008	10/31/2012
ACC 2022	Planning and Control	12/15/2008	10/31/2012
ACC 2023	Using Cost Data in Decision Making	12/15/2008	10/31/2012
<b>ACT 177 – Debbie Wright – Madisonville</b>			
ACT 1771	Rationale for a Well-Designed Accounting System	2/26/2009	10/30/2013
ACT 1772	Contractual and Legal Reporting Requirements	3/1/2009	10/30/2013
ACT 1773	Overview of Accounting for the Entrepreneur	3/1/2009	10/30/2013
ACT 1774	Introduction to Computer Accounting Software to record Basic Accounting Transactions	3/2/2009	10/30/2013
ACT 1775	Introduction to Computer Accounting Software to Generate Financial Statements	3/2/2009	10/30/2013
<b>ACT 196 – Debbie Wright - Madisonville</b>			
ACT 1961	Records, Payroll, & Human Resource Law & Salary Computation	3/17/2009	9/30/2013
ACT 1962	Tax Withholding	3/17/2009	9/30/2013
ACT 1963	Unemployment Laws and Accounting for Payroll	3/18/2009	9/30/2013
ACT 1964	Manual Payroll Simulation	3/18/2009	9/30/2013
ACT 1965	Computerized Payroll Simulation	3/18/2009	9/30/2013
<b>BAS 120 – George Jones – Maysville Note: Reapproved by KCTCS/Also D2D</b>			
BAS 1201	The Financial Planning Process	12/5/2008	10/1/2012
BAS 1202	Managing Your Money	12/5/2008	10/1/2012
BAS 1203	Managing Your Investments	12/5/2008	10/1/2012
BAS 1204	Protecting Your Resources	12/5/2008	10/1/2012



<b>BAS 160 – Kelley Conner – ECTC Note: Waiting for Grant Course Developer to Review (To Count as Grant Deliverable)</b>			
BAS 1601	The Foundations of Business	11/10/2008	11/15/2013
BAS 1602	Business, Ownership, Money and Quality	11/10/2008	11/15/2013
BAS 1603	Introduction to Management	11/10/2008	11/15/2013
BAS 1604	Introduction to Marketing	12/17/2008	11/15/2013
BAS 1605	Business Decision Making Tools	12/17/2008	11/15/2013
<b>BAS 170 – Grant Course Developer</b>			
BAS 1701	Product Development	3/3/2009	12/19/2014
BAS 1702	Entrepreneurial Finance	3/3/2009	12/19/2014
BAS 1703	Preparing the Business Plan	3/3/2009	12/19/2014
BAS 1704	Small Business Taxes	3/3/2009	12/19/2014
BAS 1705	The Small Business Law Environment	3/3/2009	12/19/2014
BAS 1706	Current Small Business Managerial Issues	3/3/2009	12/19/2014
<b>BAS 200 – Grant Course Developer</b>			
BAS 2001	Small Business Organization	3/5/2009	10/24/2014
BAS 2002	Essentials of Small Business Finance	3/5/2009	10/24/2014
BAS 2003	The Essentials for a Small Business Plan	3/5/2009	10/24/2014
BAS 2004	Essential Small Business Accounting and Financial Records	3/5/2009	10/24/2014
BAS 2005	Essential Small Business Marketing	3/6/2009	10/24/2014
BAS 2006	Managing Growth in the Small Business	3/6/2009	10/24/2014
<b>BAS 212 – Grant Course Developer</b>			
BAS 2121	Financial Statement Analysis	2/11/2009	09/05/2014
BAS 2122	Break Even Analysis	2/11/2009	09/05/2014
BAS 2123	Time Value of Money, Capital Budgeting & Applications	2/12/2009	09/05/2014
<b>BAS 250 – Ella Strong – Hazard Note: Reapproved by KCTCS</b>			
BAS 250	Business Employability Seminar	12/15/2008	9/1/2012

<b>BAS 267 – Kelley Conner – ECTC Note: Also D2D</b>			
BAS 2671	Foundation Principles of Business Law	1/15/2009	06/31/2015
BAS 2672	Laws and Protection	2/2/2009	06/31/2015
BAS 2673	Contracts	2/3/2009	06/31/2015
BAS 2674	Property Law	2/3/2009	06/31/2015
BAS 2675	Research & Negotiable Instruments	2/3/2009	06/31/2015
<b>BAS 274 – Jason Willoughby – ECTC Note: Waiting for Grant Course Developer to Review (To Count as Grant Deliverable)</b>			
BAS 2741	Foundation Principles of Business Law	1/15/2009	12/04/2013
BAS 2742	The Environment of Human Resource Management	1/17/2009	12/04/2013
BAS 2743	Bringing Employees into the Organization	1/17/2009	12/04/2013
BAS 2744	Developing and Evaluating Employees	1/17/2009	12/04/2013
BAS 2745	Compensating Employees	1/18/2009	12/04/2013
<b>BAS 282 – Jason Willoughby – ECTC</b>			
BAS 2821	Introduction to Entrepreneurial Marketing	1/9/2009	07/18/2014
BAS 2822	Environmental Market Strategy Planning	1/9/2009	07/18/2014
BAS 2823	Product and Market Strategies	1/9/2009	07/18/2014
BAS 2824	Market Distribution and Promotion	1/10/2009	07/18/2014
BAS 2825	Pricing Strategies	1/11/2009	07/18/2014
BAS 2826	Market Implementation, Evaluation, & Control	1/11/2009	07/18/2014
<b>BAS 283 – George Jones – Maysville Note: Waiting for Grant Course Developer to Review (To Count as Grant Deliverable)</b>			
BAS 2831	Introduction to Management	11/21/2008	12/20/2013
BAS 2832	Planning, Decision Making, & the Manager's Environment	12/10/2008	12/20/2013
BAS 2833	The Process of Organizing	12/10/2008	12/20/2013
BAS 2834	Leading and Staffing	12/10/2008	12/20/2013
BAS 2835	Controlling	12/10/2008	12/20/2013
BAS 2836	Special Concerns in Management	12/10/2008	12/20/2013

<b>BAS 284 – Kim Simons – Madisonville Note: Grant Course Developer?</b>			
BAS 2841	Applied Management Skills	12/17/2008	02/27/15
BAS 2842	Empowerment and Motivation	12/17/2008	02/27/15
BAS 2843	Effective Coaching and Mentoring	12/17/2008	02/27/15
BAS 2844	Communication & Teamwork	12/17/2008	02/27/15
BAS 2845	Effective Meetings & Quality Processes	12/17/2008	02/27/15
<b>BAS 287 – Kim Simons – Madisonville Note: Grant Course Developer?</b>			
BAS 2871	The Role of the Team Leader	1/8/2009	04/24/2014
BAS 2872	Organizing and Developing your Team	1/8/2009	04/24/2014
BAS 2873	The Leadership Reins	1/8/2009	04/24/2014
BAS 2874	Managing the Team Through Conflict and Change	1/8/2009	04/24/2014
BAS 2875	Making and Problem Solving in a Quality Culture	1/8/2009	04/24/2014
<b>BAS 288 – George Jones – Maysville Note: Waiting for Grant Course Developer to Review (To Count as Grant Deliverable)</b>			
BAS 2881	Become a Great Leader	12/5/2008	01/17/2014
BAS 2882	Self-Management: Time, Stress, & Effective Change Techniques	12/5/2008	01/17/2014
BAS 2883	Effective Delegation and Empowerment	12/5/2008	01/17/2014
BAS 2884	Communicating for Interdependence	12/5/2008	01/17/2014
BAS 2885	Teamwork and Synergy	11/7/2008	01/17/2014
<b>BAS 290 – Grant Course Developer</b>			
BAS 2901	Moral Philosophy and Business	12/15/2008	05/16/2014
BAS 2902	American Business and Society	12/15/2008	05/16/2014
BAS 2903	The Organization and its People	12/15/2008	05/16/2014
<b>ECO 201 – Jeff Florea – Madisonville Note: Reapproved by KCTCS/Also D2D</b>			
ECO 2011	The Role of Economics	1/14/2009	01/31/2014
ECO 2012	How Markets Work	1/14/2009	01/31/2014
ECO 2013	Markets and Welfare	1/14/2009	01/31/2014
ECO 2014	Principles of Macroeconomics	1/14/2009	01/31/2014

<b>ECO 202 – Jeff Florea – Madisonville Note: Reapproved by KCTCS/Also D2D</b>			
ECO 2021	Measuring Macroeconomic Outcomes	1/8/2009	02/14/2014
ECO 2022	Basic Macroeconomic s Relationships	1/8/2009	02/14/2014
ECO 2023	Stabilization Tools	1/8/2009	02/14/2014
ECO 2024	The International Economy	1/8/2009	02/14/2014
<b>OST 275 – Grant Course Developer</b>			
OST 2751	Office Management Principles	1/20/2009	06/19/2015
OST 2752	Managing HR in the Office	1/20/2009	06/19/2015
OST 2753	Managing Office Administration	1/20/2009	06/19/2015
OST 2754	Managing Office Administration Systems	1/20/2009	06/19/2015
<b>QMS 101 – Grant Course Developer</b>			
QMS 1011	Understanding a Quality Focused Organization	2/5/2009	03/28/2014
QMS 1012	Quality Tools of the Trade	2/23/2009	03/28/2014
QMS 1013	Systems for Quality Improvement	3/15/2009	03/28/2014
QMS 1014	Quality Planning for Continuous Improvement	3/17/2009	03/28/2014
QMS 1015	People Power: The Key to Quality Improvement	3/17/2009	03/28/2014

## Appendix B: Employer Engagement Survey

Thank you for agreeing to take part in this employer engagement survey. The purpose of this survey is to evaluate college-employer partnerships that have developed since the implementation of the Online2Workforce program at Elizabethtown Community & Technical College (ECTC), funded by a TAACCCT (Trade Adjustment Assistance Community College and Career Training) grant awarded by the U.S. Department of Labor. The Online2Workforce program is a part of Kentucky Community & Technical College System (KCTCS) Learn on Demand. This survey will ask for information about what contact you have had with KCTCS and/or Elizabethtown, as well as inquire about your own employment needs, as a way to determine what has already been accomplished through your partnership and what still can be enhanced in the program to best meet your needs in the labor market. If you have any questions about this survey, you may contact the evaluator, Dr. Jane Jensen, at [jjensen@uky.edu](mailto:jjensen@uky.edu).

Company Industry Type: (i.e., Business, Communications, Banking, Retail, etc.)

Where is your company located? Select state and county below. If your company has multiple location, please answer based on the one most likely to employ Online2Workforce students.  
[Dropdown menus]

The following questions specifically refer to your partnership with the college.

What type of contact have you had with Elizabethtown Community & Technical College in the past six (6) months regarding the online Business Administration (Online2Workforce) program?

	Never	1-2 times	3-4 times	5+ times
I talked to program staff about courses offered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program staff visited my office or business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I invited program staff to talk to my employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I talked to program staff about job opportunities in my company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I called or emailed program staff to get more information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I received information about the program to share with my employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program staff called or emailed me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have any other comments about your contact with ECTC? Would you prefer something more?

Which of the following is true of your company's relationship with KCTCS and/or ECTC?

- Hired students
- Provided co-ops/apprenticeships for students
- Spoken to students in classrooms
- Visited the Elizabethtown campus
- Distributed or posted information for employees about classes provided by ECTC Online2Workforce
- Other (please provide) \_\_\_\_\_

Please indicate whether you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
ECTC/KCTCS meets employer needs in Kentucky.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In looking for new employees, I would contact ECTC/KCTCS for student referrals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would contact ECTC/KCTCS for training opportunities for my current employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like the opportunity to talk to students in the classroom about job opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in working with ECTC/KCTCS to provide co-ops and apprenticeships to students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with the Learn on Demand program in ECTC/KCTCS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with the Business Administration program at ECTC/KCTCS.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What classes, certifications, or courses would you like to see KCTCS and/or Elizabethtown Community & Technical College provide?

Addressing on-going (short-term) recruitment for your company. Your answers to the following will help to determine to what extent the programs at Elizabethtown/KCTCS match your current workforce needs.

Please list the MOST critical job position that you have an on-going need to hire. (Job Title, Duties)

What is the level of this position? (check all that apply)

- Entry
- Office
- Professional
- Mid-Level
- Management
- N/A

Is this position: (check all that apply)

- Full time
- Part time
- Temporary
- On-Call
- N/A
- Other: (please specify) \_\_\_\_\_

Please list the skills needed for this position.

Please list the certifications and/or affiliations needed for this position. (Certificate, Associates, Bachelors)

Are you currently hiring for this position?

- Yes
- No

If No, why not?

- In process of posting position
- No qualified applicants
- Waiting for funding
- Other: (please specify) \_\_\_\_\_



Do you have a SECOND MOST critical job position that you have an on-going need to hire?

- Yes
- No

Please list the SECOND MOST critical job position that you have an on-going need to hire. (Job Title, Duties)

What is the level of this position? (check all that apply)

- Entry
- Office
- Professional
- Mid-Level
- Management
- N/A

Is this position: (check all that apply)

- Full time
- Part time
- Temporary
- On-Call
- N/A
- Other: (please specify) \_\_\_\_\_

Please list the certifications and/or affiliations needed for this position. (Certificate, Associates, Bachelors)

Please list the skills needed for this position.

Are you currently hiring for this position?

- Yes
- No

If No, why not?

- In process of posting position
- No qualified applicants
- Waiting for funding
- Other: (please specify) \_\_\_\_\_

Anticipated (long term) job postings at your company in the next two to five years. These questions will allow the evaluation team to formulate longer-term recommendations for their program.

What anticipated job positions will you need in the next two (2) to five (5) years? (Job Title, Duties)

What skills will be required? (Job duties, special training, etc.)

What certifications and/or affiliations will be needed for this position? (Certificate, Associates, Bachelors)

Do you see any persistent skills gaps in the workforce?

- Yes
- No

If you answered "Yes", what are the gaps and for what position?

What are your workforce skills and/or training needs?

- Professional development courses
- Certifications
- Certificate degrees
- Associates degrees
- Bachelor degree or higher
- Licensure
- Continuing education credits
- Other: (please specify) \_\_\_\_\_

Thank you for completing the survey. May we contact you after this survey for additional follow up or to schedule a focus group with your company? If so, please provide your email address and/or phone number below.

Email

Phone

If you have any additional comments to share regarding your relationship with the college and how you are working with Elizabethtown and KCTCS to satisfy your employment needs, please enter them below.

## Appendix C: Student Survey

Thank you for taking our survey. When answering questions, please think about the courses you have taken through Learn on Demand (self-paced online) with the help of success coaches from Online2Workforce. Your answers will be confidential. This survey is part of an evaluation of a federally funded program.

What is your home college?

- Ashland
- Big Sandy
- Bluegrass
- Elizabethtown
- Gateway
- Hazard
- Henderson
- Hopkinsville
- Jefferson
- Madisonville
- Maysville
- Owensboro
- Somerset
- Southcentral KY (Bowling Green)
- Southeast
- West Kentucky

What business credentials are you currently pursuing? Check all that apply, including any you have completed.

- Advanced Business Administration Certificate
- Basic Business Administration Certificate
- Entrepreneurship Certificate
- Financial Perspectives Certificate
- General Business Certificate
- Human Resource Management Certificate
- Leadership Certificate
- Management Certificate
- Payroll Accounting Specialist Certificate
- Small Business Management Certificate
- Team Leadership Certificate
- Small Business Management Diploma
- Organizational Leadership Diploma
- Associate of Arts Degree
- Associate of Science Degree
- Associate in Applied Science in Business Administration

In what semester and year did you start your business program?

When do you plan to graduate?

- This semester (May 2016)
- This year (August or December 2016)
- Next year (2017)
- After next year (after December 2017)

How often do you contact your Online2Workforce success coach? Your coach might be Sam, Kindra, Beti, Erin, or LaShawn.

- Almost Daily
- A few times per week
- Once a week
- Once a month
- Whenever I needed help
- I don't know who my coach is.

Which types of help have you received from your success coach?

- Enrolling in classes
- Applying for financial aid
- Resolving issues with instructors
- Career planning
- Resume
- Job search
- Interview skills

For this question, select how much you agree or disagree with each statement.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
Taking classes with Learn on Demand has helped me to finish my program faster.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing my program will help me earn a higher salary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What I am learning in my program will help me in my future career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I have a problem, my success coach responds quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My success coach has helped me to only take classes that I need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For this question, select how much you agree or disagree with each statement.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
I am able to manage my time well without set due dates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I will find work quickly after graduating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program is taking longer than I expected to finish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My prior knowledge of business has helped me complete courses faster.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need the flexibility that Learn on Demand courses provide.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you working while taking classes?

- Yes, full-time (35+ hours)
- Yes, part-time (under 20 hours)
- No
- No, but looking for a job

Do you take all online classes, or a mix of online and on-campus (in-person)?

- All Online
- Most Online
- Half Online, Half In-Person
- Most In-Person
- All In-Person

Are you a veteran?

- Yes
- No

Are you eligible for TAA benefits?

- Yes
- No
- Don't know

What is your gender?

- Female
- Male
- Prefer not to say

What best describes your racial/ethnic background?

- White/Caucasian
- Black/African American
- Asian
- Native Hawaiian
- Non-Resident Alien
- Latino/Latina/Hispanic
- Native American/American Indian
- Two or More Races
- Other
- Prefer not to say

If you have any more comments, please enter them in the box. Thank you for your participation.

## Appendix D: Interview Protocols

### Online to Workforce COACH Interview Protocol

*The purpose of this interview is to get feedback regarding your experiences as a coach for the O2W TAACCCT program; its history, its development, your training with it, your experience implementing it, and your recommendations for improvement based upon this experience.*

- I. Employment history and experience
  - a. Tell me about your educational background?
  - b. How did you come to work at KCTCS (if at KCTCS before TAACCCT)?
  - c. How did you come to be a TAACCCT Coach?
  - d. What other advising experiences do you have?
  - e. What experience have you had with online education? Have you ever taken an online class?
- II. TAACCCT Coaching Model: Impressions and Experiences
  - a. How is this advising similar and/or different from other advising you've done?
  - b. How is what you do different from the KCTCS LOD coaches?
  - c. Do you have a specialization (as referenced in the July 1 meeting)? (e.g. advising or recruiting?)
  - d. If so, how do you work with your fellow TAACCCT coaches to help students in the program?
  - e. If you were preparing a colleague to be a TAACCCT coach (or recruiter, etc), what would they need in terms of skills and experience to be successful
- III. Now I'd like you to be as specific as possible about what you do. Could you walk me through the stages of recruiting, coaching, and helping a student find placement? (as applicable based on specialization). In other words, think about real students (or businesses, etc.) you've worked with and describe how your relationship with them unfolded. What did you do and why?
  - a. Recruitment: Walk me through how you made initial and follow-up contacts with business contacts and other resources that led to a student's enrollment.
  - b. Coaching: Walk me through the steps you take once you receive your student referral from LOD (or before if applicable). Registration? Advising? Course Navigation? What are all the aspects of engagement during this stage?
    - i. Do you talk to students about their career interests and strengths in order to advise them into a particular certificate? Do many students want to do



multiple certificates, or full degrees? Do you use program plans and talk to students about degree pathways?

ii. What kind of support do you give students once they're enrolled? Can you give a few examples of times that you've helped a student with their facilitator, their KCTCS coach, other departments in the college, etc?

What has been the most challenging problem they've encountered?

c. If applicable (still early in the program): Walk me through the steps you take with a student to prepare them for job hunting.

i. Who are the other stakeholders/resources you use to help students find placement?

ii. What are key skill sets and/or resources students need at this point? Where do they get them?

iii. What is the relationship between what you do and what is provided by Career Center (or other providers)?

iv. In what ways do you or the student consider "place" (distance from home to work, potential of relocation, etc.)?

d. Ok, you've told me what you typically do. What are some examples of student or situations which were not typical, but you believe are important to understanding how TAACCCT works?

#### VI. Online Coaching: Reflection and Recommendations

a. What is working?

b. Where are there issues?

c. What has been surprising to you?

d. Do you have any specific recommendations for the O2W program?

e. Where do you see the program after the grant ends?

Additional questions/areas I have missed.

## **Online to Workforce STAFF Interview Protocol**

*This interview is to get feedback regarding your experiences as administrative staff for the O2W TAACCCT program. The interview will focus on its history, its development, your experiences with it and your recommendations for improvement as the grant ends.*

- I. Employment history and prior experience
  - a. Tell me about your educational background?
  - b. How did you come to work at KCTCS (if at KCTCS before TAACCCT)?
  - c. Do you have a specialization?
  - d. Given your experience, what do you wish that you had known when you first started?
  - e. What will you do now that the grant is ending?
- II. O2W Administrative Specifics

*Now I'd like you to be as specific as possible about what you do.*

  - a. Public Relations/Awareness: Walk me through how you made initial and follow-up contacts with business contacts and other resources that led to an awareness of this program.
  - b. Professional development: What opportunities were available for you and your staff
  - c. Ok, you've told me what you typically do. What are some examples of situations related to the grant that were not typical, but you believe are important to understanding how the grant was implemented here?
  - d. What was easiest/most difficult to implement about O2Work given the infrastructure of the college?
- III. TAACCCT Online Modularized Model: Impressions and Experiences
  - a. What experience have you had with online education? Have you ever taken an online class?
  - b. How does O2Workforce differ from other online education experiences?
  - c. If you were preparing a colleague to involved with this model, what would they need in terms of skills and experience to be successful?
  - d. How would you describe an online LOD BAS course to a student?
- IV. Online Coaching Model: Impressions and Experiences

What experiences have you had with coaching?

What do you think should be retained related to the coaching model?

What are the strengths/weakness of the model?
- V. Reflections and recommendations
  - a. If this grant were funded again, what part of the grant should be sustained?
  - b. If this grant were funded again, what changes should be made?
  - c. How do you think this grant has impacted the students involved?

- d. How do you think this grant has impacted other stakeholders? (coaches, staff, business/community members, etc.)?

Additional questions/areas I have missed.