Evalytics, LLC
Research, Program Evaluation, Consulting

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

Kansas City Kansas Community College: Training for Employment (T4E) Program

TAACCCT Grant #TC-23768-12-60-A-20

2016 FINAL TECHNICAL REPORT

September 2016

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Kansas City Kansas Community College: Training for Employment (T4E) Program

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This final report has been written based on quantitative and qualitative data from a variety of sources, including:

- Kansas City Kansas Community College student records
- KCKCC Technical Educational Center records
- Students
- Instructors
- Faculty
- Staff
- America's Job Link Alliance
- Kansas Board of Regents
- Kansas Higher Education Reporting System
- Bureau of Labor Statistics
- Various local and state statistical entities

The report also contains comparative and contextual data and information to appropriately place this program within the community and for analytical purposes. Data were collected directly by the evaluators as well as indirectly from varying school sources and external sources.

For additional information or questions, please contact the authors at Evalytics LLC. Contact information is provided in the Appendix.

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CHAPTER 1: INTRODUCTION

Trade Adjustment Assistance Community College and Career Training (TAACCCT)

Kansas City Kansas Community College (KCKCC) was awarded a Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant which began October 1, 2012. This award was based on a proposal developed by an interdisciplinary team from KCKCC which included both academic and technical faculty and staff. The selected external research organization joined the team about the midway point of developing the proposal. The team was led by Vice President of Academic Affairs, Dr. Tamara Agha-Jaffar and included:

- Vice President of Academic Affairs
- Dean of Business & Continuing Education
- Dean of Technical Education
- Staff of Technical Education Center
- Dean of Institutional Services
- Director of Community Research and Community Development[1]
- External Evaluator, Evalytics LLC

The TAACCCT Grant Program had $2 billion allocated in the Health Care and Education Reconciliation Act to fund the program for four years. According to the Department of Labor, Employment and Training Administration (https://www.doleta.gov/taaccct/), "TAACCCT provides community colleges and other eligible institutions of higher education with funds to expand and improve their ability to deliver education and career training programs that can be completed in two years or less, are suited for workers who are eligible for training under the TAA for Workers program, and prepare program participants for employment in high-wage, high-skill occupations. Through these multi-year grants, the Department of Labor is helping to ensure that our nation's institutions of higher education are helping adults succeed in acquiring the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers."

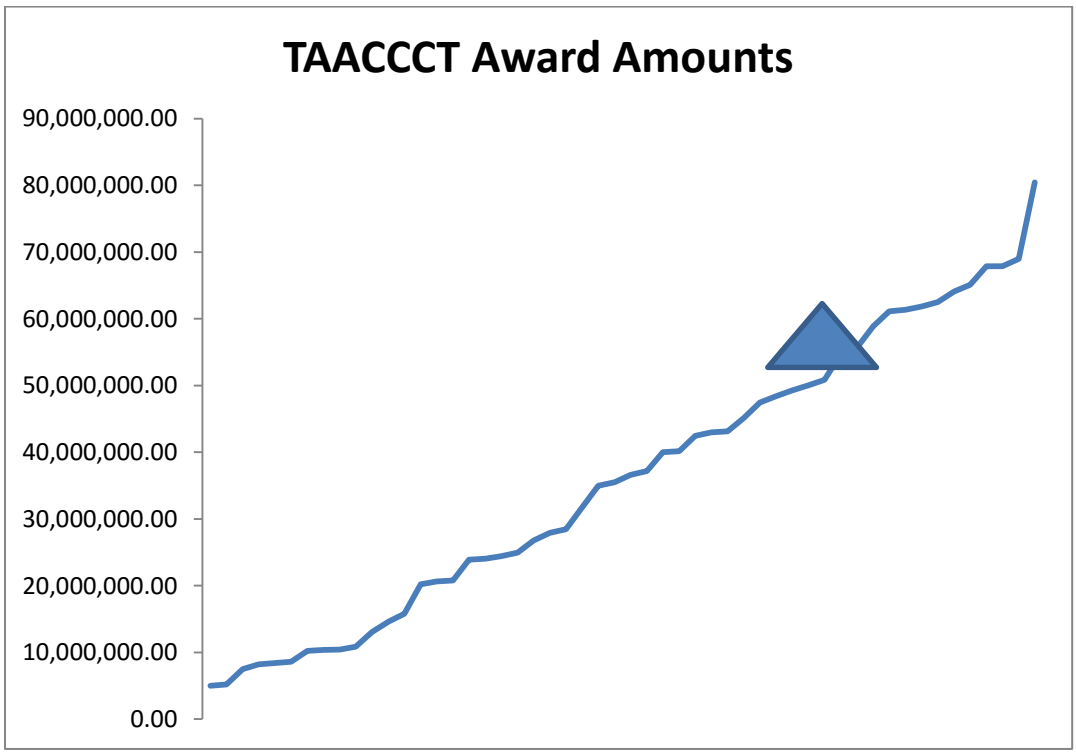
Grant awards began in FY 2011 with Round 1 and ended in FY 2014 with Round 4. Following are basic statistics regarding the funding rounds to provide a context of significance for Kansas City Kansas Community College's award of nearly $3 million ($2,966,045) in Round 2 which is approximately one-half the amount of the average award given in that Round.

- Overall, 31 percent of proposals across the 4 Rounds were awarded (765 applications, 238 awards).
  - In Round 1, 18 percent were funded (275 applications, 50 awards) for a total of $498,048,085 and an average grant award of $9,960,961
  - In Round 2, 45 percent were funded (176 applications, 79 awards) for a total of $500,000,000 and an average grant award of $6,329,114

[1] Community Research and Community Development later became Institutional Research.

- In Round 3, 31 percent were funded (138 applications, 43 awards) for a total of $439,395,537 and an average grant award of $10,218,501
- In Round 4, 38 percent were funded (176 applications, 66 awards) for a total of $439,386,650 and an average grant award of $6,657,373

The TAACCCT ETA web site provides data by state. Across all grant rounds, awards to states ranged from $5 million to $80.5 million. The smallest award was to Puerto Rico and the largest was to California. The State of Kansas received $54.7 million. The following chart reveals that Kansas' award was slightly above the midpoint of all state awards.



A total of six Kansas' schools received a total of $54.7 million in TAACCCT Program grants:

- One award in Round 1 ($19,619,450, Washburn University)
- Two awards in Round 2 ($2,966,045, Kansas City Kansas Community College and $14,914,452, Wichita Area Technical College)
- One award in Round 3 ($2,748,686, Butler Community College)
- Two awards in Round 4 ($2,496,764, Johnson County Community College and $11,997,957, Washburn University)

Kansas City Kansas Community College

Kansas City Kansas Community College (KCKCC) is one of 19 community colleges in Kansas and is located in the northeast part of the state in Wyandotte and Leavenworth counties. KCKCC's main campus and the Thomas R. Burke Technical Education Center (TEC) are located in Kansas City, Kansas and KCKCC has two extension campuses in Leavenworth, Kansas.

According to the US Census Bureau, the population of Wyandotte County was estimated to be 161,636 and 78,797 for Leavenworth County in 2014. Residents of both counties are primarily White, non-Hispanic with 43% and 79% for Wyandotte and Leavenworth counties, respectively. Wyandotte County is home to proportionately more minorities than Leavenworth County. In 2014 population estimates show 25% of Wyandotte's county residents are Black or African American and 27% are Hispanic or Latino compared to 10% Black or African American and 7% Hispanic or Latino residents in Leavenworth County.[2]

The Census Bureau also estimates a much higher median household income and educational achievement for Leavenworth County than Wyandotte County. In 2014, the median household income within Leavenworth County was estimated to be $64,909 compared to $39,326 for Wyandotte County. 2014 estimates show 92% of Leavenworth County residents have attained high school diplomas or higher compared to 78% of Wyandotte County residents. Additionally, estimates show 30% of Leavenworth County residents have earned a Bachelor's degree or higher compared to 16% of Wyandotte County residents.[3]

It is important to note that Leavenworth County, Kansas is home to Fort Leavenworth which includes the United States Army Combined Arms Center and the United States Army Command and General Staff College. 2015 statistics for Fort Leavenworth (http://garrison.leavenworth.army.mil/) indicate a post population of approximately 14,000 and a student population of approximately 8,500. (Please see Appendix A for additional details.)

In the 2014-2015 academic year, 9, 212 students attended KCKCC. Sixty percent of the student body is female and 40% is male. Almost 50% are White, non-Hispanic, 25% are Black or African American and 14% are Hispanic/Latino. Almost 40% are between 25 and 44 years of age, 28% are between 20 and 24, 22% are 19 years of age or younger, and 13% are 45 years or older.[4]

KCKCC offers credit and non-credit courses and awards technical certificates and Associate Degrees. According to the Kansas Higher Education Reporting System (KHERS), KCKCC awarded 1,324 certificates and degrees[5]. Of these 27% (n = 358) were short-term certificates (less than one year), 24% (n = 320) certificates and 49% (n= 646) were Associate Degrees.[6] Since 2009 between 58% and 54% of KCKCC graduates and program completers were employed in Kansas with average wages ranging from $37,766 to $45,536.[7]

KCKCC Training for Employment (T4E) Grant Proposal

Providing a brief glimpse of the T4E program as proposed by KCKCC provides further context for understanding the findings that are discussed in coming chapters of this final report. KCKCC'S proposal was to ***"… transition participants to employment through training and support in its Training for Employment (T4E) program. Training will focus on programs in construction (electrical, heating and refrigeration, building and property maintenance, construction) with value added through additional green technology training (material reuse and recycling, lead, LEED, and environmental remediation); and advanced manufacturing (machine technology***

[2] United States Bureau of the Census Quick Facts
3 Ibid
4 Kansas Higher Education Reporting System (KHERS) Institution Profiles
5 KCKCC Web Site, 2016
6 Kansas Higher Education Reporting System (KHERS) Credential Production
7 Kansas Higher Education Reporting System (KHERS) Employment and Wage Data

and welding). Support includes creating a Transition to Employment Center (TTE Center) for employment services; intensive advising; employability, entrepreneurship, and financial training. T4E expands infrastructure, adds instructional talent, implements alternative instructional methods, and improves learning through technology."

The approach and core elements section of the proposal indicate that: ***"T4E will strengthen programs that meet TAA eligible workers and industry needs by expanding target programs that are stacked and latticed along career pathways; address the skill sets identified by employers; implement alternative delivery modes and I-BEST programming (a learning model combining basic adult education with technical education); and increase financial literacy, employability skills, and entrepreneurship training (FLEET)." Additionally, "T4E will provide extensive student support and increase employment opportunities by implementing intensive student advising; establishing a Transition to Employment program, (a program in which participants are mentored, coached, and placed in paid work experience positions); strengthening and expanding partnerships with employers; and forging stronger partnerships with workforce development agencies."***[8]

Thus T4E focused on six primary credit programs. All six programs were in existence prior to the grant award:

- Building and Property Maintenance
- Construction
- Electrical
- Heating and Refrigeration
- Machine Technology
- Welding

The primary factors upon which the T4E program is based include:

- Instituting stacked and latticed credentials which allow participants to enter and exit at various points as well as move from technical education certification to an Associate's degree and finally to a Baccalaureate degree.
- Alternative learning delivery modes which include technology.
- Programming that includes basic adult education with the technical training.
- Financial literacy, employability skills and entrepreneurship training.

Internally, the T4E program was to develop and/or maintain specific staffing, develop technology to track operational and student progress, a grant monitoring committee[9] (which included VP of Academic Affairs, the Deans of Business and Continuing Education, Institutional Services, Technical Education and Evalytics). The program was to develop a Sustainability Plan in the final grant year.

The external factors that T4E proposed included:

- Articulation agreements with 4-year institutions.
- Partnerships with local and federal workforce development offices, employers, non-profits.

[8] KCKCC Technical Proposal.
9 This came to be known internally as the Advisory Committee.

- Creation of an Industry Advisory Board (representing industries of the primary programs).

The TAACCCT grant program also required "hard quantitative outcomes" which the school and the external evaluators were to track. These became known internally as the "9 DOL Outcomes" and are as follows:

Outcome Measure		Targets			
		Year 1	Year 2	Year 3	Total
1	Total Unique Participants Served	201	395	493	1,089
2	Total Number of Participants Completing a T4E Funded Program of Study	101	299	320	720
3	Total Number of Participants Still Retained in Their Program of Study or Other T4E Funded Program	120	336	370	826
4	Total Number of Participants Completing Credit Hours	160	356	420	936
5	Total Number of Participants Earning Credentials	141	316	370	827
6	Total Number of Participants Enrolled in Further Education After T4E Funded Program of Study Completion	20	40	50	110
7	Total Number of Participants Employed After T4E Funded Program of Study Completion	81	239	256	576
8	Total Number of Participants Retained in Employment After T4E -Funded Program of Study Completion	75	220	236	531
9	Total Number of Those Participants Employed at Enrollment (incumbent workers) Who Receive a Wage Increase Post-Enrollment	50	99	123	272

Evalytics LLC

In Round 2 of the TAACCCT Program, external evaluators were required[10]. In fact, the evaluation plan was included in the original proposal. Evalytics was competitively selected as the T4E external evaluator and assisted in the final writing of the proposal as well as developed the evaluation plan and budget.

A copy of the evaluation plan is located in the Appendix; it is discussed in detail in the Methodology chapter of this report. Essentially, the evaluation contained descriptive, operational, and outcomes data with resulting reports provided to T4E and the Advisory Committee.

[10] This was not required in Round 1 of the TAACCCT Program Grants.

It is important to note the distinction between the required "9 DOL Outcomes" (see above table) and the Outcomes proposed/provided by the external evaluators. While both are certainly "program outcomes," the difference lies in how the data are collected and analyzed. Throughout the grant period, Evalytics supported the T4E team with verification of the 9 DOL Outcomes as reported to DOL quarterly and annually.

Another important note is to understand the difference in calendaring required by the grant and the school. KCKCC manages on a "semester basis" offering three semesters a year (fall – enrollment in August), spring (enrollment in January), and summer (enrollment in May). DOL requirements were based on a calendar year with reports (including outcomes) due 45 days following the end of a quarter. This was a complicating factor in that completions, etc. did not align with the calendar quarters.

The external evaluators had a fourth year (after the grant completed) which was to be spent solely on final data collection, analysis and report writing. The TAACCCT Round 2 Programs were all provided a six-month, no-cost extension, thereby ending the programs March 30, 2016 instead of September 30, 2015. The external evaluators were not provided a six-month extension in their work. Thus, Evalytics agreed to collect data through December 31, 2015 on all students in the T4E program; count the new students entering the T4E program in January 2016. A lack of sufficient time prevented follow-up on all students leaving and/or entering T4E during the fourth year since the external evaluation reports are due September 30, 2016.

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 2: DESCRIPTIVE

As a Department of Labor (DOL), Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant funded program, the Kansas City Kansas Community College (KCKCC) Training for Employment (T4E) was developed to provide participants technical skills and knowledge as well as employment services, intrusive advising, and enhanced employability skills training, in order to help participants achieve better employment outcomes.

Using data collected since the beginning (October 1, 2012) of the T4E program, this chapter provides a comprehensive look at the participants including, numbers, age at enrollment, race and ethnicity, gender, Veterans status, disability status, TAA-eligible status, education level at enrollment, technical program, and credit or non-credit program status.

These data are presented first by participants' demographics and the six primary programs (Building and Property Maintenance, Construction, Electrical, Heating and Refrigeration, Machine Technology, and Welding) and Green-Up[1]. Data in this section include both the data collected by the school (see Methodology for complete details) and provided to the evaluators and data collected by evaluators directly via surveys and/or interviews with the participants.

Second, the data are presented for three full years of the program in order to display changes over time. These data are broken out by semester and year as follows:

- Fall 2012 through Summer 2013
- Fall 2013 through Summer 2014
- Fall 2014 through Summer 2015

As mentioned in the Introduction chapter, KCKCC received, along with other Round 2 grantees, a no-cost program extension of six months. Thus, participants who were completing their programs in fall 2015 and those enrolling in spring 2016 are not included in the "by evaluation year" section in order to have comparable groups.

In a separate section of this report, data which reflect the totals from fall 2012 through spring 2016 for specific DOL outcomes are reported. These data were provided in the Program Manager's ongoing quarterly and annual reports to DOL. Please note that while the evaluators worked with the Program Managers and Program Teams from inception of the grant award, we were not always involved in decisions that were made regarding changes in programming, inclusions, exclusions, and supplemental programs. For the quarterly and annual reports, the evaluators worked with the Program Managers to ensure all data were being captured and reflected in the reports, to the best of our knowledge.

[1] While Green-Up was not a primary program, it was conducted as a short-term program that included essential skills from some of the primary programs leading to several business-recognized credentials and certificates. Green-Up also focused on the "green" aspects of construction. This program was being offered by Kansas City Kansas Community College prior to the TAACCCT grant award. Green-Up was a non-credit offering.

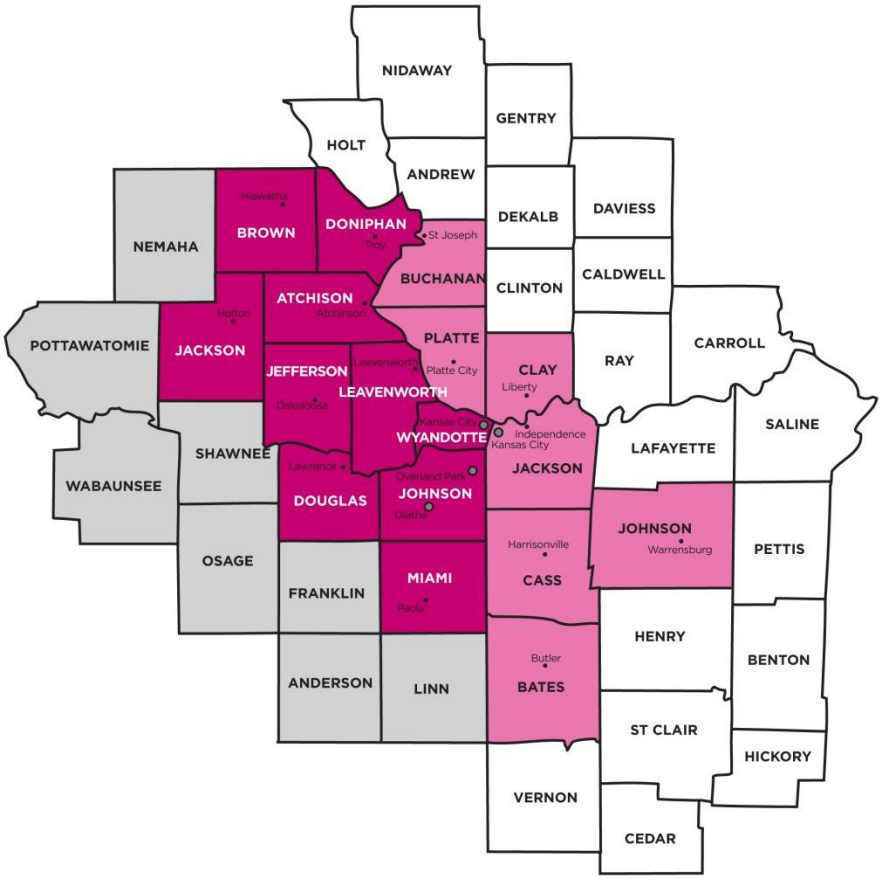
Section 1: Participants' Demographics

The total number of participants included in all data is 643[2]. The State of Kansas had the most participants (580, 90%), and Wyandotte County, Kansas had the highest number of participants (415, 65%). This makes sense in that Wyandotte County, Kansas is the location of KCKCC's main campus. The second largest representation comes from Leavenworth County, Kansas which is just to the north of Wyandotte County with 78; followed by Johnson County located to the south of Wyandotte County with 68. The State of Missouri is just to the east of Kansas and a total of 59 participants were Missouri residents, primarily from Jackson County. Four participants were from four other states: Massachusetts, Nebraska, New York, and Texas.

The following table and map provide detail and visuals:

State	County	Total by County	Total by State
KS	Atchison	1	
KS	Douglas	8	
KS	Franklin	1	
KS	Jefferson	5	
KS	Johnson	68	
KS	Labette	1	
KS	Leavenworth	78	
KS	Miami	1	
KS	Osage	1	
KS	Saline	1	
KS	Wyandotte	415	580
MO	Buchanan	1	
MO	Clay	3	
MO	Grundy	1	
MO	Jackson	48	
MO	Johnson	2	
MO	Platte	3	59
MA		1	1
NE		1	1
NY		1	1
TX		1	1

[2] This number is not the same as for the evaluation dataset which is used for this chapter. However, for geographic representation it was important to include all participants for whom their state and/or county of residence was known.



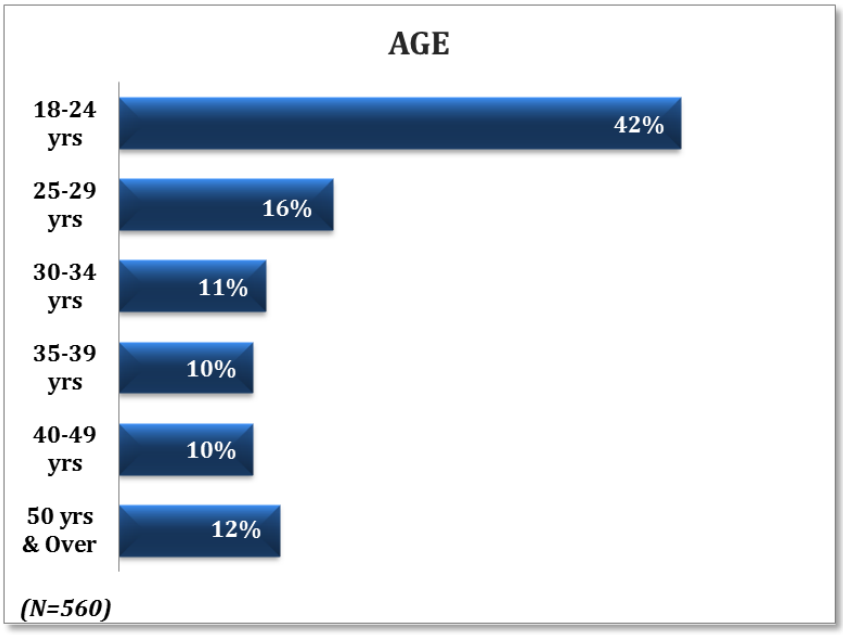
The total number of participants included in the **evaluation dataset** is 610 for the six credit programs and Green-up. This total number represents the period of time from fall semester 2012 through summer semester 2015. During Year 2 of the grant, the KCKCC Advisory Team made a decision to count enrollees from the fall 2012 semester even though the grant was not awarded until October 1, 2012 (students begin fall semester in August) and no programming specific to the grant was in place. Originally, the beginning date for capturing data and counting numbers was the spring (January) 2013 semester. Therefore, occasionally in this final report, numbers will disagree primarily because data were not available going back to the changed start date.

The following demographic data are taken from the official school records (enrollment) and from the evaluation enrollment survey conducted with participants who consent to be in the research evaluation. The evaluation survey was conducted during the participants' school orientation or at a later date in the classrooms.

NOTE: Percentages may not equal 100% due to rounding and/or missing data.

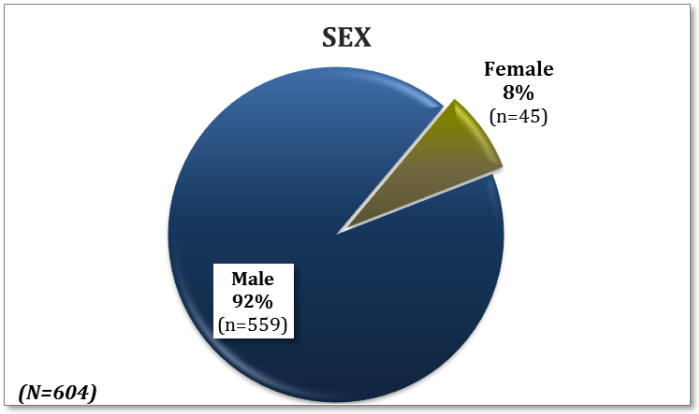
Age at Enrollment

Data on age were available for 560 (92%) participants. Slightly more than one-half (58%) of the participants were 18-29 years of age when they entered their program. An additional 21 percent were between 30 and 39 years of age; and, slightly more than one-fifth (22%) were 40 years of age and older. See the chart below for percentages by age group.



Sex

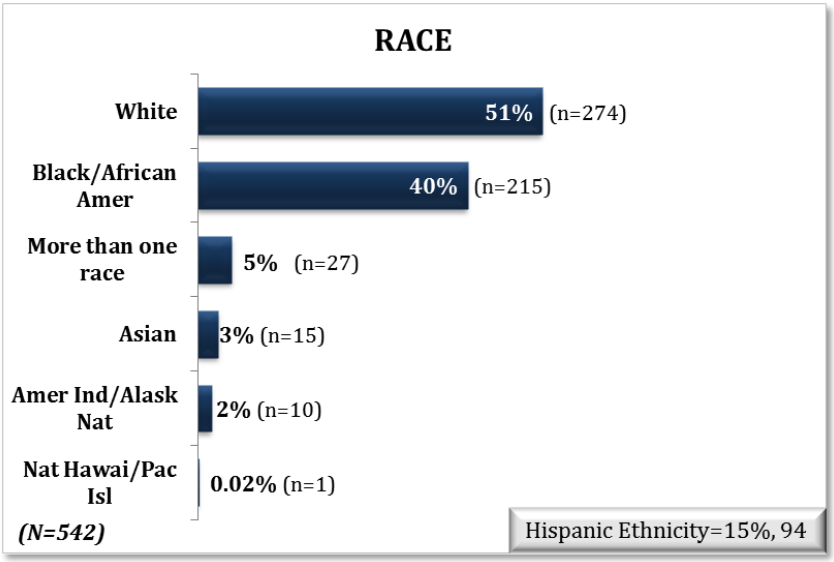
For nearly the entire population (604 participants), most (92%) were male and 8 percent (n=45) were female.



Race, Hispanic Origin, ESL

A total of 542 participants provided data on their *race.* One-half (51%) reported their race as *White,* and one in four (40%) reported their race as *Black or African American.* Other race categories garnered 5 percent or less each. See the chart below for percentages by group.

A total of 94 participants reported being of Hispanic origin and 51 answered the question regarding *English as a second language* affirmatively.



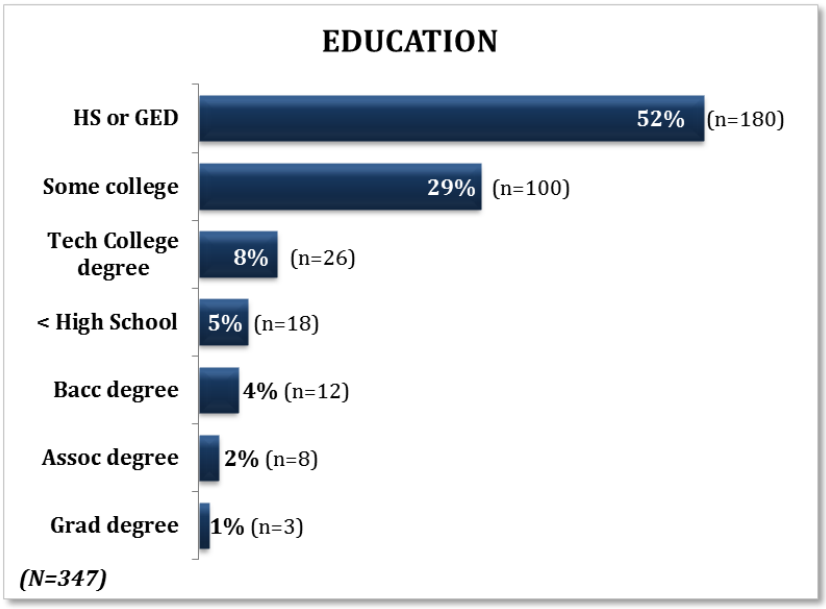
Veteran, Disabled and TAA Statuses

DOL and the TAACCCT Programs placed special emphasis on two specific group statuses: Veterans and TAA-eligible. These data were not collected by the school, but draw upon data specifically on the evaluation enrollment surveys.

- A total of 63 (10%) of the participants reported being a Veteran.
- Only 17 (6%) reported being TAA-eligible at enrollment.
- A total of 335 participants answered the question regarding *Disability.* Of those, 25 (8%) indicated they were disabled.

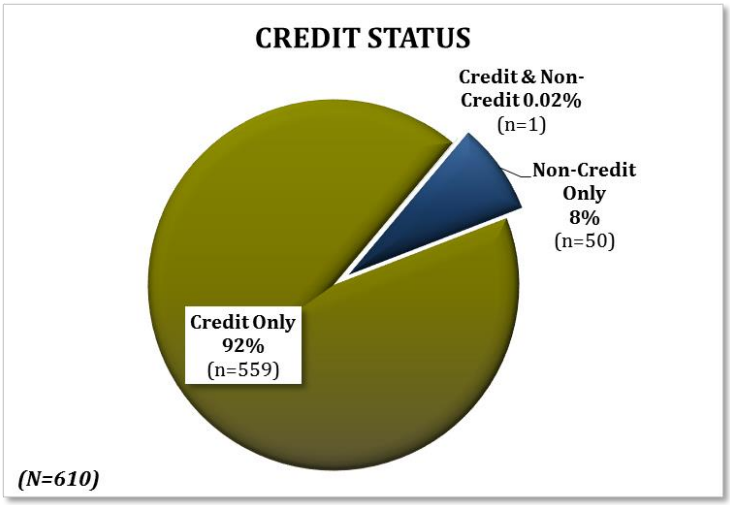
Education

A total of 347 participants provided responses to a question regarding *highest level of education attained.* These data were taken from the evaluation enrollment surveys as the college did not provide those data. Of that group, slightly more than one half (52%, n=180) indicated they had a high school diploma or GED. Nearly one-third (29%, n=100) indicated they had some college. See the chart below for percentages by education level attained.



Credit/Non-Credit Status

Data for the entire population (610 participants) reveals that nearly all (92%, n=559) were enrolled in Credit programs. Fifty (50) were enrolled in only Non-Credit programs; and, one (1) participant was enrolled in both Credit and Non-Credit programs.

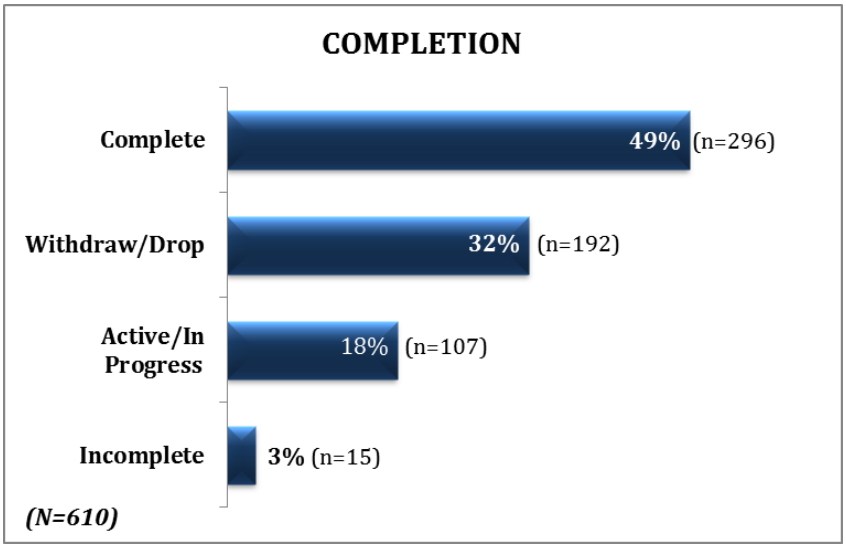


Completion Status

Participant completion status is comprised of four categories: Active/In Progress, Incomplete, Complete, and Withdraw/Drop. A student may be Incomplete, Complete or Withdraw/Drop at any point after enrollment. Almost two in ten participants (18%) were "active or in progress" (including students from fall 2015 semester). Few (3%) were considered "incomplete;" one-half (49%) had completed their program; and, one-third (32%) had withdrawn or been dropped from

their program. Note: these data reflect the categorization of 610 participants and does not indicate the semester or year that the categorization was effective.

The following chart shows the enrollment status for a total of 610 participants.



Program

The T4E program included six primary programs and Green-Up (a 6-week program focused on providing green technology training with certifications in such areas as fork lift, Hazwoper, OSHA, LEED, etc.) as well as additional non-credit support programming. In this chapter, we are mainly concerned with data from the six primary programs and Green-Up. The six primary programs were:

- Building and Property Management Technology
- Construction Technology
- Electrical Technology
- Heating and Refrigeration
- Machine Technology
- Welding Technology

These programs were selected to meet local employer needs in the areas of construction and advanced manufacturing, according to the grant proposal[3]. The following tables, taken from the grant proposal, indicates the number of total job openings by occupation and the short and long-term jobs in the local Kansas City (KC) market as well as the data sources:

[3] See pages 4-5 of the Part II Technical Proposal of the original grant proposal.

Table 5: Projected Employment Opportunities

Occupation	KC 2008 base	KC 2018 projected	Total Openings
Carpenter	9,060	9,800	1,871
Electrician	4,920	5,310	1,585
Maintenance & Repair Worker	9,680	10,420	2,226
First Line Supervisor	3,180	3,350	994
Welder	2,740	2,690	858
CNC Operator	920	1,020	282
Machinist	2,480	2,370	333
Hazardous Material Worker*	n/a	n/a	n/a
(De)Construction	7,790	9,170	1,911
Laborer			
Landscape Worker	8,500	10,260	2,222
Recyclable Materials Worker	720	860	343

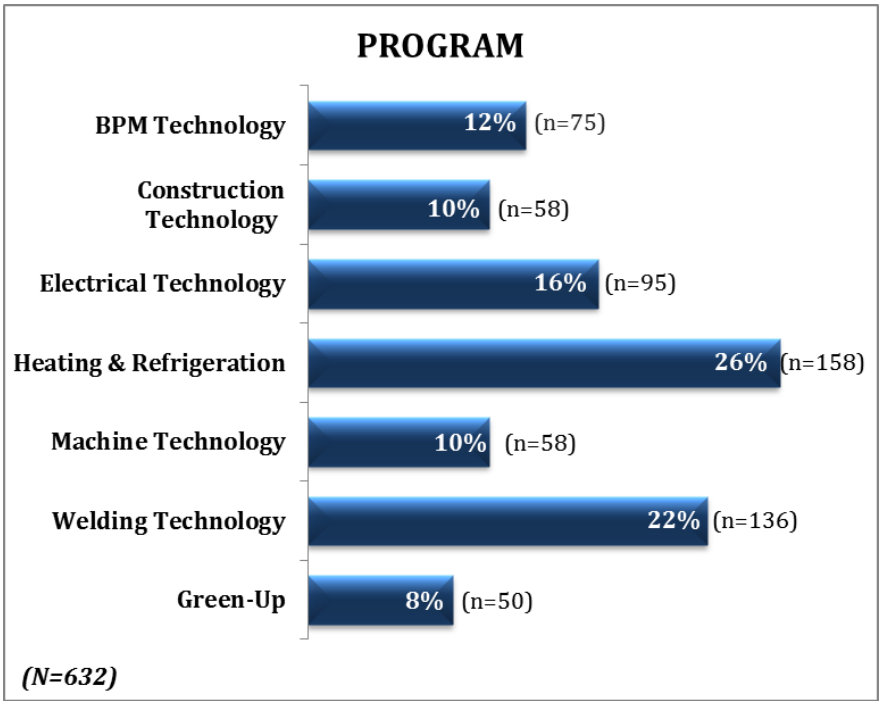
"*" Figures for the KC region are unavailable.
Source: Kansas Department of Labor's Occupational Handbook for 2008-2018; Missouri Department of Economic Development's Occupational Handbook for 2008-2018; 2009 Kansas Green Job Report; 2009 Missouri Green Job Report

Local Employer Projections

Selected Employers in Target Industry	Short-term Jobs	Long-term Jobs
Green Construction		
ERA Inc.	25	80
EAC LLC	13	52
Green Deconstruction	3	15
BPU	10	12
Truman Heritage, Heritage Habitat, APEX, Aerotek, Trillium, AfterMath Inc., Deffenbaugh, Midwest Env., Professional LLC., CAPE, D. Joseph	22	18
Advanced Manufacturing		
Webco	85	76
Triumph	20	70
R&D Leverage	10	15
NCS	5	10
Microtool	5	10
Unitech, Venture, C&R, Hans Rudolph, Vista Machine, Creative Blow Mold, Continental, Computech, K-ter Imagineering, Brogdon, Clay & Bailey, Heartland Fab Emmert Welding, Clifford, A&E, Holland 1916	63	51
Total	261	409

Source: KCTNMA Survey of Members, 2012

The two most popular programs in terms of enrollment were Heating and Refrigeration and Welding Technology, capturing 26 percent and 22 percent of the students respectively.

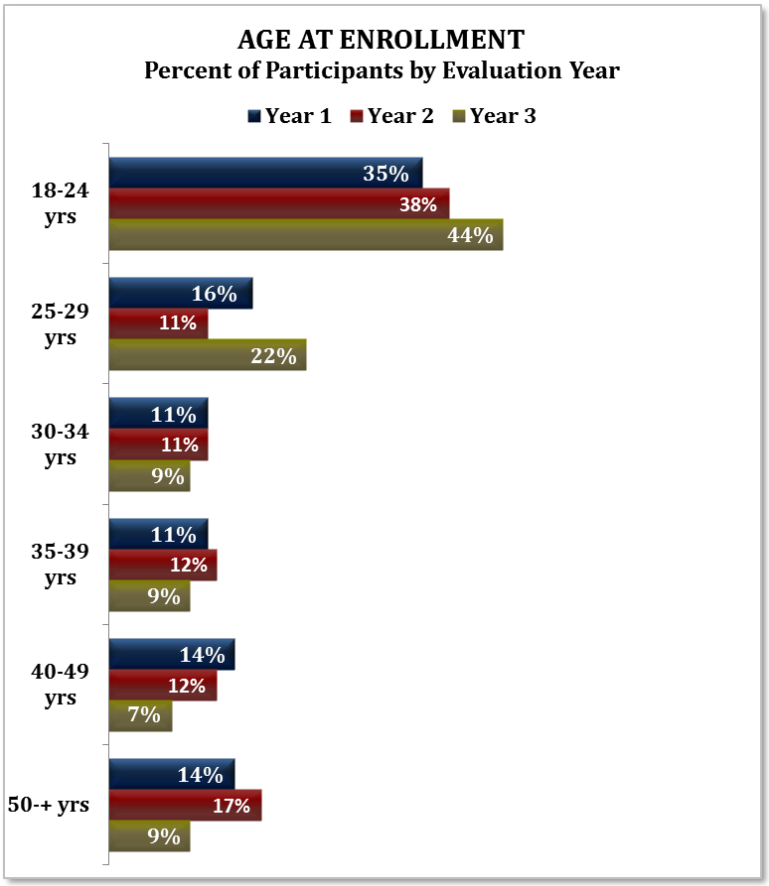


Section 2: Participants' Demographics Data by Evaluation Year

The evaluation data are now presented by *evaluation year*. As indicated earlier, the years (fall 2012 thru summer 2013, fall 2013 thru summer 2014, fall 2014 thru summer 2015) provide data for a complete school year (a total of three consecutive semesters) and a logical way to assess any demographic changes in participants.

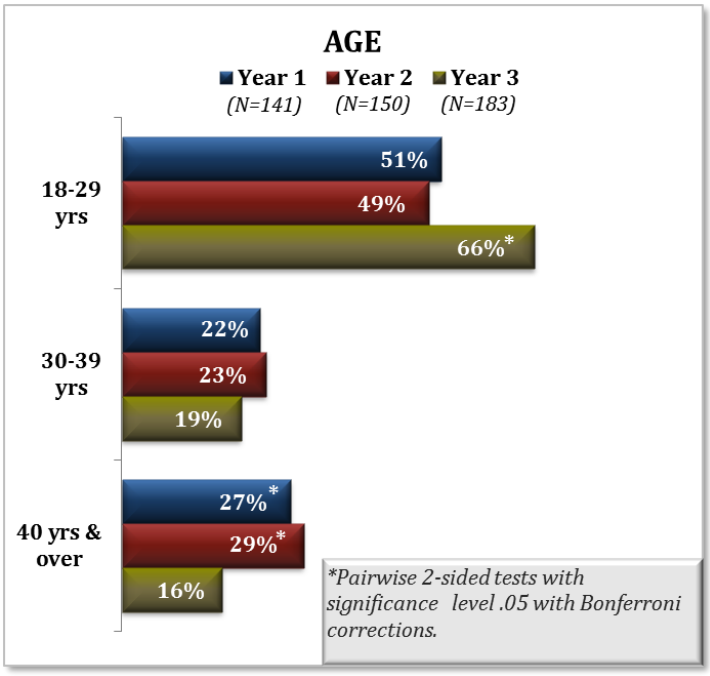
AGE

The following graph illustrates the participants' ages when enrolling in their programs in Year 1, Year 2 and Year 3. As the following bar chart shows, slightly more than one-third of the participants were in the youngest group – aged 18-24. This group increases from 35 percent in the first year to 38% in the second year and 44% in the third year. In year two, three age groups reveal a decrease and two had increases. In year three, the next youngest age group (25-29) was the only other group to show an increase from year two to three. All the older age groups experienced a decrease.



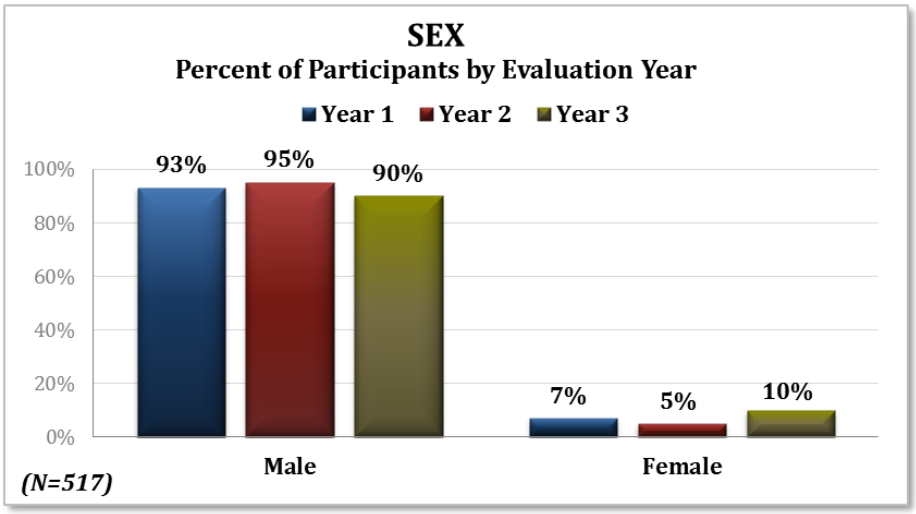
For analysis, age groups were collapsed to three groups: 18-29, 30-39, and 40 and over. The purpose of collapsing the groups was to have sufficient data by age group for statistical testing. According to the KCKCC Proposal, 71 percent of the TAA Eligible Workers were 51 years of age and older. Statistically significant differences were found in the 18-29 group, Year 3 and in the 40 and over group in Years 1 and 2.[4]

[4] *Pairwise 2-sided tests with significance level .05 with Bonferroni corrections.



SEX

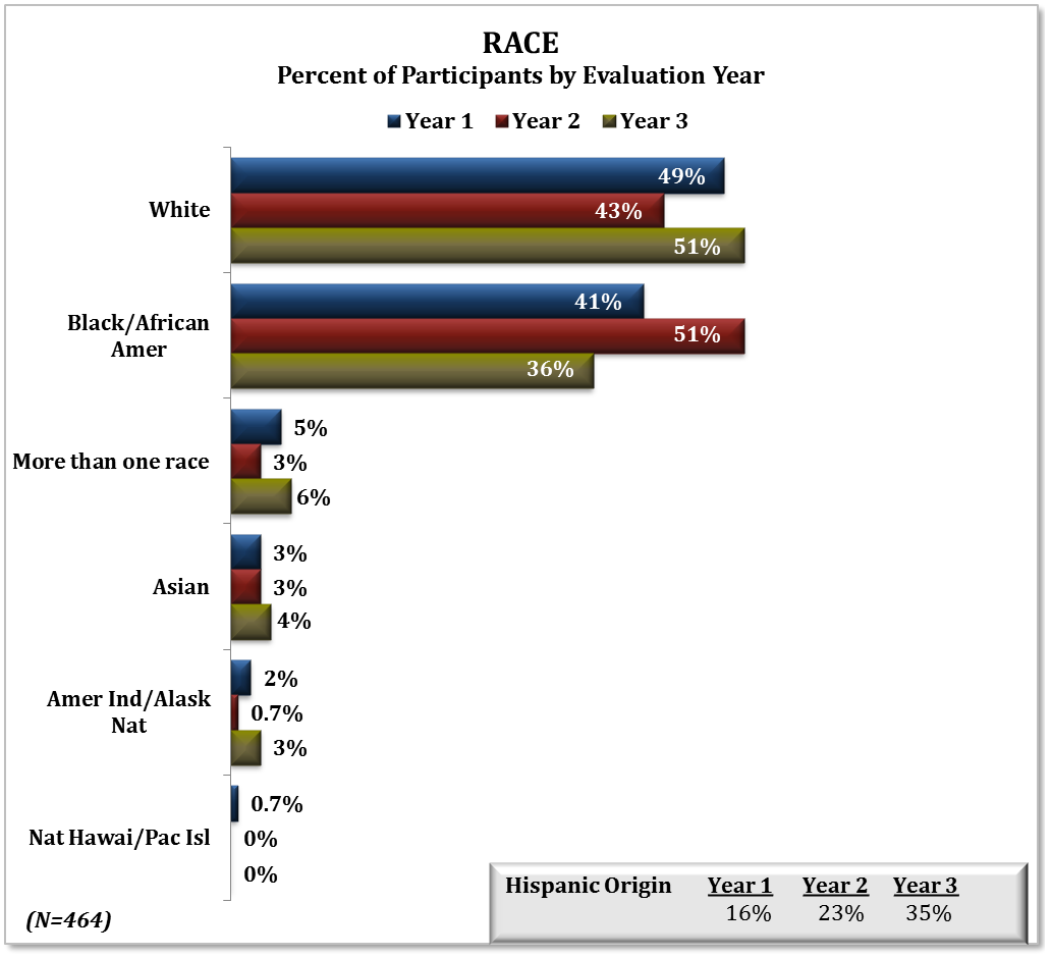
Differences in the population over the three years are slight. Males show a slight decrease from 93 percent in year one to 90 percent in year three while Females show an increase of three percentage points from year one to year 3 (7% to 10%). No statistically significant differences were found based on sex in the three years.



Race, Hispanic Origin, ESL

The vast majority of students were White or Black/African-American all three years. All other categories were 5 percent or fewer. There was, however, a statistically significant difference found for Black/African American students in Year 2 when the group experienced a ten percent increase from the previous year. However, that increase did not continue into Year 3 when it dropped below

Year 1 total. No statistically significant differences were found for Hispanic Origin or ESL. However, the percentage of participants reporting Hispanic Origin or ESL increased each year (see RACE chart).

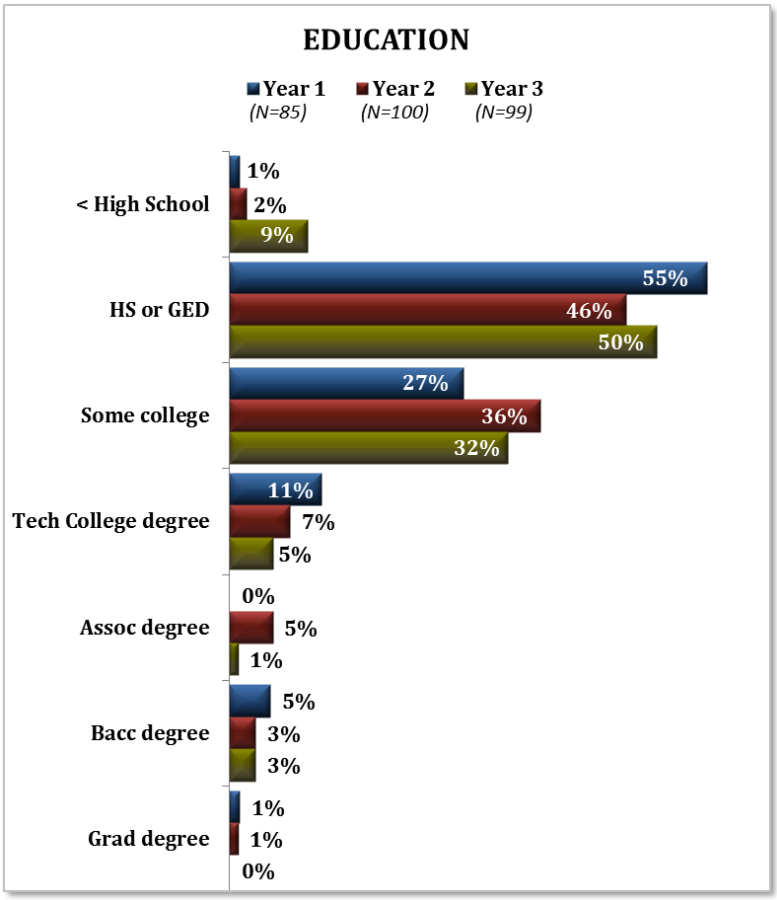


Veteran, Disabled and TAA Statuses

No statistically significant differences were found for Veteran status, Disability or TAA-Eligible participants.

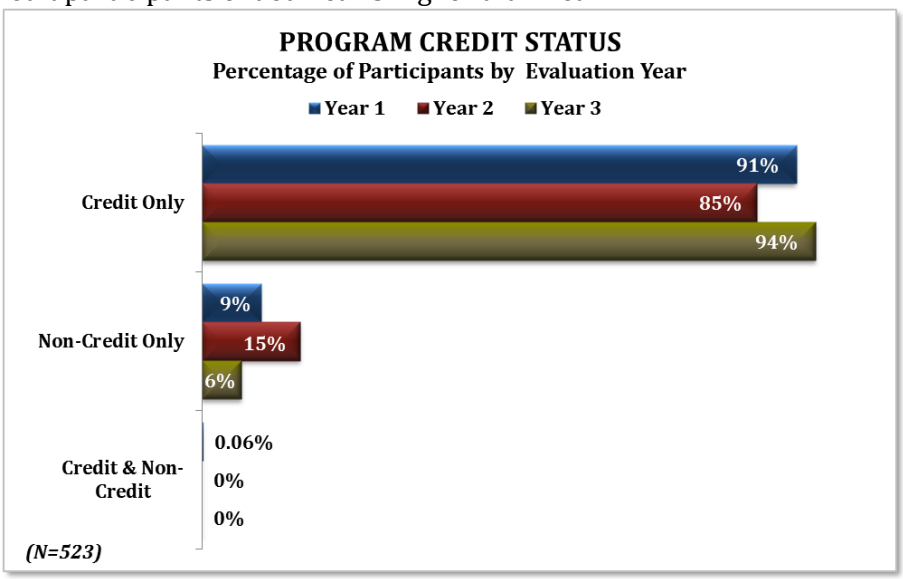
Education

Participants with less than a high school education increased from Year 1 to Year 3 although remained a low percentage overall. Those with a high school diploma or GED decreased from Year 1, dropping 9 percentage points in Year 2 and gaining 4 percentage points back in Year 3. Participants with some college had an increase from Year 1 to Year 3 of 5 percentage points. Statistical testing, however, showed no significant differences by education and year.

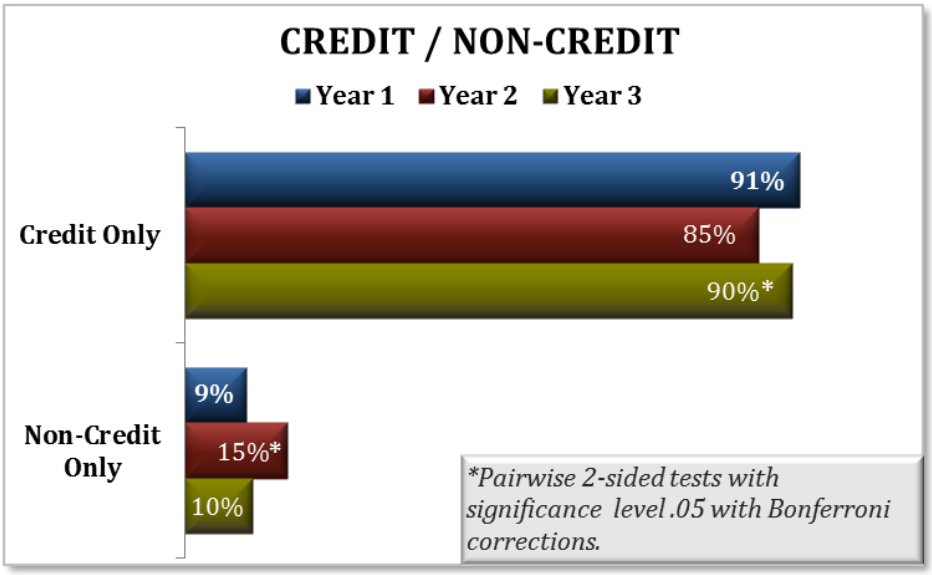


Credit/Non-Credit Status

Even though self-evident, since we are discussing the 6 Primary Programs and Green-Up, it is important to see if any changes occurred in the three years regarding program credit status. From Year 1 to Year 2 there was a 6 percentage point drop in Credit and a 6 percentage point gain in Non-Credit. The Credit participants ended Year 3 higher than Year 1.



Removing the one person who represented Credit and Non-Credit for statistical testing, Year 2 for Non-Credit and Year 3 for Credit was found to be significantly different at the .05 level.



Section 3: Discussion

KCKCC's general student population is primarily from Wyandotte County, Kansas (54%) with another 42 percent from other Kansas counties. The average age is 30 and 62 percent is female, 38 percent is male. Culturally, 53 percent are White; 27 percent are Black or African-American; and ten percent are Latino/Hispanic[5]. The greater Wyandotte County is predominately White (77%) with 13 percent Black/African-American and 18 percent Hispanic.[6]

T4E participants were also primarily from Wyandotte County (65%), and when other Kansas counties are included, state representation is 90 percent of participants. When T4E participants are compared to the larger KCKCC student body, they are younger, 42% were 18-24 years of age; and, more racially and ethnically diverse (40% Black/African American participants and 15 percent Latino/Hispanic).

While the KCKCC overall student population is 62 percent female, the T4E female population only represented 8 percent. Females in traditionally male dominated industries are making headway across the U.S. For example, in Construction, women represent nine percent; Utilities 23 percent; Metals and Fabricated Metals Manufacturing, 18 percent; and in Machinery Manufacturing 21 percent.[7] Obviously the Bureau of Labor Statistics data is *generalized,* however, it provides a sense of women's employment in male dominated industries which the T4E program represented. While the T4E proposal did not specify a gender focus, the evaluators saw it as an important attribute and reported on gender along with other demographic/sociographic data at meetings, retreats, and presentations about the T4E program results.

[5] Data taken from the KCKCC web site.
[6] U.S. Census Quick Facts, 2015, Table PST045215/00.
[7] Bureau of Labor Statistics, Current Population Survey, "Table 18: Employed Persons by Detailed Industry, Sex, Race, and Hispanic or Latino Ethnicity," Annual Averages 2014 (2015).

The grant proposal specifically targeted TAA-eligible workers, veterans, and other unemployed or displaced individuals. Over the three years, the T4E participants reflected a total of six percent TAA-eligible workers and ten percent reported being Veterans. The TAA and Veteran audiences were a primary component of the DOL's TAACCCT Grants. In these instances, the program was not as successful as anticipated. No evidence was provided that outreach efforts specifically targeting TAA-eligible workers and Veterans were a primary focus. The local Workforce Development Coordinator was housed in the T4E offices two days per week beginning the Year 2. The evaluators are unaware of efforts made by the Workforce Development Coordinator on behalf of T4E to solicit TAA-eligible workers and Veterans.

Changes captured over the 3-year evaluation period indicate fluctuations in the primary demographics (age, race, ethnicity, education). Possible reasons for these changes are discussed in more detail the operational chapter, however, planning and preparation for effective outreach to various local communities was lacking in the beginning of the grant period and was implemented off and on during the remaining two years. The evaluators also surmise that the dramatic change in staff may be reflected in the participant demographic changes over time.

Another important factor may be the inclusion of high school students during their senior year when they are able to enroll in a program at TEC. While the evaluators did not collect data from high school students, it seems reasonable that some who started while in high school would continue following high school graduation. The downside of the inclusion of high school students was to eventually become a major point in that seats taken by high school students on their half-day program prevented those seats from being available to targeted individuals for the grant. In other words, each program only had a certain capacity each semester or year and some of that capacity was filled by high school students. This arrangement is state-mandated. Therefore, KCKCC and T4E were not able to exclude high school students. However, capacity for each program was calculated in the original proposal at a higher level than was possible. Evening classes began in Year 3 for three of the primary programs to increase participation.

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 3: OPERATIONAL

The Evaluation Plan for the Kansas City Kansas Community College's (KCKCC) TAACCCT Grant, (Training for Employment-T4E-Program) included an Operational (or Process) Evaluation*"…to determine the merits of the program in terms of effectiveness, strengths and weaknesses as well as how issues and problems were addressed when encountered."*

An Operational Evaluation Report, "*Kansas City Kansas Community College TAACCCT Program T4E Operational Evaluation Report Year 1,"* was prepared for the period January-December 2013. The report was provided to the Vice President of Academic Affairs in confidence at a meeting with the evaluators on April 3, 2014. This qualitative report was based on insights from observations and participation in meetings, interviews and interactions with program staff, instructors, lab technicians as well as College staff and faculty. An Executive Summary Report was also written and delivered to relevant KCKCC staff, TAACCCT National Evaluation Team, and the assigned FPO for Department of Labor.

This Chapter focuses on the effectiveness, strengths and weaknesses, and problem resolution processes of the T4E program for the three evaluation years.

Section 1: Year 1 – Laying the Foundation

> *When one decides to build a house, after the purchase of the lot,*
> *an excavation is done in order to lay the foundation of the future home.*
> *This step is critical to ensure the house stays level, has proper drainage,*
> *and strength to bear its eventual weight[1].*

KCKCC launched the TAACCCT Grant Award announcement with a major community event which included the Secretary of Labor touring the new site where the Technology Education Center (TEC) would be relocated in summer 2013. This event garnered publicity for the new Training for Employment (T4E) program which focused on construction and advanced manufacturing. This early public relations and marketing was definitely a solid first step for the T4E program as well as the college.

At the time of the award, no T4E-dedicated staff was in place. Therefore, KCKCC staff and faculty who had been involved in writing the grant or were direct reports to those individuals started work on staffing and articulation agreements. Responsibility for the T4E program lay with the Dean of TEC even though the T4E Program Manager would report directly to the Vice President of Academic Affairs (VPAA). Many from the grant writing team began to serve on the Advisory Council.

Following the award announcement, the Advisory Council decided that T4E would officially begin the spring semester 2013 (January 2013)[2] even though final documents from DOL were not received until November 2012. This meant that participants enrolling in any of the designated

[1] Author statements using construction terminology to align with program implementation.
[2] As noted previously, this decision was rescinded in year two of the grant to go backwards and use fall 2012 as the official starting date for T4E in order to increase the unique participant numbers.

technical programs that made up the T4E program[3] would be officially counted. T4E staff had not been hired at that point. None of the T4E specific program elements, i.e. Financial Literacy, Employability Skills and Entrepreneurship Training (FLEET), Online and Technology-Enabled Learning, I-BEST Programming (basic adult education combined with technical education), Intrusive (Intensive) Advising, were in place. As such, participants enrolling at that point in time received no programmatic enhancements/additions from the T4E program during their first and second semesters.

Internal problems with newly hired T4E staff (Program Manager, part-time Assistant, Employment Coordinator) surfaced from the very start. Some of the early issues appeared as a result of a lack of effective communication and integration of the "new hires" and the "new program" into the existing TEC. The Dean of TEC was consumed with the new facility build-out and since the Program Manager reported directly to the VPAA, confusion mounted, particularly about what the grant specifics entailed as well as what could be done in that first semester (spring 2013).

Since the Advisory Council decided to begin enrollment into the T4E Program in January 2013 without any staff, the evaluators developed requisite forms to gather the required information from the first cohort in collaboration with TEC staff. The forms included an Evaluation Enrollment form and Consent to Participate in the research evaluation. The evaluators participated in the TEC Orientation for new students to discuss the research evaluation component of T4E and they were available to TEC staff to answer questions.

Later in first quarter 2013 the following staff was hired: a Program Manager, a secretary/assistant (began part-time and later full-time), and a Job Placement Counselor. In the second quarter of 2013, an Advisor, Multi-Media Coordinator, and Data Coordinator were hired. Once staff was on board, they began to develop plans to meet the grant goals. Significant time was spent selecting an external marketing team for outreach; a technology solution to allow staff to utilize and incorporate a team approach with the program participants including "first alert" and "intrusive/intensive advising;" a mobile app; and, studying the outcomes in the grant in terms of student numbers, certificates, credentials, etc. (the 9 DOL Outcomes).

This spring 2013 cohort's second semester was summer 2013 which was when TEC was moved to the new TEC facility. The new facility contained many program equipment enhancements (some under the grant). It appeared as though little to no actual teaching took place during this summer session. There were rumors that students were given a "free semester" because the new facility was not ready in May/June 2013. We heard this from students, but were unable to verify this with the TEC or the college.

Offices were built to accommodate existing and future T4E staff in the new facility. These accommodations were not in the original TEC building specifications. As a result, the T4E offices were built separate from other TEC faculty and staff, including no inside access to the main building or to the individual TEC program areas. In many respects, this arrangement fueled an already existing distrust among faculty and staff regarding the T4E program and its staff. To be fair, there was no guarantee that the proposal for the TAACCCT grant would be awarded. Therefore, it may

[3] The primary programs included existing technical education programs as follows: Building & Property Maintenance, Construction, Electrical, Heating and Refrigeration Technology, Machine Technology, Welding and the non-credit program, Green-Up.

have been a prudent decision to not include additional staff and program accommodations based on a submitted proposal.

It was not just the new facility arrangements that sparked issues. There was little evidence of information about T4E and its goals shared among the larger TEC faculty and staff. Additionally, instructors for the six programs and Green-Up were not aware of any changes or enhancements to their instruction or curricula based on the grant. In other words, the T4E program and its staff were not effectively integrated into TEC or the college at large. This lack of integration from the beginning of T4E led to greater discontent and mistrust over time.

The evaluators' interviews conducted at the conclusion of the first year pointed to a critical lack of knowledge and acceptance of the *new program and staff* by others. Many thought they *"could have done those jobs"* without hiring additional staff and what was effectively a slight on both sides became a chasm that was never truly closed. The issues were recognized and discussed by the Advisory Council. However, little was actually done to mend and build relationships.

During the first and second semesters of the first cohort (January-August 2013), the marketing firm contract was cancelled when work did not meet expectations. Outreach began in fall 2013 (Year 2) when a consultant who was a previous KCKCC graduate[4] was retained. The consultant reported directly to the T4E Program Manager.

The T4E Advisor (hired in second quarter 2013) was to use a specific advising approach known as *Intrusive Advising* which was outlined in the grant proposal. We found no evidence that training for this specific approach was provided to the Advisor. We know that the approach was to be supported by a technology solution allowing appropriate recording and viewing of student records and content of contacts made with students by T4E staff. It is important to note that staff, the Advisory Council, the college's IT Dean, and the college's Finance Director all reviewed the proposed technology solution and thought it a good fit. The IT Director was not able to include a *"first alert system"* that would integrate into the Ellucian software used by the College. Therefore, it was a decision embraced by many that, unfortunately, was not able to perform for T4E. Staff did not receive sufficient training on how to use the system; it did not interface with the technology being used at the college; and, was perceived as "*too difficult"* to use. Eventually the system was terminated when the contract was up for renewal. Thus, we are not able to verify that Intrusive Advising was actually used by the Advisors over the life of the grant.

The original Program Manager was not part of the grant writing team. Thus she had no prior knowledge of the specifics contained in the grant proposal/award. She required extensive time from the Vice President of Academic Affairs (who headed the grant writing team) as well as from the Department of Labor's FPO to grasp the details and nuances. The Program Manager had previously successfully managed a TRIO grant at a local university.

In Year 1, change continued. The Vice President of Academic Affairs retired and a new Vice President was hired. The retirement of the Vice President left a serious hole in leadership which was felt in all areas of the T4E program. It also required additional time for the new Vice President to become familiar with the grant specifications. Fortunately, Dr. Michael Vitale had a background in community colleges and technical education which saved tremendous time in understanding the dynamics across the KCKCC campus (academic versus technical) and a large government grant.

[4] This person did not graduate from any of the T4E specific programs. However, he was a community resident, Latino, and knowledgeable about KCKCC, TEC, and the populations of interest.

While the Advisory Council had made the decision to begin the program in January 2013 and not use the first year of the grant as a *"planning year;"* in reality, the first year was predominately planning and figuring out what could be done and, of course, moving to the new facility. It was in the fourth quarter of 2013 – the beginning of year 2 of the grant – that progress was actually visible in any aspect of the T4E program.

The evaluators do not take lightly the tasks that had to be accomplished quickly for a large, new grant received by a community college. With no changes it would have been a monumental feat to accomplish. Given the facts that the T4E Program Manager was new to the grant and the school; the Vice President retired; an entire technology education center was physically relocated into a newly built facility; most people outside of the grant writing team seemed to know little about the T4E program and the ramifications to the specific programs being targeted; it is laudable that anything was accomplished in the first year.

Throughout that first year, there was pressure to focus on the *"numbers."* There were intense discussions among the Advisory Council, the evaluators, and the Program Manager regarding the plausibility of meeting the DOL Outcomes as stated in the grant. The Program Manager reportedly had many conversations with the DOL FPO concerning those numbers. At the core of this very large question was whether the six primary programs were at physical capacity in the new TEC facility. The grant was written under the assumption that the capacity of the six primary programs and Green-Up would be increased. Thus, the outcomes were based on an assumption that, according to the Dean of TEC, was not possible. This issue was to plague the T4E program throughout the life of the grant.

Effectiveness

Overall, Year 1 can be viewed as effective in terms of building some infrastructure – marketing firm, technology solution, mobile app, staff, Advisory Council, and moving locations. Year 1 was effective in resolving the issue of the marketing firm not meeting expectations and retaining a consultant familiar with KCKCC and the surrounding communities to do outreach.

Year 1 was not effective in integrating the T4E program and staff into TEC; building cohesion for a successful implementation with all affected entities and individuals, including the instructors of the primary programs; institutionalizing the Green-Up program which became a contractor-funded program offered sporadically; creating internal awareness and identity of T4E as a program within TEC and KCKCC; effective outreach to the target populations of TAA-eligible workers, unemployed and displaced adults and veterans; and, in providing T4E participants sufficient enhancements to their programs that resulted in any meaningful differences from previous instructional/ programmatic efforts by TEC.

Strengths and Weaknesses

Strengths from Year 1 include hiring qualified program staff. All appeared to have the expertise and credentials to do the jobs for which they were hired. The staff was diverse racially and by gender. Staff seemed to be diligent in learning their new roles and responsibilities and understanding the grant requirements along with building a team.

Weaknesses were more macro and poor decisions were made by individuals without the comprehensive clarity that comes from a solid team working together. An example of this is the

decision by the Program Manager to become responsible for the data generated by the college and TEC instead of collaborating with the college's Institutional Research[5] team which included a Data Coordinator within TEC. Evalytics had worked closely with the KCKCC data team to build a comprehensive longitudinal dataset that would pull required data from the college's student information system. By eliminating this collaborative effort, Evalytics had to take more responsibility for ensuring accuracy and timeliness of the data. This was a critical decision that could have been overturned by the Advisory Council and was not, even though the Dean of Institutional Services, who supervised the KCKCC data team, sat on the Advisory Council.

Additional information about Year 1 can be found in the Operational Report produced in April 2014 by Evalytics.

Section 2: Year 2 – Erecting the Walls

> *After laying a proper foundation, the concrete is allowed to settle. Once the foundation is deemed set, the outside walls of the house are built, using multiple materials, varied tools, and crafts people of mixed expertise. Then comes the inside walls that define the spaces within the house and how the spaces will be used.*

The second year of the T4E program can best be described as a crescendo. It reflected planning efforts made in Year 1 to build a cohesive team as well as offer the support programs specified by the grant, such as FLEET, multi-media and online programming.

A major decision to begin counting students who had enrolled and/or completed one of the six primary programs, Green-Up, and Forklift beginning in the fall 2012 semester was made by the Advisory Council. The decision was solely based on "making the numbers" as set forth in the grant proposal. While the logic may have appeared correct, it had a serious impact upon Evalytics and the KCKCC Data Team in terms of data availability, access, and reworking all the variables to include people and programs that were not included in the initial set-up.

There continued to be visible conflict between the Program Manager and TEC staff and faculty as well as between the Program Manager and Advisory Council. A lack of inclusiveness within the larger TEC continued to stymie efforts. These efforts were a source of frustration to all T4E staff. The instructors teaching the primary programs were not invested in T4E or its goals, and continued to use only the advisor and the Employment Coordinator when desired. Instructors could only see value in what the advisor and the Employment Coordinator could offer them and their students, but could not see the value of the T4E program as a whole

From an evaluation standpoint, it became evident that most students also felt little to no affiliation with the college or T4E. T4E was not well known to the students as a comprehensive support program they could use even though there had been efforts to inform students of services available. Due to the lack of affiliation, survey response rates for students leaving the program were dismal. The evaluators shifted to collect completion data prior to the end of the semester in the classrooms in order to gather needed data from participants. Instructors often reluctantly accommodated the evaluators' requests. A few instructors ignored the requests. These issues/problems were brought

[5] Institutional Research was known as CRCD – Center for Research and Community Development – and was changed to IR in 2015.

to the attention of the Program Manager and Advisory Council. However, changes failed to materialize until a "pivotal" point which is discussed below.

T4E staff began to resign. The Dean of TEC was reassigned as the TEC Operations Dean and a new Dean (previously in Human Resources at the college) was moved to TEC. The turning point for T4E appears to be the Department of Labor Review in the first quarter of 2014 (during the second year of the grant). There were numerous items listed that were not in compliance with the grant[6]. Immediately following the review, the Program Manager was terminated. Fortunately for the program, the T4E Advisor applied for and got the Program Manager position. This saved considerable time and effort in the process to recruit and hire a Program Manager from outside of the college and T4E. Since the new Program Manager was already familiar with T4E and the college the transition to the new role was somewhat smooth. The second year, however, continued as a landslide of turnover with nearly 100 percent of the original staff leaving the program.

After the DOL review, there was a noticeable difference in nearly everyone touched by the T4E program, except the students. Instructors were more willing to provide time not only to the evaluators but to the multi-media staff for building the online component. TEC staff made themselves available to T4E when asked; and, leadership moved forward, focused heavily on many of the grant requirements. The DOL review got everyone's attention.

The new Program Manager was able to build the supporting programs in a way that was student-focused. For example, FLEET programming was integrated into the weekly schedule for all T4E students in years 2 and 3[7]. Under this new leadership, staff was hired; and, perhaps most importantly, bridges were built across the campus to involve other departments' staff and faculty in a cost-effective and sustainable approach to realizing the T4E program goals.

A-OK teachers were also utilized to provide supplemental instruction to T4E students in math and English using the I-Best model. Evaluators were told that students were assessed in the two subjects and assistance was provided in the classroom and/or in separate tutoring sessions. Evaluators were neither provided with the assessments nor information on progress of the participants. Evaluators asked for the information several times. Evaluators received two direct communications from students who did not understand the purpose of taking simple reading and math tests when they had college degrees. This information was provided to the Program Manager. Additionally, it was not clear how, in fact, the A-OK and I-Best models differed in the classrooms. This was made increasingly clear when the budget no longer supported these instructors in the T4E program and A-OK teachers/process took their place in Year 3.

The Program Manager began participating and representing T4E in the Kansas TAACCCT-On conferences hosted by Washburn University for community colleges who had active TAACCCT grants. Evalytics was included in some of these meetings and the annual conference. This is the place where the evaluators learned of America's Job Link Alliance (AJLA) from grantees who were actually using AJLA data for employment and wage outcomes for the TAACCCT participants. Up until that point, both the T4E staff and evaluators struggled to obtain valid and verified employment and wage data.

[6] While the evaluators know that there were more than 20 items in the Review to be found non-compliant, the evaluators were not given an actual document describing these items.
[7] The original FLEET program pilot was on a Saturday morning. While the content was very good, it drew less than 5 students.

The first alert and intrusive advising technology solution adopted in Year 1 continued to be used in very limited ways by a few of the T4E staff. It was an expensive solution that did not deliver what it promised. It was no surprise when the college and T4E Program Manager cancelled its agreement with Social Solutions. While the evaluators think it had more possibilities than realized, it was clearly not a solution that fit the larger college's needs for a first alert system to provide intrusive advising across all programs on campus and in TEC. The evaluators provided the name of an external programmer who built relational databases as a possible source for building a database staff could use. This person provided a proposal to the T4E Program Manager. The proposal was rejected based on cost. Thus, T4E began using a simple Access database that had been used by TEC. It was easy to use and captured the data required for reporting. However, it in no way was integrated into the college's Ellucian system. Eventually KCKCC and T4E agreed to co-support the purchase of a First Alert module to the Ellucian system.

Initially there had been a desire from at least some of the Advisory Council to integrate the TEC data with Ellucian, the college's student database, as TEC was capturing student data in two databases (Ellucian and SIS). In reality, the college itself uses two different systems – one for student data (Ellucian) and one for community education (Lumens) which could be described as the "credit" and "non-credit" sources. T4E, because of its varied offerings and support programs, needed all three data sources for a comprehensive evaluation. Not only were the sources different, the variables, fields, etc. were different. The grant offered an excellent opportunity to bring all records together seamlessly, in theory. In practice, it did not happen. Instead, the KCKCC Data Team and Evalytics designed a "Flat File" which KCKCC staff merged each semester from SIS and Ellucian to deliver to the evaluation team. Lumens data were delivered separately. (See Methodology for more information on data and how it was received.)

Effectiveness

Overall Year 2 can be seen as effective in terms of pulling everything together – staff, leadership, instructors, administration, support programming – and focusing on T4E and grant requirements. The new Program Manager was able to use the experience gained as the T4E Advisor to make the needed connections across the school (main campus and TEC) as well as pull staff and faculty together in a way that emphasized the goals of the T4E program.

There were multiple efforts in the community to add partnerships, introduce students to various employers, and collaborate with other TAACCCT grantees locally, in the state, and at a national level. The Program Manager attended several DOL sponsored meetings and gained a deeper understanding and appreciation for the programs that were being built across the country. Also effective was the creation of the multi-media programming that used the current primary program instructors to demonstrate techniques and skills. These videos were uploaded into Open Source as well as YouTube and made available to all TAACCCT grantees as well as the public. The program partnership with ABC allowed students completing any of the T4E funded programs who gained employment with a company utilizing ABC for apprenticeship training, would receive a one-to-two year acceleration into ABC's four-year apprenticeships.

Prospective student outreach efforts continued to be positive with participants' demographics matching the local community in many respects. However, the emphasis was not great enough on the targeted populations (TAA-eligible, Veterans) to have impact.

Strengths and Weaknesses

The strengths in Year 2 included: the multi-media efforts to video instructors performing skills for use by students as well as others; laser-like focus on the grant requirements in terms of supporting programs; building another team; and cancelling the technology solution (also a weakness).

Despite being housed two days a week in the T4E offices, the partnership with Workforce Development did not appear to help in recruiting TAA-eligible students or Veterans. The evaluators received no data or other information from Workforce Development about their activities.

In Year 2 Dean Hunt resigned from the college and, therefore, the Advisory Council. The Advisory Council rarely had external participants and eventually it became the direct chain of command – the program manager, Dean of TEC, and Vice President of Academic Affairs as well as Dean Min from Institutional Research.

Evalytics was only asked to attend Advisory Council when the group had questions or needed information. Many of the ongoing research reports prepared and submitted by Evalytics contained *"considerations"* for T4E. Items that the data indicated were working or not working or perhaps a way in which something may be changed to be more effective. These efforts in process evaluation were neither valued nor implemented.

Section 3: Year 3 – Building Out the Rooms

> *Using the blueprints of the house being built, new crafts people join the effort to install the infrastructure specific to many of the rooms. A kitchen is not a kitchen until the plumbing, ventilation, and cabinet locations have been prepped.*

In Year 3, T4E was operating relatively smoothly with the knowledge of what it needed to do, the programs in place to meet commitments, and a staff that appeared to pull together. Even though there continued to be resignations and changes for T4E staff, the largest emphasis was on meeting the numbers and how to capture employment and wage data on participants. New items included the required Sustainability Plan and the expansion of some programs to Leavenworth, Kansas which was a decision made by the college and, thus, included TEC and T4E.

Employment and wage data outcomes were required by DOL. The college was responsible for obtaining these data. Evalytics' plan indicated capturing these data from participants via self-report survey. During years 2 and 3 of the grant, DOL made changes to what was expected, particularly with regard to employment and wage outcomes. In a meeting at Washburn University of many TAACCCT program staff and evaluators, we were told that these data must be verified data, i.e., not self-report. The Employment Coordinator attempted to collect self-reported data from students who were completing the program even though DOL had already indicated self-report data was not sufficient.

It is hard to overstate the impact of the employment and wage data to everyone. There was clearly a disconnect between DOL requirements of what constituted these data and the college and the evaluators which had an approved evaluation plan based on self-reported employment and wage data. The TEC instructors were not helpful in this regard even though they talked about how much money this or that student was making, etc. In one program, the evaluators were told that they (the

instructors) had copies of pay stubs for all their who had internships and received jobs at those places. When the evaluators asked to see the data so that these could be logged into the T4E system, the instructors responded that this would have to be approved by the Dean. Before Evalytics could contact the Program Manager or the Dean with this exciting news, we received a call from the Program Manager to *"drop the matter."* Evalytics never received any information nor did the T4E coordinator (to our knowledge) of actual internship, employment or wage data from this particular program's instructors. In addition to not providing needed data, the instance reflected the continuing lack of acceptance and integration of what the T4E program was attempting to accomplish for the participants in the six primary programs. Evalytics began investigating the plausibility and possibility of using the AJLA data[8] which others in Kansas TAACCCT programs were using.

Unfortunately, it seems as though just when the T4E program was gaining momentum and having impact, emphasis shifted once again. The Program Manager and Employment Coordinator were already being utilized by the college for other efforts. The Sustainability Plan[9] contained funding for the Program Manager, Employment Coordinator, Advisor and Assistant. The I-BEST instructors were released and the college provided A-OK instructors for T4E students with math and English assistance.

Effectiveness

Year 3 can be viewed as a year of accomplishments in that the supporting programs were fully implemented for the participants; the online component was received well by experts upon review and was being viewed by participants and others; the emphasis on sustainability of the program prompted clarification of how it would be continued and expanded across other programming efforts at TEC; the new arrangement with Leavenworth County provided possible growth opportunities for TEC and T4E; and, evening classes continued to be held in three programs (Electrical, HVAC, and Welding).

Strengths and Weaknesses

The major strength was the mere fact that T4E staff could focus on what was working, changing what wasn't effective, and beginning to build collaborations with instructors, staff, and faculty at TEC and the college. It had taken two full years, many changes, much loss and frustration for the team to get to that point. There was, perhaps for the first time, in year 3 a sense of accomplishment and value for their efforts.

The lack of acceptance and integration still stymied efforts for T4E to be fully successful. While it was displayed more professionally than in previous years, there was no intentional efforts put forth by the college or TEC to help build out the components of T4E or to reassign staff members[10]. Staff resignations based on coming end of the grant obviously should have been expected, but it had a negative effect overall.

Recognizing the lack of data for employment and wages was crucial to making the needed efforts to secure whatever data were available to show that participants were getting jobs and making

[8] A contract between KCKCC and AJLA was finally signed in December 2014 (year 3 of the grant).
[9] Evalytics only received one copy of the plan during 2015 and are not sure that this was the final plan submitted to DOL.
[10] The multi-media specialist eventually was placed in the college's AV department.

acceptable wages. The efforts from the Employment Coordinator were helpful and provided anecdotal information on a few very successful students. However, all recognized that the data had to be stronger.

Section 4: The No-Cost Extension – The Punch List

> *Once the house is finished, the builder, architect, and others do a final walk-thru and develop a 'punch list' which contains the things that still need to be done. These usually (and hopefully) include only minor fixes and adjustments.*

As mentioned previously in this report, DOL provided all Round 2 grantees with a 6-month, no-cost extension. Evalytics did not receive a 6-month extension for its work but agreed to capture the requisite data for enrolling participants in spring 2016 as well as completing students in fall 2015 via surveys.

T4E staff returned from the holiday break to a letter from DOL OIG that they would be audited in January 2016. This was the first audit the DOL OIG team had performed on a Round 2 grantee. The team was at T4E for one week. A herculean effort was put forth by the Program Manager and Evalytics to provide information, data and to respond to questions about the program and data efforts. There was no appreciation for *evaluation* as opposed to *audits* and little knowledge of the fact that external evaluators had been competitively chosen and had submitted an evaluation plan which was accepted by DOL.

The extension was viewed positively in that it gave the program an additional semester to count participation and outcomes. By the time the six months were over, the Program Manager had resigned as had the VPAA, leaving a relatively new assistant, the third advisor[11], and the Employment Coordinator who split time between T4E and main campus as the only people left in T4E. The intellectual capital that had been built over the three and a half years beginning and implementing a support program for technical education students was lost.

[11] The Advisor that replaced the original Advisor left in August 2015. The T4E Assistant applied for and got the Advisor position.

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 4: COMPARISON GROUP

A critically important feature of the evaluation for the Kansas City Kansas Community College's (KCKCC) TAACCCT Grant, (Training for Employment-T4E-Program) is the comparison group. The evaluation plan included using a quasi-experimental group to measure whether or not the T4E program participants had better outcomes than the comparison group. In the plan, it was anticipated that we would obtain survey (self-report) data from students who were in the six primary programs[1]. As mentioned previously in this report, gathering self-reported data provided insufficient numbers for statistical analyses (see Outcomes-Verified Data, Outcomes-Self Reported Data and Methodology and Limitations chapters for more details). Therefore, the evaluators researched other options to get minimum data on employment from the comparison group.

The initial comparison group consisted of students from the three years prior to the grant award – academic years 2009-2011. Students were identified with the help of the KCKCC data team using the Ellucian student database. Creating a comparison group this period and from the KCKCC TEC seemed to be the most viable approach given the grant resources as a way to collect comparison data from which to measure the success of the T4E Program. There had been few changes implemented in the prior two-three years in the classes, courses and instructors. This provided a quasi-experimental group.

The result of many conversations with other TAACCCT grantees in Kansas was to contract with America's Job Link Alliance (AJLA) for aggregated data on employment and wages. Since the data are aggregated and measured two quarters after a person exited a program (T4E) and one year prior to when names and other information are submitted to AJLA, it was certainly a decision that did not provide all the information sought. However, it was determined to be the best decision in order to have any measurement of verified outcomes in terms of employment and wages. For the comparison group, using the original exit date would have provided no verified data because their exit date was outside the available data from AJLA so a dummy exit date was assigned to the comparison group. In order to take into account the fact that the comparison group was further past their actual exit dates, a sample of just those students one year prior to the grant award period was used. Students needed to be exiters from the program to qualify for AJLA.

More details on AJLA requirements and restrictions are available in the Methodology chapter.

Our purpose in this chapter is to clarify both the process and results of the data received to determine the final comparison group (CG). First, the demographics of the potential pool of students for the CG from KCKCC's Ellucian database are provided. These data were for three years beginning with 2009-10, 2010-11, and 2011-12.

Section 1: Potential Comparison Group Demographics

An analysis of three years of KCKCC TEC student data on students in the six primary programs revealed a total possible pool for the comparison group of 592 students. It is important to note that

[1] It was not feasible to try to capture data from previous students who took non-credit classes. The data were neither consistently captured nor contained the required demographic data upon which a match could be obtained.

students who continued their program from Academic Year (AY) 2011-12 into 2012-2013 were identified and removed as they were consequently counted in the T4E participant population.

The following table provides the relevant demographics for the Potential Comparison Group. The "n" provides the total number for which data were available for each demographic.

Demographics	**Percent**
Sex (n=592)	
Female	6%
Male	94%
Race (n=411)	
White	52%
Black/African-American	41%
Other	7%
Hispanic Ethnicity (n=449)	9%
Age (n=586)	
18-24	30%
25-29	15%
30-34	13%
35-39	10%
40-49	17%
50+	14%
Credit Status (n=592)	
Credit	64%
Non-credit	34%
Both credit & non-credit	3%

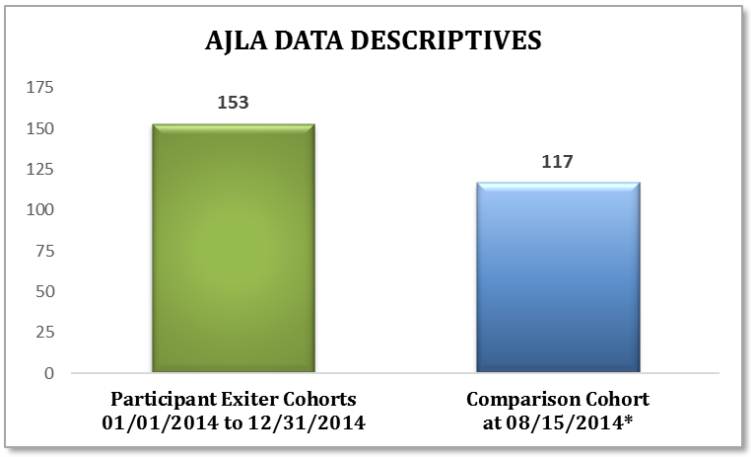
Section 2: Final Comparison Group Demographics– AJLA

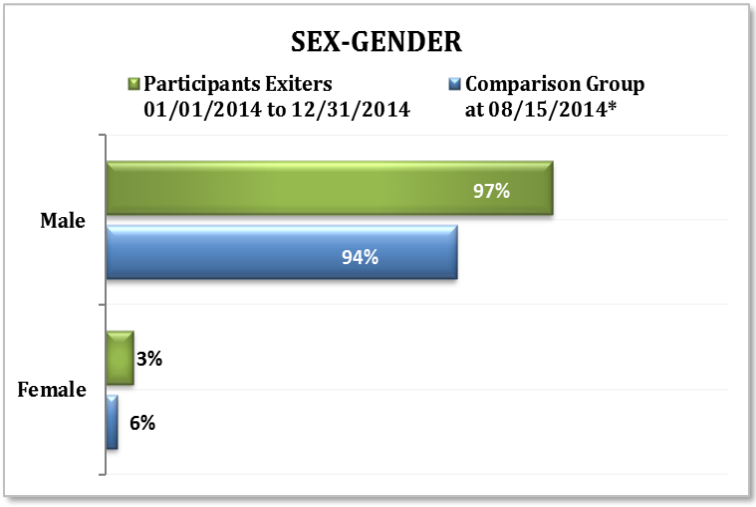
The evaluators selected a comparison group to use for the AJLA data consisting of 117 students. Since the CG students exited prior to T4E in the 2011-2012 academic year, in order to obtain AJLA data, a "dummy" point to follow the comparison students for the same point in time as T4E participants was selected. Therefore, it is important to keep in mind that the CG data which is reported for the same time as the T4E data is one cohort of individuals who left the program in the fall 2011, spring 2012, or summer 2012.

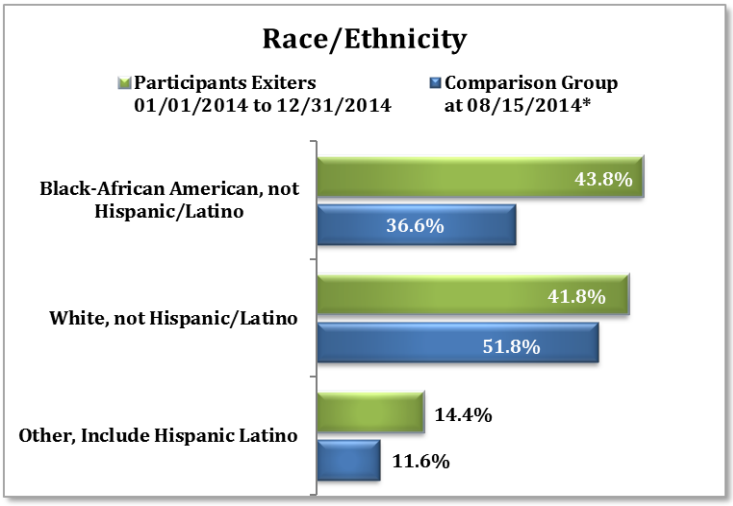
This means that the data represent their employment status two to three years post-graduation or "exit" whereas the data represent employment status immediately post-graduation or "exit" for the T4E participants. This time difference must be considered to understand the results and make any comparisons between the two groups.

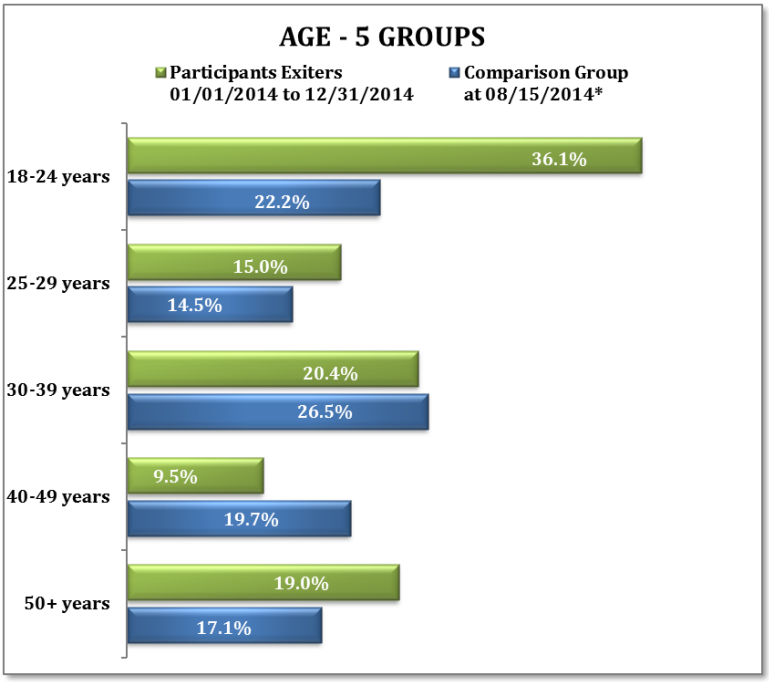
The demographics for the two groups – T4E and CG are provided for sex, race/ethnicity (grouped), age (grouped), primary programs and Green-Up, and education outcome (grouped).

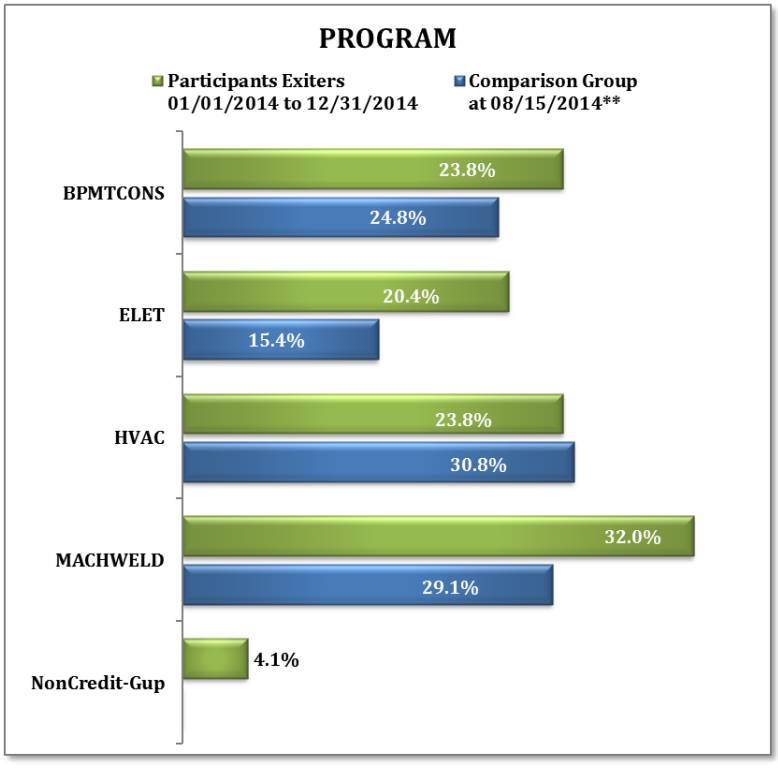
The selection of the 117 students for the CG enabled the evaluators to analyze outcome data with a minimum of extraneous noise in the results. Following are the demographic charts reflecting the data proportionately.

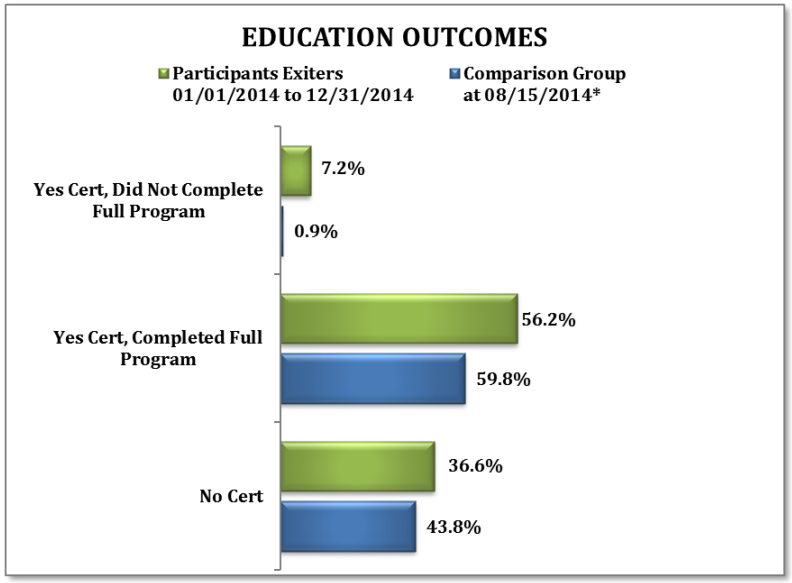







AGE - 5 GROUPS
Participants Exiters 01/01/2014 to 12/31/2014
Comparison Group at 08/15/2014*
18-24 years
36.1%
22.2%
25-29 years
15.0%
14.5%
30-39 years
20.4%
26.5%
40-49 years
9.5%
19.7%
50+ years
19.0%
17.1%


PROGRAM
Participants Exiters 01/01/2014 to 12/31/2014
Comparison Group at 08/15/2014**
BPMTCONS
23.8%
24.8%
ELET
20.4%
15.4%
HVAC
23.8%
30.8%
MACHWELD
32.0%
29.1%
NonCredit-Gup
4.1%


EDUCATION OUTCOMES
Participants Exiters 01/01/2014 to 12/31/2014
Comparison Group at 08/15/2014*
Yes Cert, Did Not Complete Full Program
7.2%
0.9%
Yes Cert, Completed Full Program
56.2%
59.8%
No Cert
36.6%
43.8%

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 5: OUTCOMES – VERIFIED DATA

Evaluation Outcomes for the T4E program are contained in two chapters: Outcomes – Verified Data which is this chapter, and Outcomes – Self-Reported Data, which is the next chapter. This split provides all the outcome data and analyses in a cohesive manner and, hopefully, reduces confusion for the reader.

This chapter contains three sections. First, the DOL "required" measures are provided. Second, educational outcomes for participants in total, by evaluation years (E1, E2, E3), and compared to the Comparison Group (CG, see previous chapter for details). Third, are the outcomes from America's Job Link Alliance (AJLA) comparing the T4E participants to the final CG on employment and wages.

Section 1: DOL TAACCCT GRANT Required Outcomes

As dictated by DOL TAACCCT grant requirements, there were originally nine primary measures of performance (a-i) for which KCKCC set goals. During the course of the grant, the DOL required primary performance measures along with supporting data points (1-10) that expanded upon the original nine measures. The following table shows the T4E programs progress towards those ten measures for the six primary programs and all other T4E supported programming in relation to their proposed goals.

DOL Annual Required Cumulative Participant Outcomes for All Credit and Non-Credit T4E Programming[1] for AYs 2012-2015, plus Extension			
DOL No.	**Cumulative Participant Outcomes**	**Proposed Target**	**Total**
B.1[a]	Unique participants served/enrollees	1,089	819
B.2 [b(e)]	Total number who have completed a grant-funded program of study[2]	720 (827)	729 (780)
B.2a	Total number of grant-funded program of study completers who are incumbent workers[3]		101
B.3[c]	Total number still retained in their program of study or other grant funded program (*Excluding B.2 completers*)	826	120[4]
B.4	Total number retained in other education programs		16
B.5	Total number of credit hours completed		18,446
B.5a[d]	Total number of students earning any credits	936	547
B.6	Total number of earned credentials		2,039
B.6a	Total number of students earning certificates – Less than one year		722
B.6b	Total number of students earning certificates – More than one year		58
B.6c	Total number of students earning degrees[5]		4
B.7[f]	Total number pursuing further education after program of study completion	110	62
B.8[g]	Total number employed after program of study completion[5]	576	240
B.9[h]	Total number employed after retained in employment after program completion[6]	531	186
B.10[i]	Total number of those employed at enrollment who receive a wage increase post enrollment	272	66

DOL Annual Required Cumulative Participant Outcomes for All Credit and Non-Credit T4E Programming[1] for AYs 2012-2015, plus Extension (Continued)

[1]Alphabetical superscripts refer to the original nine (9) measures required by DOL in the grant proposal for which KCKCC set required targets. All measures are from KCKCC data files unless otherwise footnoted. Gray cells represent goals not required.
[2]The original DOL requirements were for: (b) "the number of participants who completed a grant-funded program" which KCKCC interpreted as the combination of all certificates for a complete lattice program or the number of non-credit students who completed any credential in a non-credit standalone program such as Fork-lift or Green-up and (e) "total number of participants earning credentials" which may have included any certificate as part of a full grant program or the stand alone credentials. Later the DOL combined these into one number for reporting and the PM indicated that as per discussions with the FPO that the number completing any credential equated to a completed "grant-funded program of study," thus the number in parentheses is what was reported to DOL. We are reporting the total number of full-program completions with multiple certificates possible as the first number followed by the total number of students completing any credential in parentheses.
[3]As measured by Evalytics' surveys and/or T4E employment coordinator direct follow-up with students and teachers.
[4]Retention was calculated each semester and as such, students who were retained one year may have graduated or withdrawn the following year, 120 students reflects the number of students retained at the end of the entire 3 year period rather than on a year to year basis.
[5]The T4E six primary programs are credit-earning certificates but are not degrees. Figures represent participants who earned a two-year degree from KCKCC alone or in addition to the T4E credit programming.
[6]As reported from AJLA data. The AJLA contract was signed in December 2014, data reflect students between 01/01/2013-9/30/2015 for employment and 01/01/2013-9/30/2015 for retention.

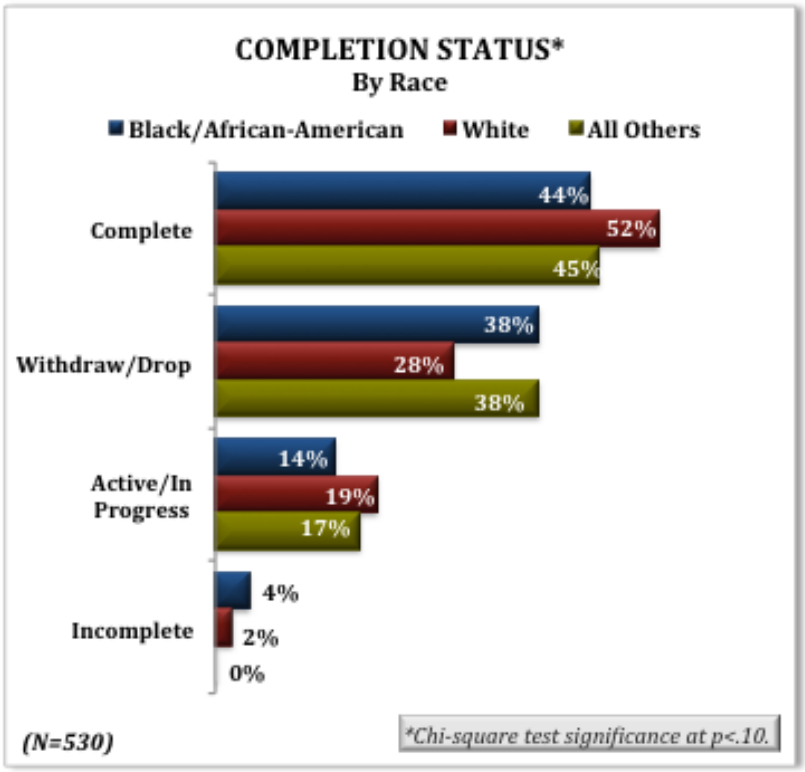
Section 2: T4E Participants' Educational Outcomes

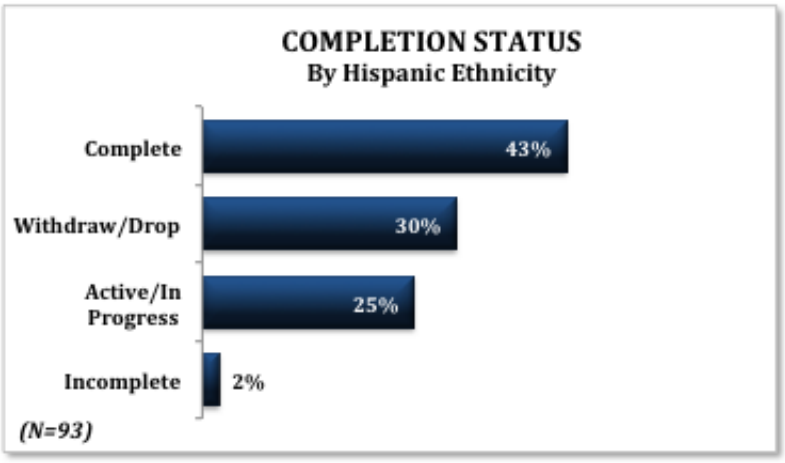
The educational outcomes[1] as measured by the college (KCKCC and TEC) are not as precise as the DOL TAACCCT Required Outcomes, yet just as important in terms of realizing training/education goals. The following charts include: enrollment status, enrollment status by a few demographics; certificates; credits; and statistical test results.

As reported in "Chapter 2: Descriptive," approximately one-half (49%) of the total 610 T4E participants completed their full program. Nearly one-fourth (18%) of the participants are still active in their program; and, about one-third (32%) withdrew or dropped their program.

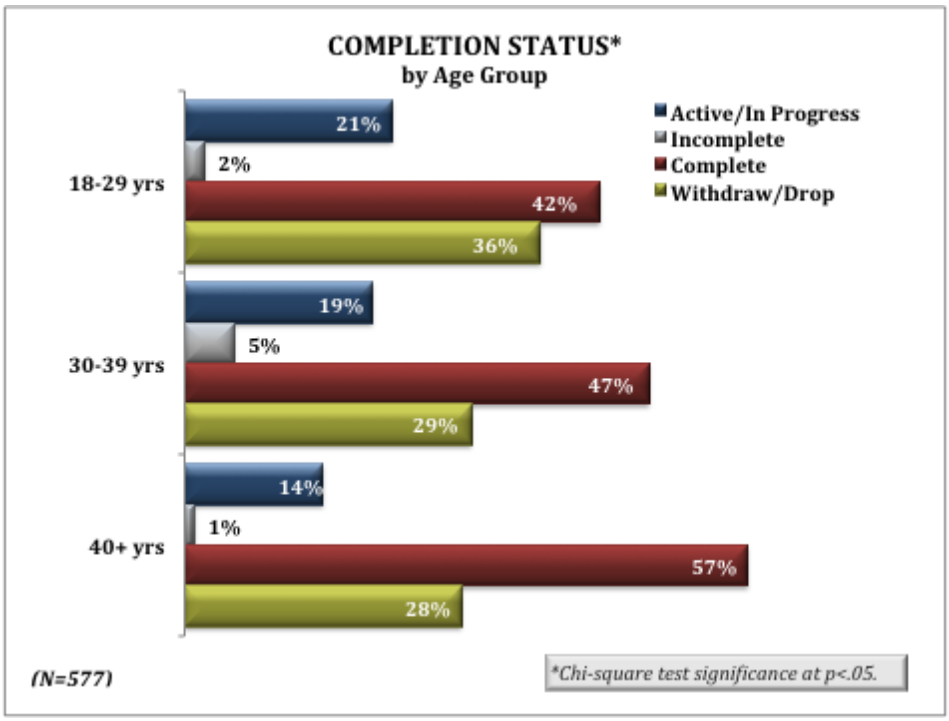
Viewing completion status by race (grouped by Black/African American, White, and All Others) reveals that a higher percentage of White participants were *in progress* and *completed* their program with more than half (52%) completing their program in comparison to 44% of Blacks/African American participants and 45% of all others.[2] When looking at Hispanic/Latinos alone, no differences were found in comparison to those not of Hispanic/Latino origin.

[1] Please recall that the evaluation ended December 30, 2015 – see Introduction section for details.
[2] Significant differences for race were at the p<.10 level.

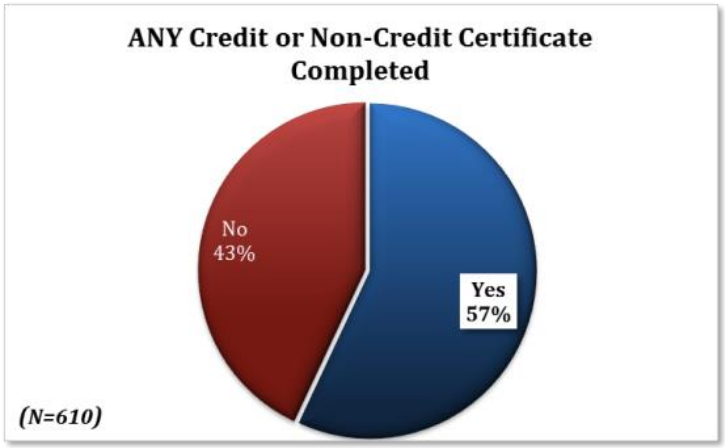

COMPLETION STATUS*
By Race
Black/African-American
White
All Others
Complete
44%
52%
45%
Withdraw/Drop
38%
28%
38%
Active/In Progress
14%
19%
17%
Incomplete
4%
2%
0%
(N=530)
*Chi-square test significance at p<.10.


COMPLETION STATUS
By Hispanic Ethnicity
Complete
43%
Withdraw/Drop
30%
Active/In Progress
25%
Incomplete
2%
(N=93)

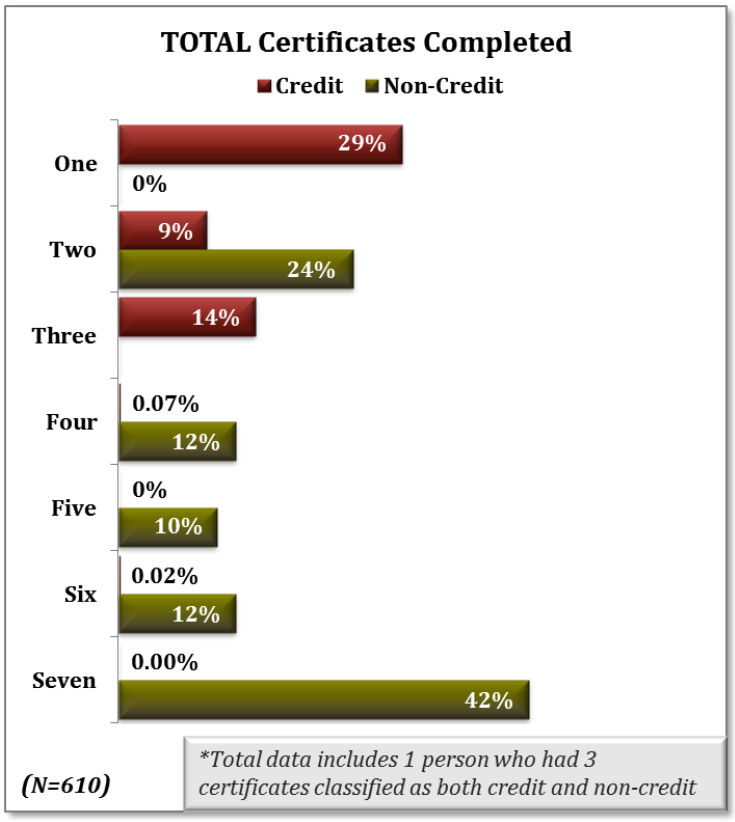
When looking at completion status by age, those adults who were 40 years or over were more likely than those 30-39 years and 18-29 years to complete their program. More than half (57%) of those 40 years and over completed in comparison to 47% of 20-39 year olds and 42% of 18-29 year olds.



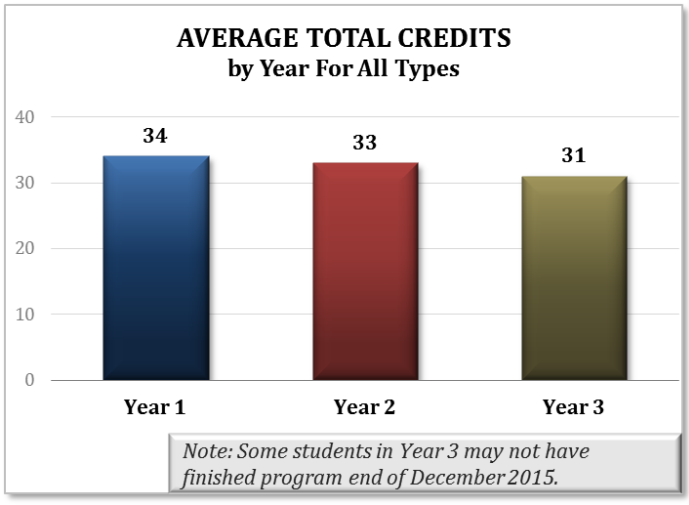
More than one-half (57%) of participants completed and earned at least ONE credit or non-credit certificate.



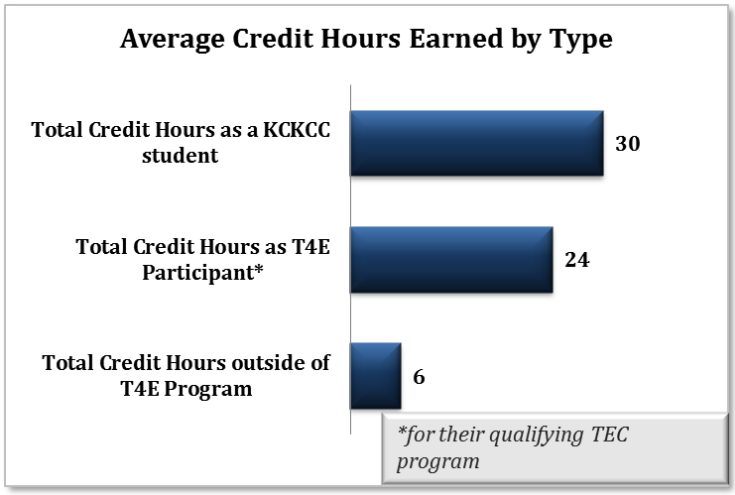
Four in ten participants (42%) earned seven credit or non-credit certificates. It is important to note that students in Green-Up (a non-credit, short duration program) were able to earn more certificates than students in the six primary programs by virtue of that program's design. Three in ten participants (29%) earned one certificate and three in ten (33%) earned two certificates (24% non-credit and 9% credit).

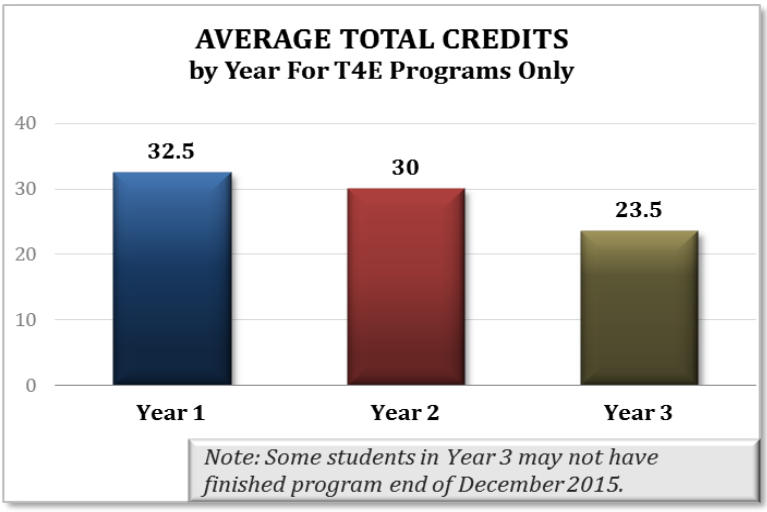


The average number of credits earned by students by year shows that all three years are similar.



Credit hours can be earned in the TEC programs and other courses at KCKCC. The following chart shows the average credit hours by type while the second chart displays the average credits for just the T4E programs.





These outcomes are also important to make an adequate comparison of participants to those in the CG: *whether or not the students who participated in the six primary programs during their T4E program received more credentials, completed certificates, and completed programs compared to students who took these same six primary programs in the previous three years.*

Table 1 displays a view of similar measures between the comparison group and the participant group based on DOL requirements. *Due to the fact that some variables were not measured in the same way in the prior three years* to the T4E program for the comparison group, not all data are available for comparison. Most notably, a measurement of withdraw/drops has been substituted in place of continuation in education (goal B.3) in order to retain mutually exclusive groups between the comparison and participant groups.

Table 1

Selected Outcomes for the Six Primary T4E Programs by Comparison Group (CG) and Participants (P) and by Evaluation Year (EY)

TAACCCT Outcomes	CG EY10	CG EY11	CG EY12	CG Total	P EY13	P EY14	P EY15	P Total
Unique participants served/enrollees	129	125	92	346	151	141	181	473
Total who completed any certificate[1]	53 (41%)	81 (65%)	19 (21%)	153 (44%)	109 (72%)	89 (56%)	79 (44%)	277 (59%)
Total who completed a full-program of study[2]	51 (40%)	83 (66%)	38 (41%)	172 (50%)	104 (69%)	79 (56%)	63 (35%)	246 (52%)
Total who withdrew/dropped and did not continue further education without completing any program	63 (49%)	42 (34%)	47 (51%)	151 (44%)	46 (31%)	59 (42%)	72 (40%)	177 (37%)

[1]"Any Cert" refers to completing all certificate levels in an area of study in one of the six primary TEC programs. For the comparison group years, there was less emphasis on the completion of individual certs within a larger program and in some instances individual certificates were not even tracked separately from the completion of the full program.

[2]"Full-program" refers to completing all certificate levels in an area of study in one of the six primary TEC programs. For EY10 of the CG, there were an additional 15 students that KCKCC indicated had "met goal" which may indicate why some

[3]As measured by Evalytics surveys and/or T4E employment coordinator direct follow-up with students and teachers. Data not available for CG.

The difference between the total CG and participants (P) who completed any certificate is statistically significant at the .05 level. However, completing any certificate was not a focus for TEC programs before the grant. The focus on the stacked and latticed design influenced T4E and TEC to track more closely the accomplishments of students within a program of study and award the certificates as part of the process towards completing a full program. Statistical tests of CG and participants for completing a full program and those who withdrew/dropped were not statistically different.

Alternative instructional methods to convey information and assist in skill-building for T4E participants began in year two of the grant. The resulting nine videos were created using the actual instructors in the classrooms. The videos included the following titles:

Drain, Waste and Vent
Service Entrance
Calculating Cubic Yardage
Waste Piping
Introduction to Heating and Air Conditioning
Water Supply and Fitting
Doorbell Wiring
Residential Shower
Training for Employment

All videos were vetted by external experts in the various fields and uploaded to Skills Commons and YouTube. The videos ranged in length from 1 minute to 12 minutes. Analytics on the videos reveals that each video had subscribers, the number ranging from two to 28. The average video view duration ranged from .42 minutes to 4.47 minutes. A brief evaluation form for viewers was provided and staff reviewed comments to make changes as needed and appropriate.

Section 3: T4E Participants and Comparison Group Employment and Wage Outcomes

There is no doubt that the program results should be measured in terms of resulting employment and wages. It was the crux of the TAACCCT program to provide training and education that would lead to high-wage positions for its participants. Thus, these data are important indicators of the overall success of the program.

As discussed in the Operational chapter, the decision to contract with America's Job Link Alliance (AJLA) was vitally important to secure any verified data on program participants. The evaluators began with a pilot run of data the first quarter of 2015 (January-March). AJLA data are not current employment or wage data, but rather a point in time that is *"two quarters following exit quarter and one year behind current year"* (AJLA agreement). Also, the data only represent individuals for whom data were available in the State of Kansas.

AJLA data provides numbers for those entering employment and those retained in employment as well as average earnings for those retained in employment. The data are shown by "exit cohort" which means that participants who exited their program during a specific quarter and year are included in an exit cohort. The number of individuals and percent of that respective exit cohort begin with the third quarter of 2014 (7/1/2014-9/30/2014) and end with the second quarter of 2016 (4/1/2015-6/30/2015).

Even with the delay in obtaining the AJLA data, there are four quarters and one year of data that were analyzed. Ideally, as a program continues, the program improves and the results/outcomes reflect that growth.

Full details on how the CG was utilized to obtain AJLA data are provided in the Methodology chapter. However, to understand the following comparisons between T4E and the CG, it is important to note that T4E has four distinct cohorts available for 2014 while the CG is only one cohort for the entire year. This was necessary because the CG is comprised of students prior to the start of T4E in fall 2012 who exited their program at various points in that three-year period.

Table 2 displays AJLA employment retention data and average wages by each quarter and year 2014 for T4E participants and CG. It is important to understand that unlike the calculation for the exit cohort "entering employment," retention percentages represent the two quarters FOLLOWING the quarter in which a person exited their program; and, average earnings represent a calculation of earnings in the SECOND and THIRD QUARTER following the exit quarter. Thus, for wages, it is critical to understand that the average earnings reflect only two quarters, not a full year. Doubling average earnings is not exact, but for purposes of comparing these wages to wages provided by Bureau of Labor Statistics later in this section, it was necessary to use an annual figure.

Focusing on 2014 data points, T4E has a slightly higher employment retention rate (90% vs. 87%) and about 12 percent less in average earnings. It is critical to note that we are not comparing the cohorts at the same point in time since the CG presumably has been in the work force longer. Thus a 12 percent differential in average earnings for two quarters following exit may represent the difference in pay scale between an entry-level and experienced person.

Data from Kansas Higher Education Reporting System (KHERS)[3] for completion year 2014 indicates that 67.5 percent of KCKCC graduates with a certificate were employed in Kansas. This percentage dropped slightly in 2015 to 64.2 percent. Further, KHERS reported annual average earnings for graduates with a certificate at $27,848. These data are slightly higher than the T4E participants (approximately $25,652 for four quarters or one year of earnings).

Table 3 reflects the T4E participants' retention and earnings by their level of completion sorted into three groups: 1) participants who did not earn any certificates during their enrollment; 2) participants who earned certificates and completed their program (six primary programs and Green-Up); and 3) participants who earned certificates but did not complete their program. It is clear from these data that the T4E participants who completed their program and earned certificates had the highest average earnings - $992, or nearly 8 percent, compared to participants who earned certificates but did not complete their program; and, $1,993 more than participants who earned neither certificates nor completed their program. Retention rates are high for all three groups of T4E participants (93%, 88%, 86%).

Comparing T4E participants to the CG on retention and earnings by the three levels reveals that CG students either earned no certificates or earned certificates and completed their program (Table 4). For those who did not earn certificates the average wage differential is approximately 11 percent. For those who earned certificates and completed their program, the average wage differential is approximately 10 percent. Retention for the CG is 74 percent for the year for those with no certificates and 96 percent for those with certificates and completion. This indicates that those who leave their program before earning any certificates are less stable in their jobs over time.

[3] Kansas Board of Regents (KBOR), Kansas Higher Education Reporting System (KHERS), Employment and Wage, https://submission.kansasregents.org/ibi_apps/bip/portal/KHERS

Table 2

T4E: AJLA Employment Retention & Earnings					
T4E Participants			**Comparison Group****		
Exit Cohort	Employment Retention Percent	Average Earnings*	Exit Cohort	Employment Retention Percent	Average Earnings*
01-01-2014--03-31-2014 (n=17)	74%	$10,535			
04-01-2014--06-30-2014 (n=37)	90%	$12,488			
07-01-2014--09-30-2014 (n=18)	90%	$13,318	07-01-2014--09-30-2014 (n=65)	84%	$14,327
10-01-2014--12-31-2014 (n=33)	92%	$12,705			
01-01-2014--12-31-2014 (n=96)	90%	$12,826	01-01-2014--12-31-2014 (n=65)	87%	$14,341

* Figures represent two quarters following exit quarter and one year behind current year.
** Comparison group consisted of **one** cohort compared to multiple cohorts for T4E participants.

Table 3

T4E: AJLA Employment Retention & Earnings						
	T4E Participants					
	No Certificates		Certificate+Complete		Certificate-Not Complete	
Exit Cohort	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*
01-01-2014--03-31-2014 (n=17)	71%	$10,611	75%	$10,504	~	~
04-01-2014--06-30-2014 (n=35)	91%	$14,680	94%	$10,735	~	~
07-01-2014--09-30-2014 (n=14)	~	~	88%	$13,849	~	~
10-01-2014--12-31-2014 (n=34)	100%	$6,081	88%	$14,142	~	~
01-01-2014--12-31-2014 (n=96)	**93%**	**$11,663**	**88%**	**$13,656**	**86%**	**$12,664**

~ Insufficient data available for release
* Figures represent two quarters following exit quarter and one year behind current year

Table 4

T4E: AJLA Employment Retention & Earnings						
	Comparison Group**					
	No Certificates		**Certificate+Complete**		**Certificate-Not Complete**	
Exit Cohort	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*
07-01-2014--09-30-2014 (n=65)	68%	$12,738	96%	$15,085		
01-01-2014--12-31-2014 (n=67)	74%	$12,911	96%	$15,089		

~ Insufficient data available for release
* Figures represent two quarters following exit quarter and one year behind current year
** Comparison group consisted of **one** cohort compared to multiple cohorts for T4E participants.

Tables 5 and 6 provide retention and earnings by the six primary programs and Green-Up for the T4E participants and the CG. Because some of the programs had smaller numbers of students, and in order to get as much data as possible from AJLA, four programs were combined into two programs. This decision took into account types of jobs and industries that participants would most likely pursue. The combinations were 1) Building Property Maintenance Technology (BPMT) and Construction (CONS); and, 2) Machine Technology (MACH) and Welding (WELD). Even with combining some of the programs, there were insufficient numbers to generate data for every quarter by each program.

T4E participants in the Electrical program had the highest retention rate and average wages (95%, $14,879). Second in retention were T4E participants in BPMT and CONSat 90 percent. Second in wages were those in MACHWELD with $13,735; followed closely by HVAC at $13,636.

For the CG, MACHWELD had the highest average earnings ($17,024) and the highest retention rate; followed by ELEC and HVAC on earnings and retention.

Table 5

T4E: AJLA Employment Retention & Earnings										
T4E Participants										
	BPMTCONS		ELECT		HVAC		MACHWELD		GREEN-UP	
Exit Cohort	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*
01-01-2014--03-31-2014 (n=12)	~	~	~	~	~	~	80%	$16,247	67%	$9,343
04-01-2014--06-30-2014 (n=37)	91%	$6,682	86%	$22,680	100%	$13,863	82%	$12,587	100%	$9,769
07-01-2014--09-30-2014 (n=14)	~	~	100%	$10,648	75%	$14,879	~	~	~	~
10-01-2014--12-31-2014 (n=33)	80%	$9,202	100%	$13,029	89%	$13,747	93%	$12,948	~	~
01-01-2014--12-31-2014 (n=96)	**90%**	**$7,896**	**95%**	**$14,879**	**89%**	**$13,636**	**88%**	**$13,735**	**80%**	**$12,773**

~ Insufficient data available for release
* Figures represent two quarters following exit quarter and one year behind current year

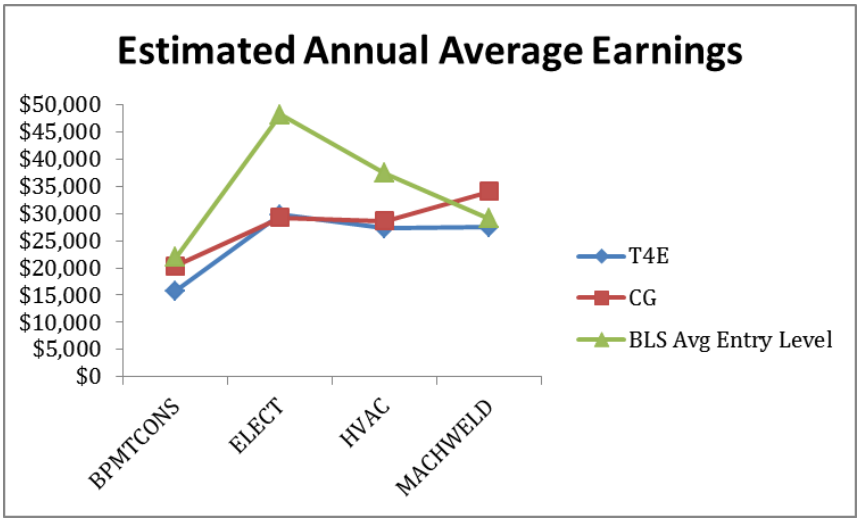
Table 6

T4E: AJLA Employment Retention & Earnings								
Comparison Group**								
	BPMTCONS		ELECT		HVAC		MACHWELD	
Exit Cohort	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings	Employment Retention Percent	Average Earnings*
07-01-2014--09-30-2014 (n=65)	68%	$10,189	93%	$14,602	83%	$14,275	95%	$17,024
01-01-2014--12-31-2014 (n=65)	**68%**	**$10,204**	**93%**	**$14,602**	**92%**	**$14,315**	**95%**	**$17,024**

~ Insufficient data available for release
* Figures represent two quarters following exit quarter and one year behind current year
* Comparison group consisted of **one** cohort compared to multiple cohorts for T4E participants.

By program is perhaps the most salient way to view employment outcomes. Again, recall that the timeline is different for the CG than the T4E group. In both groups, BPMTCONS program participants had the lowest wages. It is important to note that with the AJLA data that since it is aggregated data, we have no way of knowing whether or not students leaving a specific program are actually working in that field.

Data from the OES were used for occupations identifiable by the program names and applicable at the entry level. In other words, occupations in these categories for management or supervisory positions were not included. Therefore, the following chart and table are provided for informational use and not statistical validation. The chart and table reflect the estimated average annual earnings by program for T4E, CG and the OES[4] data for the Kansas City Region in 2014. The extracted occupational data from OES are available in the Appendix.



	T4E	CG	BLS Avg Entry Level
BPMTCONS	$15,792	$20,408	$21,903
ELECT	$29,758	$29,204	$48,198
HVAC	$27,272	$28,630	$37,350
MACHWELD	$27,470	$34,048	$29,003

Tables 7 and 8 depict employment retention and average earnings by race/ethnicity. Grouping participants into three categories was necessary to meet AJLA number limitations. Again, looking solely at the year line, we see that retention rates are similar between African American/Black Non-Hispanic and White Non-Hispanic groups with 89 percent and 87 percent respectively. The Other plus Hispanic group has 100% retention. Estimated average earnings for the two quarters following exit, however, showed that African-American/Black Non-Hispanic participants earned about a quarter less than White Non-Hispanic and Other plus Hispanic participants, with two quarter earnings of $10,717 compared with $14,041 and $14,802.

[4] Source: Division of Occupational Employment Statistics, U.S. Bureau of Labor Statistics, Data for Workforce Regions produced by MERIC

Table 7

T4E: AJLA Employment Retention & Earnings						
	T4E Participants					
	AA-Black-NH		White-NH		Other+H	
Exit Cohort	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings*
01-01-2014--03-31-2014 (n=15)	69%	$9,849	86%	$12,764	~	~
04-01-2014--06-30-2014 (n=36)	90%	$11,508	85%	$13,184	100%	$14,193
07-01-2014--09-30-2014 (n=18)	67%	$9,261	100%	$14,538	100%	$14,415
10-01-2014--12-31-2014 (n=33)	100%	$8,567	82%	$14,325	100%	$14,784
01-01-2014--12-31-2014 (n=96)	89%	$10,717	87%	$14,041	100%	$14,802

~ Insufficient data available for release
* Figures represent two quarters following exit quarter and one year behind current year

Table 8

T4E: AJLA Employment Retention & Earnings						
	Comparison Group*					
	AA-Black-NH		White-NH		Other+H	
Exit Cohort	Employment Retention Percent	Average Earnings*	Employment Retention Percent	Average Earnings	Employment Retention Percent	Average Earnings*
07-01-2014--09-30-2014 (n=62)	85%	$15,832	89%	$13,110	73%	$14,834
01-01-2014--12-31-2014 (n=64)	89%	$15,819	89%	$13,110	82%	$14,752

~ Insufficient data available for release
* Figures represent two quarters following exit quarter and one year behind current year
** Comparison group consisted of **one** cohort compared to multiple cohorts for T4E participants.

Year 4 – Training for Employment (T4E) Final Evaluation

Chapter 6: OUTCOMES – SELF-REPORTED DATA[1]

As noted in Chapter 5, evaluation outcomes for the Training for Employment (T4E) program are contained in two chapters: Outcomes –Verified Data, which is the previous chapter, and Outcomes – Self-Reported Data, which is this chapter.

While the previous chapter provided verified data on employment from America's Job Link Alliance (AJLA), results from that data source were delivered in aggregate and thus leaves it impossible to do case-by-case analysis. While data from enrollment and follow-up surveys are not verified data, it gives the opportunity to delve deeper into the data with additional statistical analysis or provide a qualitative picture of the results when sample sizes are too small to detect differences.

This chapter contains four sections. First, data from T4E participant enrollment and follow-up surveys which provide self-reported pre- & post-employment status, job outlook, program use, and program opinions by evaluation years (EY1, 2, and 3). Second, verified outcomes of certification and full program completion and the self-reported job outlook are examined by self-reported measures of use of T4E services and/or verified demographics. Third, survey responses from the participant group are compared to the comparison group (CG). Finally, the fourth section concludes with a discussion of the self-reported data analysis.

Section 1: T4E Participant Self-reported Data by Evaluation Year

Recall that the **evaluation dataset** includes 610 students spanning three years of the grant. Of the 610 T4E participants, there were 350 unique students in the final longitudinal "vertical file" who completed at total of 452 follow-up surveys.[2] Of these, 314 completed an enrollment survey as well. As described in the methodology section, EY1 provides an unintended quasi-experimental internal comparison group (ICG).

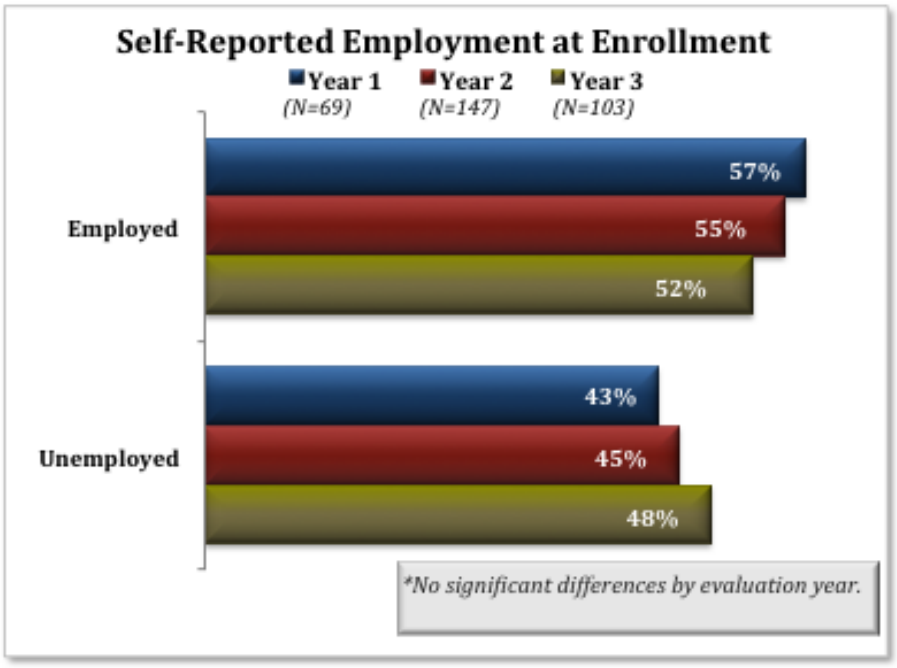
Self-Reported Employment Outcomes

Although the program was considered a full-time program in Y1 and Y2, with evening classes only beginning in Y3, students were asked if they were employed at enrollment.[3] Overall, of 319 responses over the three years of the grant, there were no differences in employment at enrollment; however, directionally data were on a downward trend from 57% to 52%.

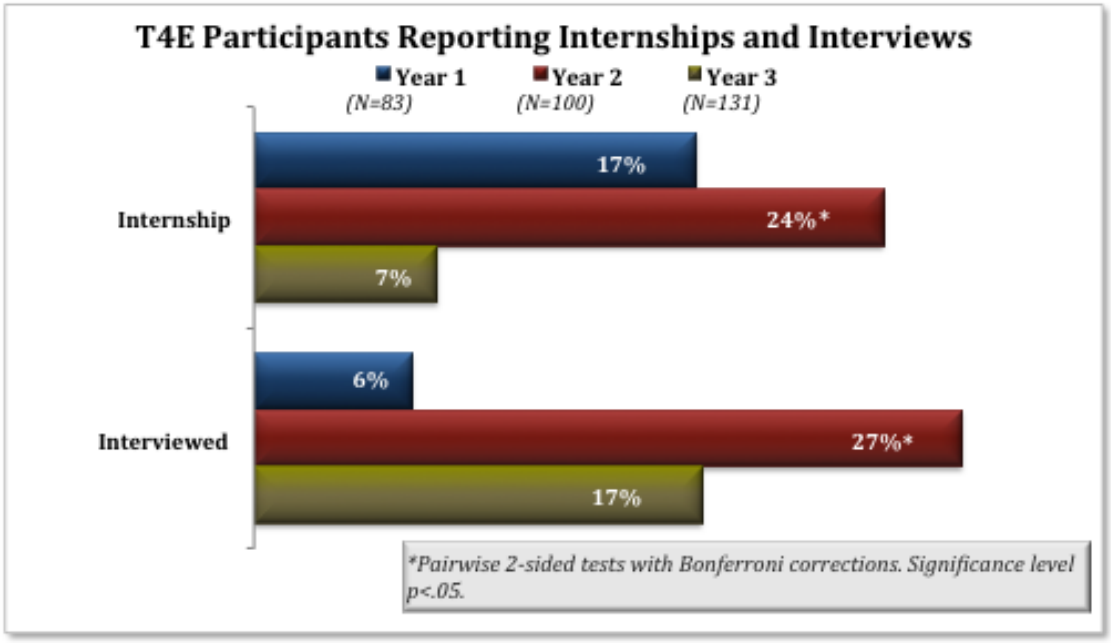
[1]For a full list of all significant and non-significant results referred to in this chapter see Appendix C.

[2] Note that the n for self-reported survey data may change throughout the analysis reflecting the response for the type of instrument (enrollment or follow-up), number of responses per instrument (multiple possible follow-up responses) and/or the response to questions within an instrument. Statistical testing was conducted using SPSS and/or the online statistical calculators available from Social Science Statistics http://www.socscistatistics.com/.

[3] For the year by year analysis, participants may have taken the survey multiple times and thus final n's for year-by-year analysis will be higher than that for the final T4E participant vs. CG analysis.

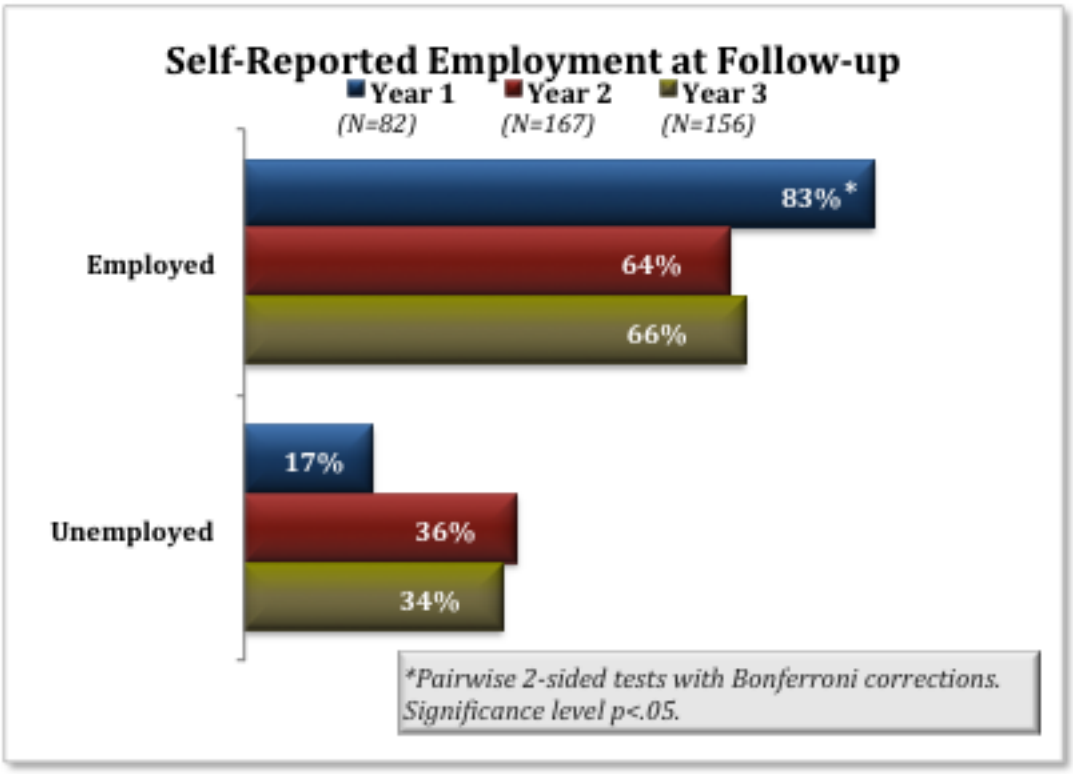


Measures for seeking employment included whether T4E participants reported having internships and/or interviewing for jobs. There were significant differences in Year 2 for both internships and interviewing. Nearly a quarter (24%) of Year 2 participants indicated they had an internship, which was significantly higher than in Year 3 (6%). Slightly more than a quarter (27%) of Year 2 participants said that they had interviewed in comparison to the Year 1 ICG (7%). Though not significant in comparison to Y1 *and* Y3 for either measure, Year 2 had higher percentages of students who had internships or interviewed.

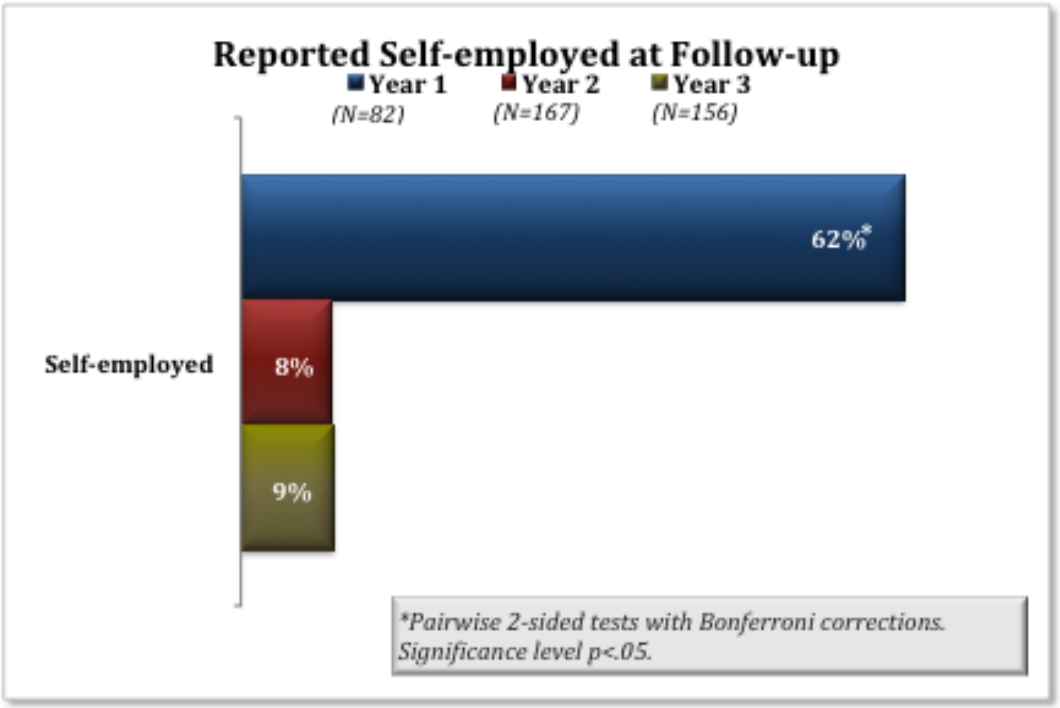


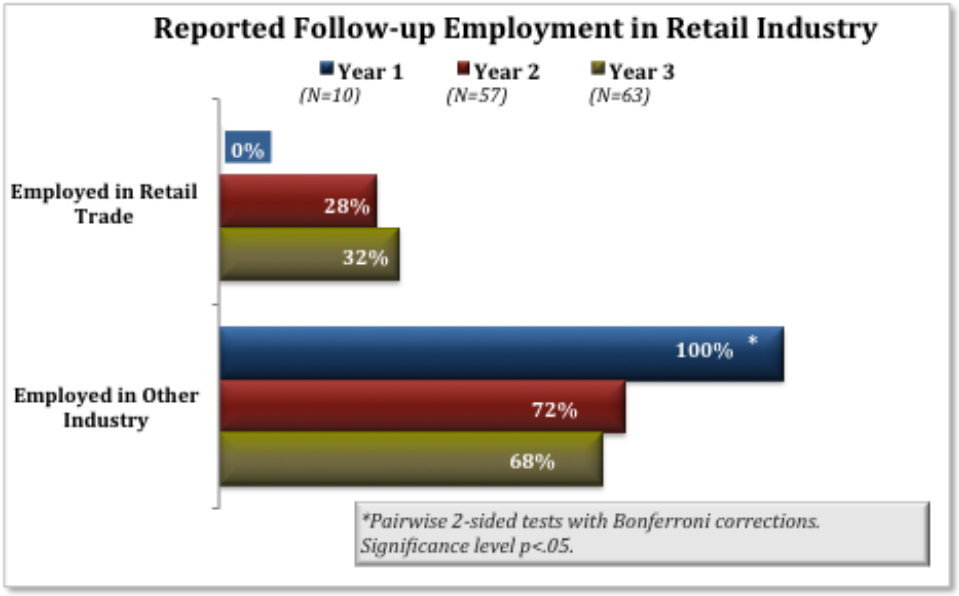
Measures of employment were collected at post-semester follow-ups; measures included having a job, whether jobs were self-employment, and job industry.

Overall, the Year 1 ICG were more likely than Y2 or Y3 participants to self-report a job at follow-up, with 83% indicating they were employed compared to 64% and 66% for Y2 and Y3, respectively. Similarly, Y1 ICG participants were more likely to indicate that they were self-employed 62% vs. 8% for Y2 and 9% for Y3 participants. Furthermore, Y2 (28%) and Y3 (32%) students were more likely to indicate that their jobs were in retail trade than students from the Y1 ICG (0%).[4]

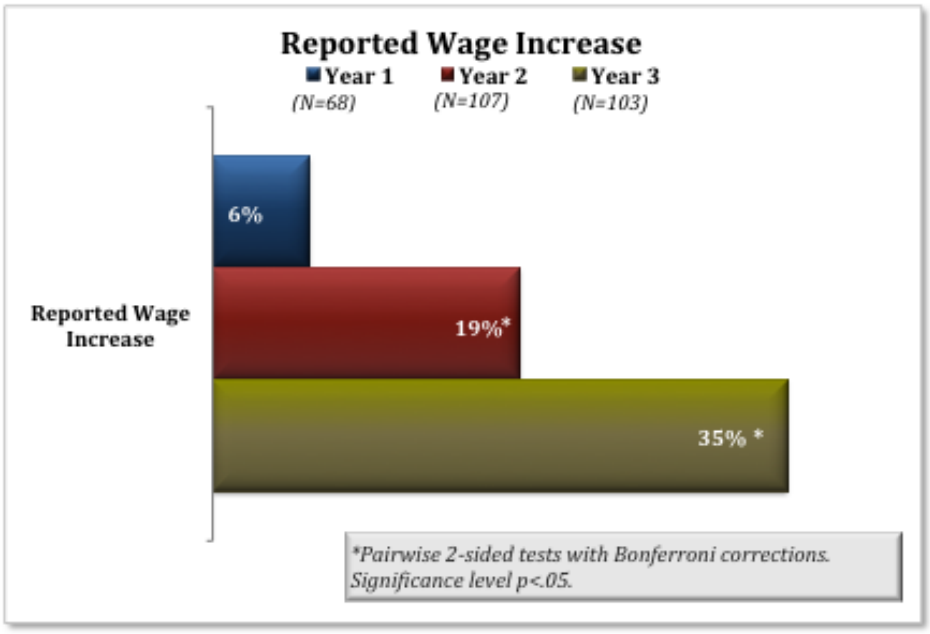


[4]For a full list of all other industries see Appendix C. No other industries showed significant differences.





Another area of employment outcomes that were surveyed included wage and wage increases. T4E participants were asked if they were paid a salary or hourly wage, overall of the 180 responses over the three year period, only 5 participants (3%) indicated having a salary in comparison to an hourly wage (97%). No differences were found by reported wage, however, the percentage of participants reporting that they received a wage increase or reporting a lower pre-wage vs. post-wage increased in each year of the grant from 6% in Y1, to 19% in Y2, and 35% in Y3.



In addition to self-reported measures of employment, the evaluation surveys gauged T4E participants' job outlook. The year-to-year analysis found no differences overall in the job outlook of participants.

T4E Participants Job Outlook at Follow-up*				
	Year 1 (n=24)	**Year 2 (n=115)**	**Year 3 (n=121)**	**Total for All Follow-up (n=260)**
Poor	4%	6%	2%	4%
Fair	21%	19%	21%	20%
Good	46%	50%	50%	50%
Excellent	29%	24%	26%	25%
*No Significant differences found by evaluation year.				

Self-Reported Use of TEC and T4E Services

As previously mentioned in Y1 of the program, implementation of program elements were not yet fully in place. Therefore, results for use of services are presented only for TEC for all three years. Overall, all but one of the services surveyed increased each year reported.

Use of TEC advising increased from Year 1 to Year 2 from less than 1 in 10 students to nearly a third using the services (8% vs. 31%) and to three-quarters (75%) by Year 3. No differences were found by whether students used TEC instructor recommendations for a job.

Use of all T4E services increased from Year 2 to Year 3. Online training services had a large increase from less than 1 in 10 participants using it in Year 2 to well more than half using it in Year 3 (8% vs. 60%). Use of T4E offices in general, whether for meeting with advisors, using computers, or attending events, increased from 39% in Year 2 to a large majority of students using service (86%) in Year 3. Self-reported use of advising by the T4E increased from 25% to 61%. It should be noted

that all participants in the six primary programs were required to meet with the advisor when enrolling in the program, indicating that this reflects at least remembering using the T4E advisory services. In addition, the percentage of participants indicating that they used T4E employment services rose from one-fifth (19%) of participants to more than half (52%).

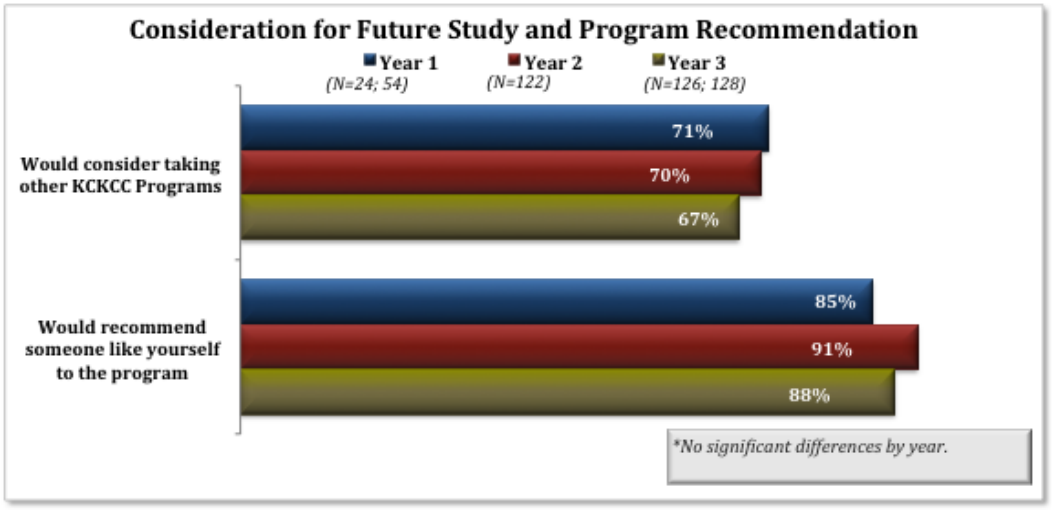
TEC and T4E Services Used by T4E Participants by Evaluation Year			
	Year 1[1]	Year 2	Year 3
TEC advising (n=174)	8%	31%*	75%*
TEC instructor recommendation for job (n=27)	43%	38%	0%
Online training videos or activities (n=160)		8%	60%*
T4E Offices (n=159)		39%	86%*
T4E Advising (n=136)		25%	61%*
T4E Employment services (n=133)		19%	52%*
[1] T4E service data were not surveyed Y1 when programming had not been implemented. *Significant differences at the p<.05 level from previous year.			

KCKCC-TEC and T4E Opinions

In addition to use of services, the participants were surveyed to determine their opinions about the TEC classroom instruction given that grant funding was provided for classroom equipment and increasing classroom capacity as well as opinions about T4E services as they were implemented. Agreement regarding statements about the program was measured using a scale of 1 to 5 with 1 indicating strongly disagree and 5 indicating strongly agree. All measures were positive in nature. Overall, mean agreement regarding all elements survey were high across the three years with the lowest mean score at 3.80 for indicating "online instruction was helpful" in Year 2 and the highest agreement of 4.40 for "program provided the training I expected" in Year 3.

Mean Agreement for Statements[1] Related to TEC Classroom Instruction, TEC Services and T4E Services by T4E*				
		Year 1[2]	Year 2	Year 3
Program provided the training I expected	(n)	116	173	163
	Mean	4.36	4.28	4.40
I had sufficient time using equipment	(n)	116	173	163
	Mean	4.06	4.26	4.13
Program provided me with enough knowledge to pass industry-related certification tests	(n)	116	173	163
	Mean	4.08	4.07	4.04
Online instruction was helpful	(n)	NA	173	163
	Mean		3.80	3.73
It was easy to get assistance from the T4E office	(n)	NA	173	163
	Mean		3.92	4.00
Advising from the T4E office was useful	(n)	NA	173	163
	Mean		3.87	3.98
T4E Employment services were useful	(n)	NA	173	163
	Mean		3.74	3.85
[1]Agreement/Disagreement surveyed on a scale of 1 to 5 where 1=strongly disagree and 5=strongly agree. [2]Data for T4E are not presented for Year 1 when programming had not yet been implemented. *No significant differences at p<.05 were found for any opinions of instruction or services.				

In addition to asking opinions about the program, the participants were asked if they would be likely to consider taking other KCKCC programs or recommend the program to others. Overall, there were no differences by year and the majority of participants consistently indicated that they would consider taking other KCKCC programs or recommend the program to someone else.

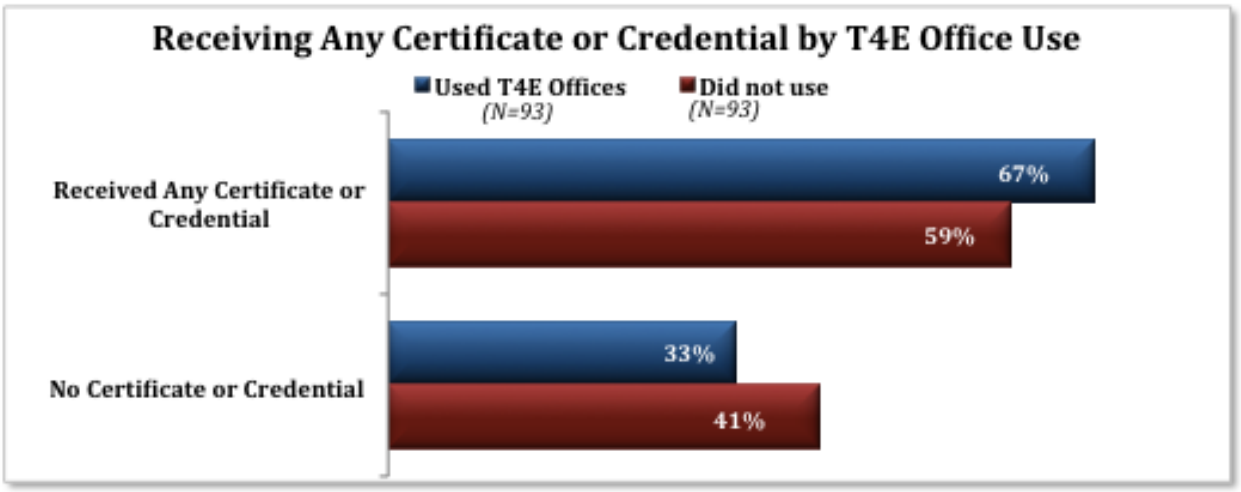


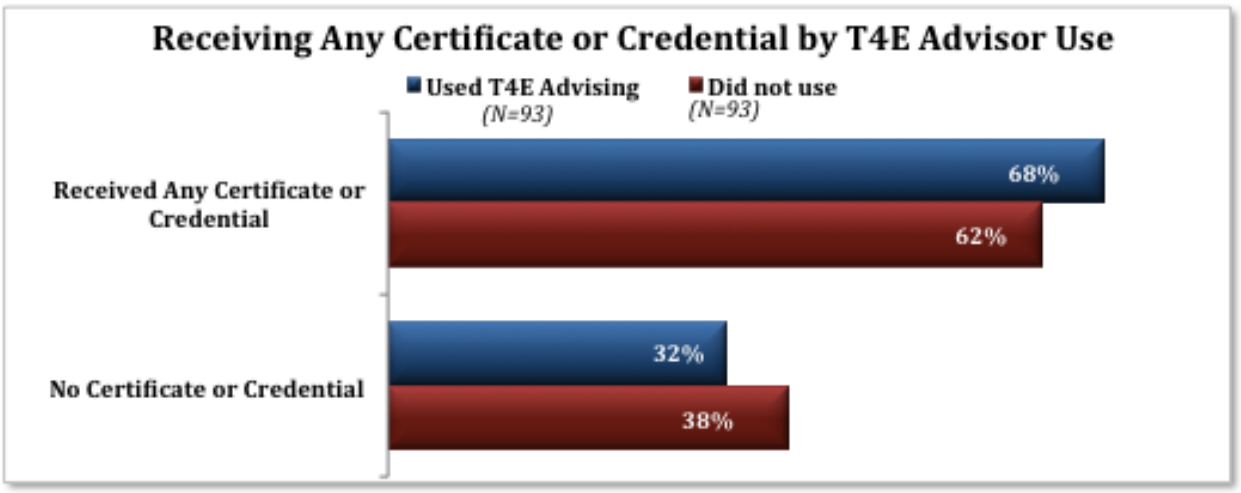
Section 2: Cross-tabulations of T4E Outcomes of Interest and Self-Reported Survey Data

The combination of the KCKCC received flat file and the evaluation survey data provided the ability to do an analysis of selected verified and self-reported outcomes or opinions. The measures for analysis included obtainment of any certification, completion of full program, and pre- and post-job outlook.

Any Certificate or Credential and Full Program Completion

When looking at whether the obtainment of receiving any certificate or credential was correlated to use of TEC or T4E services, no significant differences were found for any of the possible participant self-reported service use. There was a moderate directional, but not significant relationship between the use of T4E offices and T4E advising and the increased attainment of any certificate.

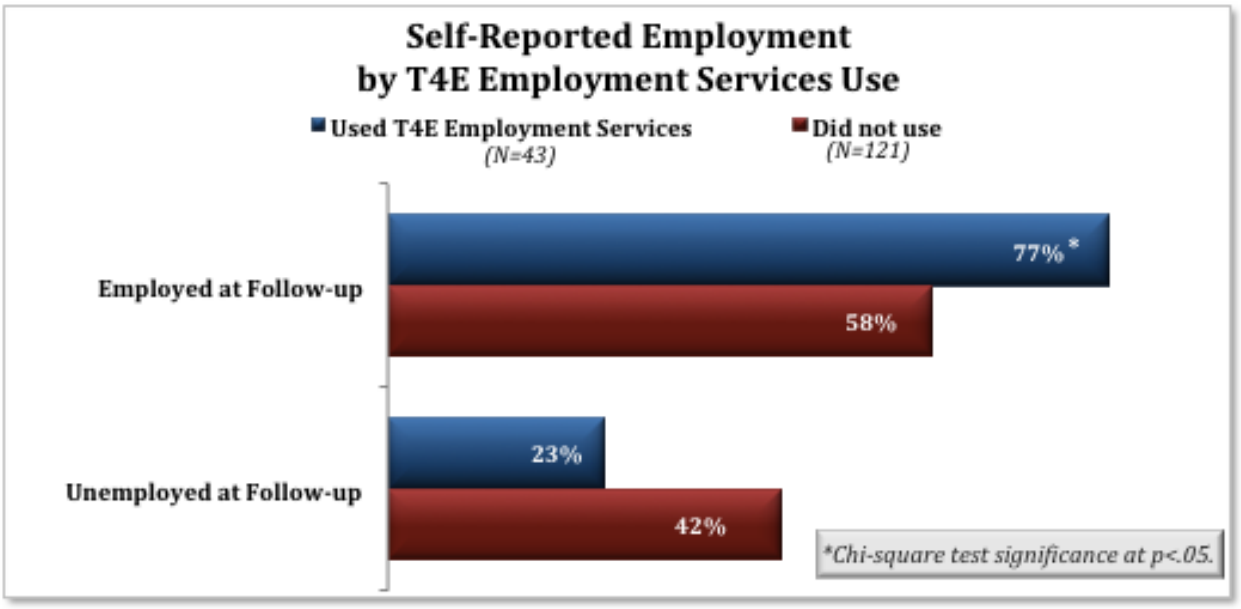




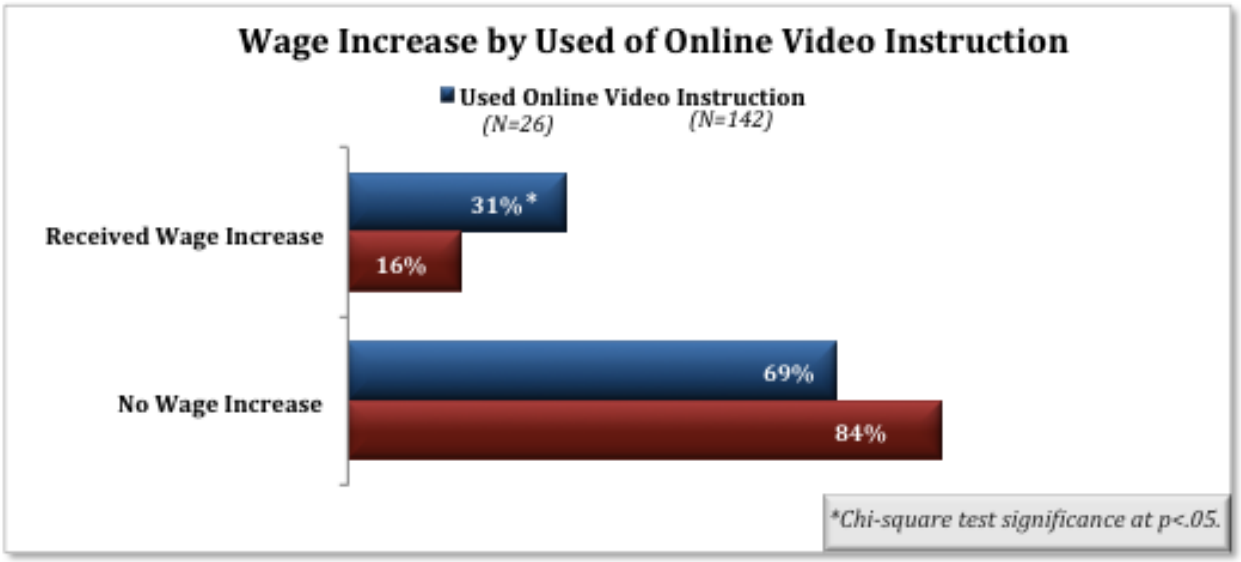
Similarly when looking at whether student completion of a full program was correlated to use of TEC or T4E services, no significant differences were found for any of the possible participant self-reported service use. Directionally, there was a moderate directional, but not significant relationship between the use of T4E offices and the decreased completion of a full program with 49% of those who used T4E offices completing a full program compared to 54% who did not. Use of T4E advising by a student was similar in not using advising for completion of a full program (51% vs. 52%).

Employment

Whether a participant was employed at follow-up was not significantly related to any TEC or T4E use factors except using T4E Employment Services. Participants who used T4E employment services were more likely to report being employed at follow-up than those who did not (77% vs. 58%)



Likelihood that a participant would report a wage increase was not significantly related to any TEC or T4E use factors except using online video instruction. Participants who used T4E online video instruction were more likely to report a wage increase than those who did not use the instruction (31% vs. 16%)

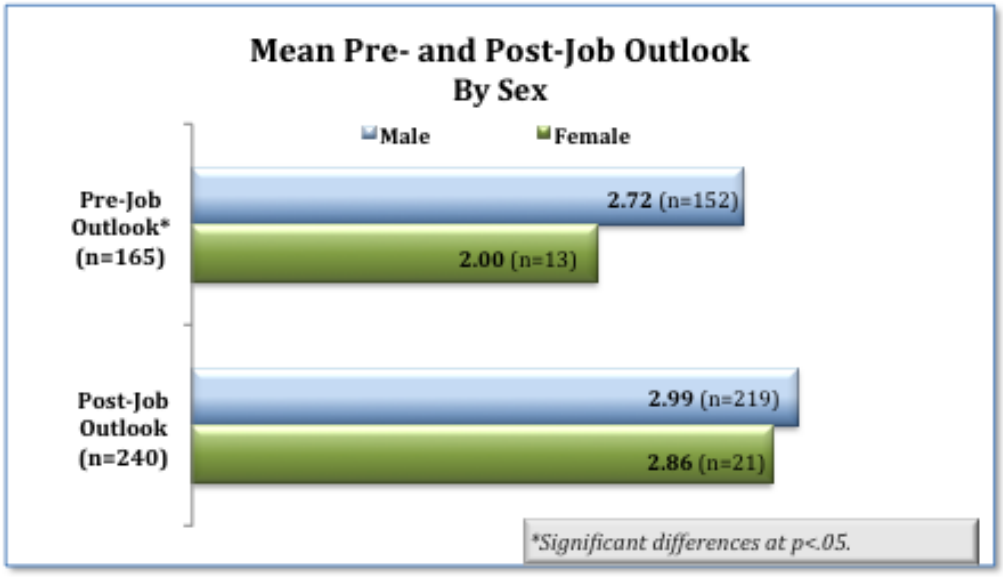


Job Outlook

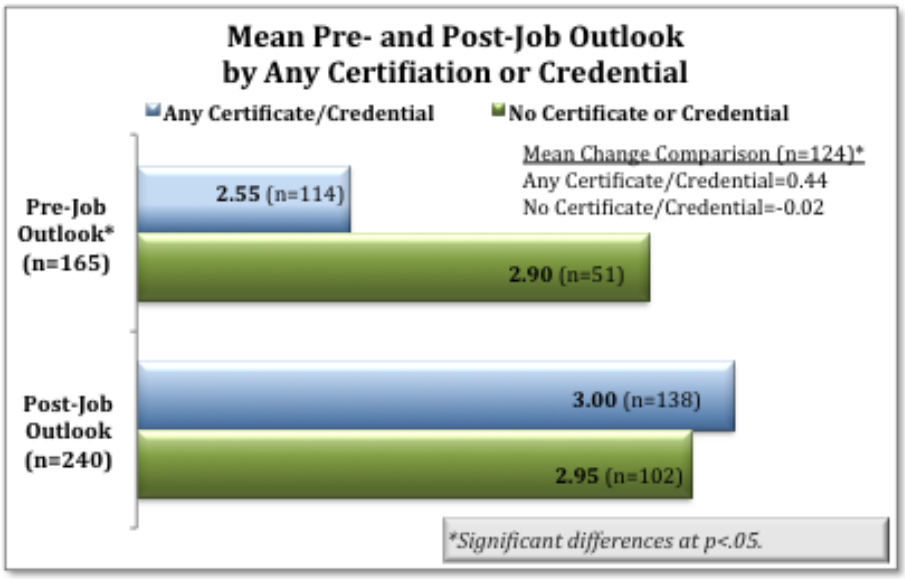
Participants reported their job outlook as "poor," "fair," "good," or "excellent" both at enrollment and at follow-up. These scores were examined further to see if any changes took place for different subpopulations, by measures of educational or economic obtainment, or by use of TEC and T4E services.

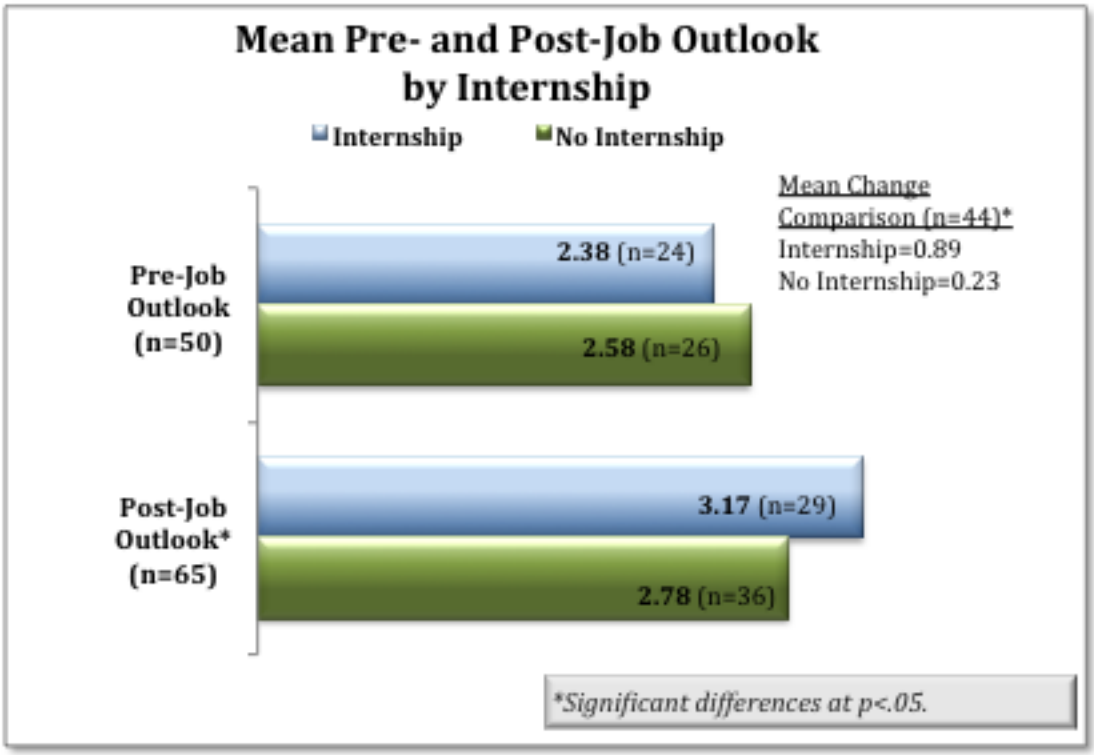
When looking more closely at job outlook there were several differences that were found from pre- and post-job outlook. There were two ways in which pre- and post-job outlook were examined. First, they were examined by looking at the mean pre- and post-scores separately in which n's could be different. While the sample sizes were smaller, case-by-case job-outlook change was also calculated and tested.

Although a case-by-case job outlook change in mean was not statistically significant for females or males, there was a significant difference for pre-job outlook between men and women that disappeared or was not significant for post-job outlook. At enrollment, females had a lower mean job outlook (2.00) than men (2.72) but at follow-up had a similar mean job outlook (2.86 vs. 2.99).



There was a significant difference for pre-job outlook between participants who would eventually go on to receive any certification or credential that disappeared or was not significant for post-job outlook. At enrollment, those who would go on to have any certificate or credential had a lower mean job outlook (2.55) than those who would not go on to earn any certificate or credential (2.90) but at follow-up had a similar mean job outlook (3.00 vs. 2.95). In addition when looking specifically at people who had answered both at enrollment and follow-up, change in mean job outlook was significantly different with those who would earn a certificate or credential increasing job outlook by 0.44 points whereas those who did not earn it decreasing job outlook by 0.02 points.





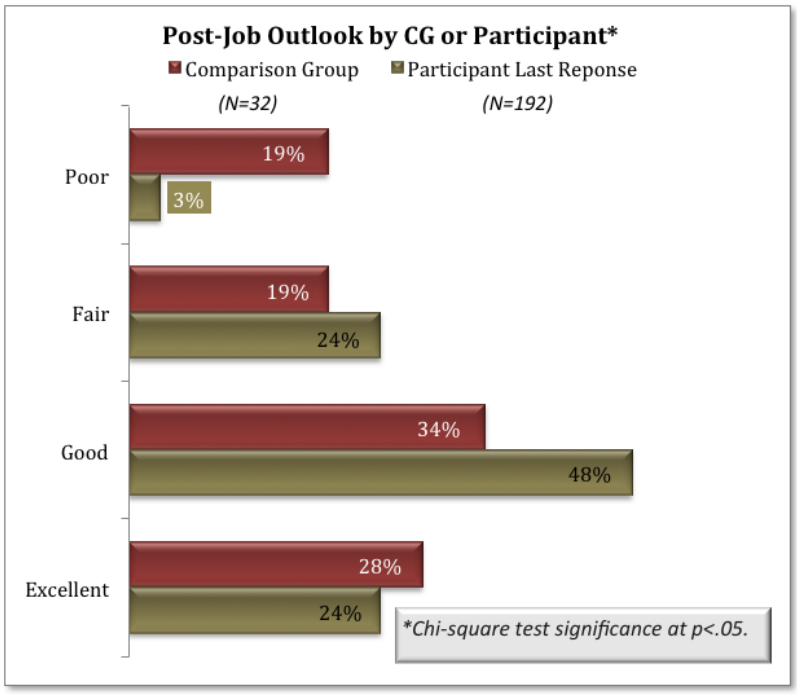
At enrollment, there were no differences for pre-job outlook between participants who had an internship and those who did not. There was a significant difference for post-job outlook-those with an internship had a mean job outlook of (3.17) compared with (2.78) for those who did not have an internship. In addition when looking specifically at people who had answered both at enrollment and follow-up, change in mean job outlook was significantly different, with those who had an internship increasing job outlook by 0.89 points whereas those who did not increased by only 0.23 points.

There were no significant differences found for pre- and post-job outlook by evaluation year, race/ethnicity, TAA eligibility, for credit vs. non-credit students, interviewing, employment at enrollment or follow-up or use of TEC or T4E services.

Section 3: Participant vs. Comparison Group Self-Reported Survey Data

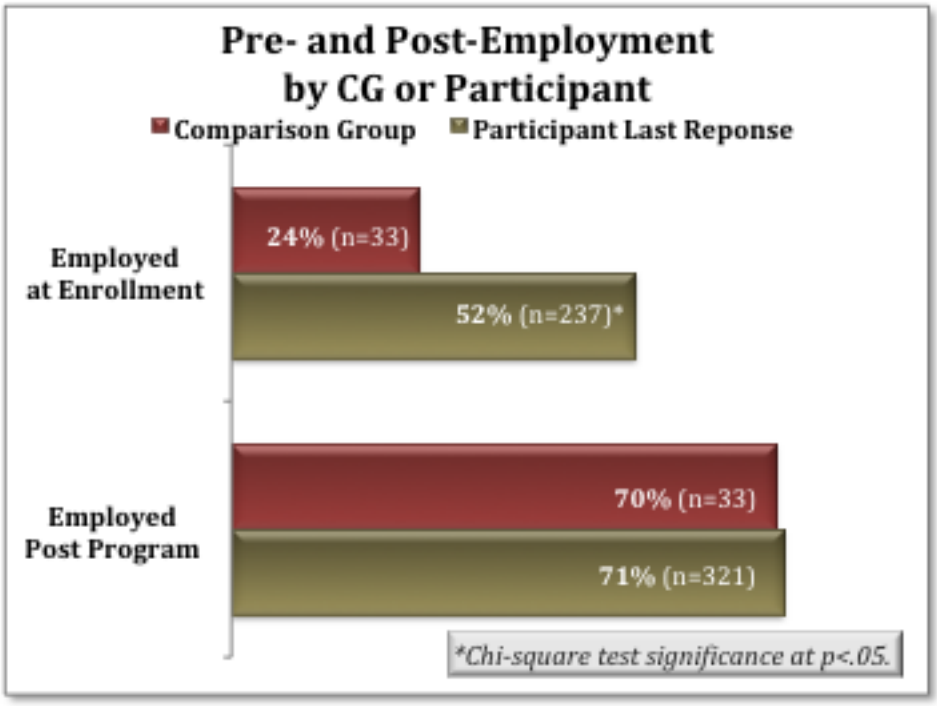
This section provides a comparison of the 350 unique T4E participants in comparison with 36 responses from the CG. For participants who may have had multiple responses from longitudinal collection, the last response received was used to aggregate for a single response. While the survey response was low for the CG, several findings did emerge.

T4E participants also reported a greater job outlook than the CG with fewer saying their job outlook was "poor" (3% vs. 19%) and more saying their job outlook was "fair" (24% vs. 19%) or "good" (48% vs. 34%).

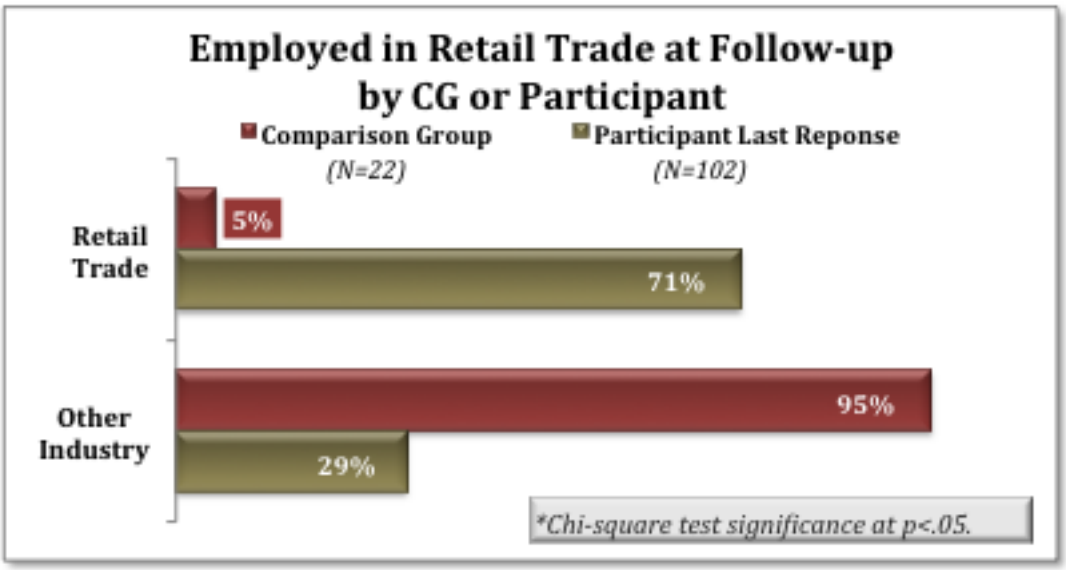


T4E participants were more likely than the CG to report being employed at enrollment (52% vs. 24%). However, self-reported employment at follow-up or post program[5] was similar (71% vs. 70%).

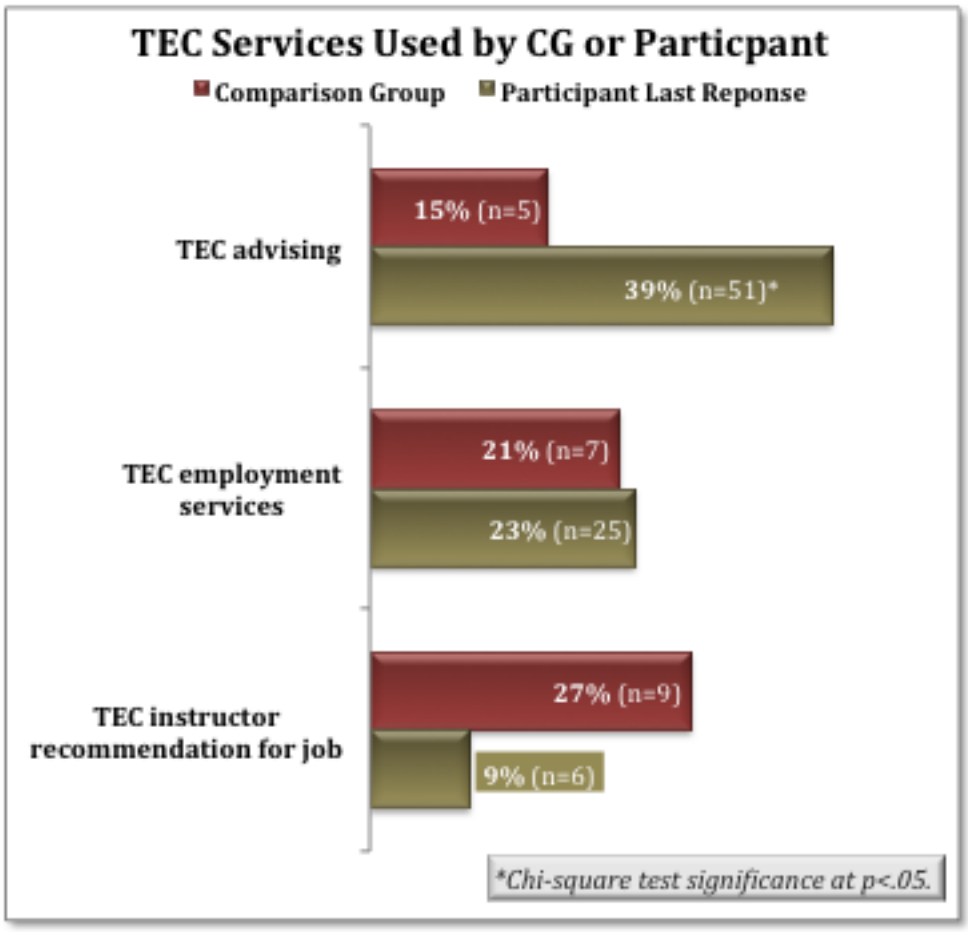
[5] Post-program for participants would be at follow-up after attending a semester that had T4E grant funding and for CG would be at follow-up after attending KCKCC before the T4E grant.



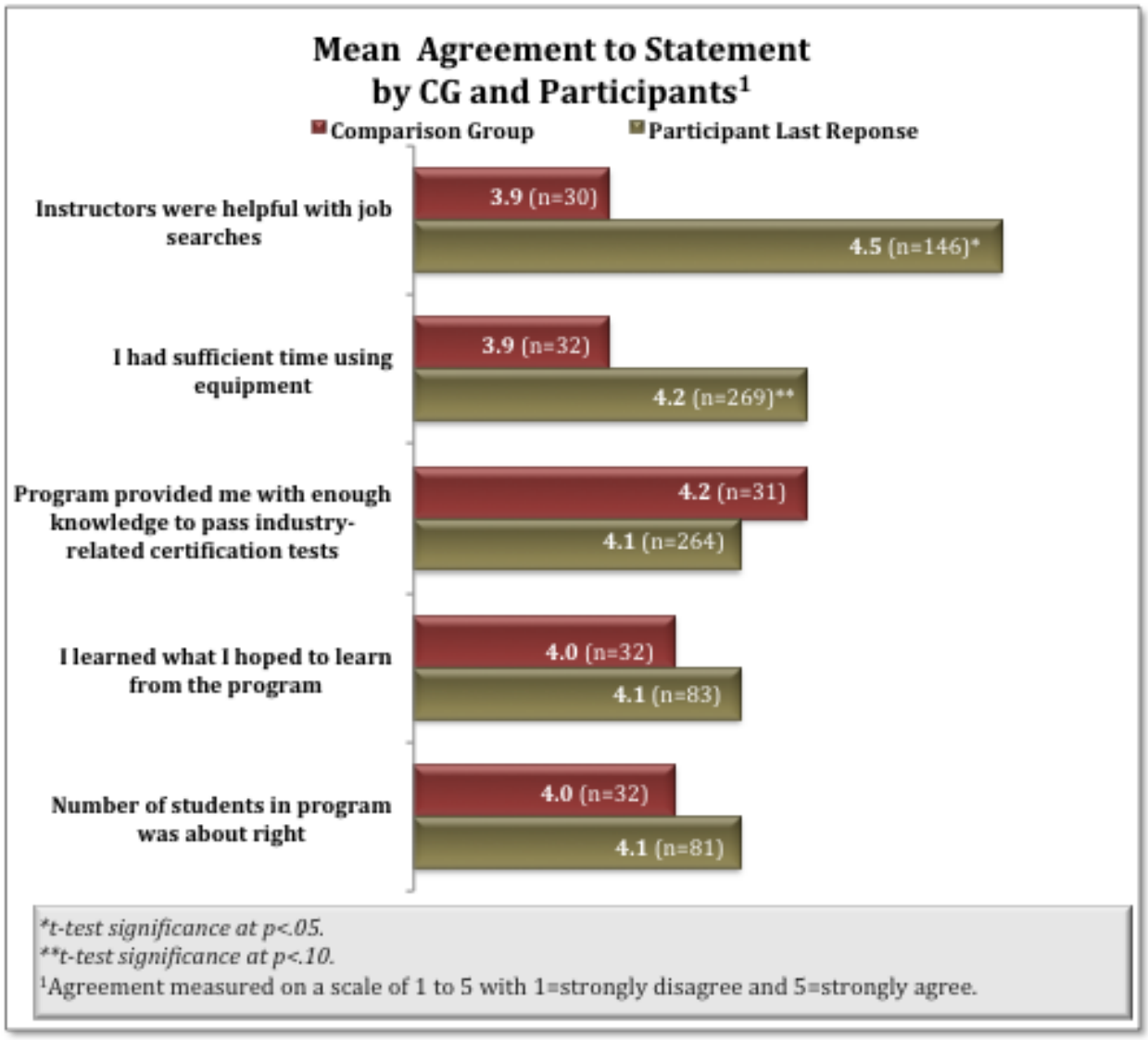
While T4E participants were just as likely to report being employed at follow-up, they were more likely than the CG to report being employed in retail trade (71% vs. 5%).



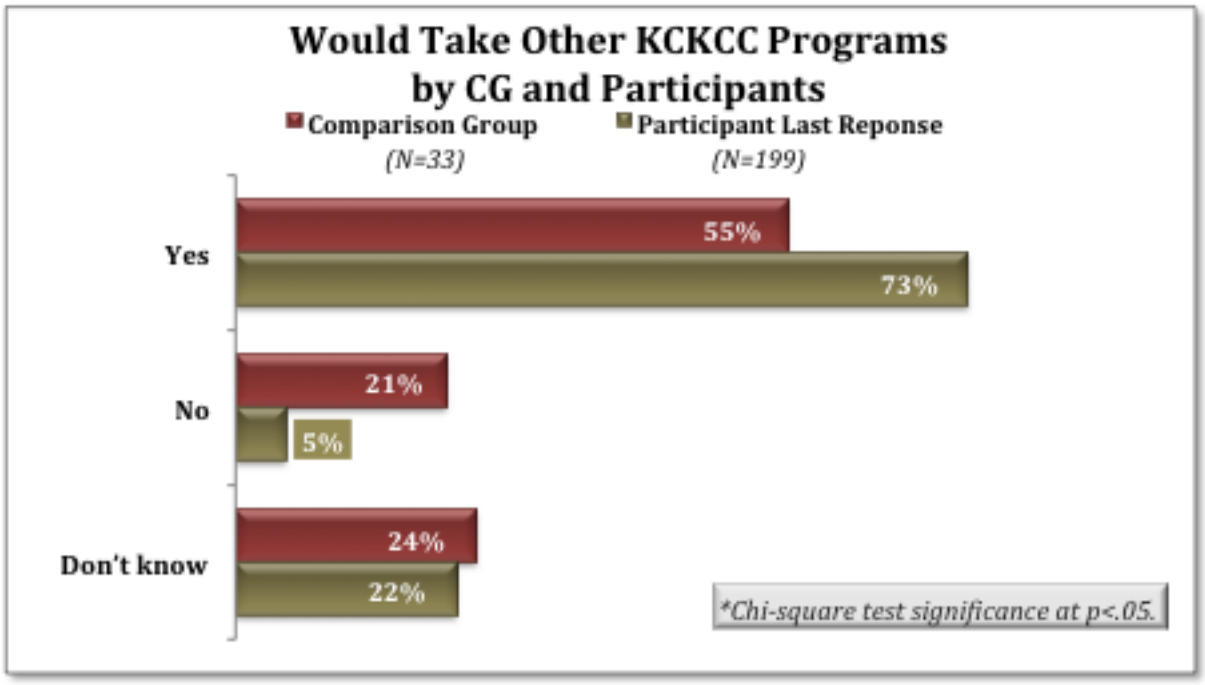
As the CG did not receive T4E program services, only those that applied to both groups were surveyed. While these do not reflect T4E services directly, they may reflect students' overall use of school services when T4E was or was not in place. Of the possible types of services that both could use, T4E participants were more likely to report using TEC advising in general in comparison with the CG (39% vs. 15%).

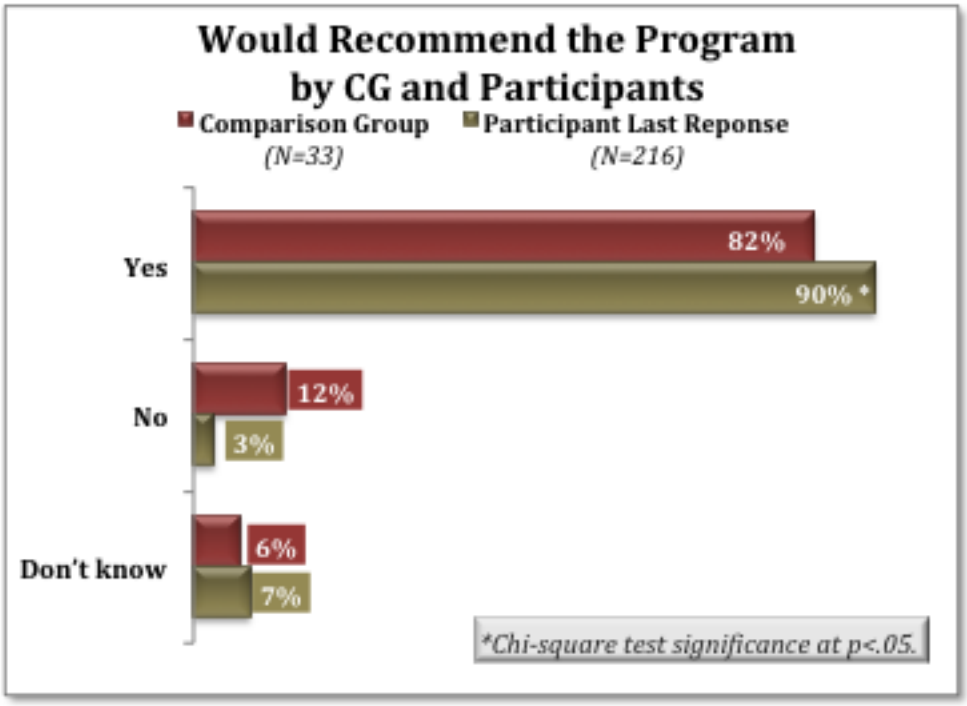


Similarly, both groups were asked about whether they agreed or disagreed to statements about the TEC program on a scale of 1 to 5 where 1 meant strongly disagree and 5 meant strongly agree. While these do not reflect opinions of T4E services directly, they may reflect students' overall impression school services when T4E was or was not in place. The biggest difference found was for whether students agreed that instructors were helpful with job searches. T4E participants agreed more strongly than the CG that instructors were helpful with job searches (4.5 vs. 3.9). A moderate difference ($p<.10$) was found in terms of equipment use with T4E participants agreeing more strongly than the CG that they had sufficient time using equipment (4.2 vs. 3.9).



In terms of their overall satisfaction with the program, the T4E participants were more likely to indicate that they would consider taking other KCKCC programs and recommend someone like themselves to the program. Nearly three quarters (73%) of the T4E participants would consider taking other KCKCC programs in comparison with just over half of 55% of the CG. While the majority of both the T4E participants and CG would recommend the program, T4E participants were more likely to do so (90% vs. 82%).





Section 4: Discussion

Verified employment data presented in the previous chapter is more complete and more reliable than the non-verified self-report data. In fact, self-reported results may differ from the AJLA verified data; however, the self-reported data remain important. As pointed out in "Chapter 9: Methodology," the verified data from AJLA was not discovered as a resource and finally contracted until December of 2014 and was reported only in aggregate. Thus, data were not available for all

three years of the grant for either the participants or the comparison group. Therefore, the self-report data does provide opportunity to analyze cohorts for the final two years of the grant in comparison with the first year participants (the ICG) as well as for measures not captured in AJLA for comparison with the CG.

Additionally, as Matheny, Chan, and Wang pointed out in their article "Assembling a Career: Labor Market Outcomes for Manufacturing Program Students in Two-Year Technical Colleges," unemployment insurance data, such as the data received from AJLA, does not provide program entry employment data. Even in their published study, these authors reported a limitation to their research that institutional data as they were provided do not collect data on employment at enrollment.[6] The T4E evaluation team's plan to collect evaluation "research" data, we were able to get pre-program employment data as a sample, with decent response rates for participants, especially in Y2 and Y3 (see Chapter 9: Methodology). As such, several of the self-reported findings are worth further examination.

Participant Employment Outcome Findings

Given inconsistent interview and internship results across three years, it appears that T4E program intervention was also either inconsistent or ineffective. In terms of employability, the findings show that internships and interviewing were higher in Year 2 than both the ICG Year 1 and Year3. It is important to note, as indicated in the "Chapter 3: Operational" part of this report, the T4E Employment Coordinator was intermittently unavailable. This may explain why some students had more opportunity to work with the T4E employment coordinator for internships or interviews individually. Employment services in terms of FLEET training, which did cover employability skills, may still have been available. It is important to note that both Year 2 and Year 3 were more likely to have interviews than Year 1 directionally. The finding of higher concern is the dramatic decrease in internships reported for Year 3 enrollees. Instructors indicated they worked with students for internship placement. As noted in the methodology chapter, the evaluators could not obtain verified instructor data on internship and payment stubs for those internships; so verified changes in internships through instructors cannot be determined. It is important to recognize that other unknown factors, such as job changes in the community, may have contributed to differences for Year 2 students in particular.

The self-report data found that there were no significant differences for employment at enrollment; however, there was a directional downward trend in employment over time. Given that employment at enrollment was not significantly different for the 3 years, it is interesting that Year 1 ICG were more likely than Y2 or Y3 participants to self-report a job at follow-up, with 83% indicating they were employed compared to 64% and 66% for Y2 and Y3, respectively.

Looking at Year 1 as an internal control group with no programming and still being housed in the old facilities, one would expect that self-reported employment rates would be worse than the following years which had increased programming for students. In fact, it was opposite. It is important to note that Y2 and Y3 were more likely to report jobs in the retail industry, which do not reflect the use of the higher skilled jobs for which the technical programs were designed. Given that internships and interviewing were up in Year 2 but went down in Year 3 as did employment in Year 2 and Year 3, it might mean that Kansas area labor study predictions for jobs in the skilled

[6] Matheny, Christopher, Chan, Hsun-yu, and Wang, Xueli. (2015). "Assembling a Career: Labor Market Outcomes for Manufacturing Program Students in Two-Year Technical Colleges." *Community College Review*. Vol. 43 (4) 380-406.

industries that the KCKCC expected and listed in their proposal did not materialize. However, it also may be an indication that the T4E employability programming was not successful; that training provided by TEC despite additional resources with new equipment and staff (such as forklift instructors or in Year 3 evening staff support) were not meeting the skill needs of employers; that student were not demonstrating skills needed for technical jobs; and/or the competitiveness for skilled jobs was increasing. Again, while outside factors may be contributing to further barriers to employment the T4E program had not yet shown success. As noted in the operational evaluation in chapter 3, there is also some evidence that much of the T4E programming had really only just begun to reach full capacity by the end of Year 2 and increase in Year 3, so further research into the sustainability years if programming remained similar would be useful.

While self-reported employment across the year of the program went down for participants, the percentage of participants reporting that they received a wage increase or reporting a lower pre-wage vs. post-wage increased in each year of the grant. However, in Year 3, there were still only 3 in 10 students reporting the increase. Again, it is important to take into account the increase in retail jobs. Perhaps those with the higher skilled jobs either pre- and post-program or just at post-programming (in comparison with unemployment or lower skilled employment) were the students who received an increase. Unfortunately, due to sample sizes "drilling-down" by type of job change cannot be determined statistically. T4E did increase the reach of FLEET programming (which included employment skills) with greater enrollment in Y2 and Y3 as noted by the "Participation and Credentials Update" in the Appendix C.[7] Furthermore, the results showed that those using T4E online training, which increased in Y2 and Y3, was related to wage increases. This might be an indication that online skills training may have been useful for those students who were already in jobs that used the technical skills. Online training, which was highly tailored for skills in the six primary programs, might lead to better aptitude for those skills needed in jobs. While other factors might have been crucial to wage increases, the correlation is a positive outcome for the T4E online training programming.

T4E Programming Findings

Beyond the employment outcomes for participants, self-report data provide a look at operational changes for T4E from the participant perspective. Whether actual use was up or recognition of use was up, the participants over time reported increased use from Year 2 to Year 3 when the students were asked about the services. In Year 3, online training increased 7.5 times, employment services were up nearly 3 times as much, and T4E advising 2.5 times as much. It is curious that more students reported using T4E employment services in Y3, yet Y2 had higher interview and internship rates. It is possible that participants in Year 3 were more likely to recognize FLEET training as a T4E employment service given the T4E employment coordinator's change in availability. Overall, the use and/or recognition of use makes sense, as the number of participants reporting use of T4E offices that were opened in Year 2 more than doubled between Year 2 and 3.

Given that use of T4E services increased over time and there were no changes in positive satisfaction with services this is a sign of a consistently favorable relationship between the T4E staff and students.

[7] Note that in the appendix document "unique" participant numbers look low, but this is in relation to participants that were already counted as T4E participants, viewing the number of FLEET credentials reflects the number of students who were attending the program by 2014 and 2015.

Participant vs. Comparison Self-Report Findings

T4E participants were more likely than the CG to report being employed at enrollment; however, self-reported employment at follow-up or post program[8] was similar (71% vs. 70%). Note that it is interesting that the CG may have had fewer employed at enrollment because unemployment rates were lower as reported in the KCKCC proposal or that only those without jobs could likely attend the full-time programming, whereas by Year 3 TEC had incorporated evening classes. What is important about the 71% vs. 70% statistic is that post-employment long-term for the CG three-year period vs. the grant three-year period is not significantly different. Therefore, results for self-reported employment overall are very similar over six years with or without programming. In addition, the jobs that students obtain or maintain post-employment were more likely to be in retail in the last two years of the grant when programming increased in comparison to the prior four years including the CG and ICG years which lacked programming. This may indicate a flaw in the jobs that T4E and/or TEC were helping students find. Other possible considerations were that for the last two years the education was not meeting skilled job demands; students were not interviewing well; and/or as mentioned earlier in this section the predicted jobs for these industries did not materialize or became more competitive. Curiously, the T4E participants still reported a greater job outlook than the CG. Given their overall satisfaction with TEC programming and T4E programming this may be an indication that participants are not as prepared for the job market as they think they are or should be.

[8] Post-program for participants would be at follow-up after attending a semester that had T4E grant funding and for CG would be at follow-up after attending KCKCC before the T4E grant.

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 7: DISCUSSION AND IMPLICATIONS

The KCKCC's TAACCCT Grant provided a wonderful opportunity for the college to more fully integrate the Technical Education Center (TEC) and its varied programs into the community college model and structure. We, as the external evaluators, believe that there was solid intent on the part of the grant writing team to begin this work. In 2007, the Kansas Board of Regents formed the Technical Education Authority (TEA) to align technical education with community colleges and approve the content for programs which was a review process. KCKCC T4E programs were in the review process beginning in 2010.

Prior to being under the auspices of a community college, the technical education center was a secondary (high school) program and housed in one of the high schools in Kansas City, Kansas. The T4E programs appeared to function and operate with the same instructors, staff and leadership; the physical location did not change until 2013; they kept much of the data separate from the college; and, the culture was more like a high school than a college. For example, students followed a "high school schedule" in that they were expected to be full-time students, 7:00 a.m. to 3:00 p.m., Monday through Friday. Attendance was a focus; however, attendance records were not maintained by TEC but rather by individual instructors. The TEC Orientation was essentially a "rules setting" program with many different TEC staff presenting to the "new" students.

As mandated by the state, high school seniors still could attend partial days at TEC to pursue a technical education but the grant proposal did not include high school students. The approaches taken in the grant proposal with intensive advising, stacked and latticed programming, job support, internships, working closely with local Workforce Partnership and employers, and, alternative teaching methods clearly focused on an adult population. In fact, the *numbers* created by the grant writing team for participant outcomes did not take into consideration the space (or seats) that the high school students would take in the various programs. Nor did the new facility space include expanded seats (at least for the Training for Employment (T4E) program).

As discussed in the Operational chapter, the lack of integration and cohesiveness of TEC and the college became problematic for the start-up and implementation of the T4E program. Retrospectively, it is easy to identify and name the causes. In some ways, it demonstrates the tension and gap between academic and technical education that still exists within the community college environment. Even though steps were taken in the writing phase of the grant to provide TEC with a voice, the program began without the full knowledge, awareness, and buy-in of most TEC faculty and staff.

In addition, the lack of experienced grants managers who usually can maneuver through the hierarchy and structural challenges of implementing a large federal grant contributed to the uneasy path taken by the T4E program staff. These paths were often confrontational and exclusive on the part of T4E, TEC and the college. While the Department of Labor (DOL) Review was monumental in terms of shaking up TEC and KCKCC administration and getting everyone's attention on "*what you said you were going to do,"* the evaluators have found no evidence of comprehensive structural change efforts other than the tremendous turnover of key program and college personnel.

As experienced program evaluators, we are aware of the difficulty surrounding job training programs in general. The concept of moving these types of programs from stand-alone to a larger education system, which has proven successful in many career-type programs, has much merit. It is not a simple problem to solve, however. There are issues of *readiness* that cannot be gleaned from a traditional grant proposal. There are *organizational culture issues* that prevent effective program implementation and results. And, there are *chasms between academic and technical* at the individual and program levels that do not surface until the reality of a new funded program hits.

It is critically important to everyone from the Department of Labor to the instructor in the technical classroom to learn from these experiments. In many ways, the *outcomes* tell only part of the story. How the infrastructure and culture change as a result of living through and building upon a grant opportunity tells much more than can be understood from a set of numbers. And, often those lessons are not known for a few years beyond the grant period.

The quantifiable outcomes of the T4E grant as specified by the DOL TAACCCT program are provided elsewhere in this report. We will discuss some factors here and then move to discuss the opportunities and challenges we, as the external evaluators, captured from four years of observing, talking, analyzing, and writing about the T4E program at TEC within KCKCC.

First, we want to reiterate that T4E did not fail and the grant was not a failure. It was a learning experience and illustrates the value of leadership being knowledgeable in both process and outcomes for implementation and results. It also highlights the necessity of particular skill sets to develop and implement new programs, manage a large federal grant, and build collaboration. In our experience, it takes more than one individual to successfully start up and implement a program of this type. It takes a solid, working team with varying expertise and insights.

Quantifiable Outcomes

The Outcomes chapters provide the results of the T4E program in terms of education, employment, wages, and how the participant and comparison group were similar and different as well as responses to survey questions about the program. While the outcomes in some ways did not meet the stated goals in terms of numbers and capacity building, by fall semester 2015, T4E was sailing nicely and the determined efforts of the staff and faculty of T4E, TEC and KCKCC were obvious. For instance, the T4E team was involved in extensive and time-consuming efforts to get a first alert system in place. In addition, The T4E team was able to make headway towards TEC serving working adults by supporting evening courses in Year 3. Finally, other programming by the T4E staff such as online instructional videos, more substantial FLEET programming, partnerships with local trades association and employers, and broad outreach were on the rise.

As often happens in limited-year grants awarded to institutions and organizations, it's not enough time. It is important to understand that the T4E program reached solid ground about half-way through the third and final year. This left only about one and one-half years to build upon what was created. The six-month no-cost extension provided Round 2 grantees were helpful in increasing some of the numbers. Even so, another two years would have allowed KCKCC and TEC to fully expand the T4E program; become more versed in use of the first alert system and its usefulness for intrusive advising; integrate various pieces that were successful in terms of retention, completion, and employment to other programs at TEC; and even perhaps build a solid path of integration between TEC and KCKCC.

Implications

T4E faced many opportunities and challenges, especially in the beginning. Much of this has been covered elsewhere in this report. Thus, our discussion of the opportunities and challenges are meant to open a meaningful dialogue between staff and faculty at TEC and at the college. Our evaluation identified five key areas:

- Industry acceptance
- Student affiliation
- Student outcome focus
- Technology integration
- Team-based collaborative approach

Industry Acceptance

- Each of the T4E primary programs could include awarding the highest specific industry credential examinations for students to take during their final few months. Currently students acquire some industry credentials but many are fee-based examinations that TEC does not offer. In the trade sectors, industry credentials are required and it may be possible to have some of these employers sponsor the students' examinations. This would be a welcome addition to TEC that, again, focuses everyone on outcomes. Other local community colleges are aware of the value-add and this feature is included in many programs. Providing the examinations in the specific programs also eliminates the burden of a student paying for an examination at a later time. Many of the T4E students were unemployed.
- The grant proposal was written to include internships for the participants. This became problematic in that these are full-time programs and the hours do not fit many employers' needs. Throughout the grant period, only one program, HVAC, purported to have excellent students get an internship in lieu of their final hours in the classroom. These data were not verified so it is impossible to quantify the success of this effort. However, the fact that internships were in the grant proposal indicates that at least the grant writing team assumed that providing internships was a possibility. Other community colleges offer employer internships at a specific point in a student's program if they have acceptable grades.

Student Affiliation

- TEC is just one part of KCKCC and is located in external facilities from the main campus. As mentioned earlier, the culture at TEC was similar to a high school that received direction from a *"superintendent"* rather than a college. Including TEC in all facets of the college is important to build student's-college affiliation and pride. All colleges want alumni to *feel good* about their experience and to keep in touch as well as support the college later. Feeling affiliated improves students' results; spreads a positive image of the college to employers and community; and, increases the likelihood of responding to requests from the college for information. The survey response rates from former students (pre-2013) were the lowest that these evaluators have ever had from any group. Of course, student mobility is a big factor with the specific population served. However, increasing affiliation to KCKCC and TEC could better post-graduation communication efforts and encourage students to return for employment support.
- Since students are in a specific program cohort for three-quarters of a year, there are opportunities to build student affiliation that may help them individually and as a

cohort. Unfortunately, students can enter a program at the beginning of any of the semesters (fall, spring, summer). The programs have a hierarchy of lessons to cover. Thus, it may be beneficial to mirror other KCKCC courses and have the beginning in fall, the next level in spring, and final in summer. This change would also remove the high school regimen.

Student Outcome Focus

- The instructional programs have state-mandated guidelines regarding content and hours. The TAACCCT grant did not interfere with these guidelines. However, the instructors were not on-board with T4E. There was little cooperation to focus on results completions, certifications, employment, wages) of their students in the individual programs. The instructors did what they have always done and for more than one year, had nothing to do with T4E. A mindset – which we heard verbalized, was essentially that *"the grant will go away and we will still be here."* The move toward outcomes-based education is not new, especially at the post-secondary level. Through the support programs that T4E offered to assist students with outcomes was a solid step in the direction of an outcomes-based, student-focused culture.
- Early on it was very difficult to understand the difference between *"credentials"* and *"certifications"* as TEC used these terms. What we found was that students didn't really get a certificate when they met the required hours/credits for one. For example, if a program offered a Certificate A, B, and C, the student was not given a certificate for these stages in their program. T4E changed this factor and students were recognized for their accomplishments and were awarded a certificate for each stage they completed. Additionally, graduation required a fee. Again, many of the T4E students were unemployed. Thus, a graduation fee could have been paid by T4E for all students which, we believe, would have significantly increased the number of students standing for graduation. As a result of just one small step, TEC graduates would be seen as KCKCC graduates.

Technology Integration

- Student records are critical to the student and the college. Having the data housed and managed accurately, efficiently and effectively is paramount. The system used by the main campus (Ellucian) contains much of the students' data. In addition to this system, there are ancillary databases for the non-credit students attending courses and for TEC to track their specific requirements. The grant resources provided partial funding for the college's new first alert system. Ease of access to all pertinent data would be a valuable asset for using a first alert system and improving results and retention. This improvement came late in the grant period, and we have no evidence T4E received any training for using a first alert system to guide students.
- Different databases reveals a disconnect between academic and technical. There were many discussions about putting data on the TEC students into Ellucian but the academic side didn't want to change their processes in order to do so, or purchase additional modules. Since the State requires the data TEC gathers on students, TEC had to keep a separate database. The Lumens database is used for community education (or non-credit courses, such as Forklift) and it is not combined with either Ellucian or TEC. While not a simple problem to address, the machinations that have to occur to get just basic student information in an analyzable form from all three data sources is an enormous undertaking.

Team Approach

- It is important for everyone who will be touched by a grant award, to be actively involved with *what, why and how* the program would be created and developed. Ideally the instructors would have been at the table when the grant writing team was developing the proposal. While there were representatives involved, it does not appear that the information was disseminated in ways that proactively engaged the instructors and relevant staff. Thus, T4E became *an island* with direction from a hierarchy within TEC and KCKCC.
- The Advisory Council formed specifically for T4E should have included external industry leaders, community leaders, and program instructors, college marketing and other types of useful experts to do its work. In the beginning the meetings were well attended by staff not necessarily in the "chain-of-command" but who were knowledgeable and could offer advice for various aspects of programming. This practice stopped and the Advisory Council began to function as a report and answer questions session. It is evident that a team based approach is not the norm at TEC and perhaps should be considered to provide a forum for varying perspectives and to learn from individuals with different, even opposing, viewpoints. Involving instructors and industry leaders would have garnered much needed support and created a level of "ownership" of T4E which could have led to more integration and greater outcomes for the program.
- Many of the issues T4E faced may have been avoided or had reduced impact with an experienced Grants Management Office at the college. Experienced grants managers assist a team in developing a grant proposal and push beyond the *"what you want to do"* to the *"how are you going to accomplish this"* which is critical to successful implementation. T4E had only the outline of a plan to follow. The staff was new to the college and TEC. This was insufficient to direct activities within TEC and KCKCC to accomplish the results in the proposal. It may have also prevented the college from being cited for some problems in the DOL Review and OIG Audit.

Grant Requirements

Grant requirements did not conform to a traditional school year and this created unnecessary additional work and confusion for everyone. Grants starting partway through a semester, yearly reports due in the middle of a semester, quarterly reports due at labor-oriented reporting schedules when students were mid-program and not yet truly exited, etc. required excessive data manipulation and questioning about what to count when. Overall, trying to fit a "labor defined" reporting schedule to an academic year schedule needs to be better understood and executed.

DOL made many changes to the grant requirements during the T4E program years. These were often not understood well and only discussed in more depth at large off-site meetings of TAACCCT grantees. For example, which industry-related credentials would count? In the beginning, the OSHA credentials were removed even though the proposal included OSHA; later the OSHA credentials were acceptable. Of major importance, however, was what was considered valid employment and wage data. While the college was responsible for the final reporting of these data to DOL, the external evaluators also had these data in their plan as self-report data. Much time and effort was spent trying to obtain valid employment and wage data. The final result was the AJLA data which are aggregate cohort data. Holding higher education to a standard variable from the labor market, i.e., copies of paystubs, is nearly impossible when more than one employer or industry is involved as was the case with T4E. Additionally, DOL was aware of AJLA resources and

did not share, to our knowledge, any of this information with the T4E staff or external evaluators either during grant proposal writing which would have allowed for planning and budgeting from the get-go or during the process as a solution to difficulties obtaining verified data. It ended up as the only acceptable employment and wage data obtainable for this program.

Conclusion

Receiving the TAACCCT grant award and building the T4E program has been good for TEC, KCKCC, students and the community. Resources have been used to bring six construction and advanced manufacturing technical programs current to meet employer demands. It also offers the college much to consider as it reviews its successes and areas where improvement may be warranted. Successes include: integrating technology and alternative learning by producing a set of instructional videos that are available for viewing(AJLA 2014 data); and, nearly having three quarters (73%) of the T4E participants say they would consider taking other KCKCC programs. To reiterate what was stated earlier in this chapter, T4E did not fail. There are lessons to be learned by many from what transpired in Kansas City, Kansas.

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 8: ECONOMIC IMPACT

The original Evaluation Plan included a cost-benefit analysis at the conclusion of T4E. The evaluators were not provided the financial records for implementation from the college to undertake this type of analysis. As such, we have produced an economic impact analysis using methodology based on recent work by Jonathan Rothwell at Brookings Institute[1]. We believe this comparison will be helpful to better understand how education beyond high school but not associate degree level plays a part in the local economy of Kansas City.

Rothwell outlines his methodology and logic for viewing the economic impact generated by a college education. His primary focus is on degree attainment and related spending in the local economies. His proposition, however, is true for T4E participants in that *"If education is the cause of higher incomes, and higher incomes drive higher spending, then the causal effect of college education on consumption is approximately the difference between college attendees and non-attendees[2]."* Thus, using the Bureau of Labor Statistics' Consumer Expenditure Survey 2015 results for two education categories: *high school graduates* and *high school graduate with some college* we can demonstrate the added value of college even if people do not have a degree. Using data based on United States averages inherently reflects geographic areas with extremes on both ends of the average.

Average annual income and expenditures by two categories of educational attainment, United States, 2015

	High school graduate	High school graduate with some college
Income before taxes	$40,082	$51,118
Income after taxes	$37,842	$46,632
Average annual expenditures	$36,381	$45,991

Source: Bureau of Labor Statistics 2015 Consumer Expenditure Survey, August 2016
Methodology: Jonathan Rothwell, Brookings Institute

Rothwell's logic regarding *local* purchases is also plausible for T4E: *"A guiding principle is that most goods purchases should not be thought of as local, given that most merchandise is produced outside the local area where it is eventually consumed, but most services are local. On the services side, I exclude education, health insurance, and life insurance services and a few others that are grouped with the purchase of goods."* The following table represents the consumption categories that are included in the *local* category for the same two categories of educational attainment. A total of $3,853 difference exists between the local expenditures of high school graduates and high school graduates with some college.

[1] Rothwell, Jonathan. *"What colleges do for local economies: A direct measure based on consumption."* Brookings Institute, Nov. 17, 2015, https://www.brookings.edu/research/what-colleges-do-for-local-economies-a-direct-measure-based-on-consumption/
[2] Ibid. p.2/10.

Average expenditures by local category, high school graduates & high school graduates with some college, United States, 2015

	High school graduate	High school graduate with some college
Housing	$12,831	$15,118
Utilities, fuels, and public services	$3,418	$3,643
Food away from home	$1,835	$2,398
Vehicle maintenance	$651	$759
Medical services	$451	$611
Personal care products and services	$414	$566
Public and other transportation	$204	$317
Personal household services	$181	$251
Entertainment fees & admissions	$172	$347
Totals	$20,157	$24,010

Note: Property taxes are excluded from housing.
Source: Bureau of Labor Statistics 2015 Consumer Expenditure Survey, August 2016
Methodology: Jonathan Rothwell, Brookings Institute

Taxes paid by the two categories of individuals reveal even greater differences between high school graduates and those with some college: $2,245 more in personal taxes and $388 in state and local taxes for the high school graduate with some college annually.

Average annual personal, state and local taxes, high school graduates & high school graduates with some college, United States, 2015

	High school graduate	High school graduate with some college
Personal taxes (contains some imputed values)	$2,241	$4,486
State and local income taxes	$689	$1,077

Note: Property taxes are excluded from housing.
Source: Bureau of Labor Statistics 2015 Consumer Expenditure Survey, August 2016
Methodology: Jonathan Rothwell, Brookings Institute

As mentioned previously, the T4E program included six primary programs that were all completed (if attended on a full-time basis) in less than one year plus a short-duration (usually six weeks) non-credit program focused on green industries. From the AJLA employment and wage data (see Outcomes-Verified Chapter) we have verified data for 96 participants who were employed during

2014 and received average annual wages of approximately $25,652[3]. Applying Rothwell's methodology and logic, *"Overall, I estimate that 40 percent of pre-tax income and 49 percent of spending goes toward local goods and services, which amounts to…"* (p.3) to this specific population data, we can project the following economic impact results to accrue to the local community:

Average annual income and projected expenditures, T4E participants, AJLA data-Kansas, 2014

	T4E Participant	T4E Local Economic Impact
Income before taxes	$25,652	
Average annual expenditures	$22,830	
40% pre-tax		$10,260
49% avg annual spend		$11,187

Source: AJLA T4E data, 2014.
Methodology: Jonathan Rothwell, Brookings Institute using Bureau of Labor Statistics 2015 Consumer Expenditure Survey

We recognize our limitations as non-economists and, therefore, make just a couple of simple projections of economic impact. Based solely on the AJLA data of 96 T4E participants retained in employment in 2014 earning an average wage of $25,652, indicates a possible combined economic impact to the local economies of $2.1 million. We go to the next step by suggesting that if approximately 62 percent[4] of the 406 T4E participants (252) enter employment; 90 percent are retained (227); and, annual earnings remain at the same level ($25,562), a conservative estimate of $5.8 million would be generated to the local economies in one year by T4E participants.

The above estimates are very conservative when thinking about the Kansas City Metropolitan Area. The local economy is currently poised very well for at least some of the T4E primary programs which could fall into the *"advanced industries sector – a group of 50 R&D and STEM (science-technology-engineering-mathematics) worker intensive industries the vitality of which will be essential for supporting any broadly shared prosperity in U.S. Regions."*[5] According to this report, the Kansas City MO/KS metropolitan area ranked fifth out of the *"Fifteen Best Performing Large Metro Areas by Employment Growth Rate, 2013-2015"* with 7.2 percent compound annual growth rate (CACG) compared to only 3.2 percent growth 2010-2013 (ranked 36th). The growth in this sector reflects opportunities for students entering programs specifically geared to a wide variety of skilled jobs and also highlights the potential for acquiring additional education.

[3] AJLA wage data reflect average earnings for two quarters instead of for one year. While doubling the two quarters' wage data is not exact, it approximates annual wages.
[4] An average *"entered employment"* for four exit cohorts, AJLA T4E participant data.
[5] Muro, Mark, Siddharth, Kulkami and David M. Hart. *"America's advanced industries: New trends,"* Brookings Institute. August 4, 2016.

YEAR 4 – TRAINING FOR EMPLOYMENT (T4E) FINAL EVALUATION

CHAPTER 9: METHODOLOGY AND LIMITATIONS

Section 1: Evaluation Purpose

The purpose of the evaluation was to document and evaluate the processes of educational training and support programs for adults, which were designed to provide employment opportunities and increased wages for participants. The evaluation tracked participants longitudinally across the three year grant period to gauge effectiveness and success of interventions in terms of educational programming, certificates and credentials obtained, skills building such as through FLEET credentials or internships, employment obtained or retained, wages, and other success factors such as program satisfaction.

The plan included conducting process and outcome evaluations of stakeholders and a cost/benefit analysis. Target populations included TAA-eligible workers, veterans, and unemployed adult Kansas residents of Wyandotte, Leavenworth, and Johnson counties and other counties in the Kansas City metro area. To guide the evaluation, the evaluation team developed a logic model to outline program and evaluation objectives in tandem. It depicts the intended stakeholders, program inputs, activities or outputs, and outcomes (see next page).[1]

Section 2: Evaluation Plan

In the original *Statement of Work*, Evalytics agreed to document and evaluate the processes of the educational training and support programs offered by T4E and to perform the duties of documentation and evaluation as specified in the *Program Evaluation Plan* and *Addendum*.

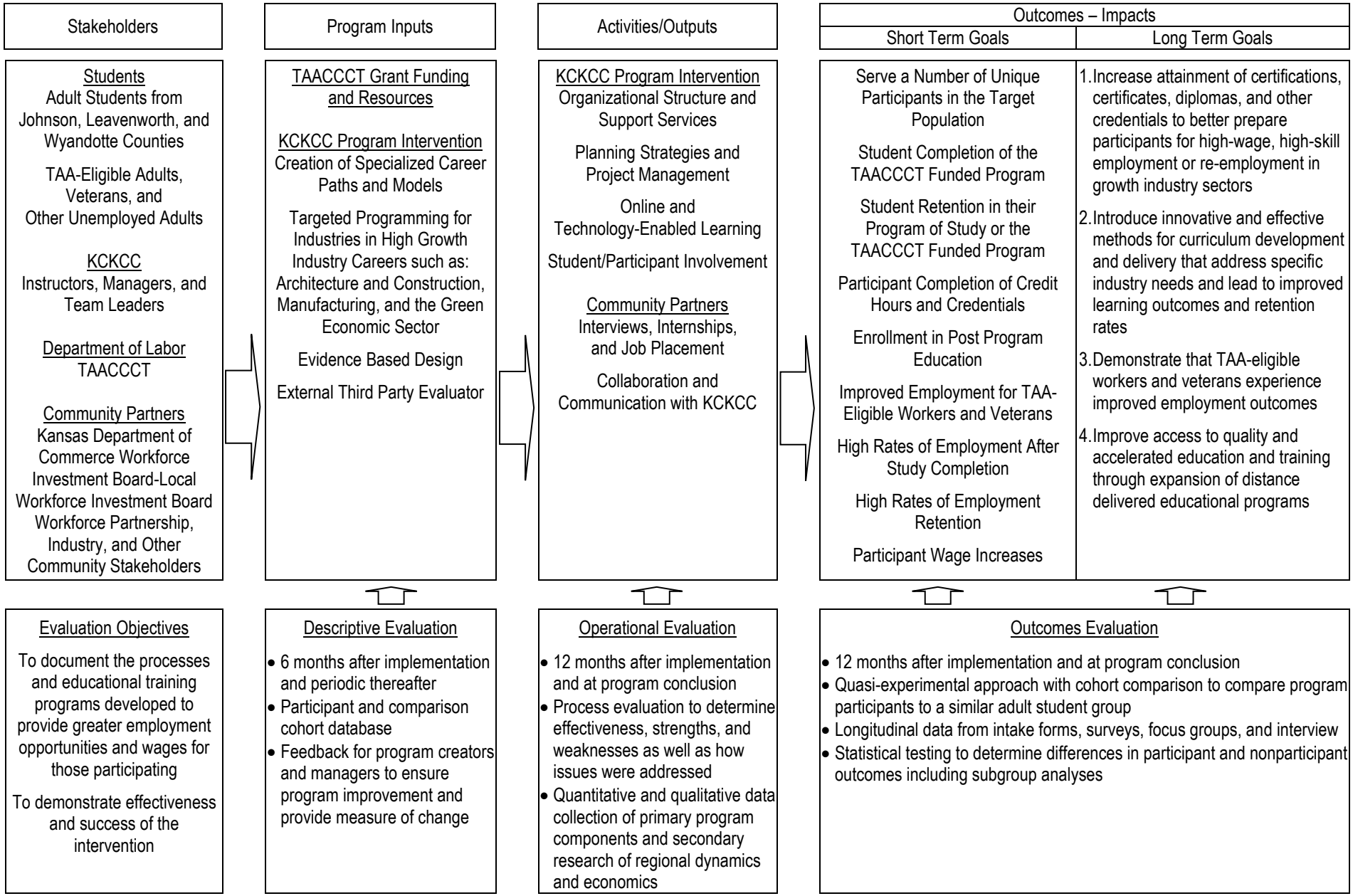
Original Evaluation Plan Components

As described in the introduction, the proposed evaluation plan comprised three interrelated evaluation types: **descriptive**, **operational,** and **outcomes**. In summary, the **descriptive** evaluations provided periodic updates about participants; **operational** or process evaluation was conducted to determine program effectiveness, strengths, weaknesses; and the **outcomes** evaluation was planned as a **quasi-experimental** approach of **cohort comparison**, comparing program participants to a similar adult student group from the same KCKCC programs from the three years prior to the grant.

The original plan called for outcomes progress reports after 12 months of implementation and at the conclusion. As there were challenges with the comparison group regarding self-report response rates and DOL changing requirements (See the "Data Collection and Response Rates" and "Limitations and Challenges" sections for more information), the evaluation team adjusted the plan to deliver descriptive and outcomes for program participants periodically throughout the grant and comparison group descriptive data at the mid-point and worked with the KCKCC data team and the America's Job Link Alliance (AJLA) to provide data based on unemployment insurance data for a final comparison analysis in this report.

[1] Knowlton, Lisa W. and Phillips, Cynthia C. (2013). *The Logic Model Guidebook: Better Strategies for Great Results, Second Edition*. Thousand Oaks, CA: Sage Publications, Ltd.

KANSAS CITY KANSAS COMMUNITY COLLEGE (KCKCC): DEPARMENT OF LABOR - TAACCCT GRANT PROPOSAL
Program and Evaluation Logic Model



Additional Evaluation Components

In addition to the original proposed descriptive, operational, and outcomes evaluation activities, Evalytics provided support to the T4E program manager's DOL quarterly and annual reporting efforts. This added reporting efforts and required changes in the original schedule because DOL reporting occurred quarterly which was not parallel to the academic three-semester schedule. This meant the evaluation team provided additional descriptive and outcome results for the participants throughout the three years and extension of the grant.

In order to provide additional operational and outcomes to document program activities with community partners and program impact, Evalytics provided "Environmental Scans" in Year 2 of the grant. The first of these scans discussed the benefits of the KCKCC TAACCCT grant program for students in the Kansas City Metropolitan area in comparison with competitive programs in the area. A second scan looked at the economic and job environment for KCKCC T4E graduates in terms of KCKCC employer partnerships and employment opportunities in the KCKCC area.

While expected, Evalytics responded to requests throughout the grant period to create presentations for the KCKCC Board of Trustees, several T4E Advisory Team meetings, DOL and OIG auditor meetings, and T4E annual retreats and meetings.

From the on-set of the evaluation efforts, comparison group surveying did not garner the expected response rates based on KCKCC's initial assurance from previous internal follow-up efforts (see "Data Collection and Response Rates" below). In addition, after the initial plan had been approved, DOL sent out guidance requiring verified employment data rather than self-reported data. The evaluation team used two additional techniques to address these challenges.

First, because the first year of the grant was essentially a planning year with no additional program, the Year 1 participants provided an unplanned internal quasi-experimental group. Data presented across the three years of the evaluation can be viewed in terms of whether changes were seen from Year 1 to Years 2 and 3.

Secondly, in order to provide verified employment data the Evalytics team facilitated an agreement between KCKCC and AJLA to provide verified employment data for participant exiters[2] and a similar stratified comparison group sample. This involved adding a quarterly deliverable to AJLA, which required the evaluation team to create new files that aggregated the KCKCC data team files and evaluation team surveys to match the variable order and formats for the AJLA submissions.

[2]Exiters were defined by DOL and AJLA as any participant who exited the program by any means including: completing any grant-funded program or withdrawing before completing a grant-funded program.

Section 3: Data Files and Sources

Data were obtained for a variety of analytical purposes including:

- documenting participants group demographics, educational enrollment and completion, industry credentials, and economic outcomes;
- documenting comparison group demographics, educational enrollment and completion, and economic outcomes;
- reviewing KCKCC operations from T4E and TEC staff; and
- preparing environmental scans in relation to competing programs and area employers.

There were two primary components to each data set: the **data file** (where the data were stored) and the **source** (how the data were obtained). Examples of the **data files** include the quantitative data of demographics and academic outcomes for the six primary programs and Green-up (known as the Flat File) developed by the KCKCC data team and Evalytics; self-reported employment and opinion data at enrollment and exit from participants; qualitative data files of evaluation interviews or secondary research; and, AJLA aggregated data sets. **Sources** feed the data files. One example of multiple data sources feeding a data file is the Flat File. It was developed to contain pertinent demographic and educational variables to inform the T4E evaluation and DOL reporting, but all the data in it were pulled together from multiple in-house KCKCC data sources including Ellucian, SIS, and Lumens.[3] Evalytics created participant and comparison group enrollment and follow-up surveys to collect self-reported data such as additional demographics, employment, and program opinions. These were merged with the Flat File to create "Evaluation Analytical Datasets" including a vertical file for longitudinal analysis of participants and participant-comparison group data sets.

The following tables provide descriptions of data Evalytics collected or compiled for: 1) Participant and Comparison data and 2) Organizations and Employers. The tables list all data file types along with the sources, purpose, dates of collection, and a full description of the files. The purposes listed reflect the original planned evaluation activities of descriptive, operational, and outcomes evaluation and/or additional support activities for DOL reporting and environmental scans. For a full list of the variables collected or computed from these sources and their corresponding DOL or evaluation uses (see Appendix).

[3]Ellucian (formerly Datatel) is the KCKCC data system for tracking student enrollment, registrations, courses, programs and completion or progress, SIS is the TEC database for tracking students and for developing interfaces for instructor or TEC entered data and Lumens is the database for continuing education or non-credit programming.

Participant and Comparison Group Data Documentation				
Data Files	**Source**	**Purpose[4]**	**When Collected**	**Description**
Flat File	1) Ellucian (KCKCC) 2) SIS (TEC)	Descriptive Outcomes DOL Reporting	**Spring 2013-Spring 2016:** Each semester for T4E Participants **Spring 2013**: Comparison group file of similar data for prior 3 years of students	• Developed by Evalytics with the Institutional Research (IR) team, TEC data staff, and T4E staff (KCKCC-T4E data team). • Demographics, enrollment and completion data for 6 programs and Green-up. • Compiled in Spring 2013. In Year 2, data from Fall 2012 were added according to KCKCC advisory team request and continued through DOL extension. • Comparison group data delivered separately in similar format.
Forklift File	Lumens (Continuing Ed)	Descriptive Outcomes DOL Reporting	**Summer 2013-Spring 2016:** Each semester	• Data collection began when T4E resources for Forklift started. • KCKCC data team obtained the Lumens data as a separate file that the evaluation team analyzed separately from the Flat File. No demographic or contact information provided in Lumens files provided to Evalytics.
Credential Logs	1) SIS (TEC) 2) Evalytics Survey	Descriptive Outcomes DOL Reporting	**Spring 2014-Spring 2016:** 1) Yearly 2) Semester, self-reported Evalytics Survey	• KCKCC-T4E data team collected data from instructors. During Year 2, KCKCC-T4E data team added an automated credential collection log for instructors within SIS. • As originally agreed, the evaluation team provided the KCKCC staff with the self-reported survey data of credentials, but DOL indicated that only the KCKCC collected, instructor verified data could be used for reporting.
T4E Program Logs	FLEET & MasterCam	Descriptive Outcomes DOL Reporting	**On going:** As completed	• Included participants who completed additional programming as outlined in the grant proposal. T4E staff recorded certificate completion. • Evalytics used for new unique participants and/or certificate counts. • For these short-term participants, T4E staff did not collect demographic or contact information for evaluation enrollment or follow-up surveys.
T4E Employment Data	T4E Transition to Employment coordinator	Descriptive Outcomes	**Periodically:** Year 2 & 3	• In Year 2, the employment coordinator collected internship and employment data • Self-reported from students and/or reported by instructor placements. • Data from T4E Employment data sporadic due to staff availability/turn-over.
Participant Enrollment and Consent	Self-Reported Evalytics Surveys	Descriptive Operational Outcomes DOL Reporting	**Spring 2013-Fall 2015:** Each semester at enrollment and periodic mailings	• Grant awarded Oct 2012, developed Fall 2012, disseminated starting Spring 2013. • Evalytics collected via TEC orientations, classroom visits, mail, email, and phone calls (paper, online, or CAPI). In-person visits by Evalytics and T4E advising had greatest response so more expensive mail and phone calls were dropped. • In Year 2, T4E staff administered paper or online surveys in the newly opened T4E office computer lab during mandatory advising appointments. • Included research consent, additional demographics, employment and job outlook. • Longitudinal analysis must consider that surveys were updated to boost response and/or to include DOL requirements. (See Appendix for final survey versions.)

[4] Purpose refers to use for descriptive, operational, and/or outcomes evaluation activities, DOL reporting, and/or environmental scans.

Participant and Comparison Group Data Documentation				
Data Files	**Source**	**Purpose[4]**	**When Collected**	**Description**
Participant Follow-up Surveys	Self-Reported Evalytics Surveys	Descriptive Operational Outcomes DOL Reporting	**Spring 2013-Fall 2015:** Conclusion of each semester and periodic mailings	• Grant awarded Oct 2012, developed Fall 2012, disseminated starting Spring 2013. • Follow-up surveys collected by evaluation team through mail, email, classroom visits, and phone calls (paper, online, or CAPI). • Classroom visits gave highest response rates. • Included research consent, additional demographics, employment, internships, interview participation, wage increases, credentials, job outlook, and opinions of experience with TEC and T4E.
Evaluation Analytical Datasets	Merged Flat File, T4E Employment Data & Evalytics Surveys	Descriptive Operational Outcomes DOL Reporting	**Spring 2013-Fall 2015:** Yearly, with additional updates as needed for reporting	• Flat File data merged and aggregated with T4E Employment Data, Participant Enrollment Survey Data and Participant Program Follow-up data to form "Evaluation Analytical Datasets" • Included raw and evaluation computed variables for DOL required reporting (e.g. time in program, full-time/part-time status based on DOL requirements, etc.). • Used for the third party evaluation reporting. • Final "Vertical File" includes all Flat File, Enrollment and Follow-up data for longitudinal documentation.
Comparison Group Surveys	Self-Reported Evalytics Surveys	Descriptive Operational Outcomes	**Yearly:** Year 1 initial contact and periodic follow-ups.	• Low response rates, even with incentives. Incentives included drawings for gift certificates and then included a $10 incentive for every response. • Initial surveys disseminated to TEC students from 3 years prior to T4E grant. • Paper surveys, online surveys, and CAPI administered via mail, email, or phone. • Evalytics continued to pursue various other mechanisms to gather survey data including phone interviews, periodic mail and email surveys to a stratified sample, and then through external verified data sources (see AJLA below). • Included research consent, additional demographics, employment, internships, interview participation, wage increases, credentials, job outlook, and opinions of experience with TEC
AJLA Aggregate Employment Data	AJLA verified employment data	Outcomes DOL Reporting	**Quarterly:** (Upon KCKCC approval of contract with AJLA) Pilot: June 2015 July 2015-June 2016	• Evalytics team used participant and comparison Flat Files to develop new files using AJLA submission parameters. • Each quarter, the participant file was prepared and/or submitted including all participants who had exited for the AJLA reporting period • A stratified sample of comparison students was used based on program of study, age at enrollment, race/ethnicity, and sex. • AJLA provided aggregated, primary source employment data. Data include employment after the first quarter of exit, employment retention for 2 to 3 quarters after exit, and mean salaries.

Organizations and Employer Data Documentation				
Data Files	**Source**	**Purpose**	**When Collected**	**Description**
KCKCC Interviews	Evalytics in-person interviews with KCKCC-TEC and T4E Staff	Operational	**Year 2:** Mid-year operational evaluation	• Mid-year interviews conducted by Evalytics with instructor and/or aid for each department, key TEC staff, and T4E staff. • Interview protocols developed to include questions regarding challenges and success for collaboration efforts across the KCKCC-TEC and T4E staff.
KCKCC Observational Results	Evaluation team participation and observation at various events and meetings.	Operational	**Each Semester:** Attending orientations, classroom visits, and T4E socials **Ongoing:** Attending meetings with advisory committee and T4E, TEC and KCKCC Data Team Staff	• Observational recordings at meetings and events. • Email and other primary documentation.
Google Analytics	T4E online training documentation collected by T4E staff	Operational	**Periodically:** As reported by T4E staff.	• Year 2, second T4E online programming coordinator tracked online training video usage through program diagnostics and survey tools.
Area Employer and Employment Scan	1) Phone Interviews 2) Internet Research	Operational Environmental Scans	**Year 2**	• Target population included KCKCC employer partners and other employers in the KC Metro area. • Reviewed employment opportunities in the area, employer recognition of the KCKCC program, and employer tendency towards hiring KCKCC graduates.
T4E-Program Comparison Data	1) Phone Interviews 2) Internet Research	Operational Environmental Scans	**Year 2**	• Target population included competing community college, technical schools, or trade school programs in the KC metro area. • Reviewed educational opportunities in the area, recognition of the programs, and credentials available for competitive analysis of KCKCC T4E grant funded programming.
Secondary Data	Kansas City BLS, DOL, and Census Data	Descriptive Outcomes Environmental Scans	**As needed for background and reporting**	• Data on the KC metro area and the United States for measures of educational obtainment, employment, and employment opportunities.

Section 4: Data Collection and Response Rates

The data collection centered on the different goals of the evaluation including descriptive, operational, and outcomes for evaluation and DOL reporting as well as environmental scans. Data were obtained for T4E participants, comparison group members, TEC instructors and staff, T4E staff, area employers, and area schools. The data were collected in the form of primary source data or verified data from KCKCC or AJLA, as self-reported data from surveys and interviews, and "observational or secondary data" by the evaluation team. Evalytics prepared all research consent documents; paper and online surveys; in-person and CAPI interviews; and research protocols (see Appendix for final versions of these Evalytics developed tools).

Verified Data

KCKCC Verified Data

The KCKCC data sources mentioned above that formed the Flat File, Forklift File, Credential Logs, and T4E Program Logs were collected and compiled by various KCKCC institutional departments (Administration, TEC, Continuing Education, and Institutional Research) as primary verified demographic, enrollment, and academic achievement data provided directly to Evalytics for the T4E participants and comparison group.

The initial comparison group consisted of students from the three years prior to the grant award – academic years 2009-2011. Students were identified with the help of the KCKCC data team using the Ellucian student database. Creating a comparison group this period and from the KCKCC TEC seemed to be the most viable approach given the grant resources as a way to collect comparison data from which to measure the success of the T4E Program. There had been few changes implemented in the prior two-three years in the classes, courses and instructors. This provided a quasi-experimental group. Issues that were relatively constant with this comparison group included the:

- economic and employment climate of Kansas City, Kansas;
- racial, socioeconomic status, education, and work history of students at KCKCC, specifically in the technical school;
- specific technical programs offered;
- instructors and types of instruction; and,
- overall climate of the college.

AJLA Verified Data

After initial attempts to collect self-reported employment data from participants and comparison group students and receiving requests from DOL for verified employment data, the evaluation team began investigating additional data sources for employment outcomes. Evalytics attended a number of DOL, national evaluation team webinars, and regional conferences or meetings (such as those hosted by Washburn University) in the hopes of partnering with DOL Workforce Partnership or other grantees to obtain access to state verified data. Those efforts did not solidify into any partnerships, but the evaluation team did learn about opportunities for using an AJLA resource. The evaluation team presented the option to the KCKCC T4E Advisory Committee and in December of 2014 a contract was signed that would provide quarterly results for participant and comparison data sets.

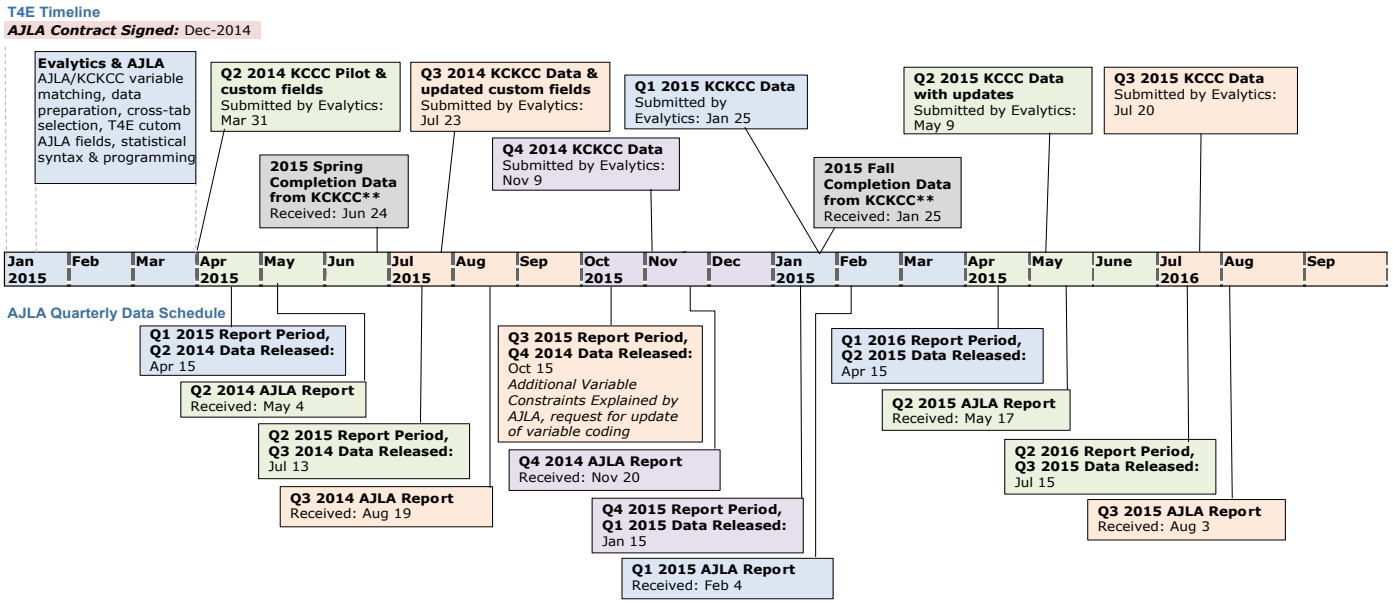
AJLA had strict requirements based on their agreements for obtaining data. All students had to be exiters and only data for the period one-year prior was available at each quarter. KCKCC contracted

with AJLA for a total of six quarters including a pilot quarter in March 2015 (available April 2015) and then five quarters through June 2016 (available July 2016). This covered T4E participant exiters for employment entry and/or from 01/01/2013 through 06/30/2015. In order to better communicate the period of data covered by the contract signed by KCKCC and to inform analysis, Evalytics diagramed the timeline of data submissions and results (see the "AJLA Data Schedule for T4E Participant Employment").

For the comparison group, using the original exit date would have provided no verified data because their exit date was outside the available data from AJLA so a dummy exit date was assigned to the comparison group. In order to take into account the fact that the comparison group was further past their actual exit dates, a sample of just those students one year prior to the grant award period was used. Students needed to be exiters from the program to qualify for AJLA.

Comparison group students from AY2011-2012 included 277 students, with a final sample of 117 exiters, which provides a +/-6.9 margin of error at a 95% confidence level.

AJLA Data Schedule for T4E Participant Employment*



*The schedule for submitting the Comparison Group data is the same as the Particpant data. However, a "dummy" exit date of 8/15/2014 for the Q3 Jul-Sep 2014 quarterly report was used to provide one year of data as a comparison to the participants at the same point in time for a period of one year of data between Q3 2014 to Q2 2015.
** Following the Q1 2014 pilot, the most recent participant completion/exit data available from KCKCC as of Spring 2015 were prepared for AJLA making adjustments for the next reporting period based on the pilot process. Because AJLA data is a year behind the KCKCC data the Spring 2015 update was used for AJLA submissions and then updated with additional data with the Spring 2016 KCKCC update.

Participant and Comparison Group Self-Reported Data

Evaluators began working with the grant writing team during the proposal stages to plan accordingly for data collection. In October 2012, when the grant was awarded, the Evaluation team began its function of ensuring that the participant recruitment process was in place, intake data forms were finalized, and work on the Flat File regarding flow and housing of data were begun. As the T4E program manager was not hired until February 2013, T4E programming was not implemented. At the request of the advisory team, the Evalytics began counting and recruiting research participants in Spring 2013.

Development and Dissemination

The evaluation team followed standards of good survey construction and dissemination.[5] Several different tools were used for obtaining consent and surveying participants including paper surveys, online surveys, and interview protocols. These were disseminated via mail, email, in-person contact, and telephone calls.

All mailings, letters that were developed included signatures from the TEC and/or T4E staff that should have been recognizable by the participants. Similarly, online surveys that were emailed were sent on the behalf of a KCKCC contact such as the TEC Dean or the T4E Program Manager. Both mailings and interview protocols also included text to familiarize the participant with the evaluation team and the T4E program.

DOL requirements did not allow incentives to be used with T4E participants, but were allowed and used for comparison group research consent and surveying.

Skip patterns were more difficult for the paper surveys and respondents who received paper surveys were encouraged to go to online versions that included programmed skip patterns. As shown in the "Participant and Comparison Group Self-Reported Dissemination Methods" table, online surveys were developed to be administered by the T4E Office advisor and staff in the T4E office computer lab beginning in the summer of 2013 using Survey Gizmo. Similar online surveys were set-up for participants directed there via paper-survey references, mailings, emails, or follow-up phone-calls and as full Computer Assisted Phone Interviews (CAPI) for use by evaluation team members.

[5] Dillman, Don A. (2000). *Mail and Internet Surveys: The Tailored Design Method, Second Edition.* New York: John Wiley & Sons.

Participant and Comparison Group Self-Reported Dissemination Methods for Consent, Enrollment and Follow-up Surveys				
Dissemination	**Instruments**	**Purpose**	**Dates Used**	**Notes**
Participant Self-Reporting				
Mailing	• Paper • Online	Consent, Enrollment, and Follow-up	**Eval Year 1** SP/SUM 2013 **Eval Year 2** F2013-SP2014	• Introductory letter, consent, survey and pre-stamped return envelopes • Follow-up postcards, emails, & thank you notes • No incentive for participants • Initial responses were low/incomplete, requiring email and phone call follow-ups • High costs for printing letters, consent forms, and surveys; incorrect address; and pre-stamped envelopes that were not returned for enrollment and follow-up. • Discontinued for enrollment Fall 2013 and for follow-up by Fall 2014
Email	• Paper • Online	Consent, Enrollment, and Follow-up	**Eval Year 1** SP/SUM 2013 **Eval Year 2** F2013-SP2014	• Primarily used as follow-ups for paper mailings; requesting to complete and return paper survey; online survey link provided as alternative. • Participants were not likely to use their college email and did not respond to KCKCC emails in their personal emails. Less than 5 responses from efforts. • Discontinued for enrollment Fall 2013 and for follow-up by Fall 2014
Phone Interviews	• Completing Missing Paper or Online Data • CAPI	Consent, Enrollment, and Follow-up	**Eval Year 1** SP/SUM 2013 **Eval Year 2** F2013	• To obtain missing enrollment data and as initial contact when mailings were misdirected • No incentive for participants • Phone calls were successful for completing missing data when students were reached but many phone numbers were incorrect and there was a high cost for time spent trying to reach participants, making multiple calls, and not receiving returned calls. • Discontinued for enrollment Fall 2013 and for follow-up by Fall 2014 as the phone efforts were costly without providing many more responses. Discontinued in favor of relying on AJLA verified data.
In-Person, Evaluation Team	• Paper • Online	Consent, Enrollment, and Follow-up	**Eval Year 1-3, and Extension** SP2013-F2015	• Evaluation team members attended TEC orientation, T4E office open-houses, and visited classrooms both at the beginning of the semester for consent/enrollment and the end of semester for follow-up surveys. This along with advisor-administered surveys obtained the highest responses rates. • No incentives for participants • Paper surveys were offered and beginning Fall 2013 students were directed to the T4E office for online surveying in the computer lab
In-Person, T4E Office Staff and Advisor	• Paper • Online	Consent and Enrollment	**Eval Year 2-3, and Extension** F2013-F2015	• The T4E advisor and office staff administered either paper or online enrollments in the T4E computer lab when students enrolled. This along with in-person evaluation team member administered surveys obtained the highest responses rates. • No incentive for participants • Highly captive audience, the T4E advisors
In-Person, T4E Employment Coordinator	• Interview	Follow-up	**Eval Year 2-3** SP2014-SP2015	• The T4E employment coordinator completed excel forms as in-person interviews when meeting with participants for advising or as a follow-up. The employment coordinator was collecting data in Year 2, but did not continue through Year 3 and the extension due to being on medical leave.

Participant and Comparison Group Self-Reported Dissemination Methods for Consent, Enrollment and Follow-up Surveys				
Dissemination	**Instruments**	**Purpose**	**Dates Used**	**Notes**
Comparison Group Self-Reporting				
Mailing: Consent & Surveys	Paper Online	Participant Enrollment and Follow-up	**Year 2-3** F2013-SP2015	• Introductory letter, consent, survey and pre-stamped return envelopes to approximately 500 potential comparison group members. • Follow-up postcards, emails & thank you notes • Initial mailings included incentive of $50 gift certificate drawings for Home Depot, subsequent contacts for enrollment and for follow-ups included a $10 gift certificate for ANY response. • Initial responses were low/incomplete, requiring email and phone call follow-ups • High costs for printing letters, consent forms, and surveys; incorrect address information for exited participants; and pre-stamped envelopes that were not used for both enrollment and follow-up surveys. • Due to the inability to meet comparison group members in-person, mailings were continued to meet evaluation obligations despite extensive costs. In order to mitigate costs and focus efforts, follow-up mails were sent to a stratified sample of 153 students (plus 30 back-ups) with incentives offered to any participant in an attempt to obtain a 33% response rate of 61 students for a +/- 9/8% CI at p<=.10. (See Appendix "Comparison Group Stratified Sample Quotas"). As noted below in "Comparison Group Response Rates," expected response rates were not met with this modified method, thus providing further reasoning for using AJLA verified data.
Email	• Paper • Online	Consent and Enrollment	**Year 2** SP2014	• Primarily used as follow-ups for paper mailings; requesting to complete and return paper survey. Also used to provide online survey link. • Comparison group students no longer had access to their college email and did not respond to KCKCC emails in their personal emails. • Discontinued for enrollment after initial mailing in Spring 2014
Phone Interviews	• Completing Missing Paper or Online Data • CAPI	Consent, Enrollment, and Follow-up	**Year 2** SP2014	• To obtain missing enrollment data and as initial contact when mailings were misdirected • After initial $50 drawings did not garner good response rates for enrollment, telephone efforts included an immediate incentive of $10 gift certificates. Later follow-ups also included an immediate incentive of $10 gift certificates for ANY response. • Phone interviews could only be made when phone numbers were provided or still correct. Phone call efforts were costly without providing many more responses than mailings and were reduced for Year 3 in favor of relying on AJLA verified data.

Enrollment Response Rates

In Year 1, as planned the evaluation team did not begin collecting participant surveys until the Spring 2013 semester as the grant was awarded in October 2012 and the evaluation plan included three months for survey development. The low response rates of 43% for Fall 2012 reflect the fact that the T4E advisory committee requested evaluators to back-count students from that semester which was within the grant award period but no program planning had occurred. The 40 students who gave enrollment responses for Fall 2012 were students who enrolled in Fall 2012 but responded to surveys in Spring 2013.

Responses by mail were less successful and more costly than in-person efforts. Mail and follow-up calls provided only 14 unique responses of the 78 (18%) received from students between Fall 2012 and Summer 2013. A response of 67% for the Spring 2013 to Summer 2013 was primarily achieved through in-person surveying efforts. In Year 2, the team focused on using 1) T4E advisor administered online or paper surveys as students visited the offices to enroll and 2) evaluator administered surveys at orientations or by classroom visits.

	Participant Enrollment Response Rates for the Six Primary T4E Programs						
	Year 1: F12**	Year 1: SP-SM13**	Year 2: F13-SM14	Year 3: F14-SM15	Year 4 Extension F15***	Overall***	
						Y1 F12 to Y4 Extension	Y1 SP13 to Y3
Unique participants*	94	57	141	181	30	503	379
Enrollment Responses	40	38	108	119	13	318	265
Response Rates	43%	67%	77%	66%	39%	63%	70%

*Unique participants in Year 1, Year 2, Year 3, and Extension are mutually exclusive; enrollments collected once per participant.
**The grant was awarded in October 2012, so the evaluation team was not awarded a contract until this time. Evaluation activities began in Spring 2013. Some of the students from Fall 2012 continued in Spring 2013, so data were collected for these students during grant period and response rates were back-dated.
***For the extension period the evaluation team agreed to collect enrollment surveys for new enrollees in Fall 2015, but for Spring 2016 the team agreed to conduct counts from the Flat File data only for DOL support. The T4E advisor did continue to collect enrollments or collected them prior to the Spring 2016 period for which responses are noted here. The evaluation analysis is based on the complete Year 1 through Year 3 data collection period.
****Overall response rates are given for the both Fall 2012-Year 4 Extension and the separate evaluation team period of performance from Spring 2013-Year 3.

Follow-up Response Rates

For participant follow-up, the year-one mail, email, and phone surveys that were used after students exited had a relatively low response rate of 59% for Fall 2012 and 49% for Spring-Summer 2013. Of those students who did reply, most answered opinion type questions but sometimes skipped questions pertinent for T4E outcomes including job obtainment and wages. Therefore, beginning Year 2 the team began administering end-of-semester surveys in classroom visits or receiving data collected by the T4E employment coordinator.

	Participants with at Least One Follow-up: Response Rates for the Six Primary T4E Programs						
	Year 1: F12**	Year 1: SP-SM13**	Year 2: F13-SM14	Year 3 Extension F14-F15***	Year 4 Extension***	Overall***	
						Y1 F12 to Y3 Extension	Y1 SP13 to Y3 Extension
Unique participants*	94	57	141	181	--	473	379
Follow-up Responses	55	28	100	167	--	350	295
Response Rates	59%	49%	71%	92%	--	74%	78%

*Unique participants in Year 1, Year 2, and Year 3 Extension are mutually exclusive to show responses rates for at least one follow-up.
**The grant was awarded in October 2012, so the evaluation team was not awarded a contract until this time. Evaluation activities began in Spring 2013. Some of the students from Fall 2012 continued in Spring 2013, so data were collected for these students during grant period and response rates were back-dated.
***For the extension period the evaluation team agreed to collect follow-up surveys for Fall 2015 for which the end of the semester fell in the extension period. The evaluation team post grant evaluation activities were scheduled to be taking place, so the evaluation team did not agree to conduct follow-up activities with the Spring 2016 exiters.
****Overall response rates are given for the both Fall 2012-Year 3 Extension and the separate evaluation team period of performance from Spring 2013-Year 3 Extension.

Comparison Group Response Rates

For the comparison group, combined mailings, emails, and phone interviews with repeated touches (multiple mailings, postcards, follow-up emails, phone calls and phone call follow-ups) provided extremely low response rates. The first attempt at reaching the 592 potential comparison group students in Fall 2013 obtained a response rate of less than 1% from 394 students with valid addresses or phone numbers. Focusing efforts on a stratified sample (as noted above in the table "Participant and Comparison Group Self-Reported Dissemination Methods for Consent, Enrollment and Follow-up Surveys") and providing additional incentives did not contribute to acceptably higher response rates with rates of 4.5% for email and 3.0% for phone calls. The following year, the mailing to the stratified sample with the additional incentives yielded a 17.4% response rate. At that point in time, the Evaluation team had facilitated the agreement between KCKCC and AJLA as noted above so further contacts were not pursued.

	Comparison Group Response Rates for Evaluation Survey Efforts*				
	Fall 2013	Spring 2014	Spring 2014	F2014-SP2015	Total Response Rate
	Mail with Drawing Incentive	Email ** with Drawing and Individual Incentives	Phone with Drawing and Individual Incentives	Mail with Drawing and Individual Incentives	
Comparison Pool or Stratified Sample*	592	183	183	183	183***
Incorrect Address/Phone	198	51	51	51	51
Final Comparison Sample	394	132	132	132	132
Responses	3	6	4	23	36
Response Rates	<1%	4.5%	3.0%	17.4%	27.3%

*The initial comparison pool included students in the 3 years prior to the program AY2009-AY2011. The team surveyed all students with an address or phone number listed by KCKCC; response rates are based only on those address or phone numbers that were not returned or noted as misdirected. The stratified sample was pulled only from AY2011 students.
**Some email responses were obtained by first calling individuals and then offering the email link.
***Overall response rates are provided based on the stratified sample as the 3 responses from the initial pool of 592 were identified as AY2011 students.

The initial 592 students with verified academic outcomes from KCKCC data and the 117 exiters included in the AJLA provided data that exceeded or matched the 105-153 comparison group students that the evaluation team anticipated and planned in the "Response to Program Evaluation Plan Review" provided to DOL after award of the grant and award of the evaluation contract. The self-reported data, with 36 responses, was still used with limited statistical analysis.

Observational and Secondary Data

KCKCC Organization, Staff and Instructors

Data for the operational evaluation, as noted in the "Organizations and Employer Data Documentation" table above, were obtained through in-person interviews conducted by Evalytics with KCKCC, TEC, and T4E instructors and staff. KCKCC personnel were contacted by Evalytics in January 2014 to schedule interviews for a mid-program report. Interviews were scheduled and conducted on-site at KCKCC using interview protocols designed by the evaluation team (see Appendix).

In addition to the interview results, the evaluators incorporated notes and observations from attending TEC and T4E sponsored events such as orientation, from attending meetings with staff and the advisory committee, and from documents and emails. Documents that were provided to the KCKC data team included but are not limited to TEC orientation documents, T4E advisor logs, T4E online education use logs and surveys, and calendars of T4E programming (such as FLEET).

There were also documents and data sets that were requested but were not shared with the evaluation team, including data that might be useful for outcomes and economic impact analysis including: I-Best student assessment and results, pay stubs collected by instructors, community employer or programming partnership agreements, and financial documentation of T4E program costs. Requests for data and collaboration from Workforce Partnership were also not fulfilled.

Area Institutions and Employer Environmental Scans

In order to provide information about the competitiveness of the KCKCC program in the area, the evaluation team provided an environmental scan of other area institutions offering similar programming. The T4E team noted that KCKCC had undertaken internal comparisons previously, however, these were not shared with the evaluation team. Furthermore, the evaluation team felt that a third-party evaluation specific to the TAACCCT funded programs was important to understanding how well the T4E program was contributing to the community and if and how there were ways to improve. The evaluation team developed both Internet research and interview protocols to conduct the research for the scans (see Appendix).

Similarly, in order to gauge the T4E's progress as an organization with enhancing employer partnerships in the community and placing students with area employers, T4E undertook a scan of the local employers. The research focused on employers identified as partners by TEC, as well as other primary employers. The evaluation team wanted to address whether partners recognized KCKCC as an educational partner, whether KCKCC employer partners were hiring KCKCC students, and if there was a competitive advantage for students in the T4E program. The evaluation team developed both Internet research and interview protocols to conduct the research for the scans (see Appendix).

Secondary Data

For many of the reports presented to KCKCC as well as the final evaluation report, the Evaluation team used secondary data references or sources to provide context for the KCKCC program in the Kansas City metropolitan area, for the US as a whole, or in terms of the services as a TAACCCT

grantee (see Bibliography).

Section 5: Primary Participant and Comparison Group Analysis

General Analytical Methods

As noted in the "Data Collection and Response Rates" section above, there were three main types of data that were analyzed for the major reporting of the evaluation: 1) verified KCKCC data; 2) self-reported data; and, 3) verified AJLA data. For each of these, there were two areas for the analysis: 1) participant and 2) comparison-participant.

Participant Analysis

The analysis for participants included reporting results for DOL required outcomes and for evaluation reports for KCKCC. The evaluators performed appropriate statistical testing to determine descriptive reporting or differences in participant:

- subgroup variances (gender, race, ethnicity, age, education);
- educational achievements in terms of credit hours, certificates, credentials;
- pre- and post-job outlook and program change opinions; and,
- pre-post employment outcomes.

All three types of data mentioned above (verified KCKCC data, self-reported data, and verified AJLA data), the evaluation team used SPSS and Excel to conduct a variety of statistical testing for which individual cases were available (such as the Flat File and Evalytics' survey data). These included simple descriptive statistics, univariate testing, and bivariate testing depending on the measurement characteristics of the data including t-tests and ANOVA for comparison of means; comparisons of proportions, chi-square testing (e.g. Pearson's chi-square and Fisher's Exact tests for small cells), and SPSS custom tables analysis for between cell testing of proportions and means. Due to the relatively small number of participants in each type of career path or course, as we expected, there were some limitations to the level of statistical testing appropriate between programs.

The pre- and post-academic opinions analysis was conducted on a case-by-case basis, with individual change statistics forming the bases for pre-post analysis. In most cases, these are presented as mean change statistics. This individual case-by-case analysis is preferred to the group cohort statistics and was used when appropriate and available.

Pre- and post-self reported employment outcome analyses conducted on a case-by-case basis are similarly considered better for analysis than cohort statistics. Change in employment status and change in wage were attempted, however, due to the fewer number of responses to these questions, there are limitations to significant results.

While individual change on a case-by-case basis was considered a more robust statistic to determine individual change, longitudinal cohort analysis was considered important from a programmatic standpoint. All academic outcomes data as well as the self-reported survey data were analyzed by the three years of the grant funded program using crosstab chi-squares, SPSS custom tables for cell tests of proportions and means, or ANOVA in order to analyze program progress especially in terms of students' opinion in the T4E program.

Comparison Group Quasi-Experimental Design

As a requirement of the DOL evaluation plan, the team planned a quasi-experimental design in which participants were considered the "treatment" group and previous students "nontreatment" group. As mentioned above, the initial pool of comparison group students consisted of similar students in the three years prior to the program from AY2009-2011 and later a subsample from AY2011 to meet the challenges of survey data collection and AJLA reporting needs.

The analysis for comparison group, primarily addressed here in the final evaluation report was used to determine differences between participant and comparison group subgroup variances, achievement, opinions, and employment outcomes.

Overall, comparison group analysis was addressed with each of the three types of data: verified KCKCC data, self-reported survey data, and AJLA verified data. Similar statistics were used as mentioned above. Due to the relatively small response rates to surveys, data on opinions and self-reported employment outcomes were limited to lower level-statistical analysis.

Participant Unintended Quasi-Experimental Group

In addition to the planned comparison group from the prior years to the grant, the evaluators identified a second internal quasi-experimental group. As discussed in the operational section of this report, the first year of the grant program reflected primarily a planning year, even though KCKCC requested that counts and credentials be counted during the year. At this point in time, T4E staff was not hired until beginning with the Spring 2013 semester, students were still housed in the old TEC facilities and equipment, and programming did not take place from the beginning of a semester until the second full year of the grant. As such, yearly cross-tabulations, chi-squares for nominal measures, and ANOVA or means testing for ratio measures were done. While the evaluation team intended to show results for the 3 years of the program as a means to note any program change or progress during implementation, the evaluation team recognized that the students from Year 1 provided an additional quasi-experimental group for which more data had been obtained via self-reporting at enrollment and follow-up than was obtained from the intended comparison group.

Special Considerations for the AJLA Analysis

The AJLA contract was not entered until December 2014, therefore submission of students and comparison students did not occur until the first quarter of 2015. Participants were added to the AJLA submissions as they exited the program between program submission dates of March 2015 through July 2016. AJLA data included employment after exit, retention in employment, and wage data for participants that were useful for verified data for DOL annual reporting providing retention employment (indicating entry into employment) and entry in employment during the grant period. Given that AJLA data were delayed the entire contract with AJLA provided participant employment data for those who exited between January 2013 and June 2015 for DOL results. In terms of evaluation reporting, the last data received before the Year 4 report provided data for exiters between January 2013 and March 2015.

The comparison group testing required a dummy date for one set of students who remained the same for all report submissions. The AJLA non-treatment group therefore covered students who exited only in AY2011 and were followed for a period of one year for comparison with the participants.

It is important to note that the AJLA data were reported in *aggregate* with separate tables each for the participants and comparison group. Statistical testing was completed using statistical formulas in Excel, but individual case-by-case analysis was not possible. The following is an example of the aggregate results received in one quarter from AJLA:

PROGRAM: TAAKC NATIONAL SUMMARY
For Report Quarter Ending: 03/31/2016
OFFICIAL COMMON PERFORMANCE MEASURE OUTCOMES

Current Quarter			Cumulative 4 Quarter Period		
Entered Employment[1]	38	63.33%	**Entered Employment**[1]	99	66.00%
Exit Cohort: 04/01/2015 - 06/30/2015	60		Exit Cohort: 07/01/2014 - 06/30/2015	150	
Employment Retention[1]	33	91.67%	**Employment Retention**[1]	96	89.72%
Exit Cohort: 10/01/2014 - 12/31/2014	36		Exit Cohort: 01/01/2014 - 12/31/2014	107	
Average Earnings[2]	419,269	$12,705	**Average Earnings**[2]	1,231,254	$12,826
Exit Cohort: 10/01/2014 - 12/31/2014	33		Exit Cohort: 01/01/2014 - 12/31/2014	96	

[1] Based on UI and supplemental grantee data
[2] Based on UI information only

Although individual case-by-case analysis and integration with the evaluation files was not possible, the AJLA did allow for cross-tabulations. The team chose to include one crosstab as a cross-check with our data and for longitudinal checks. Other variables for which we received data were: Academic achievement of any certification or not; Reason for exit withdraw or completion; Self-reported pre-employment; race (black/African American, white, or other); and program as four groups (BPMT/CONS, ELET, HVAC, and MACH/WELD). Programs were combined which had like coursework and industry sectors for employment to accommodate small numbers. Despite efforts to use fewer categories, because of the reporting period and exit requirements, each report period had instances of cases with too few cases to report. Cases large enough for statistical testing were analyzed.

Overall, the AJLA data were primarily sought for the comparison analysis. . When the evaluation team recommended that KCKCC allocate resources to obtain AJLA data, the evaluation team outlined the data characteristics of each and how each would be analyzed. The following table demonstrates these data characteristics:

KCKCC-Evalytics and AJLA Data Characteristics	
Evalytics and T4E Collected Employment Data[1]	**AJLA Unemployment Insurance Data (UI) Wage Record Interchange System 2 (WRIS2) Federal Employment Data Exchange System(FEDES)**
• Not full population for participants or comparison group. Based on survey response rates and as collected by the T4E employment coordinator. Smaller samples over time from students and comparison group members who no longer attend KCKCC and are difficult to reach via surveys or direct contact with T4E employment coordinator or instructors.	• Data include all T4E participants and comparison group members who have exited the program with a valid SSN from the KCKCC data team and exit period date.
• Self-reported, not validated according to DOL standards. [2]	• Considered a valid primary data source for employment data.
• Along with enrollment surveys, provides employment history at enrollment, during the program, and at completion when surveys are completed for T4E participants. • For comparison group students, may have some pre- ad post-program employment if the past student fully answers survey or interview.	• Only provides data for those students or comparison groups have *exited* the program. • Aggregate level results for participants and comparison group.
• For participants, post-program employment data have been collected Spring 2013 through June 2015. Comparison group data have been collected may include employment status throughout the same period.	• Data are only available as the current quarter from one year prior. • The comparison group will need to be provided a dummy exit data and employment will reflect a period some time after their exit.
• Data from surveys and T4E data collection better match the semester schedule of KCKCC.	• Data from AJLA better match the DOL "quarterly" reporting periods.
• Will provide several variables for analysis for a sample of the population of participants and the comparison group. • Wages and or annual earnings are often skipped in self-reported surveys or not provided to the T4E team through current collection methods. So wages/earnings data will be limited.	• Provides up to 6 cross-tabulations for further analysis, reported at aggregate level, either fulfilling DOL or Year 4 evaluation reporting needs. Will receive aggregate results on *entering employment, employment retention and mean earnings*.
• Will be able to conduct additional cross-tab analysis for a sample of the participant and comparison populations. • Provides additional qualitative data results and opinion data from participants.	• Does not provide additional multi-level analysis.
• May include information on internships while enrolled as a student. • Provides information on the type of work, industry, or if work was related to a field of study.	• Does not include type of work, industry, or indicate if work is in the field of study.
[1]Evalytics collects self-reported employment data from participants in end-of-semester surveys administered in the classroom at the end of semesters and periodic mail surveys to students who have exited the program. This data are combined with the data collected by the T4E employment coordinator. Comparison group self-reported employment data have been collected through periodic mail surveys and telephone interviews. [2]DOL requested standards were set after the award and do not match original evaluation plan as it was accepted. Self-reporting data by KCKCC was accepted under the grant award, but additional requirements set after award included primary data sources such as pay-stubs, IRS data, or other state/federal data sources.	

Section 6: Analysis of Operational, Environment Scans and Secondary Data

The bulk of data and documentation for analysis for operational and environmental scans were qualitative in nature. As such it was important to first develop the instruments, as described in the "Data Collection and Response Rates" section above. Instruments and protocols were designed to be consistent across interviewees and researched entities. Furthermore, the evaluation team shared these documents with peers for review and suggestions. Likewise, when gleaning results the researchers took a consensus-based approach. Again, when deemed appropriate and when data could be provided while retaining confidentiality of respondents and/or data, the evaluation team obtained peer review. In order to retain confidentiality, the evaluation team also worked closely with the KCKCC T4E program manager and advisory committee, to present confidential detailed results as well as executive summaries of findings to be shared more widely.

Limitations and Challenges

The following table illustrates limitations and challenges that occurred for the implementation of the program and evaluation; for data files and sources; data collection and response rates; and the analysis of the program. For each, we have listed whether these challenges or limitations were primarily threats for program or evaluation implementation, internal validity, external validity, and/or reliability. Furthermore, a more detailed description of the challenge or limitation is provided along with any further considerations and/or solutions that were attempted or used.

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
Year 1: KCKCC did not propose a planning year and were not ready to begin when grant awarded.	• Program Implementation • Evaluation Implementation • Internal Validity • Reliability	• KCKCC did not propose a planning year; students were in the old facilities with same capacity and equipment until mid-Summer 2013. • KCKCC's lack of readiness to start counting was not taken into account by DOL when selected. Despite suggesting a planning year (by DOL and the evaluation team), it was not required. • T4E Program Manager (PM) was not hired until spring 2013 semester; other staff not hired until spring/summer 2013. T4E programming including intensive advising, employment services, online education, iBest, recruiting, marketing, and FLEET training did not take place until summer or fall 2013. • In the new facility, T4E staff offices and the student computer lab were not finished until fall 2013. Thus, the program did not become fully operational until Year 2.	• When reviewing the cause-effect relationship for the *entire* 3-year program, there is a threat to internal validity since the first year did not have the same programming as those in Years 2 and 3. It is important to recognize that students received differing levels of "treatment" by year. • The evaluation team, when possible, provided analysis by year as a general best practice for analyzing progress over time; this helped mitigate the Year 1 planning year concern. • Year 1 lack of programming provided an unintended, internal quasi-experimental group comparison. • Surveys created by the evaluation team for Year 1 had to reflect the fact that students were not yet receiving T4E programming. Some reliability issues between years in survey design exist. Evaluators made sure to include questions that could be repeated despite this issue.
DOL grant awarded October 2012 after start of academic semester. Advisory Council required evaluation team to include data from Fall 2012.	• Program Implementation • Evaluation Implementation • Internal validity • Reliability	• DOL grant award did not match academic cycle. Fall 2012 semester began in August, awarded in October. • Following the evaluation plan, evaluators used the first 90 days of the contract for planning verified data files and developing instruments. Enrollment surveys were first administered with new enrollees at start of spring 2013 semester with follow-up occurring at the conclusion of spring semester. • DOL did not allow grantees to change proposed goals (numbers) to accommodate for discrepancy in grant award and academic year. • A DOL Review and the Federal Program Officer (FPO) provided feedback and expressed concerns in Year 2 that goals were not being met. • The T4E Advisory Council required T4E staff and evaluation team recount enrollment and completions to include fall 2012 students in Year 2.	• DOL gave a 6-month, no cost extension to T4E which was helpful for DOL's annual reporting and recognized programming limitations, but this decision was made well after the Advisory Council made the decision to back-count fall 2012. The evaluation team was not provided an extension and to stay within scope of work, evaluation efforts needed to end prior to March 2016. • KCKCC and T4E staff expressed a need to meet goals and be "in compliance" for counting participants served. This was a program with implementation issues. The focus on goals stymied efforts by evaluators to provide program improvement guidance. • Internal validity may be compromised because some students completed in fall 2012 before any staff had been hired or programming started. Increasing numbers of enrollees by back-counting students (see previous limitation) may misrepresent lack of completion outcomes and employment outcomes.
Changes to self-report surveys.	• Reliability	• DOL required changes in language to some instruments to reflect their requirements, e.g., Selective Service. • Response rates were low. In order to reduce fatigue and/or	• The evaluation team had to sacrifice some detail in favor of having higher completion rates. • Reliability of data across instruments, both in terms of content & wording

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
		discomfort with job and income related questions, surveys were simplified for participants.	may be a concern, but every effort to keep question language was retained and to drop questions rather than reword questions.
Multiple self-report survey instrument formats	• Reliability	• A number of different instruments were used for enrollment and follow-up surveys with participants and comparison group including: in-person administered paper or online surveys; mailed paper surveys; email invitations for paper or online surveys; and computer assisted telephone interviews. • In-person administration of surveys took place at events (i.e. orientation), in the classroom, during advisory appointments, and office visits.	• Initial survey efforts by mail, email, and phone were attempted along with in-person surveying, especially for continued follow-up with students in an effort to collect a reasonable response rate. As various instruments were determined to be ineffective the team opted to use primarily in-person paper and online surveying methods. Various approaches were needed to determine the most effective approach. • Paper instruments had more mistakes in skip patterns and greater instances of missing data than online surveys. • Difference in instruments is recognized but due to initial low response rates, efforts increase responses outweighed issues of multiple instruments.
Separate files for additional and non-credit programming	• Reliability • Internal validity	• SIS, Ellucian, Lumens were the three major data systems used. Other non-credit verified data from instructors were kept in other manners. • ETO by Social Solutions not satisfactorily implemented and eventually discontinued. • Evaluation team offered other database solutions but these were not accepted. • Much additional, not expected work to merge, aggregate, enter and cross-check all data coming from the multiple sources.	• ETO database software from Social Solutions was vetted by Advisory Council, KCKCC leaders (IT, Finance), T4E PM and Evalytics. It appeared to meet needs. Funding from Evalytics for evaluation database was provided for ETO. • Primarily able to integrate credentials into SIS, but could not integrate SIS and Ellucian. • T4E data team (particularly IR and TEC staff members after data coordinator resigned took over integration of SIS and Ellucian) but Lumens remained separate source and had to be merged by evaluators. • Data across multiple systems and data entry required aggregating data at the individual level over three years. • Data team in years 2 and 3 were very cooperative and systematic with flat file, Lumens data and credential data. Regular meetings with evaluators to discuss program changes and data needs.
Missing Data from Additional Programming	• Reliability	• T4E included additional programming beyond the six programs. These programs included Green-up, Forklift certification, FLEET programming, and MasterCam for whom attendance and completion data were collected. • Enrollment and follow-up data were not collected for Forklift, MasterCam programs because these were non-credit continuing education programs and not enrolled students. They did not go through T4E advising or	• As required by the T4E PM, Advisory Council and following DOL definition of participants, evaluators counted unique students and credentials as were reported to them. The program evaluation was conducted for the primary six programs and Green-up. • In many cases, there was no possibility of obtaining follow-up information with the Forklift, MasterCam programs.

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
		orientation. The programs were held on an "as needed" basis. • The Green-up program was a 6-week, short duration program that also bypassed the formalities of enrollment as a regular student, however, T4E provided contact information and/or attempted to get enrollment forms. • FLEET was a required support program for all T4E participants and attendance was captured by T4E and provided to evaluators.	
Lack of data to substantiate programming proposed for T4E.	• Evaluation Implementation • Reliability • Lack of available data • Internal Validity • External Validity	• Three advisors over three years. No evidence of training in intensive advising model. • No common database system. • No common alert system for T4E to implement intensive advising or to track their activities with students. • No verified data provided to the evaluation team from advisors at the individual level that could be integrated with other data. • No data for testing or remediation with students from iBest instructors. • No systematic tracking of student-employment coordinator activities.	• No systematic way to track data. • Unable to link program activities to participant outcomes. • Alternate learning methods – online instructional videos was one area where T4E staff developed viewer surveys and provided google analytics to evaluators. Only aggregated results or anonymous. Not useful for causal linkages. • The inability to seamlessly link activities to outcomes makes results less generalizable for future programming and other programs. • FLEET participation was documented at the individual level. Internal validity/external validity issues as portions of FLEET programming existed before T4E program. Could not compare to previous programming available to Comparison Group. • Comparison group prior 3 years or year 1 of T4E provide best nontreatment and treatment groups.
Lack of cooperation from instructors, i.e, not being prepared; letting students leave before scheduled evaluator visits; not sharing internship and verified employment data.	• Lack of available data • Reliability • Internal Validity	• Evaluators provided Instructors a set of days and times for classroom visits for surveying. Instructors selected the best day and time for their class. Often classes were not being held and students were off-site or other activities prevented evaluators' from surveying. • TEC Instructors were more cooperative following the DOL Review. • HVAC Instructors refused to share verified employment data with evaluators when they told evaluators they had the data for their students.	• Being able to provide verified data for the T4E program would have been helpful. Unsure if instructors had the data or not. • Evalytics addressed concern with T4E PM and during OIG Audit and received no response.
Workforce Partnership	• Evaluation implementation • Program	• Workforce Partnership had satellite office at T4E and T4E PM reported number of individuals served through that office. Evaluators received no data.	• T4E proposal indicated TAA-eligible adults were a focus population. Few TAA-eligible adults served by program. Unable to perform analysis based on lack of data.

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
	implementation • Lack of available data • Internal Validity (no data on TAA)		• Unable to verify role of Workforce Development with the T4E program other than to staff a satellite office.
Staff Changes	• Evaluation implementation • Lack of available data • Reliability	• Nearly 100% turnover. • First PM released following DOL Review. T4E Advisor applied for/hired as second PM; left in March 2016 (final month of six-month program extension). • Data coordinator not replaced with experienced data person. Efforts made by IR and data coordinator to integrate data lost. • Employment coordinator worked with students and instructors; left for another position in year 2; returned; had health issue and was out for months. • TEC Dean re-positioned and new Dean appointed. • VP of Academic Affairs retired in year 1 of grant; the replacement VP of Academic Affairs hired but left in 2016.	• Evaluators worked with KCKCC, TEC and T4E to obtain as much data as possible. • Aggregated results from employment coordinator with datasets. Higher self-report data in year 2 may reflect more effort to collect the data from students. • More time required by IR and evaluation team without dedicated T4E analyst. • Resources for evaluation efforts in favor of data support.
Program costs not disclosed.	• Evaluation implementation • Lack of available data • Internal validity	• Evalytics was part of Advisory Council but was not provided financial information. • Participation by evaluators was limited in year 2 and 3 to attending meetings only when requested.	• Evaluators focused on conducting environmental scans of employers and comparing T4E programming to other area technical schools' offerings. • Instead of cost/benefit analysis, evaluators chose to prepare an economic impact document with the final report.
Calculated completion rates differ from official school results in verified data	• Internal validity • Reliability	• Evaluation calculated completions based on guide given by KCKCC in terms of credits, and credentials needed within a program. Different results than "verified" data from the school, with more students having completion rates in KCKCC data. This is the official data. • The evaluation team was told but we do not have documentation that KCKCC -TEC recognized completion may be granted as exceptions to the definition as originally reported to evaluation team so the calculated completion would not match the status as reported by the school.	Used the KCKCC verified variables despite discrepancies.
Participant relationship with school and evaluation team lacking	• Program implementation • Evaluation implementation	• Participant relationship (or affiliation) with school not as strong as anticipated given local community. • Unable to provide incentives to program participants. This population difficult to make the case that the grant is the	• Held meetings with TEC staff; provided "lunch" for students as "thank you" in year 3. • By attending orientations and socials at the beginning of the semester, the evaluation team could encourage ongoing participation in research

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
	• Lack of available data	benefit. Little recognition of T4E benefiting them. • Struggles to gain support from Instructors.	even past enrollment. In addition, the evaluation team began visiting classrooms at the conclusion of each semester beginning in fall 2013 to conduct in-person surveys upon semester completion and to encourage continued responses. While the one-time response rates at the completion of semesters increased from 49-59% in Year 1 to 92% in Year 3 with these efforts, longitudinal response rates from mail, email, or other in-person visits still remained low. 117 or 33% of the participants who answered one follow-up survey answered a second, and just 25 or 7% answered a third follow-up. • Low response rates were another driver in obtaining AJLA data. While aggregate, AJLA provided essential employment and wage data. • DOL Review was powerful turning point in terms of cooperation from TEC. •
Comparison quasi-experimental design	• External validity • Internal validity	• Experimental design not possible in this setting. Cannot disallow students' entry into programs they wish to take. • Lack of congruency between DOL and field of education, even adult education.	• The quasi-experimental design negates any generalizability outside the college. • Some internal validity issues because comparison group is prior 3 years which falls closer to the 2008 economic "recession." Other factors also could influence change.
Survey data Self-report Low response rates	• -Evaluation implementation • -Reliability • -Internal Validity	• Participant enrollment acceptable after identifying best administration methods. • Follow-up surveys hard to obtain once student leaves school. Outcomes may/may not be accurate when capturing during last semester of program. • Comparison Group (CG) surveys were too few, not longitudinal, and contained little employment data. • Participant follow-up surveys contained low responses for employment questions; few reached via phone, mail or email. • AJLA data were imperative to have any employment and earnings data.	• Employment data from surveys is self-report. While not verified able to use for case-by-case analysis of employment outcomes by education outcomes. • AJLA provided aggregated employment and earnings data.VERIFIED BETTER, but in AGGREGATE • Due to low response rates, evaluation team later created a stratified sample based on the most recent prior academic year to the start of the grant (2011-2012) making sure to identify a comparison group matching student demographic parameters such as race/ethnicity, gender, program of study, and age matched with the participant population of students at time of selection. This was done to concentrate efforts and offer greater incentives. • The comparison group provided a composite group of students who matched the T4E students very well since there had been no measurable change from the 2011-2012 academic year to the grant year 1 (2012-2013) participants. The comparison group reflected students who enrolled and completed a course or program; who

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
			enrolled and did not complete a course or program; and, who were and were not employed as a result of their experience in the applicable programs at KCKCC. • Statistical testing performed. Recognize low response rates may be non-results because small numbers may not detect differences.
DOL requests for verified data/changes to the accepted evaluation plan	• Program implementation • Evaluation implementation • Reliability • Internal Validity	• In addition to limitations and challenges mentioned previously, the school and the evaluation team encountered changing DOL expectations. As the evaluation team participated in DOL or national evaluation team webinars and regional conferences, we became aware of DOL requirement changes beyond what was originally accepted in our evaluation plan. The evaluation plan focused on self-reported employment outcomes. However, interactions and guidance from DOL stated the need for "verified" in the form of workforce development verified data, student submission of pay stubs, or other similar primary data sources. While DOL may be accustomed to requiring participants to submit verified employment data for participation in DOL programming, it is not a practice in community colleges.	• Followed DOL and OIG recommendations for counting. Followed FPO guidance received via T4E PM. The evaluation team attended national evaluation team webinars, local conferences, AEA national conference to learn about how other grantees were addressing the issue, and provided a template for the T4E employment coordinator to gather verified employment data, although the employment coordinator failed to follow the template. • The major challenge was DOL changing requirements that conflicted with the evaluation plan submitted and accepted. This involved being told by OIG that self-reported data were not considered a verifiable source for DOL required reporting and requiring different sources that were not in the original data plan. • No direct information to evaluators from DOL addressed the prior approval of the quasi-experimental design and survey data and conflicting changes. • Reliability – changing surveys; changing outcome definitions and required data. • Internal validity – changing definitions, goals.
Regional and National Evaluation Events	• Evaluation implementation	• Evaluation team attended meetings; tried to get involved in state-wide, consortium data sources; learned of AJLA from other KS grantees, not from DOL.	• Used information from other TAACCCT grantees about AJLA and sought agreement between KCKCC and AJLA for employment and wage data.
AJLA verified dates available	• Internal validity	• Contract dates • AJLA dates – two quarters following exit and in the previous year. • Had to use dummy exit dates for AJLA runs. This must be considered when interpreting results.	• AJLA from previous year was a small advantage as provided data for employment determined from retention data. • Internal validity - because comparison group is 3 years out from program, other causes could influence results. • AJLA data are verified data. • Due to both low survey response rates and DOL changing requirements for allowable sources, AJLA data an important resource.
AJLA - aggregate	• Internal validity	• Population data and not provided a standard deviation.	• Means testing not possible because of missing information about variability within the population.

T4E Program and Evaluation: Limitations and Challenges			
Limitation/Challenge	Implementation, Validity, Reliability or Other Issue	Description	Consideration/Solution
			• Chi-square testing is possible. • Wage data are best data available.
Operational Evaluation reliance on observation and qualitative data	• Reliability • Participant/Observer	• Evaluators attended Advisory Council meetings as allowed. • Participation/observation advisory meetings • Participated in orientations and events, acted on behalf of T4E, made observations • Conducted private interviews with TEC and T4E staff	• Tried to include what was observed and obtain documented evidence. • Some interviews with staff occurring prior to/while the DOL Review was being held. • Prepared interviews protocols and questions.
Independent external evaluation	• Evaluation implementation	• Role of evaluators placed in tenuous position with school and with DOL • Laser focus on goals (numbers) and not on growth and improvement of proposed program	• The external evaluators reported to the T4E PM and Advisory Council and not to the DOL. This blending of roles created tension when recommendations or findings were incongruent with what was desired by the program staff and/or DOL. • Evaluators are neither auditors nor compliance officers. Their role is to document and share findings for program improvements and to capture outcomes that represent the efforts of the program under study. • Evaluators attempted to engage T4E and relevant TEC staff and faculty in program improvement through reports, meetings, conference calls, presentations, participation in staff retreats, etc.

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