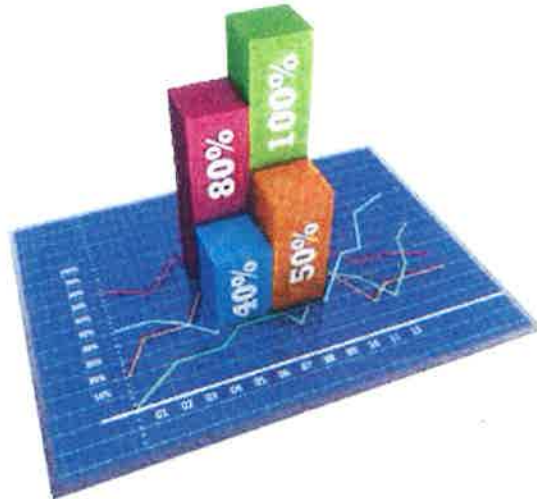


Southeastern Transportation Network (STN)

Developing Tomorrow's Transportation Workforce



Impact Analysis Methodologies and Procedures Handbook

Prepared by:

Technology Management Training Group
Dorothy W. Huston, Ph.D.
Founder/CEO

and

Edward L. Jones, Ph.D.
Lead Evaluator



GROUP INC.

Table of Contents

INTRODUCTION	3
Purpose of Handbook	3
Overview of Project	3
METHODOLOGY	4
Introduction	4
Correlation.	4
Regression and correlation analysis.	4
Regression Equation	4
Research Questions	5
Project Outcomes/Impact Questionnaire	5
Questionnaire	5
Student ID	5
Population ID	6
Scoring Criteria, Assessment Method & Responsible Person	7
Follow-up Information	18
Variables	18
Dependent & Independent Variables for Impact Analysis Multiple Regression Study	19
Procedures for Program Enrollment, Implementation, Follow-Up and Reporting	21
Instrument Validation	23
APPENDICES	
Appendix A: Project Outcomes/Impact Questionnaire	25
Appendix B: Outcome Measures Table	31
Appendix C: Outcomes and Predictors Designation Table	35

INTRODUCTION

Purpose of the Handbook

The primary purpose of this document is to provide a comprehensive guide in determining the appropriate methodology and process for preparing the “Developing Tomorrow’s Transportation Workforce” (DTTW) Impact Analysis reports and to provide a framework for all of the Consortium colleges’ impact analysis data collection procedures. Grant personnel at Consortium colleges shall use this document as a guide in preparing impact analysis reports that comply with the provisions of the DTTW grant, as well as with those set forth by the Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program. The data collected as a result of following the guidelines in this handbook, will be used to prepare formative and summative evaluations for the grant review process. The preparation and review process conducted by the TMT Group will be expedited when an impact analysis is completed in accordance with these guidelines. The goal of college personnel should be to collect high-quality data with the appropriate information set forth in the handbook. While personnel responsible for ensuring program viability will sometimes have different objectives and perspectives, all parties involved in the process should adhere to established ethics and conduct all analyses and reviews objectively and professionally.

Overview of Project

Lawson State Community College (LSCC) serving Birmingham and Bessemer, Alabama; **Atlanta Technical College (ATC)** serving Fulton and Clayton Counties in Georgia; **Central Louisiana Technical Community College (CLTCC)** serving nine parishes in Central Louisiana and **Copiah-Lincoln Community College (Co-Lin)** serving seven counties in Southwestern Mississippi from its main campus in Wesson (about 45 miles south of Jackson) and branch campuses in Natchez and Mendenhall have formed the Southeastern Transportation Network consortium, referred to herein as “the Consortium.” The Consortium’s purposes are to (1) support the increasingly high-wage, in-demand and technology-driven transportation field by preparing skilled job candidates through innovation education and career training programs, (2) maximize potential of the transportation industry to contribute to local employment and economic development, and (3) enhance the role of community colleges in local, statewide and regional economic development efforts. Targeted beneficiaries of training include TAA-eligible workers, veterans, unemployed adult workers, low-wage or underemployed incumbent workers, and other adults. The consortium is partnering with local and national employer organizations to provide a high paced, high quality curriculum focused on expanding and improving education and career training for transportation-related occupations.

METHODOLOGY

Introduction

One of the overarching goals of the project is to increase attainment of degrees, certifications, certificates, diplomas, and other industry-recognized credentials that match the skills needed by employers to better prepare workers eligible for training under the Trade Adjustment Assistance (TAA) for Workers Program (“TAA-eligible workers”) of chapter 2 of title II of the Trade Act of 1974, 19 U.S.C. 2271-2323, and other adults for high-wage, high-skill employment in growth industry sectors. The experimental design of the impact analysis will be used to determine if the evidence-based student support services proposed and used by Consortium colleges have the capacity to better retain, graduate and employ transportation workers.

Correlation

Correlation and regression analysis are related in the sense that both deal with relationships among variables. The correlation coefficient is a measure of linear association between two variables. Values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 indicates that two variables are perfectly related in a positive linear sense, a correlation coefficient of -1 indicates that two variables are perfectly related in a negative linear sense, and a correlation coefficient of 0 indicates that there is no linear relationship between the two variables. The study will first conduct a correlation between each dependent variable and all independent variables to determine if there is a significant relationship between the student support services and the production of graduates in the transportation programs. Microsoft Excel will be used to perform the correlation study. An absolute value for the correlation coefficient of 0.25 or above will be taken as being significant, meaning that there is at least a 95% chance (determined from an applicable statistical table) there is a true relationship between these variables in the population.

Regression and Correlation Analysis

The impact analysis will use multiple regression analysis to identify the relationship between project outcomes (dependent variables) and the proposed student support services (independent variables). A model of the relationship is hypothesized, and estimates of the parameter values are used to develop an estimated regression equation. The study will use Microsoft Excel to run a multiple regression analysis. The study will use the independent variables that have a significant correlation ($P=0.05$) as the predictors and use the dependent variables as the outcome. The study will use the estimated regression equation to predict the value of the dependent variable (either 1=Yes or 2=No) given values for the independent variables.

Regression Equation

As a result of the correlation and regression analysis, the study will propose a regression equation. Using the regression equation, the evaluators will be able to, for example, answer the question “Can a participant’s perseverance in a program of study be predicted by their level of engagement in the

proposed student support services?" The answer calculated from the equation will be either 1=Yes or 2=No after plugging in various levels of engagement in student support services obtained by using the *Project Outcomes/Impact Questionnaire* and that are shown to correlate with the outcome measures.

In multiple linear regression, the model used to describe the relationship between a single dependent variable y and multiple independent variables X is:

$$Y = a + bX_1 + bX_2 + bX_3 + \dots$$

where a = intercept, b = correlation coefficient and X = values of the extent to which a student engaged in a particular student service.

Neither regression nor correlation analyses can be interpreted as establishing cause-and-effect relationships. They can indicate only how or to what extent variables are associated with each other. The correlation coefficient measures only the degree of linear association between two variables. Any conclusions about a cause-and-effect relationship will be based on the judgment of the evaluator.

Research Questions

Using the statistical methods outlined above, the study is designed to answer the following research questions:

1. Is there a relationship between the nine (9) outcome measures of the study and the proposed student support services?
2. Can whether or not a student achieves a particular outcome measure be predicted by whether or not a student engaged in or the extent to which a student engaged in the proposed student support services?

Project Outcomes/Impact Questionnaire

Questionnaire

The *Project Outcomes/Impact Questionnaire* (Appendix A) is the instrument that will be used to collect the data for the Impact Analysis. The instrument is a 29-item questionnaire that collects demographic information on the student as well as information on the extent to which a student engaged in the proposed student support services. These student support services are postulated to be positively related to the retention, graduation and/or job placement of two-year college students.

Student ID

Every participant in the TAACCCT-funded project will be assigned a Student ID number. The student will be identified by the evaluator ONLY by the use of this number. The Student ID will be developed based on the notation [**College Abbreviation–Unique 3-digit number–Current SemesterYear**]. For example, a

student from Lawson State Community College first listed as a “unique participant” during the Fall 2014 term, could receive the following number: **LSCC-001-FA14**

Population ID

In order to ensure that regression analyses are performed for the correct population of participants, all participants will be placed in one or more population groups. A participant may appear in more than one population group. For example, if claims are made concerning the effect that a given student support service had on students pursuing a degree or certificate, we must be sure that the regression analysis was performed only on this population and not on students who are not pursuing a credential of any kind. However, students who are pursuing a degree or certificate can also be placed in the population of student who are pursuing a transportation program of study.

There are four (4) population groups in the impact analysis study. They are defined as follows:

P1= Eligible student for this program pursuing a degree or certificate in a transportation program of study

P2 = Eligible student for this program pursuing a transportation program of study

P3 = Eligible student for this program pursuing a program of study who was not employed in an applicable transportation industry (*Targeted Industries: Transportation [Auto, Marine, Motorcycle, Medium/Heavy Mobile Equipment/Diesel Maintenance and Repair]*)

P4 = Eligible student for this program pursuing a program of study who was employed in an applicable transportation industry (*Targeted Industries: Transportation [Auto, Marine, Motorcycle, Medium/Heavy Mobile Equipment/Diesel Maintenance and Repair]*)

Scoring Criteria, Assessment Method & Responsible Person

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>Item #5 Student engaged in an accelerated completion of remedial coursework (I-BEST) process. [CAREERPATHA]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student was not enrolled in an I-BEST program, OR ▪ Student enrolled, but dropped course(s) prior to participation OR ▪ Student was enrolled in an I-BEST program, but not engaged in course(s) due to frequent nonparticipation by absences or otherwise. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled AND engaged in an I-BEST program, but dropped course(s) prior to midterm <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled AND engaged in an I-BEST program, after midterm but dropped course(s) prior to the end of the term. <p><u>Assign value of "4" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled AND engaged in an I-BEST program for the entire semester/quarter. 	<ul style="list-style-type: none"> ▪ BANNER (ATC, CLTCC & LSCC) ▪ Alliant Management (Co-Lin) ▪ Course instructor(s) evaluation 	<p>Campus Project Manager</p>
<p>Item #6 Student explicitly engaged in one-on-one career counseling. [CAREERPATHB]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student NEVER engaged in explicit one-on-one career counseling. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in at least ONE-THIRD of the opportunities available for explicit one-on-one career counseling. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in at least TWO-THIRDS of the opportunities available for explicit one-on-one career counseling. <p><u>Assign value of "4" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in ALL opportunities available for explicit one-on-one career counseling 	<ul style="list-style-type: none"> ▪ Career Counseling sign-up sheets/logs (Appendix D) <p>Use Appendix D survey to determine the maximum number of times students may have had to engage in this activity (i.e. the maximum number of times a student did engage).</p>	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #7 Student explicitly engaged in activities to explore a gamut of career opportunities. [CAREERPATHC]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student NEVER engaged in explicit activities to explore a gamut of career opportunities. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in at least ONE-THIRD of the activities available to explore a gamut of career opportunities. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in at least TWO-THIRDS of the activities available to explore a gamut of career opportunities. <p><u>Assign value of "4" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in ALL activities available to explore a gamut of career opportunities. 	<ul style="list-style-type: none"> ▪ Career Counseling sign-up sheets/logs (Appendix D) <p>Use Appendix D survey to determine the maximum number of times students may have had to engage in this activity (i.e. the maximum number of times a student did engage).</p>	<p>Campus Project Manager</p>
<p>ITEM #8 Student explicitly engaged in activities to match their individual skills and interests to career possibilities. [CAREERPATHD]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student NEVER engaged in explicit activities to match their individual skills and interest to career possibilities. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in at least ONE-THIRD of the activities offered to match their individual skills and interests to career opportunities. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in at least TWO-THIRDS of the activities offered to match their individual skills and interests to career opportunities. <p><u>Assign value of "4" IF</u></p> <ul style="list-style-type: none"> ▪ Student engaged in ALL activities offered to match their individual skills and interests to career opportunities. 	<ul style="list-style-type: none"> ▪ Career Counseling sign-up sheets/logs (Appendix D) <p>Use Appendix D survey to determine the maximum number of times students may have had to engage in this activity (i.e. the maximum number of times a student did engage).</p>	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #9 Student was provided explicit assistance in selecting a program of study. [CAREERPATHE]</p>	<p>Assign value of "1" (YES) IF Student received explicit counseling from a counselor/student success coach when initially choosing their program of study. Assign value of "2" (NO) IF Student did not receive explicit counseling from a counselor/student success coach when initially choosing their program of study, but chose program according to their own interest/choice.</p>	<ul style="list-style-type: none"> ▪ Academic counseling records/logs (Appendix D) 	<p>Campus Project Manager</p>
<p>ITEM #10 Student received explicit information about the local job market. [CAREERPATHF]</p>	<p>Assign value of "1" (YES) IF Student received explicit information about the local job market from any institutional source. Student may also self-report that they obtained this information on their own from the career services, library or online sources. Assign value of "2" (NO) IF Student did not receive explicit information about the local job market from any institutional source. This includes a student's self-report that they did not receive information about the local job market.</p>	<ul style="list-style-type: none"> ▪ Career counseling records/log-in sheets (Appendix D) 	<p>Campus Project Manager</p>
<p>ITEM #11 Student was given explicit assistance with interview preparation. [CAREERPATHG]</p>	<p>Assign value of "1" (YES) IF Student received explicit assistance with interview preparation. Assign value of "2" (NO) IF Student did not receive explicit assistance with interview preparation.</p>	<ul style="list-style-type: none"> ▪ Career counseling records/log-in sheets (Appendix D) 	<p>Campus Project Manager</p>
<p>ITEM #12 Student was given explicit assistance with resume preparation. [CAREERPATHH]</p>	<p>Assign value of "1" (YES) IF Student received explicit assistance with resume preparation. Assign value of "2" (NO) IF Student did not receive explicit assistance with resume preparation.</p>	<ul style="list-style-type: none"> ▪ Career counseling records/log-in sheets (Appendix D) 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #13 Student engaged in explicit opportunities and was provided assistance in developing study skills. [SUCCESSSCOACHA]</p>	<p>Assign value of "1"(YES) IF Student engaged in explicit opportunities and was provided assistance in developing study skills. Assign value of "2" (NO) IF Student did not engage in explicit opportunities and was not provided assistance in developing study skills.</p>	<ul style="list-style-type: none"> ▪ Academic counseling/Student Success records/log-in sheets (Appendix D) 	<p>Campus Project Manager</p>
<p>ITEM #14 Student engaged in explicit opportunities/activities to learn time management and how to deal with personal issues. [SUCCESSSCOACHB]</p>	<p>Assign value of "1"(YES) IF Student engaged in explicit opportunities/activities to learn time management and how to deal with personal issues. Assign value of "2" (NO) IF Student did not engage in explicit opportunities/activities to learn time management and how to deal with personal issues.</p>	<ul style="list-style-type: none"> ▪ Academic counseling/Student Success records/log-in sheets (Appendix D) 	<p>Campus Project Manager</p>
<p>ITEM #15 While pursuing his/her program of study, student was engaged with and used a <i>lecture capture system</i> with instructional tools and resources. [TECHENHANCEA]</p>	<p>Assign value of "1" IF <ul style="list-style-type: none"> ▪ Student was NEVER engaged with or used a <i>lecture capture system</i> while pursuing his/her program of study. Assign value of "2" IF <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used a <i>lecture capture system</i> but dropped the course(s) 1 – 6 weeks into the term. Assign value of "3" IF <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used a <i>lecture capture system</i> but dropped the course(s) 7 – 15 weeks into the term. Assign value of "4" IF <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used a <i>lecture capture system</i> for the entire term. </p>	<ul style="list-style-type: none"> ▪ BANNER (ATC, CLTCC & LSCC) ▪ Alliant Management (Co-Lin) ▪ Course instructor(s) evaluation 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #16 While pursuing his/her program of study, student was engaged with and used <i>student support tutorials</i>. [TECHENHANCEB]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student was NEVER engaged with or used <i>student support tutorials</i> while pursuing his/her program of study. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used <i>student support tutorials</i> but dropped the course(s) 1 – 6 weeks into the term. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used <i>student support tutorials</i> but dropped the course(s) 7 – 15 weeks into the term. <p><u>Assign value of "4" IF</u> Student was enrolled in a course(s) that used <i>student support tutorials</i> for the entire term.</p>	<ul style="list-style-type: none"> ▪ BANNER (ATC, CLTCC & LSCC) ▪ Alliant Management (Co-Lin) ▪ Course instructor records 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #17 While pursuing his/her program of study, an <i>online alert system</i> was used to track this student's progress. [TECHENHANGEC]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student was NEVER engaged with or used an <i>online alert system</i> to track their progress while pursuing his/her program of study. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student was: <ol style="list-style-type: none"> 1. enrolled in a program of study 2. an <i>online alert system</i> was used to track the student's progress 3. the student received counseling as a result of the online system's alert 4. but, student withdrew from program of study 1 – 6 weeks into the term. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student was: <ol style="list-style-type: none"> 1. enrolled in a program of study 2. an <i>online alert system</i> was used to track the student's progress 3. the student received counseling as a result of the online system's alert 4. but, student withdrew from program of study 7 – 15 weeks into the term. <p><u>Assign value of "4" IF</u></p> <ul style="list-style-type: none"> ▪ Student was: <ol style="list-style-type: none"> 1. enrolled in a program of study 2. an <i>online alert system</i> was used to track the student's progress 3. the student received counseling as a result of the online system's alert 4. enroll in school the entire term. 	<ul style="list-style-type: none"> ▪ BANNER (ATC, CLTCC & LSCC) ▪ Alliant Management (Co-Lin) ▪ Academic Counseling/Student Success records ▪ Course instructor records 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #18 While pursuing his/her program of study, student used <i>Massive Open Online Courses (MOOCs)</i> to acquire program content. [TECHENHANCED]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student NEVER used <i>MOOCs</i> to acquire program content while pursuing his/her program of study. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student used <i>MOOCs</i> to acquire program content while pursuing his/her program of study but discontinued the use of <i>MOOCs</i> after at least ONE-THIRD of the online courses were completed. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student used <i>MOOCs</i> to acquire program content while pursuing his/her program of study but discontinued the use of <i>MOOCs</i> after at least TWO-THIRDS of the online courses were completed. <p><u>Assign value of "4" IF</u></p> <ul style="list-style-type: none"> ▪ Student used <i>MOOCs</i> to acquire program content while pursuing his/her program of study and successfully completed the online courses. 	<ul style="list-style-type: none"> ▪ Course instructor records 	<p>Campus Project Manager</p>
<p>ITEM #19 Student was given the opportunity to use videoconferencing to engage in real-time instructor-student interaction. [TECHENHANCEE]</p>	<p><u>Assign value of "1" IF</u></p> <ul style="list-style-type: none"> ▪ Student was NEVER engaged with real-time videoconferencing with his/her instructor. <p><u>Assign value of "2" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used <i>real-time videoconferencing</i> but dropped the course(s) 1 – 6 weeks into the term. <p><u>Assign value of "3" IF</u></p> <ul style="list-style-type: none"> ▪ Student was enrolled in a course(s) that used real-time videoconferencing but dropped the course(s) 7 – 15 weeks into the term. <p><u>Assign value of "4" IF</u> Student was enrolled in a course(s) that used <i>real-time videoconferencing</i> for the entire term.</p>	<ul style="list-style-type: none"> ▪ BANNER (ATC, CLTCC & LSCC) ▪ Alliant Management (Co-Lin) ▪ Course instructor records 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #20 Student used <i>virtual trainers</i> to develop “hands-on” skills virtually before practicing on actual equipment. [TECHENHANCEF]</p>	<p><u>Assign value of “1” IF</u></p> <ul style="list-style-type: none"> ▪ Student was NEVER engaged with or used <i>virtual trainers</i> to develop “hands-on” skills virtually before practicing on actual equipment while pursuing his/her program of study. <p><u>Assign value of “2” IF</u></p> <ul style="list-style-type: none"> ▪ Student was engaged with and used <i>virtual trainers</i> to develop “hands-on” skills virtually before practicing on actual equipment ONE-THIRD of the allotted time (e.g. if 9 hours of instructional time was allotted for virtual training, the student was engaged for 3 hours). <p><u>Assign value of “3” IF</u></p> <ul style="list-style-type: none"> ▪ Student was engaged with and used <i>virtual trainers</i> to develop “hands-on” skills virtually before practicing on actual equipment TWO-THIRDS of the allotted time (e.g. if 9 hours of instructional time was allotted for virtual training, the student was engaged for 6 hours). <p><u>Assign value of “4” IF</u></p> <ul style="list-style-type: none"> ▪ Student was engaged with and used <i>virtual trainers</i> to develop “hands-on” skills virtually before practicing on actual equipment ALL of the allotted time (e.g. if 9 hours of instructional time was allotted for virtual training, the student was engaged for 9 hours). 	<ul style="list-style-type: none"> ▪ Course instructor records 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #21 Student has been awarded credit for prior learning, work-based experience, or non-credit courses while pursuing his/her program of study. [PRIORLRN]</p>	<p><u>Assign value of "1" (YES) IF</u> Student has been awarded credit for prior learning, work-based experience, or non-credit courses while pursuing his/her program of study. <u>Assign value of "2" (NO) IF</u> Student has not been awarded credit for prior learning, work-based experience, or non-credit courses while pursuing his/her program of study.</p>	<ul style="list-style-type: none"> ▪ BANNER (ATC, CLTCC & LSCC) ▪ Alliant Management (Co-Lin) 	<p>Campus Project Manager</p>
<p>ITEM #22 Competency-based and/or skills-based exams have been used with student in program to help him/her demonstrate proficiency while pursuing his/her program of study. [COMPASCW]</p>	<p><u>Assign value of "1" (YES) IF</u> Student has used competency-based and/or skills-based exams to demonstrate proficiency while pursuing his/her program of study. <u>Assign value of "2" (NO) IF</u> Student has not used competency-based and/or skills-based exams to demonstrate proficiency while pursuing his/her program of study.</p>	<ul style="list-style-type: none"> ▪ Academic/Student Success Counseling records 	<p>Campus Project Manager</p>
<p>ITEM #23 Student has been delivered course content using <i>modularized curricula</i> while pursuing his/her program of study. [MODCURR]</p>	<p><u>Assign value of "1" (YES) IF</u> Student has been delivered course content using <i>modularized curricula</i> while pursuing his/her program of study. <u>Assign value of "2" (NO) IF</u> Student has not been delivered course content using <i>modularized curricula</i> while pursuing his/her program of study.</p>	<ul style="list-style-type: none"> ▪ Academic/Student Success Counseling records 	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible for Collecting Data
<p>ITEM #24 Student is pursuing interconnecting credentials that can be stacked and latticed while pursuing his/her program of study.</p>	<p>Assign value of "1"(YES) IF Student is pursuing interconnecting credentials that can be stacked and latticed while pursuing his/her program of study. Assign value of "2" (NO) IF Student is not pursuing interconnecting credentials that can be stacked and latticed while pursuing his/her program of study.</p>	<p>Academic/Student Success Counseling records</p>	<p>Campus Project Manager</p>
<p>ITEM #25 Student has used non-credit coursework to pursue a credit-bearing credential while pursuing his/her program of study.</p>	<p>Assign value of "1"(YES) IF Student has used non-credit coursework to pursue a credit-bearing credential while pursuing his/her program of study. Assign value of "2" (NO) IF Student has not used non-credit coursework to pursue a credit-bearing credential while pursuing his/her program of study.</p>	<p>Academic/Student Success Counseling records</p>	<p>Campus Project Manager</p>
<p>ITEM #26 Student participated in employer internship/co-op programs while pursuing his/her program of study.</p>	<p>Assign value of "1"(YES) IF Student participated in employer internship/co-op programs while pursuing his/her program of study. Assign value of "2" (NO) IF Student has not used non-credit coursework to pursue a credit-bearing credential while pursuing his/her program of study.</p>	<p>Career counseling records/log-in sheets</p>	<p>Campus Project Manager</p>
<p>ITEM #27 Student engaged in explicit opportunities to tour applicable work environments while pursuing his/her program of study.</p>	<p>Assign value of "1"(YES) IF Student engaged in explicit opportunities to tour applicable work environments while pursuing his/her program of study. Assign value of "2" (NO) IF Student has not engaged in explicit opportunities to tour applicable work environments while pursuing his/her program of study.</p>	<p>Career counseling records/log-in sheets</p>	<p>Campus Project Manager</p>

Table 1. Scoring Criteria, Assessment Method & Person Responsible for Project Outcome/Impact Questionnaire (continued)

Student Support Service	Score Assignment Criteria	Assessment Method	Person Responsible
<p>ITEM #28 Student engaged in explicit mentoring opportunities with an industry professional while pursuing his/her program of study. [WRKBASEINTRNC]</p>	<p><u>Assign value of "1"</u> (YES) IF Student has engaged in explicit mentoring opportunities with an industry professional while pursuing his/her program of study. <u>Assign value of "2"</u> (NO) IF Student has not engaged in explicit mentoring opportunities with an industry professional while pursuing his/her program of study.</p>	<ul style="list-style-type: none"> ▪ Career counseling records/log-in sheets 	<p>Campus Project Manager</p>
<p>ITEM #29 Student has seamlessly transferred credit acquired from his/her program of study to another higher education institution. [TRANSFER]</p>	<p><u>Assign value of "1"</u> (YES) IF Student has seamlessly transferred credit acquired from his/her program of study to another higher education institution. <u>Assign value of "2"</u> (NO) IF Student has not seamlessly transferred credit acquired from his/her program of study to another higher education institution. (NOTE: Give student this score even if they transferred credit, but experienced difficulty (non-seamless) doing so.)</p>	<ul style="list-style-type: none"> ▪ Academic/Student Success Counseling records 	<p>Campus Project Manager</p>

Follow-up Information

The Follow-up Information for each participant is to be recorded at the conclusion of an academic term. The information is to be recorded by the Campus Project Manager. In addition, if a student has acquired a job for the term after completing enrollment in the program, the name and contact information for the employer is to be recorded in the follow-up information.

The coding for the follow-up information is as follows:

<p>Student Outcome Measure Code at Completion of Term:</p> <ul style="list-style-type: none"><input type="checkbox"/> Completed a TAACCCT-Funded Program of Study (COMY)<input type="checkbox"/> Did not Complete a TAACCCT-Funded Program of Study, But Still Enrolled (RETY)<input type="checkbox"/> Completed Any Number of Credit Hours to Date (COMHY)<input type="checkbox"/> Earned Degree or Certificate (EARNCY)<input type="checkbox"/> Completed TAACCCT-Funded Program and Entered Another Program of Study (FEDY)<input type="checkbox"/> Completed TAACCCT-Funded Program and Employed in Term after Term Completion (EMPY)<input type="checkbox"/> Retained in Employment 2nd and 3rd Term After Term of Program Completion (EMPRY)<input type="checkbox"/> Received and Increase in Wages After Enrollment (EMPENY)
<p>Name & Address of Industry Employer:</p>

Variables

The impact analysis will use multiple regression analysis to identify the relationship between project outcomes (dependent variables) and the proposed student support services (independent variables). Table 2 below identifies the Dependent Variables (Project Outcomes) and Independent Variables (Proposed Student Support Services) for the impact analysis study.

Table 2. Dependent and Independent Variables for Impact Analysis Multiple Regression Study

Direct Variables (Outcomes)	Indirect Variables (Predictors)
Total Number of Participants Completing a TAACCCT-Funded Program of Study [DEGREECOMPL]	Accelerated completion of remedial coursework (I-BEST) process. [CAREERPATHA]
Total Number of Participants Still Retained in Their Program of Study or Other TAACCCT-Funded Program [PERSEVERE]	Receiving one-on one career counseling. [CAREERPATHB]
Total Number of Participants Completing Credit Hours [CREDCOMPL]	Receiving opportunities to explore a gamut of career opportunities. [CAREERPATHC]
Total Number of Participants Earning Credentials [CREDEARND]	Receiving opportunities to match individual skills and interests to career possibilities. [CAREERPATHD]
Total Number of Participants Enrolled in Further Education After TAACCCT-funded Program of Study Completion [FURTHERED]	Receiving assistance in selecting a program of study. [CAREERPATHE]
Total Number of Participants Employed After TAACCCT-funded Program of Study Completion [EMPLOYGAIN]	Receiving information about the local job market. [CAREERPATHF]
Total Number of Participants Retained in Employment After Program of Study Completion [EMPLOYRETAIN]	Receiving assistance with interview preparation. [CAREERPATHG]
Total Number of Those Participants Employed at Enrollment Who Received a Wage Increase Post-Enrollment [WAGEINCR]	Receiving assistance with resume preparation. [CAREERPATHH]
	Receiving opportunities to develop study skills. [SUCCESSCOACHA]
	Receiving in opportunities to learn time management and how to deal with personal issues. [SUCCESSCOACHB]
	Receiving opportunities to use a <i>lecture capture system</i> with instructional tools and resources. [TECHENHANCEA]
	Receiving opportunities to use <i>student support tutorials</i> . [TECHENHANCEB]
	Receiving opportunities to use an <i>online alert system</i> to track student's progress. [TECHENHANCEC]
	Receiving opportunities to use <i>Massive Open Online Courses (MOOCs)</i> to acquire program content. [TECHENHANCED]
	Receiving opportunities to use videoconferencing to engage in real-time instructor-student interaction. [TECHENHANCEE]
	Receiving opportunities to use <i>virtual trainers</i> to develop "hands-on" skills virtually before practicing on actual equipment. [TECHENHANCEF]
	Awarding credit for prior learning, work-based experience, or non-credit courses. [PRIORLRN]
	Using competency-based and/or skills-based exams to demonstrate proficiency. [COMPBASCW]
	Using <i>modularized curricula</i> while program of study. [MODCURR]
	Pursuing interconnecting credentials that can be stacked and latticed while pursuing his/her program of study. [INTERCRED]
	Using non-credit coursework to pursue a credit-bearing credential. [NTOCCRED]
	Participating in employer internship/co-op programs. [WRKBASEITRNA]
	Receiving opportunities to tour applicable work environments. [WRKBASEITRNB]
	Receiving mentoring opportunities with an industry professional. [WRKBASEITRNC]
	Transferring seamlessly credit acquired from program of study to another higher education institution. [TRANSFER]

Procedures for Program Enrollment, Implementation, Follow-Up and Reporting

Enrollment

1. Student eligibility determined.
 - a. Pursuing a program of study in transportation industry (NAICS #48-49)
2. Student enrolls at consortium college
 - a. Campus Project Manager establishes file for each eligible student.
 - i) File contains Enrollment Form
 - ii) File contains *Project Outcomes/ Impact Questionnaire*
 - a) Complete "Project Identification & Demographics Information"

Implementation

1. Campus Project Manager maintains relevant documentation of student's involvement in proposed support services.
 - a. Place documentation in file
 - b. Indicate source of documentation
 - c. Provide date of documentation
 - d. Score appropriate Items 5-29 based on documentation
2. At completion of term, Campus Project Manager will ensure Items 5-29 of the *Project Outcomes/Impact Questionnaire* are appropriately completed for EACH participant
3. At completion of term, Campus Project Manager will complete Follow-up Information.
4. Campus Project Manager will mark for appropriate follow-up all students coded as EMPY, EMPRY & EMPENY.
5. Campus Project Manager will complete the *Outcome Measures Table* for their college.
6. Campus Project Manager will enter all data on provided Microsoft Excel spreadsheet.

Follow-Up

1. Campus Project Manager will follow-up on EMPY, EMPRY and EMPENY coded students as applicable.
2. Campus Project Manager will report follow-up findings during next applicable reporting period.

Reporting

1. Campus Project Manager forwards completed Microsoft Excel spreadsheet to Consortium Project Coordinator.
2. Consortium Project Coordinator combines data from all colleges on to one Microsoft Excel spreadsheet.
3. Consortium Project Coordinator forwards Microsoft Excel spreadsheet will all colleges information combined to the External Evaluator.
4. External Evaluator produces formative and summative evaluation reports.

Instrument Validation

We are attempting to study the effect that the *extent of student engagement* in the proposed student support services has on the outcomes of the project. Therefore, we must be sure that the questionnaire used actually measures *extent of engagement*. In other words, the questionnaire needs to be validated. We will develop a survey to be used particularly for this project. In so doing, we will use the process proposed by Radhakrishna, R. B. (2007)¹ to develop and validate the survey. That process is listed below.

Step 1--Background

In this initial step, the purpose, objectives, research questions, and hypothesis of the proposed research are examined. Determining who is the audience, their background, especially their educational/readability levels, access, and the process used to select the respondents (sample vs. population) are also part of this step. A thorough understanding of the problem through literature search and readings is a must. Good preparation and understanding of Step 1 provides the foundation for initiating Step 2.

Step 2--Questionnaire Conceptualization

After developing a thorough understanding of the research, the next step is to generate statements/questions for the questionnaire. In this step, content (from literature/theoretical framework) is transformed into statements/questions. In addition, a link among the objectives of the study and their translation into content is established. For example, the researcher must indicate what the questionnaire is measuring, that is, knowledge, attitudes, perceptions, opinions, recalling facts, behavior change, etc. Major variables (independent, dependent, and moderator variables) are identified and defined in this step.

Step 3--Format and Determine Data Analysis Technique

In Step 3, the focus is on writing statements/questions, selection of appropriate scales of measurement, questionnaire layout, format, question ordering, font size, front and back cover, and proposed data analysis. Scales are devices used to quantify a subject's response on a particular variable. Understanding the relationship between the level of measurement and the appropriateness of data analysis is important. For example, if ANOVA (analysis of variance) is one mode of data analysis, the independent variable must be measured on a nominal scale with two or more levels (yes, no, not sure), and the dependent variable must be measured on an interval/ratio scale (strongly agree to strongly disagree).

Step 4--Establishing Validity

As a result of Steps 1-3, a draft questionnaire is ready for establishing validity. Validity is the amount of systematic or built-in error in measurement. Validity is established using a panel of experts and a field test. Which type of validity (content, construct, criterion, and face) to use depends on the objectives of the study. We will ask our panel of raters (i.e. the CPMs) to address the following questions:

1. Is the questionnaire valid? In other words, is the questionnaire measuring what it intended to measure?

¹ Radhakrishna, R. B. (2007). Tips for developing and testing questionnaires/instruments. *Journal of Extension*, 45(1), 1-4.

2. Does it represent the content?
3. Is it appropriate for the sample/population?
4. Is the questionnaire comprehensive enough to collect all the information needed to address the purpose and goals of the study?
5. Does the instrument look like a questionnaire?

We will initially rely on **face validity**, particularly for the *Project/Outcomes Impact Questionnaire*. That is, we will be content with the notion that the instrument as developed or amended after the CPMs have analyzed and offered suggestions, seems to measure what it intends to measure. Because of the specificity of this particular research project (i.e. observational analysis of *extent of engagement with* the proposed student support services, a previously validated instrument for measuring *extent of engagement* has yet to be found. Therefore, attempts at determining, for example, construct validity of the instrument is not possible at this point prior to the instrument's administration.

Step 5--Establishing Reliability

Reliability indicates the accuracy or precision of the measuring instrument. The pilot test seeks to answer the question, does the questionnaire consistently measure whatever it measures?

To determine the reliability of the *Project Outcomes/Impact Questionnaire*, we will have each of the Campus Program Managers (CPMs) who will be the individuals rating the survey, to use the same case study of a hypothetical student. Using the criteria listed in Table 1, each of the CPMs will use the questionnaire to rate the hypothetical student (see Appendix D). The CPMs will do this separately and individually. We will then determine the interrater reliability for the test administration among these raters.

Appendix A
Project Outcomes/Impact Questionnaire

Project Outcomes/Impact Questionnaire

Survey is completed for unique participants. That is this survey should only be completed once for a student during their entire time in the program.

Participant Identification and Demographic Information

Student ID:	Population ID (P1, P2, P3, P4):
College:	Semester:

Student ID: [College Abbreviation-Unique 3-digit Number-Current SemesterYear] (e.g. LSCC-001-FA14)

P1= Eligible student for this program pursuing a degree or certificate in a transportation program of study

P2 = Eligible student for this program pursuing a transportation program of study

P3 = Eligible student for this program pursuing a program of study who was not employed in an applicable transportation industry (*Targeted Industries: Transportation [Auto, Marine, Motorcycle, Medium/Heavy Mobile Equipment/Diesel Maintenance and Repair]*)

P4 = Eligible student for this program pursuing a program of study who was employed in an applicable transportation industry (*Targeted Industries: Transportation [Auto, Marine, Motorcycle, Medium/Heavy Mobile Equipment/Diesel Maintenance and Repair]*)

1. What is the student's gender?
 1. Male
 2. Female

2. What is the student's approximate age range?
 1. 15 – 19 years old
 2. 20 – 24 years old
 3. 25 – 39 years old
 4. 40 – 59 years old
 5. 60 – 79 years old

3. What is the educational attainment of the student?
 1. High school diploma
 2. GED
 3. No high school diploma or GED

4. What is the student's race/ethnicity?
 1. Black/African-American non-Hispanic
 2. White/Caucasian non-Hispanic
 3. American Indian/Alaska Native
 4. Asian
 5. Pacific Islander
 6. Other
 7. Multiple Races
 8. Hispanic

Survey Item (Predictors)	Scale			
	None	Some	Majority	All
Career Pathways [CAREERPATH]				
1 – None of the time: Student participated NONE of the times.				
2 – Some of the time: Student participated at least ONE-THIRD of the times.				
3 – Majority of the time: Student participated at least TWO-THIRD of the times.				
4 – All of the time: Student participated ALL of the times.				
5. Student engaged in an accelerated completion of remedial coursework (I-BEST) process. [CAREERPATHA]	1	2	3	4
6. Student explicitly engaged in one-on one career counseling. [CAREERPATHB]	1	2	3	4
7. Student was given explicit chances to explore a gamut of career opportunities. [CAREERPATHC]	1	2	3	4
8. Student was given explicit opportunities to match their individual skills and interests to career possibilities. [CAREERPATHD]	1	2	3	4
9. Student was provided explicit assistance in selecting a program of study. [CAREERPATHE]	1 = YES		2 = NO	
10. Student received explicit information about the local job market. [CAREERPATHF]	1 = YES		2 = NO	
11. Student was given explicit assistance with interview preparation. [CAREERPATHG]	1 = YES		2 = NO	
12. Student was given explicit assistance with resume preparation. [CAREERPATHH]	1 = YES		2 = NO	
Success Coaching [SUCCESSCOACH]				
13. Student engaged in explicit opportunities and was provided assistance in developing study skills. [SUCCESSCOACHA]	1	2	3	4
14. Student engaged in explicit opportunities/activities to learn time management and how to deal with personal issues. [SUCCESSCOACHB]	1	2	3	4
15. While pursuing his/her program of study, student was engaged with and used a <i>lecture capture system</i> with instructional tools and resources. [TECHENHANCEA]	1	2	3	4
16. While pursuing his/her program of study, student was engaged with and used <i>student support tutorials</i> . [TECHENHANCEB]	1	2	3	4
17. While pursuing his/her program of study, an <i>online alert system</i> was used to track this student's progress. [TECHENHANCEC]	1	2	3	4
18. While pursuing his/her program of study, student used <i>Massive Open Online Courses (MOOCs)</i> to acquire program content. [TECHENHANCED]	1	2	3	4

Survey Item (Predictors)	Scale			
	None	Some	Majority	All
Career Pathways [CAREERPATH]				
1 – None of the time: Student participated NONE of the times. 2 – Some of the time: Student participated at least ONE-THIRD of the times. 3 – Majority of the time: Student participated at least TWO-THIRD of the times. 4 – All of the time: Student participated ALL of the times.				
19. Student was given the opportunity to use videoconferencing to engage in real-time instructor-student interaction. [TECHENHANCEE]	1	2	3	4
20. Student used <i>virtual trainers</i> to develop “hands-on” skills virtually before practicing on actual equipment. [TECHENHANCEF]	1	2	3	4
Prior Learning Assessment [PRIORLRN]				
21. Student has been awarded credit for prior learning, work-based experience, or non-credit courses while pursuing his/her program of study. [PRIORLRN]	1 = Yes		2 = No	
Competency-Based Coursework [COMPBASCW]				
22. Competency-based and/or skills-based exams have been used with student in program to help him/her demonstrate proficiency while pursuing his/her program of study. [COMPBASCW]	1 = Yes		2 = No	
Modularized Curricula [MODCURR]				
23. Student has been delivered course content using <i>modularized curricula</i> while pursuing his/her program of study. [MODCURR]	1 = Yes		2 = No	
Interconnected Credentials [INTERCRED]				
24. Student is pursuing interconnecting credentials that can be stacked and latticed while pursuing his/her program of study. [INTERCRED]	1 = Yes		2 = No	
Non-Credit to Credit-Bearing Credentials [NCTOCCRED]				
25. Student has used non-credit coursework to pursue a credit-bearing credential while pursuing his/her program of study. [NCTOCCRED]	1 = Yes		2 = No	
Work-Based Training [WRKBASETRN]				
26. Student participated in employer internship/co-op programs while pursuing his/her program of study. [WRKBASEITRNA]	1 = Yes		2 = No	

Survey Item (Predictors)	Scale			
	None	Some	Majority	All
Career Pathways [CAREERPATH]				
1 – None of the time: Student participated NONE of the times.				
2 – Some of the time: Student participated at least ONE-THIRD of the times.				
3 – Majority of the time: Student participated at least TWO-THIRD of the times.				
4 – All of the time: Student participated ALL of the times.				
27. Student engaged in explicit opportunities to tour applicable work environments while pursuing his/her program of study. [WRKBASEITRNB]	1 = Yes		2 = No	
28. Student engaged in explicit mentoring opportunities with an industry professional while pursuing his/her program of study. [WRKBASEITRNC]	1 = Yes		2 = No	
Transferability of Credit between Institutions [TRANSFER]				
29. Student has seamlessly transferred credit acquired from his/her program of study to another higher education institution. [TRANSFER]	1 = Yes		2 = No	

Follow-up Information

<p>Student Outcome Measure Code at Completion of Term:</p> <p><input type="checkbox"/> Completed a TAACCCT-Funded Program of Study (COMY)</p> <p><input type="checkbox"/> Did not Complete a TAACCCT-Funded Program of Study, But Still Enrolled (RETY)</p> <p><input type="checkbox"/> Completed Any Number of Credit Hours to Date (COMHY)</p> <p><input type="checkbox"/> Earned Degree or Certificate (EARNCY)</p> <p><input type="checkbox"/> Completed TAACCCT-Funded Program and Entered Another Program of Study (FEDY)</p> <p><input type="checkbox"/> Completed TAACCCT-Funded Program and Employed in Term after Term Completion (EMPY)</p> <p><input type="checkbox"/> Retained in Employment 2nd and 3rd Term After Term of Program Completion (EMPRY)</p> <p><input type="checkbox"/> Received and Increase in Wages After Enrollment (EMPENY)</p>
<p>Name & Address of Industry Employer:</p>

Appendix B
Outcome Measures Table

Outcome Measures Table

	Outcome Measure	Targets for All Participants		Actuals for All Participants	
1	Total Unique Participants Served [TPSY] Cumulative total number of individuals entering any of the grant-funded programs offered.	Year 1: 200 Year 2: 250 Year 3: 300	Total: 750	Year 1: Year 2: Year 3:	Total:
2	Total Number of Participants Completing a TAACCCT-Funded Program of Study [COMY] Number of unique participants having earned all of the credit hours (formal award units) needed for the award of a degree or certificate in any grant-funded program.	Year 1: 120 Year 2: 185 Year 3: 200	Total: 505	Year 1: Year 2: Year 3:	Total:
3	Total Number of Participants Still Retained in Their Program of Study or Other TAACCCT-Funded Program [RETY] Number of unique participants enrolled who did not complete and are still enrolled in a grant-funded program of study	Year 1: 52 Year 2: 80 Year 3: 87	Total: 219	Year 1: Year 2: Year 3:	Total:
4	Total Number of Participants Completing Credit Hours [COMHY] Total number of students enrolled that have completed any number of credit hours to date	Year 1: 83 Year 2: 138 Year 3: 166	Total: 387	Year 1: Year 2: Year 3:	Total:
5	Total Number of Participants Earning Credentials [EARNCY] Aggregate number of degrees and certificates completed by participants in grant-funded programs of study	Year 1: 75 Year 2: 125 Year 3: 150	Total: 350	Year 1: Year 2: Year 3:	Total:
6	Total Number of Participants Enrolled in Further Education After TAACCCT-funded Program of Study Completion [FEDY] Total number of students who complete a grant-funded program of study and enter another program of study	Year 1: 45 Year 2: 75 Year 3: 90	Total: 210	Year 1: Year 2: Year 3:	Total:
7	Total Number of Participants Employed After TAACCCT-funded Program of Study Completion [EMPY] Total number of students (non-incumbent workers only) who completed a grant-funded program of study entering employment in the quarter after the quarter of program exit	Year 1: 88 Year 2: 160 Year 3: 178 Year 4: 0 (follow-up only)	Total: 426	Year 1: Year 2: Year 3: Year 4: (follow-up only)	Total:
8	Total Number of Participants Retained in Employment After Program of Study Completion [EMPRY] Total number of students (non-incumbent workers only) who completed a grant-funded program of study and who entered employment in the quarter after the quarter of program exit who retain employment in the second and third quarter after program exit	Year 1: 80 Year 2: 130 Year 3: 162 Year 4: 0 (follow-up only)	Total: 372	Year 1: Year 2: Year 3: Year 4: (follow-up only)	Total:
9	Total Number of Those Participants Employed at Enrollment Who Received a Wage Increase Post-Enrollment [EMPENY] Total number of students who are incumbent workers and who enrolled in a grant-funded program of study who receive an increase in wages after enrollment	Year 1: 52 Year 2: 87 Year 3: 105 Year 4: 50 (follow-up only)	Total: 294	Year 1: Year 2: Year 3: Year 4: (follow-up only)	Total:

Appendix C
Outcomes and Predictors Designation Table

Outcome Number	<p>Dependent Variable (DV) (Outcome)</p> <p>Total Number of Participants Completing a TAACCCT-Funded Program of Study [DEGREECOMPL] Number of unique participants having earned all of the credit hours (formal award units) needed for the award of a degree or certificate in any grant-funded program</p> <p>Can a participant's <i>degree completion</i> be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a degree or certificate (P1)</p>	DV	[TOTALPARTICIP]	PARTICIPANT EARNS ALL CREDIT HOURS NEEDED FOR THE AWARD OF A DEGREE OR CERTIFICATE (1=YES; 2=NO)																	
<p>Independent Variable (Predictor)</p>		[CAREERPATH]	Career Pathways (a-h)	[SUCCESSCOACH]	Success Coaching (a-b)	[PRIORLRN]	Prior Learning Assessment (a)	[COMPASCW]	Competency-Based Coursework (a)	[MODCURR]	Modularized Curricula (a)	[INTERCRED]	Interconnected Credentials (a)	[NCTOCRED]	Non-Credit to Credit-Bearing Credentials (a)	[TRANSFER]	Transferability of Credit between Institutions (a-b)	[TECHENHANCE]	Technology-Enhancements (a-f)	[WRKBASETRN]	Work-based Training (a-c)

Outcome Number	<p style="text-align: center;">Dependent Variable (DV) (Outcome)</p> <p>Total Number of Participants Still Retained in Their Program of Study or Other TAACCT-Funded Program [PERSEVERE] Number of unique participants enrolled who did not complete and are still enrolled in a grant-funded program of study</p> <p>Can a participant's <u>perseverance in a program of study</u> be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a program of study (P2)</p>	3	<p style="text-align: center;">DV</p> <p style="text-align: center;">Independent Variable (Predictor)</p>	[PERSEVERE]	PARTICIPANT NOT COMPLETING PROGRAM OF STUDY AND STILL ENROLLED IN PROGRAM OF STUDY (1=YES; 2=NO)				
[CAREERPATH]				[SUCCESSCOACH]	[PRIORLRN]	[COMPBASCW]	[MODCURR]	[INTERCRED]	[NCTOCCRED]
Career Pathways (a-h)	Success Coaching (a-b)	Prior Learning Assessment (a)	Competency-Based Coursework (a)	Modularized Curricula (a)	Interconnected Credentials (a)	Non-Credit to Credit-Bearing Credentials (a)	Transferability of Credit between Institutions (a-b)	Technology-Enhancements (a-f)	Work-based Training (a-c)

Outcome Number	<p>Dependent Variable (DV) (Outcome)</p> <p>Total Number of Participants Completing Credit Hours [CREDCOMPL] Total number of students enrolled that have completed any number of credit hours to date</p> <p>Can a participant's <i>credit hour completion</i> be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a program of study (P2)</p>	DV	[CREDCOMPL]	PARTICIPANT HAS COMPLETED ANY NUMBER OF CREDIT HOURS (1=YES; 2=NO)	[CAREERPATH]	Career Pathways (a-h)	Success Coaching (a-b)	[PRIORLRN]	Prior Learning Assessment (a)	[COMPASCW]	Competency-Based Coursework (a)	[MODCURR]	Modularized Curricula (a)	[INTERCRED]	Interconnected Credentials (a)	[NCTOCRED]	Non-Credit to Credit-Bearing Credentials (a)	[TRANSFER]	Transferability of Credit between Institutions (a-b)	[TECHENHANCE]	Technology-Enhancements (a-f)	[WRKBASETNRN]	Work-based Training (a-c)
4																							

Outcome Number	<p style="text-align: center;">Dependent Variable (DV) (Outcome)</p> <p style="text-align: center;">Total Number of Participants Earning Credentials [CREDEARND]</p> <p>Aggregate number of degrees and certificates completed by participants in grant-funded programs of study</p> <p>Can the <i>number of degrees and certificates</i> earned by participants be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a degree or certificate. (P1)</p>	DV	Independent Variable (Predictor)
5			
	Career Pathways (a-h)	[CAREERPATH]	
	Success Coaching (a-b)	[SUCCESSCOACH]	
	Prior Learning Assessment (a)	[PRIORLRN]	
	Competency-Based Coursework (a)	[COMPBASCW]	
	Modularized Curricula (a)	[MODCURR]	
	Interconnected Credentials (a)	[INTERCRED]	
	Non-Credit to Credit-Bearing Credentials (a)	[NCTOCCRED]	
	Transferability of Credit between Institutions (a-b)	[TRANSFER]	
	Technology-Enhancements (a-f)	[TECHENHANCE]	
	Work-based Training (a-c)	[WRKBASETRN]	

Outcome Number	Dependent Variable (DV) (Outcome)	Independent Variable (Predictor)
6	<p>Total Number of Participants Enrolled in Further Education After TAACCCT-funded Program of Study Completion [FURTHERED]</p> <p>Total number of students who complete a grant-funded program of study and enter another program of study</p> <p>Can a participant's <u>enrollment in further education</u> beyond their program of study be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a program of study (P2)</p>	<p>[FURTHERED] PARTICIPANT ENROLLED IN FURTHER EDUCATION AFTER COMPLETION OF A PROGRAM OF STUDY (1=YES; 2=NO)</p> <p>[CAREERPATH] Career Pathways (a-h)</p> <p>[SUCCESSCOACH] Success Coaching (a-b)</p> <p>[PRIORLRN] Prior Learning Assessment (a)</p> <p>[COMPASCW] Competency-Based Coursework (a)</p> <p>[MODCURR] Modularized Curricula (a)</p> <p>[INTERCRED] Interconnected Credentials (a)</p> <p>[NCTOCRED] Non-Credit to Credit-Bearing Credentials (a)</p> <p>[TRANSFER] Transferability of Credit between Institutions (a-b)</p> <p>[TECHENHANCE] Technology-Enhancements (a-f)</p> <p>[WRKBASETRNR] Work-based Training (a-c)</p>

Outcome Number	<p style="text-align: center;">Dependent Variable (DV) (Outcome)</p>		
		DV	Independent Variable (Predictor)
7	<p>Total Number of Participants Employed After TAACCT-funded Program of Study Completion [EMPLOYGAIN]</p> <p>Total number of students (non-incumbent workers only) who completed a grant-funded program of study entering employment in the quarter after the quarter of program exit</p> <p><u>Can a participant <i>gaining employment in the quarter after the quarter of program exit</i> be predicted by their level of engagement in the proposed student support services?</u></p> <p>POPULATION = All eligible students for this program pursuing a program of study who were not employed during their program of study (P3)</p>	PARTICIPANT EMPLOYED THE QUARTER AFTER THE COMPLETION OF A PROGRAM OF STUDY (1=YES; 2=NO)	[EMPLOYGAIN]
		Career Pathways (a-h)	[CAREERPATH]
		Success Coaching (a-b)	[SUCCESSCOACH]
		Prior Learning Assessment (a)	[PRIORLRN]
		Competency-Based Coursework (a)	[COMPBASCW]
		Modularized Curricula (a)	[MODCURR]
		Interconnected Credentials (a)	[INTERCRED]
		Non-Credit to Credit-Bearing Credentials (a)	[NCTOCCRED]
		Transferability of Credit between Institutions (a-b)	[TRANSFER]
		Technology-Enhancements (a-f)	[TECHENHANCE]
		Work-based Training (a-c)	[WRKBASETRNR]

Outcome Number	Dependent Variable (DV) (Outcome)	Independent Variable (Predictor)
8	<p>Total Number of Participants Retained in Employment After Program of Study Completion [EMPLOYRETAIN] Total number of students (non-incumbent workers only) who completed a grant-funded program of study and who entered employment in the quarter after the quarter of program exit who retain employment in the second and third quarters after program exit</p> <p>Can a participant's <i>retention of employment</i> in the second and third quarters after gaining employment in the quarter after the quarter of program exit be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a program of study who were not employed in an applicable transportation industry during their program of study (P3)</p>	<p>[EMPLOYRETEN] PARTICIPANT EMPLOYED THE 2ND & 3RD QUARTERS AFTER THE COMPLETION OF A PROGRAM OF STUDY (1=YES; 2=NO)</p> <p>[CAREERPATH] Career Pathways (a-h)</p> <p>[SUCCESSCOACH] Success Coaching (a-b)</p> <p>[PRIORLRN] Prior Learning Assessment (a)</p> <p>[COMPASCW] Competency-Based Coursework (a)</p> <p>[MODCURR] Modularized Curricula (a)</p> <p>[INTERCRED] Interconnected Credentials (a)</p> <p>[NCTOCRED] Non-Credit to Credit-Bearing Credentials (a)</p> <p>[TRANSFER] Transferability of Credit between Institutions (a-b)</p> <p>[TECHENHANCE] Technology-Enhancements (a-f)</p> <p>[WRKBASETRN] Work-based Training (a-c)</p>

Outcome Number	<p style="text-align: center;">Dependent Variable (DV) (Outcome)</p> <p>Total Number of Those Participants Employed at Enrollment Who Received a Wage Increase Post-Enrollment [WAGEINCR]</p> <p>Total number of students who are incumbent workers and who enrolled in a grant-funded program of study who received an increase in wages after enrollment</p> <p>Can a participant <i>receiving a wage increase after program enrollment</i> be predicted by their level of engagement in the proposed student support services?</p> <p>POPULATION = All eligible students for this program pursuing a program of study who were employed in an applicable transportation industry during their program of study (P4)</p>	<p style="text-align: center;">Independent Variable (Predictor)</p>					
9					[WAGEINCR]	DV	
					PARTICIPANT RECEIVED WAGE INCREASE AFTER ENROLLMENT IN PROGRAM (1=YES; 2=NO)	[CAREERPATH]	
					Career Pathways (a-h)	[SUCCESSCOACH]	
					Success Coaching (a-b)	[PRIORLRN]	
					Prior Learning Assessment (a)	[COMPBASCW]	
					Competency-Based Coursework (a)	[MODCURR]	
					Modularized Curricula (a)	[INTERCRED]	
					Interconnected Credentials (a)	[NCTOCCRED]	
					Non-Credit to Credit-Bearing Credentials (a)	[TRANSFER]	
	Transferability of Credit between Institutions (a-b)	[TECHENHANCE]					
Technology-Enhancements (a-f)	[WRKBASETRN]						
Work-based Training (a-c)							

Southeastern Transportation Network (STN) Consortium

Developing Tomorrow's Transportation Workforce Project

Student Name _____

Date of Visit _____

Career Development/Student Success Survey

This survey form should be completed by a participant in the STN Consortium project EACH time they visit the office(s) devoted to career counseling and/or student success. When the student completes the form, it should be returned to the STN Campus Project Manager.

During this visit to the Career/Student Success Center, I had an opportunity to engage in the following activities:

Provided career counseling by a staff member	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provided specific information concerning the local transportation job market	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provided assistance with interview preparation	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provided assistance with resume preparation	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provided assistance in developing/improving my study skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provided assistance in developing time management skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Provided assistance on how to deal with personal issues	<input type="checkbox"/> Yes	<input type="checkbox"/> No

How many opportunities would you say you've had to date to explore various career options since being enrolled in your major?

- None
- 1 – 2
- 3 – 4
- 5 – 6
- 7 or more

How many opportunities have you had to date to engage in activities to match your individual skills and interests to career possibilities since being enrolled in your major?

- None
- 1 – 2
- 3 – 4
- 5 – 6
- 7 or more

When you chose your transportation major, were you provided explicit assistance in selecting the major?

- Yes
- No. Selected major on my own.

If yes, by whom were you assisted?

- Academic counseling staff
- Career counseling staff
- Instructor

