

Impact of Comprehensive Intake Services on the Progress of Adult Education and Literacy Students

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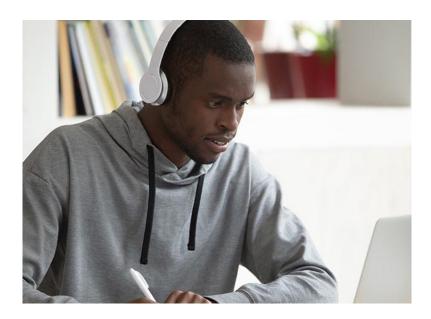
Table of Contents

Abstract
Introduction6
Background Research and Study Purpose 6
Key Terms and Definitions
Methods8
Study Design
Study Population
Sampling Procedure
Variable Specifications
Reliability and Validity
Results
Data Demographics
Research Question I
Research Question 2
Seventy-fifth percentile subset
Literature review subset
Largest effect sizes subset
Discussion
Limitations
Future Research
Appendixes
Appendix A. Intake Services Survey
Appendix B. Description of Demographic Used for Matching Sample Groups 35
Appendix C. Student Characteristics for RQI Analysis
Appendix D. Student Characteristics for RQ2 75th
Percentile Effect Sizes—Average Gains 41
Appendix E. Student Characteristics for RQ2 75th
Percentile Effect Sizes—HSE Tests Passed

Appendix F. Student Characteristics for RQ2	
75th Percentile Effect Sizes—Days to Gain	45
Appendix G. Student Characteristics for RQ2	
Literature Review Analysis Group	47
Appendix H. Student Characteristics for RQ2	
Largest Effect Size Analysis Group	49
References	51

Abstract

Comprehensive intake services (CIS)—including orientations conducted by teachers, one-on-one interviews between teachers and students, and opportunities for new students to discuss positive and negative prior educational experiences and speak with current or former program participants—have been found to improve student retention and performance in the Texas Workforce Commission (TWC) Adult Education and Literacy (AEL) program. A quasi-experimental study was performed to determine whether these types of services provided during orientation or within the first three weeks of class instruction (also referred to as "intake") had a positive impact on program performance for AEL students in Texas. For the study, students who participated in the program between July 1, 2018, and June 30, 2019, were divided into two groups, labeled Intensive or Moderate based on their level of intake services, and were then matched on more than two dozen characteristics to make the groups as comparable as possible. The Intensive group had more positive outcomes than the Moderate group, with a higher average number of gains received, a higher average number of high school equivalency (HSE) tests passed, and a shorter average number of days to receive a gain. Data regarding the level of intake services offered was collected from 26 program providers, making the results generalizable only to those same providers. Further research on how CIS may impact the program outcomes of distance-learning students could be beneficial, as more providers are switching to online classes due to COVID-19 restrictions.



Introduction

Background Research and Study Purpose

Student engagement and retention in AEL programs have been the focus of many studies. Factors including a feeling of community, a clear purpose, and a sense of stability have been found to improve engagement, retention, and, in some instances, performance (Nash and Kallenbach, 2009). The program orientation process and the first three weeks of class instruction can be critical in helping

students establish goals, manage program expectations, and feel connected to peers and instructors (Nash and Kallenbach, 2009). Meeting current or former students and hearing about their experiences in the classroom can be helpful to prospective students, as can having the opportunity to work in groups with other students during the orientation process (Comings, Cuban, Bos, and Taylor, 2001). Determining barriers to students'



abilities to attend classes and complete coursework, such as family and/or work obligations, and developing plans to help them overcome those barriers are important as well in keeping students engaged and moving forward toward their goals (Nash and Kallenbach, 2009; Roberts, 2006).

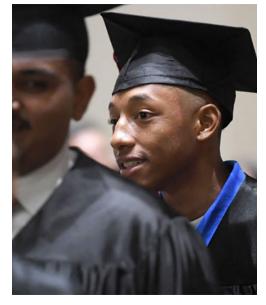
The AEL program was moved from the Texas Education Agency (TEA) to TWC in 2013 (Texas Workforce Commission, 2014). The aim of this study, conducted by TWC, is to determine whether certain types of services provided during intake may result in positive performance outcomes for Texas AEL students. The following research questions were developed in order to perform the analysis:

- Research Question I (RQI): Is there a significant difference in the average number of gains, average number of HSE tests passed, or average number of days to receive a gain between providers that offered a Moderate level of CIS and those that offered an Intensive level of CIS?
- Research Question 2 (RQ2): Are there combinations of specific CIS that show a significant difference in the average number of gains, average number of HSE tests passed, or average number of days to receive a gain?

Key Terms and Definitions

Comprehensive Intake Services (CIS)—Services including opportunities for new students to meet
teachers and former/current AEL students during program orientation, setting program goals during
orientation or within the first three weeks of classroom instruction, collecting information about
students' individual learning styles, and identifying positive or negative educational experiences students
may have had in the past. A complete list is included in the Variable Specifications section.

- Gains—Progress made in the AEL program using official performance reporting benchmarks (Arbour, 2018). These may also be referred to as Measurable Skill Gains (MSGs). The following are the five MSG types:
 - Educational functioning level gain (these levels are the equivalent of school grade levels),
 measured by a pretest and posttest as the students begin and complete classes or by entry into postsecondary education or training program after AEL program exit
 - Achievement of an HSE certificate
 - Transcript or report card showing progress in postsecondary education or a training program
 for students in an Integrated Education and Training (IET) program. IET program components
 include career training services meant to help students receive postsecondary/vocational
 credentials and find employment.
 - Progress milestones such as a rise in pay related to training reported from an employer for an IET program participant
 - Skills progression milestones for IET program participants, including passing tests on their way to receiving an industry certification
- High School Equivalency (HSE)—A certificate earned after passing a series of tests on individual subjects including math, reading, and so forth. There were three HSE options offered in Texas during the study period. The General Educational Development (GED) test consists of four test subjects (GED Testing Service, 2020), and the Test Assessing Secondary Completion (TASC) and High School Equivalency Test (HiSET) both include five test subjects (Test Assessing Secondary Completion, 2020; ETS HiSET, 2020). Each of the four or five tests must be passed in order to earn the HSE certificate.
- Intake—This refers to the program orientation as well as the first three weeks of classroom instruction.
- Participants—AEL program students who have received at least 12 direct contact hours (for example, in-person classroom instruction, live videoconferencing, and phone calls in which the identity of the
 - student can be verified), thus becoming official program participants (Texas Workforce Commission, 2016); the term also refers to individuals in the study sample and may be used interchangeably with the term "students."
- Period of Participation (POP)—A period of participation begins when a student reaches at least 12 direct contact hours and ends when the student exits. An official exit occurs when 90 days have passed in which the student has no direct or proxy contact hours (for example, online activities in which the student's identity cannot be verified) (Texas Workforce Commission, 2016).



Methods

Study Design

A quasi-experimental design was chosen for this study; because existing data was used, it was not possible to randomly assign students to the analysis groups. A survey was developed by TWC staff and sent out electronically for AEL program providers to complete asking them a series of questions about the type of intake services they offered. Unfortunately, the survey was sent out just before the shutdown of schools and businesses in Texas due to COVID-19. Because the initial response rate was poor, the survey was sent out a second time, two months later. However, TWC still received a low response rate of 27 percent (26 out of 98 providers). Only data from providers that were active and had participants during the study's time period was used.

The providers were divided into two mutually exclusive groups for the independent variable (IV) based on their survey responses. (A copy of the survey is available in Appendix A.) Respondents were instructed to complete each question keeping in mind, when answering, the majority of their respective sites where the actual intake services were given. Providers that offered between 45 percent and 74 percent of the CIS were classified in the Moderate CIS group. Providers that offered 75 percent or higher of the CIS were classified in the Intensive CIS group. The study's three dependent variables (DVs) are the number of gains made by the students, the number of HSE tests the students passed, and the number of days it took the students to receive a gain.

Study Population

Participants' data was collected from the Texas Educating Adults Management System (TEAMS), operated by TWC, for the providers identified from the survey. The population for this study included AEL participants who began a new POP during Program Year 2018 (PY'18, July 1, 2018, to June 30, 2019). These students were then divided into the Moderate CIS or Intensive CIS groups based on their provider and were matched together on 26 demographic characteristics including sex, race, and age. (See the complete list in the Sampling Procedures section.) Students who were already enrolled in the program before the beginning of PY'18 were excluded from the sample, as the types of intake services used for the study were commonly provided in PY'18 and later. However, students who had been enrolled prior to PY'18 could be counted in this study if they came back with a new POP in PY'18.

Sampling Procedure

A purposive sampling technique was used to compile the study sample so that participants would be students who received either Moderate or Intensive services. After the students had been identified as one of the two IV groups, they were narrowed down further by excluding any students who received class contact hours with more than one provider throughout the study period. This step ensured that the two groups would be mutually exclusive.

The participants in the Moderate and Intensive groups were then matched together on 26 characteristics. If any students had more than one POP during the time period used for the study, the data for the matching variables was selected from the earliest POP. The matching characteristics included the following:

- Race
- Sex
- Employment status
- Highest grade completed
- Highest education level completed
- Displaced homemaker
- Low-income
- Ex-offender
- Offender
- Homeless
- Single parent
- Long-term unemployed

- English language learner
- Cultural barriers
- Enrolled in secondary education
- Disabled
- Veteran
- Migrant or seasonal farmworker
- Exhausting temporary assistance for needy families (TANF) benefits within two years
- Job Corps participants
- Age at program entry
- Foster youth

More information about these fields can be found in Appendix B. Participants were then randomly selected from the Moderate and Intensive groups to get the same number of students in each group of the IV.

Variable Specifications

The IV, level of intake services, was set up as a dichotomous field showing students who received either a Moderate level of intake services or an Intensive level of intake services. The two levels were determined by using the following questions and answer choices from the survey sent to the program providers. (Answer choices shown in parentheses in italics, separated by commas.)

- Q6: On average, how many students are in an orientation class? (1 student, 2–5 students, 6–10 students)
- Q10: How is the enrollment form completed? (Students fill out form on their own/Help is available from staff if needed, Staff collects data directly from all students and staff then completes the form)
- QII: Who instructs students during the orientation period? (Dedicated staff members (non-teachers) who primarily conduct orientations, Teachers)
- Q12: If dedicated intake staff members who are not also teachers collect student information during orientation, is that information given to teachers in a timely manner (within three weeks of the class begin date)? (Always, Most of the time)
- Q13: Do the students have an opportunity to meet the teachers of their upcoming classes during orientation? (Always, Most of the time)
- Q14: During orientation and/or within the first three weeks of class instruction, do former/current students speak to prospective students about their experiences in the program? (Always, Most of the time)
- Q16: During orientation and/or within the first three weeks of class instruction, are students asked about positive or negative aspects of any prior educational experiences? (Always, Most of the time)
- Q17: Are students given an opportunity to participate in any activities with other students during orientation? (Always, Most of the time)
- Q18: When do students learn details about the program (for example, review of attendance policy and class participation expectations, types of services offered, emergency evacuation procedures, grievance procedures, rights and responsibilities of participants, and program code of conduct)? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q19: When do students receive initial information about available support services (for example, services
 for homelessness, substance abuse, crisis counseling, and accommodations for disabilities)?
 (Non-contact hour service, First three weeks of class contact hour/ Standard traditional)
- Q20: When does the development of an Individual Training, Education, and Career (ITEC) plan begin?
 (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q21: When does initial identification of a planned MSG occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q22: When does initial goal setting occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q23: During orientation and/or within the first three weeks of class instruction, are students given the opportunity to set "SMART" goals (Specific, Measurable, Achievable, Relevant, Time-bound)? (Always, Most of the time)

- Q24: When do initial career counseling or career exploration activities occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q25: When are the educational technology resources and/or distance learning options first presented?
 (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q26: When is information about student learning styles first collected? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q27: When is information about learning strategies and success skills first provided? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q28: When is information about time-management techniques (to aid students who may have familial/ work obligations) first given to students? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q29: When are students first made aware that financial literacy services and counseling are available to them? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q30: When does the tour of the campus/facilities occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q31: When is the distribution of the class syllabus? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q32: When are students made aware that they can leave the program and return at a later date if necessary (planned gap)? (Non-contact hour service, First three weeks of class contact hour/ Standard traditional)
- Q33: Aside from the BEST Plus interview, is a one-on-one interview conducted with each student during the orientation period and/or within the first three weeks of classroom instruction for ABE and ESL students? (Always, Most of the time)
- Q36: What type of program do you provide? (Managed enrollment—Once classes begin no new students may enroll, Hybrid managed enrollment—Students may enroll and enter classes at specified intervals)
- Q37: Generally, how much time passes between the end of orientation and the student beginning class instruction? (Same day, Next business day, Less than one week, One week)

Providers that offered 45 percent to 74 percent of the services from the specified questions were assigned to the Moderate level, and providers that offered 75 percent or more of the services were assigned to the Intensive level. The DVs were interval-level fields showing the number of gains received, the number of HSE tests passed, and the number of days it took the students to receive a gain during the study period.

Reliability and Validity

Data entered in TEAMS must go through a series of edits to ensure that pretest/posttest gains are calculated correctly based on the scores associated with each type of test. HSE test data is imported into TEAMS on a nightly basis from TEA's system, and records are matched to AEL program participants on a combination of Social Security number, birth date, and name. Validity issues such as maturation and selection bias were controlled for by using demographic characteristics to match the two service-level groups and then randomly selecting participants from the larger student population.

Results

This quasi-experimental study was conducted to determine whether there was a difference in program outcomes for AEL students based on the types of services received during intake. The Intensive CIS group achieved more positive program outcomes: specifically, higher average numbers of HSE tests passed and a shorter average number of days to receive a gain.

Data Demographics

There were 30,463 AEL participants who met the basic requirements for being included in the study. These were participants who had a new POP in PY'18 and attended classes with one of the 26 providers who responded to the survey. Study participants were selected from this larger group if they attended classes with only one provider, and they were then divided into the Moderate or Intensive CIS groups. After the two groups were matched on the specified demographic characteristics, a random sample was selected, with the two groups having equal numbers of students.

Research Question 1

The independent-samples t-test was chosen to analyze the data in order to compare means of the DV to the IV groups. The data was not normally distributed violating that test assumption, but the t-test can be robust to that violation when both levels of the IV are equal in number, which is the case for this study (Laerd Statistics Premium, 2018). The homogeneity of variances (HOV) assumption was also violated for each of the tests run to answer this question. Results from the Welch's t-test were then used, as it corrects for that violation (Laerd Statistics Premium, 2018). There were 4,312 participants (2,156 in each IV group) in the sample used for the analysis of RQ1. (Additional demographic data is provided in Appendix C.) Responses from the survey questions detailed in the Variable Specifications section were used to divide the providers and sample participants into the Moderate CIS and Intensive CIS groups for the RQ1 analyses.

The Intensive CIS group consisted of five providers (19.23 percent), and the Moderate CIS group consisted of 21 providers (80.77 percent). Students in the Moderate CIS group received a higher average number of gains (1.19 \pm 0.45) than the Intensive CIS group (1.14 \pm 0.35), a statistically significant difference of 0.05 gains (95 percent CI, 0.09 to 0.02), t(1830.10) = 3.25, p = .001. The effect size, however, was very small (r = 0.08). The Intensive CIS group passed a higher average number of HSE tests (3.05 \pm 1.26) than the Moderate CIS group (2.50 \pm 1.33), a statistically significant difference of 0.55 tests (95 percent CI, 0.29 to 0.82), t(332.45) = 4.11, p = .000, with a small effect size (r = 0.22). Finally, the Intensive CIS group had a lower average number of days to receive a gain (75.10 \pm 50.90) than the Moderate CIS group (91.54 \pm 55.20), a statistically significant difference of 16.44 days (95 percent CI, 21.01 to 11.88), t(2003.13) = 7.06, p = .000.

The effect size for this analysis level was also small (r = 0.16). The null hypothesis was rejected, as there were significant differences between the two levels of intake services on program outcomes.

Research Question 2

Seventy-fifth percentile subset

A series of t-tests were run for each of the survey questions listed above for the analysis of RQI, and the effect size was calculated for each question. The t-tests were then run again using different subgroups of survey questions to answer RQ2. The first subgroup used to analyze the number of gains received was made up of the following questions that had effect sizes in the 75th percentile:

- Q10: How is the enrollment form completed? (Students fill out form on their own/Help is available from staff if needed, Staff collects data directly from all students and staff then completes the form)
- Q12: If dedicated intake staff members who are not also teachers collect student information during orientation, is that information given to teachers in a timely manner (within three weeks of the class begin date)? (Always, Most of the time)
- Q14: During orientation and/or within the first three weeks of class instruction, do former/current students speak to prospective students about their experiences in the program? (Always, Most of the time)
- Q16: During orientation and/or within the first three weeks of class instruction, are students asked about positive or negative aspects of any prior educational experiences? (Always, Most of the time)
- Q20: When does the development of an Individual Training, Education, and Career (ITEC) plan begin?
 (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q22: When does initial goal setting occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q37: Generally, how much time passes between the end of orientation and the student beginning class instruction? (Same day, Next business day, Less than one week, One week)

The effect size for each question is shown, in Table 1.

Table 1. Seventy-Fifth Percentile Effect Sizes—Average Number of Gains

Question	Effect Size (r)	Effect Size Range
Q10: Enrollment form completion	0.07	Very Small
Q12: Student intake information given to teachers in timely manner	0.08	Very Small
Q14: Current/former students speak at orientation	0.08	Very Small
Q16: Students asked about positive/negative school experiences	0.10	Very Small
Q20: Beginning of individual training, education, career plan	0.08	Very Small
Q22: Initial goal setting	0.08	Very Small
Q37: Amount of time passed between orientation and start of class	0.07	Very Small

The Intensive CIS group consisted of five providers (19.23 percent), and the Moderate CIS group consisted of 18 providers (69.23 percent). Three providers out of the 26 who completed the survey did not meet the criteria for this breakout and were not included in this analysis. The Welch t-test results were used for the average number of gains and average number of days to receive a gain analyses, as the HOV assumption was violated for both. The Intensive CIS group received a higher average number of gains (1.30 \pm 0.56) than the Moderate CIS group (1.18 \pm 0.41), a statistically significant difference of 0.12 gains (95 percent CI, 0.09 to 0.17), t(2153.56) = 6.05, p = .000. A total of 4,220 participants (2,110 in each of the two groups—demographic data is available in Appendix D) were included in this analysis, which had a small effect size (r = 0.13).

The second subgroup used to analyze the number of HSE tests passed was made up of the following questions with effect sizes in the 75th percentile:

- Q6: On average, how many students are in an orientation class? (1 student, 2–5 students, 6–10 students)
- QII: Who instructs students during the orientation period? (Dedicated staff members (non-teachers) who primarily conduct orientations, Teachers)

- Q12: If dedicated intake staff members who are not also teachers collect student information during orientation, is that information given to teachers in a timely manner (within three weeks of the class begin date)? (Always, Most of the time)
- Q13: Do the students have an opportunity to meet the teachers of their upcoming classes during orientation? (Always, Most of the time)
- Q14: During orientation and/or within the first three weeks of class instruction, do former/current students speak to prospective students about their experiences in the program? (Always, Most of the time)
- Q16: During orientation and/or within the first three weeks of class instruction, are students asked about positive or negative aspects of any prior educational experiences? (Always, Most of the time)
- Q17: Are students given an opportunity to participate in any activities with other students during orientation? (Always, Most of the time)
- Q19: When do students receive initial information about available support services (for example, services
 for homelessness, substance abuse, crisis counseling, and accommodations for disabilities)? (Noncontact hour service, First three weeks of class contact hour/ Standard traditional)
- Q26: When is information about student learning styles first collected? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q29: When are students first made aware that financial literacy services and counseling are available to them? (Non-contact hour service, First three weeks of class contact hour/ Standard traditional)
- Q30: When does the tour of the campus/facilities occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q32: When are students made aware that they can leave the program and return at a later date if necessary (planned gap)? (Non-contact hour service, First three weeks of class contact hour/ Standard traditional)

The effect size for each question is shown below, in Table 2.

Table 2. Seventy-Fifth Percentile Effect Sizes—Average Number of HSE Tests Passed

Question	Effect Size (r)	Effect Size Range
Q6: Orientation session size	0.82	Large
QII: Who conducts orientation sessions?	0.83	Large
Q12: Student intake information given to teachers in timely manner	0.81	Large
Q13: Students meet teachers in orientation	0.81	Large
Q14: Current/former students speak at orientation	0.82	Large
Q16: Students asked about positive/negative school experiences	0.81	Large
Q17: Students participate in activities together during orientation	0.82	Large
Q19: Students get information about support services	0.81	Large
Q26: Learning style information collected	0.81	Large
Q29: Students told about financial literacy services	0.82	Large
Q30: Campus/facility tours	0.83	Large
Q32: Students are told about planned gaps	0.81	Large

The Intensive CIS group consisted of five providers (19.23 percent), and the Moderate CIS group consisted of 13 providers (50.00 percent). There were eight providers, from the total of 26 that completed the survey, that did not meet the criteria for this analysis group. The HOV assumption was not violated for this analysis, and the Intensive CIS group passed a higher average number of HSE tests (2.85 \pm 1.27) than the Moderate CIS group (2.51 \pm 1.28), a statistically significant difference of 0.34 tests (95 percent CI, 0.11 to 0.56), t(519) = 2.89, p = .004.

The effect size was small (r = 0.14), with a total of 5,610 participants (2,805 in each group—more data is available in Appendix E).

The third subgroup, which was used to analyze the number of days to receive a gain, was made up of the following questions with effect sizes in the 75th percentile:

- Q10: How is the enrollment form completed? (Students fill out form on their own/Help is available from staff if needed, Staff collects data directly from all students and staff then completes the form)
- Q14: During orientation and/or within the first three weeks of class instruction, do former/current students speak to prospective students about their experiences in the program? (Always, Most of the time)
- Q20: When does the development of an Individual Training, Education, and Career (ITEC) plan begin?
 (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q22: When does initial goal setting occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q28: When is information about time-management techniques (to aid students who may have familial/ work obligations) first given to students? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q30: When does the tour of the campus/facilities occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q32: When are students made aware that they can leave the program and return at a later date if necessary (planned gap)? (Non-contact hour service, First three weeks of class contact hour/ Standard traditional)
- Q36: What type of program do you provide? (Managed enrollment—Once classes begin no new students may enroll, Hybrid managed enrollment—Students may enroll and enter classes at specified intervals)

Effect sizes for these questions are presented in Table 3.

Table 3. Seventy-Fifth Percentile Effect Sizes-Average Number of Days to Receive a Gain

Question	Effect Size (r)	Effect Size Range
Q10: Enrollment form completion	0.23	Small
Q14: Current/former students speak at orientation	0.30	Medium
Q20: Beginning of individual training, education, career plan	0.24	Small
Q22: Initial goal setting	0.23	Small
Q28: Time-management techniques discussed	0.34	Medium
Q30: Campus/facility tours	0.32	Medium
Q32: Students are told about planned gaps	0.23	Small
Q36: Type of program that is provided	0.23	Small

The Intensive CIS group consisted of five providers (19.23 percent), and the Moderate CIS group consisted of 16 providers (61.54 percent). Five providers out of the total of 26 that completed the survey did not meet the criteria for this analysis group and were therefore not included. The Intensive CIS group had a lower average number of days to receive a gain (69.64 \pm 41.14) than the Moderate CIS group (107.38 \pm 62.54), a statistically significant difference of 37.74 days (95 percent CI, 40.78 to 34.71), t(3233.03) = 24.37, p = .000. This subset had a medium effect size (r = 0.39), with 11,212 participants (5,606 in each group—more data is available in Appendix F). The null hypothesis was rejected, as significant differences in the average number of gains received, the average number of HSE tests passed, and the average number of days to receive a gain were found between the Intensive CIS and Moderate CIS groups.

Literature review subset

Another level of analysis was run using questions that were related to services that have been found to have a strong impact on adult education student performance in prior research. These questions included:

- Q13: Do the students have an opportunity to meet the teachers of their upcoming classes during orientation? (Always, Most of the time)
- Q14: During orientation and/or within the first three weeks of class instruction, do former/current students speak to prospective students about their experiences in the program? (Always, Most of the time)
- Q16: During orientation and/or within the first three weeks of class instruction, are students asked about positive or negative aspects of any prior educational experiences? (Always, Most of the time)
- Q20: When does the development of an Individual Training, Education, and Career (ITEC) plan begin?
 (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q21: When does initial identification of a planned MSG occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q22: When does initial goal setting occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q23: During orientation and/or within the first three weeks of class instruction, are students given the
 opportunity to set "SMART" goals (Specific, Measurable, Achievable, Relevant, Time-bound)?
 (Always, Most of the time)
- Q26: When is information about student learning styles first collected? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)

Each question's effect size is shown below, in Table 4.

Table 4. Literature Review Effect Sizes

Quartiana	Average Number of Gains Received		Average Number of HSE Tests Passed		Average Number of Days to Receive a Gain	
Questions	Effect Size (r)	Effect Size Range	Effect Size (r)	Effect Size Range	Effect Size (r)	Effect Size Range
Q13: Students meet teachers at orientation	0.04	Very Small	0.81	Large	0.07	Very Small
Q14: Current/former students speak at orientationr	0.08	Very Small	0.82	Large	0.30	Small
Q16: Students asked about positive/ negative school experiences	0.10	Small	0.81	Large	0.10	Small
Q20: Beginning of individual training, education, career plans	0.08	Very Small	0.77	Large	0.24	Small
Q21: Identification of a planned gain	0.03	Very Small	0.78	Large	0.18	Small
Q22: Initial goal setting	0.08	Very Small	0.78	Large	0.23	Small
Q23: SMART goals set	0.02	Very Small	0.78	Large	0.08	Very Small
Q26: Learning style information collected	0.00	No Effect	0.81	Large	0.00	No Effect

For this analysis, providers were divided into a CIS group and a Non-CIS group. The CIS providers offered the Intensive CIS level of service (as detailed in the Variable Specifications section) for all the specified questions. The Non-CIS providers did not offer the Intensive level of service for any of the specified questions. The HOV assumption was violated for the average number of gains and average number of days to receive a gain levels of analysis. There were 1,370 participants for this level of analysis, with 685 in each group. (Demographic data is available in Appendix G.) The CIS group consisted of three providers (11.54 percent), and the Non-CIS group consisted of two providers (7.69 percent). Twenty-one out of the total 26 providers that completed the survey did not meet the criteria for this analysis group and were excluded.

The CIS group received a slightly higher average number of gains (1.14 \pm 0.35) than the Non-CIS group (1.12 \pm 0.35), a non–statistically significant difference of 0.02 gains (95 percent CI, 0.02 to 0.08), t(779.12) = 1.20, p = .230. The CIS group passed a marginally higher average number of HSE tests (2.57 \pm 1.34) than the Non-CIS group (2.20 \pm 1.27), a non–statistically significant difference of 0.37 tests (95 percent CI, 0.11 to 0.84), t(139) = 1.52, p = .132. The CIS group had a lower average number of days to receive a gain (58.76 \pm 32.80) than the Non-CIS group (121.29 \pm 60.43), a statistically significant difference of 62.53 days (95 percent CI, 69.36 to 55.70), t(512.36) = 17.98, p = .000. This subset had a large effect size (r = 0.62). The null hypothesis was rejected for the average number of days to receive a gain analysis but was accepted for the average number of gains received and average number of HSE tests passed analyses.

Largest effect sizes subset

The last subset used for analysis involved services that produced the largest effect sizes when analyzed individually. This included the following questions from the survey:

- QII: Who instructs students during the orientation period? (Dedicated staff members (non-teachers) who primarily conduct orientations, Teachers)
- Q16: During orientation and/or within the first three weeks of class instruction, are students asked about positive or negative aspects of any prior educational experiences? (Always, Most of the time)
- Q28: When is information about time-management techniques (to aid students who may have familial/ work obligations) first given to students? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)
- Q30: When does the tour of the campus/facilities occur? (Non-contact hour service, First three weeks of class contact hour/Standard traditional)

Each question's individual effect size is presented below, in Table 5.

Table 5. Largest Effect Sizes

Question	Dependent Level Analysis	Effect Size (r)	Effect Size Range
QII: Who teaches orientation?	Average Number of HSE Tests Passed	0.83	Large
Q16: Students asked about positive/ negative school experiences	Average Number of Gains Received	0.10	Small
Q28: Time-management techniques discussed	Average Number of Days to Receive Gain	0.34	Medium
Q30: Campus/facility tours	Average Number of HSE Tests Passed	0.83	Large

Providers for this analysis were also divided into a CIS group and a Non-CIS group. The CIS group consisted of two providers (7.69 percent), and the Non-CIS group consisted of four providers (15.38 percent). Twenty-one out of the total 26 providers that completed the survey were not included for this analysis group, as they did not meet the criteria. The HOV assumption was violated for the average number of gains and average number of days to receive a gain analyses. The CIS group received a nearly equal average number of gains (1.16 \pm 0.39) to that of the Non-CIS group (1.15 \pm 0.39), a nonstatistically significant difference of 0.01 gains (95 percent CI, 0.01 to 0.04), t(3350) = 1.13, p = .261. The CIS group passed a higher average number of HSE tests (2.85 ± 1.28) than the Non-CIS group (2.43 ± 1.28) , a statistically significant difference of 0.42 tests (95 percent CI, 0.15 to 0.68), t(374) =3.12, p = .002. This subset had a small effect size (r = 0.16) and a total of 7,306 students (3,653 in each group—more data is available in Appendix H). The CIS group had a lower average number of days to receive a gain (76.16 \pm 44.66) than the Non-CIS group (128.98 \pm 60.19), a statistically significant difference of 52.82 days (95 percent CI, 56.59 to 49.05), t(2309.78) = 27.50, p = .000. This subset had a large effect size (r = 0.50). The null hypothesis was rejected for the average number of HSE tests passed and average number of days to receive a gain levels of analysis, as significantly different levels of performance were present. The null hypothesis was accepted for the average number of gains received analysis.

Discussion

A quasi-experimental design was used for this study, as data from PY'18 was analyzed; therefore, random assignment was not possible. Participants in the two variations of the service level groups, Intensive CIS and Moderate CIS or CIS and Non-CIS, were matched on more than two dozen characteristics to make the groups as comparable as possible using available data. A series of independent samples t-tests were then run to answer the two research questions. Although statistically significant differences were found between the Intensive CIS and Moderate CIS groups with

regard to the average number of gains received, the differences were minimal and the effect sizes were small. Federal AEL program policy is to have each participant record at least one MSG per program year (Ford, 2017). Teachers and students may focus on other goals after a gain is achieved; therefore, counting the number of gains per year for the participants may not tell the full story of their progress and may explain the small difference between the analysis groups. The number of HSE tests passed and the number of days to achieve a gain were also included in the analysis to possibly find other performance areas where the different levels of intake services may have an impact. The Intensive CIS level of service had the most significant effect on



increasing the number of HSE tests passed and decreasing the number of days it took for students to receive a gain. Students who were classified as having received Intensive CIS as part of the analysis group for RQI (labeled "Main Analysis" in Table 6) had the highest average number of HSE tests passed, at 3.05. This group of students received at least 20 (75 percent) of the following 26 services/activities:

- Orientation class size is between one and 10 students.
- Students fill out the enrollment form and may receive help from staff if needed.
- Either dedicated staff members (non-teachers) or program teachers conduct orientation.
- If dedicated staff members conduct orientation, they pass student information along to the teachers within the first three weeks of instruction.
- Students participate in activities together during orientation.
- Students meet teachers during orientation.
- Students speak with current or former AEL students at intake.
- Students discuss positive and negative prior educational experiences at intake.
- Development of the individual training, education, and career plan begins at intake.

- Initial goal setting and identifying a planned MSG occur at intake.
- Identifying SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals occurs at intake. Information about students' learning styles is collected at intake.
- Students learn details about the program (for example, review of attendance policy and class participation expectations, types of services offered, emergency evacuation procedures, grievance procedures, rights and responsibilities of participants, and program code of conduct) at intake.
- Students receive initial information about available support services (for example, services for homelessness, substance abuse, crisis counseling, accommodations for disabilities) at intake.
- In itial career counseling or career exploration activities are provided at intake.
- Educational technology resources and/or distance learning options are first presented at intake.
- Information about learning strategies and success skills is first provided at intake.
- Information about time-management techniques (to aid students who may have familial/work obligations)
 is first given to students at intake.
- Students are first made aware that financial literacy services and counseling are available to them at intake.
- Campus and facility tours are provided at intake.
- · Class syllabus is distributed at intake.
- Students are made aware at intake that they can leave the program and return at a later date if necessary.
- A one-on-one interview is conducted with each student at intake.
- Provider offers either managed enrollment (once classes begin, no new students may enroll) or hybrid managed enrollment (students may enroll and enter classes at specified intervals).
- Classes begin on the same day as or within one week of orientation.

Participants who were in the CIS group as part of the largest effect size subset had the shortest average number of days needed to receive a gain, at 58.76 days. These participants would have received each of the following services:

- Meeting teachers during orientation
- · Speaking with current or former AEL students at intake
- Discussing positive and negative prior educational experiences at intake
- Development of the individual training, education, and career plan at intake
- Initial goal setting and identifying a planned MSG at intake
- Identifying SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals at intake
- · Having information collected about students' learning styles at intake

Table 6. AEL Participants Mean Outcomes

Main Analysis	Intensive CIS	Moderate CIS	Difference	P-value
Average Number of Gains Received	1.14	1.19	0.05	0.001*
Average Number of HSE Tests Passed	3.05	2.50	0.55	0.000*
Average Number of Days to Receive a Gain	75.10	91.54	16.44	0.000*
Sample Size	2,156	2,156	-	-
75th Percentile Analysis	Intensive CIS	Moderate CIS	Difference	P-value
Average Number of Gains Received	1.30	1.18	0.12	0.000*
Sample Size	2,110	2,110	-	-
Average Number of HSE Tests Passed	2.85	2.51	0.34	0.004*
Sample Size	2,805	2,805	-	-
Average Number of Days to Receive a Gain	69.64	107.38	37.74	0.000*
Sample Size	5,606	5,606	-	-
Literature Review Analysis	CIS	Non-CIS	Difference	P-value
Average Number of Gains Received	1.14	1.12	0.02	0.230
Average Number of HSE Tests Passed	2.57	2.20	0.37	0.132
Average Number of Days to Receive a Gain	58.76	121.29	62.53	0.000*
Sample Size	685	685	-	-
Largest Effect Sizes Analysis	CIS	Non-CIS	Difference	P-value
Average Number of Gains Received	1.16	1.15	0.01	0.261
Average Number of HSE Tests Passed	2.85	2.43	0.42	0.002*
Average Number of Days to Receive a Gain	76.16	128.98	52.82	0.000*
Sample Size	3,653	3,653	-	-

^{*}Significant at p < 0.05

Limitations

Survey data was collected from just 27 percent of providers in the state that offered classes in PY'18; therefore, the results can only be generalized to the 26 providers that responded to the survey.

Future Research

Would getting more one-on-one intensive services during intake help students who transition to distance learning feel more connected to their teachers and fellow students and help them in turn stay motivated and make progress in the program? Examining how comprehensive intake services may impact the performance of distance-learning students would be an interesting option for further research. That level of analysis was not possible for this study, as there were not enough distance-learning students in the sample.

Appendixes

Appendix A. Intake Services Survey

As you are completing this survey, please answer the questions with the majority of your sites in mind as well as thinking about what practices were in place in PY'18 (July 2018–June 2019). For example, when asked how often orientation sessions are offered, think about what more than half of your sites do, and then select the appropriate answer. If none of the answer choices fits more than half of your sites, then choose the option that fits the biggest grouping of your sites.

Question #	Question/Answer Choices
QI	Do you have any type of preregistration mechanism for students (for example, an online system for students to contact the program or begin registration)?
I	Yes
2	No
Q2	If 'Yes' to QI, what type of preregistration information is collected? Select all that apply
- 1	Student's name & contact information
2	Classes of interest (HSE, ESL, etc)
3	Education Level
4	Employment status
5	Demographic information (sex, race, age, etc)
6	Other (please specify)

The following providers completed the survey: Abilene Independent School District, Angelina College, Austin Community College, Brownsville Independent School District, Central Texas College, Community Action Incorporated, Denton Independent School District, Fort Worth Independent School District, Grayson College North Central, Harris County Department of Education, Howard College, Howard College San Angelo, Irving Independent School District, Laredo College, McLennan Community College, Midland College, Navarro College, Odessa College, Region 2 Education Service Center, Region 5 Education Service Center, Region 9 Education Service Center, Region 17 Education Service Center, San Antonio Independent School District, Temple College, Texarkana College, and Victoria College

Q3	Approximately how many hours of non-contact hour initial service (testing, orientation, etc.) does an individual receive before being placed in a class for direct hours
1	Up to 3
2	4–6
3	7–10
4	11–14
5	I5 or more
6	Other
Q4	Which of the following statements best describes your student orientation process?
I	Set orientation schedule/agenda for all students
2	Specific activities for all students but orientation times/days vary
3	Different for each student
4	Different depending on location
Q5	How often are orientation sessions offered?
I	Once per week
2	Once every two weeks
3	Once a month
	As Needed
5	I don't know
6	Other (please specify)
Q6*	On average, how many students are in an orientation class?
*	I student
*2	2–5 students
*3	6–10 students
	II-I5 students
Ī	21–25 students
7	More than 25 students
Q7	If there is a limit set on the maximum number of students who may attend an orientation session (for example, no more than 15 students), please provide the maximum number.
Q8	When does eligibility testing occur? (If administering one domain and then determining placement, use the timing of the single domain test to answer the question)
I	Non-Contact Hour Service (for example, 3-hour Orientation)
2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")
3	I don't know
4	Other (please specify)

Q9		When is the enrollment form completed?				
	- 1	Online preregistration				
	2	Non-Contact Hour Service (for example, 3-hour Orientation)				
	3	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")				
	4	I don't know				
	5	Other (please specify)				
Q10*		How is the enrollment form completed?				
	*	Students fill out form on their own/Help is available from staff if needed				
	*2	Staff collect data directly from all students and staff then complete the form				
	3					
	4	Other (please specify)				
QII*		Who instructs students during the orientation period?				
	*	Dedicated staff (non-teachers) who primarily conduct orientations				
	2	Administrative staff (non-teachers) who have multiple duties including conducting orientations				
	*3	Teachers				
	4	A blend of dedicated staff, administrative staff, and teachers				
	5	I don't know				
	6	Other (please specify)				
Q12*		If dedicated intake staff who are not also teachers collect student information during orientation, is that information given to teachers in a timely manner (within three weeks of the class begin date)?				
	*	Always				
	*2	Most of the time				
	3	Occasionally/Rarely				
	4	Never				
	5	I don't know				
	6	Not Applicable				
	/	Other (please specify)				
Q13*		Do the students have the opportunity to meet the teachers of their upcoming classes during orientation?				
	*	Always				
	*2	Most of the time				
	3	· · · · · ·				
	4					
	5	I don't know				
	6	Other (please specify				

Q14*		During orientation and/or within the first three weeks of class instruction, do former/current students speak to prospective students about their expe-riences in the program?				
*		Always				
*	2	Most of the time				
	3	Occasionally/Rarely				
	4	Never				
	5	I don't know				
	6	Other (please specify)				
Q15	During orientation and/or within the first three weeks of class instruction, are people such as employers or workforce board staff brought in to speak to students about other program services that may be available to them or the benefits of reaching their AEL related employment goals?					
	I	Always				
	2	Most of the time				
	3	Occasionally/Rarely				
	4	Never				
	5	I don't know				
	6	Other (please specify)				
Q16*	ı	During orientation and/or within the first three weeks of class instruction, are students asked about their positive or negative aspects of any prior educational experiences? (This is different from asking about their prior educational levels.)				
*	*	Always				
*	2	Most of the time				
	3	Occasionally/Rarely				
	4	Never				
	5	I don't know				
	6	Other (please specify)				
Q1 7 *		Are students given an opportunity to participate in any activities with other students during orientation?				
*	•	Always				
*	2	Most of the time				
	3	Occasionally/Rarely				
		Never				
		I don't know				
	6	Other (please specify)				

Q18*	When do students learn details about the program? (for example: Review of attendance policy and class participation expectations, Types of services offered, Emergency evacuation procedures, Grievance procedures, Rights and responsibilities of participants, Program code of conduct)			
*	Non-Contact Hour Service (for example, 3-hour Orientation)			
*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
3	We do not provide this service currently			
4	I don't know			
5	Other (please specify)			
Q19*	When do students receive initial information about available support services (services for homelessness, substance abuse, crisis counseling, accommodations for disabilities, etc)?			
*	Non-Contact Hour Service (for example, 3-hour Orientation)			
*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
3	We do not provide this service currently			
4	I don't know			
5	Other (please specify)			
Q20*	When does the development of Individual Training, Education, and Career (ITEC) plan begin?			
*	Non-Contact Hour Service (for example, 3-hour Orientation)			
*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
	We do not provide this service currently			
+	I don't know			
5	Other (please specify)			
Q21*	When does initial identification of a planned MSG occur? (Planned MSG is identified during a participant's initial comprehensive assessment and forecast to be the most likely MSG to allow the individual to make performance gains. The forecast is based on the participant's level at intake, initial objectives, goals, and the program of study selected during enrollment.)			
*	Non-Contact Hour Service (for example, 3-hour Orientation)			
*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
	We do not provide this service currently			
-	I don't know			
5	Other (please specify)			

Q22*		When does initial goal setting occur?				
	*	Non-Contact Hour Service (for example, 3-hour Orientation)				
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")				
	3	We do not provide this service currently				
	4	I don't know				
	5	Other (please specify)				
Q23*		During orientation and/or within the first three weeks of class instruction, are students given the opportunity to set "S.M.A.R.T. goals" (Specific, Measurable, Achievable, Relevant, Time-Bound)?				
	*	Always				
	*2	Most of the time				
	3	Occasionally/Rarely				
	4	Never				
	5	I don't know				
	6	Other (please specify)				
Q24*		When does initial career counseling or career exploration activities occur?				
	*	Non-Contact Hour Service (for example, 3-hour Orientation)				
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")				
	3	We do not provide this service currently				
	4	I don't know				
	5	Other (please specify)				
Q25*		When are the Educational Technology Resources and/or Distance Learning option first presented?				
	*	Non-Contact Hour Service (for example, 3-hour Orientation)				
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")				
		We do not provide this service currently				
	5	Other (please specify)				
Q26*		When is information about student learning styles first collected?				
	*	Non-Contact Hour Service (for example, 3-hour Orientation)				
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")				
		We do not provide this service currently				
		I don't know				
	5	Other (please specify)				

Q27*		When is information about learning strategies and success skills first provided?			
	*	Non-Contact Hour Service (for example, 3-hour Orientation)			
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
	3	We do not provide this service currently			
	4	I don't know			
	5	Other (please specify)			
Q28*		When is information about time-management techniques (to aid students who may have familial/work obligations) first given to students?			
	*	Non-Contact Hour Service (for example, 3-hour Orientation)			
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
	3				
	4	I don't know			
	5				
Q29*		When are students first made aware that financial literacy services and counseling are available to them?			
	*	Non-Contact Hour Service (for example, 3-hour Orientation)			
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
	3	We do not provide this service currently			
	4	l don't know			
	5				
Q30*		When does the tour of the campus/facilities occur?			
	*	Non-Contact Hour Service (for example, 3-hour Orientation)			
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
		We do not provide this service currently			
	4	I don't know			
	5	Other (please specify)			
Q31*		When is the distribution of the class syllabus?			
	*	Non-Contact Hour Service (for example, 3-hour Orientation)			
	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")			
	3	We do not provide this service currently			
	4	I don't know			
	5	Other (please specify)			

Q32*		When are students made aware that they can leave the program and return	Q36*	What type of program do you provide?
Q3Z*		at a later date if necessary (planned gap)?	*	Managed enrollment— Once classes begin, no new
*	*	Non-Contact Hour Service (for example, 3-hour Orientation)		students may enroll
*	*2	First 3 Weeks of Class, Contact Hour/ Standard Traditional (for example, "HSE Prep", "ESL 3")	2	Open enrollment—Once classes begin, students may enroll and enter the class at any time
	3	We do not provide this service currently		Hybrid managed enrollment—Students may
	4	I don't know	*3	enroll and enter classes at specified intervals (Ex. Class
	5	Other (please specify)	,	may be eight weeks long and
		Aside from the BEST Plus interview, is a one-on-one interview conducted		students may enter at two- week intervals)
Q33*		with each student during the orientation period and/or within the first three weeks of classroom instruction for ABE and ESL students?	4	A combination of both— Some providers use managed enrollment and some providers use open enrollment
*		Always	-	
*	2	Most of the time	-	I don't know
	3	Occasionally/Rarely	6	Other (please specify)
		Never		Generally, how much time passes between the end of
	5 6	I don't know Other (please specify)	Q37*	orientation and the student
	0	Is your intake/orientation process		beginning class instruction?
Q34		different for students entering an IET	*	Same day
		program?	*2	Next day (next business day)
	1	Always	*3	Less than one week
	2	Most of the time	*4	One week
	3	Occasionally/Rarely	5	Greater than one week/Up
	4	Never		to two weeks
	5	I don't know	7	Greater than two weeks
	6			Other (please specify)
Q35		Is your intake/orientation process different for intensive services students?		Are there any other services provided to students during the orientation process or
	Τ	Always	Q38	within the first three weeks
	2	Most of the time		of class instruction that have not been covered in this
	3			survey? Please specify
	4	. 1010.	Nota: 4	Ouestions and answer choices
	5		shaded i	in grey and have asterisks were
	6	Other (please specify)		he analysis as the comprehensive intake services (CIS)

Appendix B. Description of Demographic Characteristics Used for Matching Sample Groups

Race	Displaced Homemaker		
•Asian	The conference of the conferen		
•Black	 The participant, at program entry, has been providing unpaid services to family 		
•White	members in the home and either has been		
•Hispanic	dependent on the income of another family member but is no longer supported by that income or is the dependent spouse of a member of the Armed Forces on active duty (as defined in 10		
 Other race (American Indian, Alaskan Native, Hawaiian, Pacific Islander, or more than one race) 			
Sex	USC §101(d)(1)) whose family income is		
•Male	significantly reduced* and is unemployed		
•Female	or underemployed and is experiencing difficulty in obtaining or upgrading		
Employment Status at Program Entry	employment.		
Unemployed	* because of:		
•Employed	 a deployment, as defined in 10 USC §991(b) 		
Other (please specify)	or pursuant to 10 USC §991(b)(4),		
 Employed, but received notice of termination of employment or military separation is pending 	 a call or order to active duty pursuant to a provision of law referred to in 10 USC §101(a)(13)(B), a permanent change of 		
•Not in labor force			
Highest School Grade Completed	station, or		
•No grades completed	the service-connected death or disability of		
•Ist–8th grade completed	the member, as defined in 38 USC §101(16)		
•9th–12th grade completed			
Highest Education Level Completed			
•No levels completed			
 Attained secondary school diploma or secondary school equivalency 			
 Participant with a disability receives a certificate of attendance/completion 			
 Completed one or more years of postsecondary education 			
 Attained a postsecondary technical or vocational certificate (non-degree) 			

•Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a

bachelor's degree

Low Income

- •The participant, at program entry, is a person who:
- receives, or in the six months prior to application to the program has received, or is a
 member of a family that is receiving or in the past six months prior to appli-cation to the
 program has received:
 - assistance through the Supplemental Nutrition Assistance Program (SNAP) under the Food and Nutrition Act of 2008 (7 USC 2011 et seq.);
 - assistance through TANF under part A of Title IV of the Social Security Act (42 USC 601 et seq.);
 - assistance through the supplemental security income program under Title XVI of the Social Security Act (42 USC 1381); or
 - state or local income-based public assistance;
- is in a family with total family income that does not exceed the higher of the pov-erty line or 70 percent of the lower living standard income level;
- is an individual who receives or is eligible to receive a free or reduced-price lunch under the Richard B. Russell National School Lunch Act (42 USC 1751 et seq.);
- is a foster child on behalf of whom state or local government payments are made;
- is a participant with a disability whose own income is the poverty line but who is a member of a family whose income does not meet this requirement;
- is a homeless participant or a homeless child or youth or a runaway youth; or
- is a youth living in a high-poverty area.

Ex-offender

The participant, at program entry, is a person who either has been subject to any stage of the criminal justice process for committing a status offense or delinquent act or requires assistance in overcoming barriers to employment resulting from a record of arrest or conviction.

Homeless

- •The participant, at program entry:
- lacks a fixed, regular, and adequate nighttime residence; this includes a participant who:
 - is sharing the housing of other persons due to loss of housing, economic hardship, or a similar reason;
 - is living in a motel, hotel, trailer park, or campground due to a lack of alternative adequate accommodations;
 - is living in an emergency or transitional shelter;
 - is abandoned in a hospital; or
 - is awaiting foster care placement;
- has a primary nighttime residence that is a public or private place not designed for or
 ordinarily used as a regular sleeping accommodation for human beings, such as a car, park,
 abandoned building, bus or train station, airport, or camping ground;

- is a migratory child who in the preceding 36 months was required to move from one school district to another due to changes in the parent's or parent's spouse's seasonal employment in agriculture, dairy, or fishing work; or
- is under 18 years of age and absents himself or herself from home or place of le-gal residence without the permission of his or her family (i.e., runaway youth).
- •This definition does not include a participant imprisoned or detained under an act of Congress or state law. A participant who may be sleeping in a temporary accommodation while away from home should not, as a result of that alone, be recorded as home-less.

Single Parent

•The participant, at program entry, is single, separated, or divorced or a widowed individual who has primary responsibility for one or more dependent children under age 18 (including single pregnant women).

Foster Care Youth

•The participant, at program entry, is a person age 24 or under who is currently in foster care or has aged out of the foster care system.

Long-Term Unemployed

•The participant, at program entry, has been unemployed for 27 or more consecutive weeks.

English Language Learner

- •The participant, at program entry, is a person who has limited ability in speaking, reading, writing, or understanding the English language and also meets at least one of the following two conditions:
- his or her native language is a language other than English, or
- he or she lives in a family or community environment where a language other than English is the dominant language.

Cultural Barriers

•The participant, at program entry, perceives him or herself as possessing attitudes, beliefs, customs, or practices that influence a way of thinking, acting, or working that may serve as a hindrance to employment

Enrolled in Secondary Education

•The participant was enrolled in a secondary education program at or above the ninth grade level. A secondary education program includes both secondary school and enrollment in a program of study with instruction designed to lead to a high school equivalent credential. Examples may include adult high school credit programs and programs designed to prepare participants to pass recognized high school equivalency exams such as the GED, HiSET, or TASC. Programs of study designed to teach English proficiency skills or literacy skills below the ninth grade equivalent are not considered secondary education programs. States may use this coding value if the participant was either already enrolled in education or training at the time of application to the program or became enrolled in an education or training program at or above the ninth grade level at any point while participating in the program.

Disabled

•The participant indicates that he/she has any disability, as defined in the Americans with Disabilities Act of 1990 (42 U.S.C. 12102). Under that definition, a "disability" is a physical or mental impairment that substantially limits one or more of the person's major life activities.

- Disabled Veteran
- •Special Disabled Veteran

Veteran

- •Yes < = 180 days
- •Yes, eligible veteran
- Yes, other eligible person

Migrant Seasonal Farm Worker

- •Seasonal farm worker adult
- Migrant farm worker adult
- •Migrant seasonal farm worker youth

Exhausting TANF Within Two Years

•The participant, at program entry, is within two years of exhausting lifetime eligibility under part A of Title IV of the Social Security Act (42 USC 601 et seq.), regardless of whether the participant is receiving these benefits at program entry.

Job Corps

•The participant received services under Title I, Chapter 4, Subtitle C of the Workforce Innovation and Opportunity Act (WIOA).

Age at Program Entry

- •16-18 years
- •19-24 years
- •25–44 years
- •45–54 years
- •55–59 years
- •60 or Older

Note: Definitions primarily come from the ETA-9170 documentation located at https://www.dol.gov/sites/dolgov/files/ETA/Performance/pdfs/ETA%209170%20-%20WIOA%20PIRL_Final_V22_062716. pdf.

Appendix C. Student Characteristics for RQ1 Analysis

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,156	2,156
Displaced homemaker	21	21
Low Income	610	610
Ex-offender	29	29
Offender	87	87
Homeless	19	19
Single parent	276	276
Foster care youth	10	10
Long-term unemployed	501	501
English language learner	1,080	1,080
Cultural barriers	89	89
Enrolled in secondary education	312	312
Disabled	93	93
Veteran	5	5
Migrant seasonal farm worker	12	12
Exhausting TANF within two years	16	16
Job Corps	7	7
Distance learner	5	5
Sex		
Female	1,451	1,451
Male	705	705

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,156	2,156
Race		
Asian	610	610
Black	29	29
Hispanic	87	87
Other	19	19
White	276	276
Age		
16 to 18	166	166
19–24 years	371	371
25–44 years	1,151	1,151
45–54 years	297	297
55–59 years	86	86
60 or Older	85	85
Highest School Grade Completed		
No grades completed	52	52
Grades I–8 completed	264	264
Grades 9–12 completed	1,840	1,840

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,156	2,156
Employment Status at Program Entry		
Unemployed	462	462
Employed	1,082	1,082
Employed, but received notice of termination of employment or military separation is pending	0	0
Not in labor force	612	612
Highest Education Level (Completed	
None completed	1,215	1,215
Attained secondary school diploma or equivalency	464	464
Participant with a disability receives a certificate of attendance/completion		-
Completed one or more years of postsecondary education	95	95
Attained a postsecondary technical or vocational certificate (non-degree)	87	87
Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a bachelor's degree	294	294

Appendix D. Student Characteristics for RQ2 75th Percentile Effect Sizes—Average Gains

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,110	2,110
Displaced homemaker	17	17
Low Income	534	534
Ex-offender	13	13
Offender	47	47
Homeless	14	14
Single parent	280	280
Foster care youth	7	7
Long-term unemployed	322	322
English language learner	1,113	1,113
Cultural barriers	113	113
Enrolled in secondary education	224	224
Disabled	93	93
Veteran	-	-
Migrant seasonal farm worker	5	5
Exhausting TANF within two years	92	92
Job Corps	-	
Distance learner	30	30
Sex		
Female	1,489	1,489
Male	621	621

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,110	2,110
Race		
Asian	64	64
Black	98	98
Hispanic	1,625	1,625
Other	8	8
White	315	315
Age		
16 to 18	251	251
19–24 years	412	412
25-44 years	1,106	1,106
45–54 years	247	247
55–59 years	60	60
60 or Older	34	34
Highest School (Grade Con	npleted
No grades completed	24	24
Grades I–8 completed	230	230
Grades 9–12 completed	1,856	1,856

Student Characteristics	Intensive CIS	Moderate CIS		
Total	2,156	2,156		
Employment Status at Program	Entry			
Unemployed	405	405		
Employed	1,073	1,073		
Employed, but received notice of termination of employment or military separation is pending	0	0		
Not in labor force	632	632		
Highest Education Level Comp	Highest Education Level Completed			
None completed	1,314	1,314		
Attained secondary school diploma or equivalency	383	383		
Participant with a disability receives a certificate of attendance/completion	0	0		
Completed one or more years of postsecondary education	70	70		
Attained a postsecondary technical or vocational certificate (non-degree)	63	63		
Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a bachelor's degree	280	280		

Appendix E. Student Characteristics for RQ2 75th Percentile Effect Sizes—HSE Tests Passed

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,805	2,805
Displaced homemaker	34	34
Low Income	1,346	1,346
Ex-offender	17	17
Offender	30	30
Homeless	14	14
Single parent	436	436
Foster care youth	7	7
Long-term unemployed	488	488
English language learner	1,715	1,715
Cultural barriers	122	122
Enrolled in secondary education	274	274
Disabled	75	75
Veteran	-	-
Migrant seasonal farm worker	25	25
Exhausting TANF within two years	30	30
Job Corps	10	10
Distance learner	26	26
Sex		
Female	2,053	2,053
Male	752	752

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,805	2,805
Race		
Asian	36	36
Black	59	59
Hispanic	2,505	2,505
Other	-	-
White	201	201
Age		
16 to 18	276	276
19–24 years	480	480
25-44 years	1,467	1,467
45-54 years	393	393
55-59 years	103	103
60 or Older	86	86
Highest School (Grade Con	npleted
No grades completed	25	25
Grades I-8 completed	370	370
Grades 9–12 completed	2,410	2,410

Student Characteristics	Intensive CIS	Moderate CIS
Total	2,805	2,805
Employment Status at Pr	ogram Ent	ry
Unemployed	696	696
Employed	1,313	1,313
Employed, but received notice of termination of employment or military separation is pending	0	0
Not in labor force	796	796
Highest Education Level Completed		
None completed	1,750	1,750
Attained secondary school diploma or equivalency	467	467
Participant with a disability receives a certificate of attendance/completion	0	0
Completed one or more years of postsecondary education	97	97
Attained a postsecondary technical or vocational certificate (non-degree)	87	87
Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a bachelor's degree	404	404

Appendix F. Student Characteristics for RQ2 75th Percentile Effect Sizes—Days to Gain

Student Characteristics	Intensive CIS	Moderate CIS
Total	5,606	5,606
Displaced homemaker	41	41
Low Income	2,207	2,207
Ex-offender	34	34
Offender	25	25
Homeless	18	18
Single parent	916	916
Foster care youth	Ш	Ш
Long-term unemployed	1,047	1,047
English language learner	3,420	3,420
Cultural barriers	856	856
Enrolled in secondary education	711	711
Disabled	130	130
Veteran	16	16
Migrant seasonal farm worker	34	34
Exhausting TANF within two years	51	51
Job Corps	18	18
Distance learner	19	19
Sex		
Female	4,035	4,035
Male	1,571	1,571

Student Characteristics	Intensive CIS	Moderate CIS
Total	5,606	5,606
Race		
Asian	284	284
Black	374	374
Hispanic	4,627	4,627
Other	13	13
White	308	308
Age		
16 to 18	289	289
19–24 years	839	839
25-44 years	3,061	3,061
45–54 years	945	945
55-59 years	229	229
60 or Older	243	243
Highest School Grade Completed		
No grades completed	66	66
Grades I–8 completed	885	885
Grades 9–12 completed	4,655	4,655

Student Characteristics	Intensive CIS	Moderate CIS
Total	5,606	5,606
Employment Status at Program	Entry	
Unemployed	1,123	1,123
Employed	2,957	2,957
Employed, but received notice of termination of employment or military separation is pending	-	-
Not in labor force	1,525	1,525
Highest Education Level Completed		
None completed	3,686	3,686
Attained secondary school diploma or equivalency	900	900
Participant with a disability receives a certificate of attendance/completion	-	-
Completed one or more years of postsecondary education	169	169
Attained a postsecondary technical or vocational certificate (non-degree)	121	121
Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a bachelor's degree	727	727

Note: A dash represents a value less than five that was suppressed

Appendix G. Student Characteristics for RQ2 Literature Review Analysis Group

Student Characteristics	Intensive CIS	Moderate CIS	
Total	685	685	
Displaced homemaker	-	-	
Low Income	186	186	
Ex-offender	-	-	
Offender	17	17	
Homeless	0	0	
Single parent	95	95	
Foster care youth	-	-	
Long-term unemployed	144	144	
English language learner	434	434	
Cultural barriers	14	14	
Enrolled in secondary education	74	74	
Disabled	13	13	
Veteran	-	-	
Migrant seasonal farm worker	-	-	
Exhausting TANF within two years	9	9	
Job Corps	-	-	
Distance learner	0 0		
Sex			
Female	504	504	
Male	181	181	

Student Characteristics	Intensive CIS	Moderate CIS	
Total	685	685	
Race			
Asian	Ш	Ш	
Black	-	-	
Hispanic	642	642	
Other	0	0	
White	31	31	
Age			
16 to 18	60	60	
19–24 years	126	126	
25-44 years	372	372	
45-54 years	97	97	
55–59 years	16	16	
60 or Older	14	14	
Highest School Grade Completed			
No grades completed	-	-	
Grades I–8 completed	65	65	
Grades 9–12 completed	619	619	

Student Characteristics	Intensive CIS	Moderate CIS		
Total	685	685		
Employment Status at Program	Entry			
Unemployed	82	82		
Employed	359	359		
Employed, but received notice of termination of employment or military separation is pending	0	0		
Not in labor force	244	244		
Highest Education Level Comp	Highest Education Level Completed			
None completed	0	0		
Attained secondary school diploma or equivalency	-	-		
Participant with a disability receives a certificate of attendance/completion	0	0		
Completed one or more years of postsecondary education	-	-		
Attained a postsecondary technical or vocational certificate (non-degree)	-	-		
Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a bachelor's degree	5	5		

Appendix H. Student Characteristics for RQ2 Largest Effect Size Analysis Group

Student Characteristics	Intensive CIS	Moderate CIS	
Total	3,653	3,653	
Displaced homemaker	17	17	
Low Income	1,257	1,257	
Ex-offender	9	9	
Offender	5	5	
Homeless	-	-	
Single parent	467	467	
Foster care youth	0	0	
Long-term unemployed	576	576	
English language learner	2,465	2,465	
Cultural barriers	646	646	
Enrolled in secondary education	379	379	
Disabled	57	57	
Veteran	6	6	
Migrant seasonal farm worker	16	16	
Exhausting TANF within two years	26	26	
Job Corps	Ш	Ш	
Distance learner	16 16		
Sex			
Female	2,758	2,758	
Male	895	895	

Student Characteristics	Intensive CIS	Moderate CIS	
Total	3,653	3,653	
Race			
Asian	205	205	
Black	148	148	
Hispanic	3,138	3,138	
Other	6	6	
White	156	156	
Age			
16 to 18	135	135	
19–24 years	469	469	
25–44 years	2,051	2,051	
45–54 years	662	662	
55–59 years	163	163	
60 or Older	173	173	
Highest School Grade Completed			
No grades completed	44	44	
Grades I-8 completed	647	647	
Grades 9–12 completed	2,962	2,962	

Student Characteristics	Intensive CIS	Moderate CIS		
Total	3,653	3,653		
Employment Status at Program	Entry			
Unemployed	710	710		
Employed	1,891	1,891		
Employed, but received notice of termination of employment or military separation is pending	0	0		
Not in labor force	1,052	1,052		
Highest Education Level Compl	Highest Education Level Completed			
None completed	2,351	2,351		
Attained secondary school diploma or equivalency	579	579		
Participant with a disability receives a certificate of attendance/completion	0	0		
Completed one or more years of postsecondary education	110	110		
Attained a postsecondary technical or vocational certificate (non-degree)	54	54		
Attained an associate's degree; attained a bachelor's degree; attained a degree beyond a bachelor's degree	559	559		

Note: A dash represents a value less than five that was suppressed

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