



Communities
In Schools

Communities In Schools National Evaluation

Volume 5:

Randomized Controlled Trial Study Austin, Texas

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Executive Summary

Communities In Schools (CIS) is the nation's largest dropout prevention organization. For more than 30 years, CIS has connected schools with needed community resources to help students stay in school and make responsible choices. By bringing resources, services, parents, and volunteers into schools, they create a community of caring adults who work collaboratively with educators. Rather than duplicating services or competing with other youth-serving organizations or agencies, CIS identifies and mobilizes existing community resources and fosters cooperative partnerships for the benefit of students and families.

In May 2005, The Atlantic Philanthropies funded a comprehensive national evaluation of CIS. The evaluation, designed and conducted by ICF International, can be envisioned as a three-level pyramid:

- **Organizational (base-level) studies** provide for the identification of *network-wide* findings.
- **School-level (mid-level) studies** provide for the identification of CIS's effects at the *school level*.
- **Student-level (top-level) studies** provide for the identification of CIS's effects at the *student level*.

CIS of Central Texas: Randomized Controlled Trial (RCT)

The experimental study conducted with CIS of Central Texas focused on the following question about the efficacy of the program's services:

What is the "value added" of CIS case-managed services on student-level outcomes, including school engagement, attitude toward school, relationship with a caring adult, commitment to school, prosocial behavior, academic performance, and involvement in community?

Description of CIS of Central Texas Activities

Through school-based programs and special projects, CIS of Central Texas creates a network of volunteers, social services, businesses, and community resources that work together to eliminate barriers, and help students succeed. Basic services include counseling and supportive guidance, health and human services (e.g., agency referrals, basic needs, clothing, and housing), parental involvement, workforce training and development, and educational enhancements.

Study Methodology

The CIS of Central Texas RCT began with an orientation and training of CIS staff regarding the background, purpose, and design of the study. Six Austin Independent School District (AISD) high schools were identified as prime locations for the study. Participating high schools were large urban schools, with large minority and economically disadvantaged populations. Since the need for services was greater than the capacity of CIS to serve students, eligible students were randomly assigned to receive or not receive CIS services, based upon their birth date.

Recruitment included two cohorts, beginning with the 2007/2008 ninth grade class and continuing with the 2008/2009 ninth grade class. Each cohort was also followed for an additional year. Data collection included student surveys, school records data, and information regarding receipt of CIS and non-CIS services. Additionally, site visits were conducted during each school year.

Findings

Intent-to-treat analyses (i.e., including all students as originally assigned) were conducted to determine the impact of CIS on student-level outcomes. Specifically, the confirmatory question was considered through three different approaches: simple treatment and control mean differences, application of univariate analysis of covariance (ANCOVA) models to assess whether these differences were statistically significant, and calculation of net change scores and their corresponding effect sizes.¹

Three levels of impacts also were examined for each outcome of interest: baseline to Year 1 (i.e., ninth grade) impacts (main impacts), Year 1 to Year 2 (i.e., tenth grade) impacts (follow on), and baseline to Year 2 (i.e., the 2-year impact of CIS from baseline to tenth grade) (follow on).

Services Provided

Year 1 case-managed services for Cohort 1 and Cohort 2 ranged from 0 to 161 points of contact and from 0 to 119 case-managed hours. On average, students received 24.6 points of contact and 18.4 hours of service through their ninth grade year, with the largest percentage of services focused on supportive guidance and counseling.

Year 2 case-managed services ranged from 0 to 118 points of contact and from 0 to 87 hours. On average, students received 13.7 points of contact and 10.7 hours of service during their tenth grade year.²

Academic Outcomes

Academic outcomes examined included student grade point average (GPA), credit completion, and –Texas Assessment of Knowledge and Skills mathematics and reading tests. Baseline to Year 1 (i.e., ninth grade) impact analyses found significant positive differences on both student GPA and credit completion in favor of students receiving CIS services. Examination of net changes indicated that among treatment students, on average, GPAs were 3.52 points higher with 1.06 additional credits completed compared to control students. While not significant from Year 1 to Year 2 (i.e., tenth grade), GPA and credit completion impacts demonstrated a small negative net change. Two-year (baseline to Year 2) GPA and credit completion trends,

¹ Effect sizes indicate strength of net changes between students receiving and not receiving CIS services for the outcome variable. What Works Clearinghouse classifies effect sizes of .25 or greater as “substantively important.”

² Averages and ranges are based on all CIS participants, whether they received services or not. Fifteen CIS students from Year 1 and 52 CIS students from Year 2 did not receive any services. Reasons for not receiving services varied from students moving/transferring before services could be delivered to student receiving services after assenting to participate in the study.

however, were still positive, with GPA and credit completion averages approximately 1.86 points higher and 0.09 more credits completed.

Behavioral Outcomes

The study included an examination of behavioral outcomes, including student attendance and number of disciplinary referrals. As with academic outcomes, baseline to Year 1 analyses found a significant positive difference for treatment participants. Net changes indicated that CIS participant attendance rates were 4.83 percentage points higher than their counterparts. While not as large or significant, two-year net changes were also positive, with a positive net treatment group change of 1.26 percentage points over the control group.

Dropout

In addition to providing school records, AISD also provided a dropout indicator for study participants in the form of student leaver codes. Six students (2 treatment and 4 control) were designated as dropouts by AISD at the end of Year 1, while 8 additional students (7 treatment and 1 control) were designated as dropouts at the end of Year 2. Year 2 and combined Year 1 and Year 2 dropout rates should be considered cautiously as PEIMS 2008-2009 student leaver codes had not been finalized at the time of this report. Furthermore, review of CIS service logs indicated that 6 of the 7 treatment students identified as dropouts in Year 2 did not receive any CIS services during that year.

Student Perceptions of Attitudes and Behaviors

Individual analysis of survey items found numerous significant increases on students' perceptions, including being well-liked by teachers, having positive ways to cope when they were upset, getting a job they wanted, and finishing college. However, net changes for each of the six survey constructs (i.e., personal responsibility, self-worth, school/community involvement, family relationships/parental involvement, behavioral measures, and future aspirations) were relatively small and often not in favor of CIS participants.

Prior to receiving CIS services, all study participants completed an 86-item survey designed to examine students' perceptions of their peer, school, family, community, and individual relationships. Students then completed a follow-on survey at the end of Year 1 and at the beginning and end of Year 2.

Interview and Focus Groups

Interviews and focus groups also were conducted with key stakeholders to ensure a complete understanding of CIS of Central Texas and the programming within each high school included in the RCT. Identified strengths of CIS of Central Texas included individualized services, strong local support, professional staff, and mutual respect among CIS staff, school personnel, and students. Furthermore, stakeholders reported observing positive changes in students receiving CIS services, including positive changes in attendance, grades, behavior, and communication skills.

Conclusion

The greatest impacts of CIS of Central Texas were found at the end of Year 1 (i.e., ninth grade). These included significant positive differences in student attendance rate, GPA, and credit completion, with substantially important effect sizes ranging from 0.38 to 0.45. Year 1 dropout rates also demonstrated the positive effects that the CIS focus on ninth grade is having during an important transitional year.

Treatment on the treated analyses indicated that sustained services provided positive effects for student attendance and GPA, demonstrating a reversal of the intent-to-treat analysis findings. Moreover, detailed examination of student services and outcomes suggested that CIS of Central Texas provided more services and experienced better outcomes for males, and that the minimum duration of services, for CIS to be effective, ranged between 10.8 and 16.8 hours.

Overall 2-year impacts, while not significant and somewhat subdued, were also positive. Potential explanations for the dip in findings could be explained by considering the amount of services treatment students received during their second year, which was noticeably less than in their first year. This finding calls for careful examination of the frequency and dosage of services, including brokered/leveraged services, in relation to student outcomes. However, the stronger impacts at the end of Year 1 provide evidence that supports CIS of Central Texas' approach to providing targeted case-managed services to high need students during a critical transitional year. The longer term impact of this approach on graduation rates still needs to be examined.

Communities In Schools National Evaluation Randomized Controlled Trial in Austin, Texas

1. Introduction

This report details recruitment activities, study procedures, data collection, and preliminary findings from a randomized controlled trial (RCT) of Communities In Schools (CIS) of Central Texas..

1.1 CIS Programs

CIS is the nation's largest dropout prevention organization. For more than 30 years, CIS has connected schools with needed community resources to help students stay in school and make responsible choices. By bringing resources, services, parents, and volunteers into schools, they create a community of caring adults who work collaboratively with educators. Rather than duplicating services or competing with other youth-serving organizations or agencies, CIS identifies and mobilizes existing community resources and fosters cooperative partnerships for the benefit of students and families.

In partnership with the local school system, CIS identifies the most critical needs of students and families—needs that prevent children from succeeding in school and in life. CIS then locates and coordinates community resources, dedicated volunteers, and agencies to serve in partnership with the public schools, both during the day and after school. In some schools, services are available to all students and their families. In other schools, CIS offers services to particular students in need, either on a one-time basis or as part of a carefully monitored case management system. By creating comprehensive, locally organized and controlled support systems for schools, CIS ensures the work of outside agencies and volunteers is interconnected and integrated to provide the support schools need the most. *Coordination of effort* and *accountability for results* are essential aspects of CIS.

CIS uses **Five Basics**, or principles, to guide programs toward meeting their goals:

- **A one-on-one relationship with a caring adult:** mentors, tutors, parental involvement groups.
- **A safe place to learn and grow:** after-school and extended-hours programs.
- **A healthy start and a healthy future:** mental health counseling, family strengthening initiatives, drug and alcohol education, physical and dental exams, eye care and immunizations, help for teen parents.
- **A marketable skill to use upon graduation:** technology training for the future, career counseling and employment skills, college preparation and scholarship opportunities.
- **A chance to give back to peers and community:** community service opportunities, junior ROTC programs.

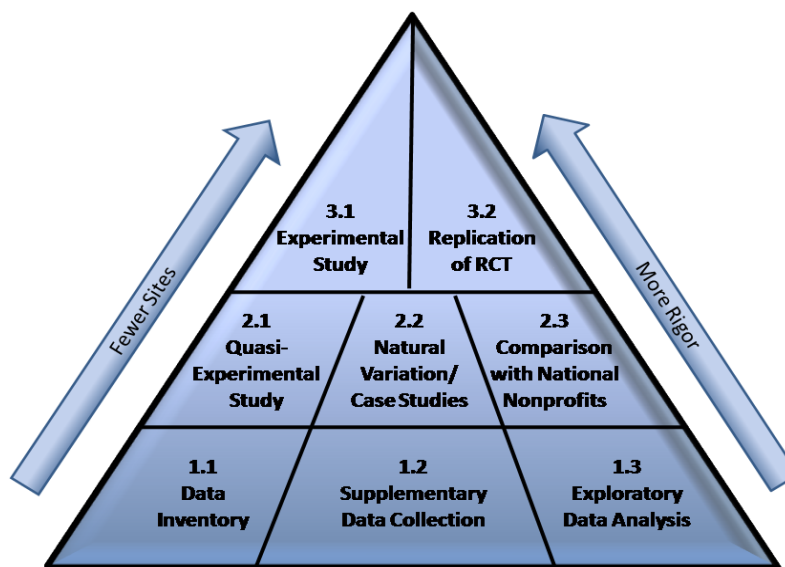
Each year, more than two million young people in 27 states and the District of Columbia have access to integrated student support services through Communities In Schools.

1.2 CIS National Evaluation

In May 2005, The Atlantic Philanthropies funded a comprehensive national evaluation of CIS. The evaluation, designed and conducted by ICF International, can be envisioned as a three-level pyramid, shown in Exhibit 1:

- **Organizational (base-level) studies** provide for the identification of *network-wide* findings. These studies give CIS National a more in-depth understanding of the strategies used throughout the network to help students in need. This component also provides for the development of strategies to ensure CIS remains an organization dedicated to evidence-based practices.
- **School-level (mid-level) studies** provide for the identification of CIS's effects at the *school level*. These studies help discover not only how much of an impact CIS has, but also how and why those impacts are being achieved.
- **Student-level (top-level) studies** provide for the identification of CIS's effects at the *student level*. Three experimental studies were conducted in Texas, Florida, and Kansas. This report presents results from the experimental study conducted in Austin, Texas.

Exhibit 1: National Evaluation Design



As depicted in Exhibit 1, in moving up the pyramid, fewer sites are involved in each study, but the studies become more rigorous. In this design, each level of the pyramid informs the other, and bringing the results of all studies together enables a comprehensive understanding of how CIS affects students, schools, and communities.

1.3 CIS of Central Texas- Randomized Controlled Trial Study

This experimental study primarily sought to answer the following question about the efficacy of the program's services:

What is the “value added” of CIS case-managed services on student-level outcomes, including school engagement, attitude toward school, relationship with a caring adult, commitment to school, prosocial behavior, academic performance, and involvement in community?

By impact, we mean the difference between the outcomes observed for CIS participants and what *would have been observed for these **same individuals** had they **not** participated in a CIS program*. The goal of this study was to use information from both CIS participants *and a statistically equivalent group of students who did not participate in CIS* to determine whether the program **caused** the observed student outcomes.

In addition, treatment and control service data and CIS student perceptions of CIS are examined. Together, these data give a descriptive analysis of the CIS services provided, afford a better understanding of the counterfactual, and document study participants' perceptions of the CIS program.

CIS of Central Texas Activities

Through campus-based programs and special projects, CIS of Central Texas creates a network of volunteers, social services, businesses, and community resources that work together to eliminate barriers and help students succeed. The CIS campus model is a comprehensive whole-school and student-level approach to help youth improve in academics and behavior, and stay in school. CIS of Central Texas targets students during their ninth grade year, typically providing students with one year of sustained/stable services, offering support during this critical transition year.

The model embodies concepts, strategies, and core values from the Five Basics and the CIS Six component delivery system.

The CIS Six component delivery system features:

- **Supportive guidance and counseling:** anger management, behavior, character building, and encouragement.
- **Health and human services:** agency referrals, basic needs/public assistance, clothes closet, fitness, health awareness, and housing.
- **Parental and family involvement:** family counseling/supportive guidance, letters to parents, and parent conferences.
- **Career awareness and employment:** career clubs, career counseling, career days, and employment listings/job postings.
- **Enrichment:** arts and crafts activities, after-school clubs, board games, and cultural/gender/ethnic/diversity activities.
- **Education:** academic skills, college awareness/preparation, grades, homework clubs, and tutoring.

Services are typically separated into *Level 1* (i.e., school-wide) and *Level 2* (i.e., case-managed) services. Level 1 services are widely accessible services and activities to help address identified needs or to build and reinforce student assets. Examples of Level 1 services are:

- Classroom presentations on a variety of topics, including pregnancy prevention, bullying prevention, goal setting, and higher education opportunities.
- Improving school climate activities (e.g., anti-violence campaign, gay/straight alliance activities).
- School-wide drives for food, school supplies, and clothing.
- Career and college awareness activities (e.g., career fairs, college fairs, Federal Application for Student Aid sessions).

However, the core of the CIS of Central Texas delivery model, and the focus of this study, is their case management approach (i.e., Level 2 services) to help students stay in school and prepare for life. As shown in Exhibit 2, the Texas case management process requires 11 elements that were adopted from the Brandeis Case Management Model, and follows a series of steps that can assist campus staff in serving students effectively and tracking individual progress. Each step must be followed in a specific order and manner to ensure continuity of services and program consistency statewide.

The case management process addresses each of the 11 elements. The elements are followed sequentially through service delivery. Once service begins, ongoing follow-up and monitoring of services is required to determine student progress. Reassessment determines whether to change or terminate services, target new issues, or revise the service plan, all of which are essential in meeting the student goals.

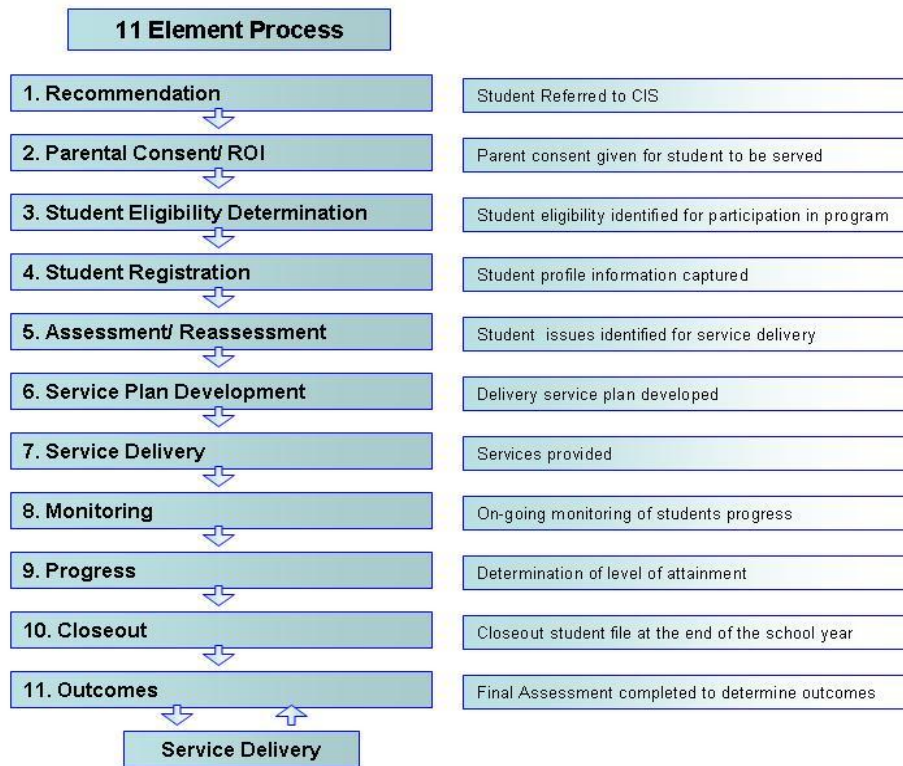
CIS of Central Texas defines case management as:

- Student-centered, goal-oriented systemic process for assessing a student's needs for particular services and assisting the student in obtaining those services that will lead to success.
- Problem solving function to ensure continuity of services to overcome fragmentation of services and inaccessibility.
- Strategy for coordinating the provision of services within the case management system at the student level.
- System of partnerships between case manager, student, school, and service providers/organizations working with the student to obtain goals.

Case management:

- Identifies and prioritizes the student's needs, develops a service plan, implements and coordinates services to meet those needs, delivers the services, and tracks student progress.
- Ensures that a detailed student profile is developed so a comprehensive program can be tailored to the student's individual needs.
- Is student-focused, from intake through exit to outcomes with documentation in the student's file, which is entered into the State case management system.
- Tracks and records services, progress, and outcomes.
- Ensures that every barrier to a student's success is identified, issues are targeted, and case managers relate all services and actions to outcomes.
- Establishes meaningful relationships between CIS staff and the student, which allows effective management of all issues.
- Connects agencies to students and families as needed.

Exhibit 2: CIS of Texas Case Management Flow Chart



The 11 process elements are:

- Recommendation:** The first step in the case management process is recognizing that a student can benefit from CIS services by recommending the student to CIS. The recommendation initiates the case management process by providing information to be used in the assessment, eligibility determination, and development of a case management plan for the student.
- Parental Consent and Texas Education Agency (TEA) Release of Information:** The second step is to acquire a signed Parental Consent and Release of Information Form. Obtaining parental consent initiates the relationship with the parent to ensure parental involvement and provides the parent with information regarding the recommendation and literature about CIS and services offered, so parents can make informed decisions regarding their children's participation in CIS.
- Student Eligibility:** To participate in the CIS program, a student must meet eligibility requirements. Students to be served by CIS should be those most in need of services to help them stay in school and improve attendance, academics, and/or behavior, and/or graduate, if eligible to graduate, or be promoted to the next grade.
- Participant Information/Registration:** Participant completion of the student profile is crucial to determining student and family needs. For example, if a family is determined to be homeless, services to help them find shelter would be planned, or based on

information obtained, the family might be qualified to receive public assistance or other services.

5. **Assessment/Reassessment:** The student's need for CIS services is determined by identifying all the issues that affect the student's success. The process also includes working with students to determine their needs and goals. The assessment process consists of an initial assessment and reassessments, conducted as needed, throughout the school year.
6. **Service Delivery Plan Development:** Once the issues have been targeted, the case manager selects the six component services that will address each of the targeted issues. It is critical to select the most accurate six components to ensure that the services will be those that address all the targeted issues.
7. **Service Delivery and Documentation:** Service delivery is the process of providing to students and their family the services identified on the service plan. Case-managed students must receive ongoing direct services each month while the file is active. Planned activity should be at least 30 minutes in duration and address one or multiple components of the CIS Six components. Additionally, a required element of case management is documenting all services that occur throughout the case management process.
8. **Monitoring:** Effective case management requires ongoing monitoring of the student's service plan and progress toward goals. Monitoring helps the case manager become aware of any changes in the student's situation that may require changes to the assessed and targeted issues and the service plan. Monitoring requires follow-up with the student, family, service providers, and teachers to stay abreast of the students' progress.
9. **Progress:** Progress is the process of determining the level of student achievement during the reporting period for all targeted issues. This process includes gathering and reviewing student information and data from appropriate sources in order to measure the progress during the reporting period. Progress is required for each reporting period and a final progress is required in order to close the student file.
10. **Closeout:** Closeout is the process of documenting all final student information in order to determine outcomes and exit the student from the program. Closeout is conducted at the end of the school year or end of a summer program. All student files must be closed by the end of the program year; this includes gathering information to conduct and document final progress, student status, exit codes, and leaver reasons.
11. **Outcomes:** Student progress is reported in academics, attendance, behavior, social service needs, student promotion, graduation, and stay in school in the form of outcomes. Outcomes are based on all the progresses posted during the program year, regardless of which CIS campus posted the progress, and are auto-generated by the CIS Tracking Management System (CISTMS) upon the completion of closeout.

Continuous documentation within each of the 11 elements is crucial and required in case management for verification and accountability. Without documentation, CIS cannot validate or justify the need for services. Implementation of each of the 11 elements becomes evident with

proper use of State CIS forms. These forms become the student case file that provides a history of a student's participation in the program from start to finish and the basis of the information entered into CISTMS.

2. Methodology

This 3-year study was designed to test the impact of CIS case-managed services on student-level outcomes, and consists of two cohorts (i.e., the 2007/2008 ninth grade class and the 2008/2009 ninth grade class) each followed for 2 years. Incoming ninth grade students from six local area high schools were randomly assigned to either receive or not receive CIS services. For ease of reference, Cohort 1's 2007/2008 and Cohort 2's 2008/2009 (i.e., ninth grade) pooled data will be referred to as Year 1 of the study, while Cohort 1's 2008/2009 and Cohort 2's 2009/2010 (i.e., eleventh grade) data will be referred to as Year 2. Where possible, baseline information, taken from the previous school year (i.e., Cohort 1's 2006/2007 and Cohort 2's 2007/2008), was also included.

Given that all sites were low-performing, urban high schools, with large economically disadvantaged and at-risk populations, virtually all incoming ninth graders were eligible to receive CIS services. Therefore, the number of students needing services far exceeded the program's capacity to provide services; randomization was seen as a fair and equitable manner in which to distribute services. However, given the sensitive nature of the population under study, allowances were made for providing emergency services to students and identifying high-need students. The advantage of this research design is that if random assignment is properly implemented with a sufficient sample size, program participants should not differ in any systematic or unmeasured way from non-participants, except through their access to the treatment or services.³

2.1 Sites

Austin Independent School District (AISD) high schools participating in the RCT were Crockett High School, Johnson High School, Johnston High School⁴, Lanier High School, Travis High School, Reagan High School, and Eastside Memorial.⁵ Each of these schools had CIS programs on site and a dedicated case manager/CIS staff member, and were implementing the CIS of Texas core model of the Five Basics, CIS Six component delivery system, and case management services.

Participating high schools were all urban schools, with large minority and economically disadvantaged populations. Appendix A provides school-level information for each of the six participating high schools on State assessments, classroom profiles, enrollment percentages, and school facts.

2.2 Orientation Trainings

³ More precisely, there will be differences between individuals in the two groups, but the expected or average value of these differences is zero, except through the influence of the program (i.e., selection bias is removed by random assignment).

⁴ Johnston High School was closed following the 2006/2007 school year (i.e., Year 1 of the study) for failure to meet Adequate Yearly Progress requirements.

⁵ Eastside Memorial was brought on as a replacement school in Year 2 of the study, as both the Johnston CIS program manager and a majority of Johnston students were placed there.

Evaluation staff met with CIS of Central Texas personnel in March and August 2007 and in August 2008 to review the study design and recruitment procedures. At these meetings, the CIS National Evaluation and RCT were introduced and reviewed. In addition, after meeting with CIS of Central Texas staff and upon their request, a procedure/guideline document was produced to facilitate study implementation.

2.3 Randomization Procedures

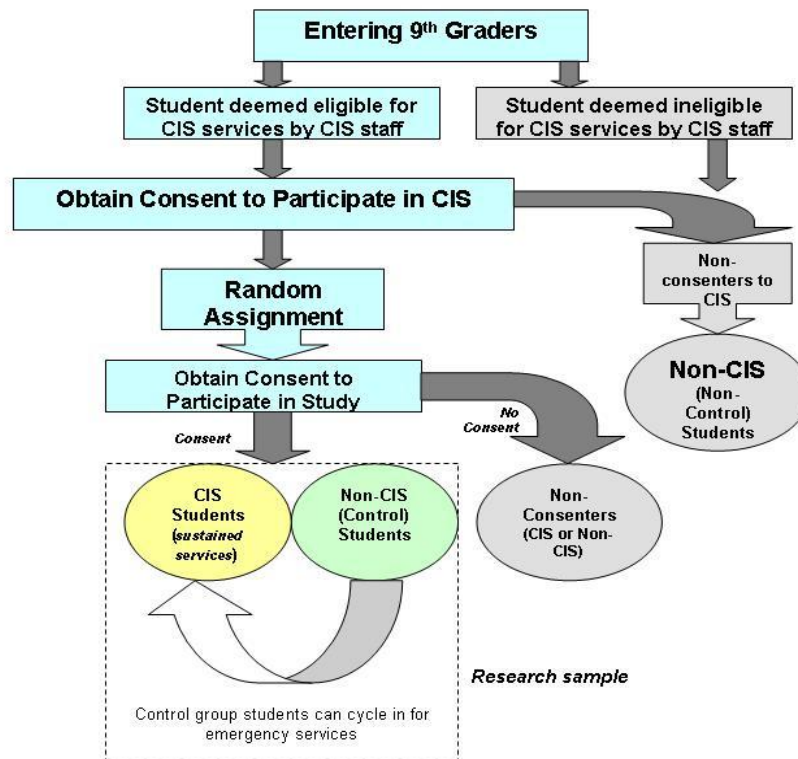
Students eligible for CIS services (see Appendix B for a full listing of eligibility criteria) were referred (by administrators, teachers, guidance counselors, parents, peers, or self-referred) to CIS case managers, who then followed up to determine the students' interest in receiving services. Each student/parent was introduced to the CIS program and asked to sign a consent form indicating their interest in CIS services. They were told that services were not guaranteed and that a random selection of interested students would be chosen for CIS services, as there were more students eligible for services than CIS slots available. After completing the CIS consent form, students and parents were introduced to the evaluation and asked to indicate their consent (yes/no) to participate in the evaluation.

After obtaining consent to receive CIS services, students were randomly assigned by their birth dates (see Appendix C for Year 1 and 2 look-up tables) to either participate in CIS or not participate in CIS. Upon completion of the randomization and consent to participate/not participate in the evaluation, four groups were compiled:

- 1) CIS students participating in the evaluation (treatment condition)
- 2) Non-CIS students participating in the evaluation (control condition)
- 3) CIS students not participating in the evaluation
- 4) Non-CIS students not participating in the evaluation

Students in group 1 would receive CIS services and participate in the evaluation as treatment students, and students in group 2 would not receive CIS services but would participate in the evaluation as control participants. As students in groups 3 and 4 did not consent to participate in the evaluation, no further data were collected on them. Exhibit 3 is a flow diagram of the recruitment process.

Exhibit 3: RCT Recruitment Flow Chart



It was also determined that if a student needed emergency services at any time, regardless of group membership, the student would receive services, regardless of evaluation status, and the services would be documented. Site coordinators also could provide services to students designated as high need (e.g., a pregnant teen). In addition, Housing Authority of the City of Austin (HACA) students were legislatively required to receive CIS services. Students designated as high need or legislatively required to receive services were removed from the pool of eligible students prior to randomization and were not included in further analyses.

2.4 Recruitment

CIS staff were originally asked to implement randomization procedures on all eligible incoming ninth graders from September through October, with the caveat that the timeline might be extended if the need arose. Due to difficulties in obtaining consent to participate in the study, incoming 2007/2008 ninth grade student (Cohort 1) recruitment took place between September 2007 and February 2008. During that time, 199 ninth grade students and their parents consented to participate in CIS; of those, 63 were removed from the randomization pool as they were required to receive services (i.e., HACA) or identified as high need. Of the remaining 136, 66 also consented to participate in the evaluation study.

Given the lessons learned from Year 1 and a targeted effort (i.e., increase onsite support, revised randomization procedures, and documentation of student waitlist), incoming 2008/2009 ninth grade student (Cohort 2) recruitment took place between September 2007 and October 2007. During the Year 2 recruitment period, 209 ninth grade students and parents consented to

participate in CIS, of which 58 were removed from the randomization pool as they were required to receive services or identified as high need; of the remaining 151 students, 85 also consented to participate in the evaluation study. Exhibit 4 details the recruitment efforts by school.

Exhibit 4: Recruitment Efforts for Austin, Texas CIS RCT						
	Cohort 1			Cohort 2		
	N	Treatment	Control	N	Treatment	Control
Crockett	9	5	4	17	6	11
Johnston/ EastSide	12	11	1	11	8	3
Lanier	18	10	8	22	10	12
LBJ	11	8	3	12	11	1
Reagan	7	7	0	10	5	5
Travis	9	5	4	13	7	6
Totals	66	46	20	85	47	38

In total, 151 incoming ninth grade students participated in the study; 93 were randomized to receive CIS services (treatment) with the remaining 58 were randomized not to receive services (control).

2.5 Data Sources

Data sources included CIS service logs, school records, a student survey, and a services survey. Interview and focus group protocols were also developed for potential site visits.

CIS Service Logs

CIS of Central Texas requires all program managers to complete individual student service logs. These logs document the case-managed services provided to individual CIS students. Service logs provide dates and duration of services (in quarter hour increments), a history of both direct and indirect services, and types of activities (see Appendix D for a full listing).

Direct activities are those in which the student and case manager or provider interact directly. Indirect activities are those provided on behalf of the student such as gathering data, advocacy, follow-up, monitoring, documentation, and tracking information. Indirect activities support the student throughout the case management process. All case maintenance entries are indirect.

Basic campus services include counseling and supportive guidance, health and human services, parental involvement, workforce training and development, enrichment activities, educational enhancements and initial assessment activities (i.e., advocacy, case review, consultation, coordination, file maintenance, assessment, and intake).

In addition to services provided to treatment students, CIS students also were provided with brokered/leveraged services (i.e., services provided by a CIS partner agency). Typically, these services are not tracked or logged by CIS.⁶

⁶ To better identify these types of services, an additional study measure was implemented during the final year of the evaluation. Each site participating in the RCT was asked to identify a subsample of CIS participants receiving brokered/leveraged services and track the number and duration (in 15-minute increments) of such activities. While

School Records

School records, such as TEA Public Education Information Management System (PEIMS) data (i.e., attendance, credit completion, grade point average [GPA], and disciplinary records) and Texas Assessment of Knowledge and Skills (TAKS) scores also were reviewed.

PEIMS encompasses all data requested and received by TEA about public education, including student demographic and academic performance, personnel, financial, and organizational information. School districts submit their PEIMS data via standardized computer files, as defined by the PEIMS Data Standards.⁷ TAKS is a standardized test used in Texas primary and secondary schools to assess students' attainment of reading, writing, math, science, and social studies skills required under Texas education standards. Mathematics and reading TAKS are administered every year from third grade to tenth and once more prior to graduation.

Student Survey

The 86-item student survey focused on student perceptions of their peer, school, family, community, and individual relationships. Exploratory factor analysis conducted on a sample of Austin High School students identified six constructs based on this survey: personal responsibility (5 items), self-worth (6 items), school/community involvement (8 items), family relationships/parental involvement (5 items), behavioral measures (9 items), and future aspirations (7 items). Appendix E provides a full listing of these constructs.

The survey was designed to be completed at the beginning and end of each school year, with the first administration occurring after recruitment. Seven additional items regarding student perceptions of CIS were also included during each end-of-year survey administration.

Services Survey

It was expected that students randomized to the control condition would participate in other services available to them. Therefore, to better document the counterfactual, several times throughout the evaluation participants were asked questions regarding the non-CIS after-school programs, clubs, and sports activities they were involved in.

Interviews and Focus Group Protocols

Protocols, interview guides, and focus group guides addressed CIS processes and outcomes. Stakeholder protocols and interview guides included questions about the roles and responsibilities of stakeholders, service coordination, relationships (i.e., among CIS staff, school personnel, partner organizations, and students), and CIS implementation. In addition, parent and student focus group guides covered the following topic areas: issues facing students, availability of programs and services, effectiveness of programs and services in meeting student needs, knowledge of CIS, 5) impact of CIS on students, and other comments.

not conclusive and only on a small subsample, general findings indicated that students were in fact receiving additional, and in some instances substantial, brokered/leveraged services that were not being tracked or monitored by CIS at the time.

⁷<http://www.tea.state.tx.us/peims/standards/index.html>

2.6 Data Collection

Data collection included a student survey administered at the start and end of each school year, a services survey collected mid-year, and a request for student records. CIS service logs and student records were also obtained. Site visits were conducted to gather in-depth information regarding CIS programs and services. In addition, on-site evaluation staff ensured data collection was completed in a timely and consistent manner.

2007/2008 Study Year

Given the extended recruitment period, start-of-year surveys were completed in a rolling process from September 2007 to February 2008. Services surveys were administered in February 2008 and again in May 2008 along with the end-of-year survey. A site visit was conducted by evaluation staff from March 25 through March 28, 2008, during which interviews were conducted with CIS of Central Texas staff, school administrators/personnel, and CIS case managers. Focus groups were also conducted with students and parents participating in CIS. In addition, 2006/2007 (Cohort 1 baseline data) and 2007/2008 (Cohort 1 Year 1 data) school records, such as PEIMS and TAKS, were obtained in partnership with AISD. Year 1 service data also were provided by CIS of Central Texas.

2008/2009 Study Year

Student surveys for both Cohort 1 and Cohort 2 were completed in November 2008 and May 2009. The services survey was also administered in November 2008, January 2009, and May 2009. Interviews and focus groups with key program staff, select school personnel, and students were conducted from March 9 through March 17, 2009. In addition, 2007/2008 (Cohort 2 baseline data) and 2008/2009 (Cohort 1 Year 2 data, Cohort 2 Year 1 data) PEIMS and TAKS data were obtained in partnership with AISD. Year 2 service data also were provided by CIS of Central Texas.

2009/2010 Study Year

Cohort 2's Year 2 start- and end-of-year student surveys and services survey were collected in September 2009 and April 2010. An additional services survey was administered in January 2010. Follow-up interviews and focus groups with key program staff, select school personnel, and students were conducted during the spring semester. Cohort 2's Year 2 PEIMS, TAKS, and CIS services data also were collected.

2.7 Analysis Description

The primary focus was to conduct an intent-to-treat analysis (i.e., including all students as originally assigned) for the purpose of determining the impact of CIS case-managed services on student-level outcomes. Specifically, the confirmatory question was considered through three different approaches: simple treatment and control mean differences, application of univariate analysis of covariance (ANCOVA) models to assess whether these differences were statistically significant, and calculation of net change scores and their corresponding effect sizes.⁸

⁸ Effect sizes indicate strength of net changes between students receiving and not receiving CIS services for the outcome variable. What Works Clearinghouse classifies effect sizes of .25 or greater as "substantively important."

Given CIS of Austin's emphasis on providing students with services during ninth grade, an important transitional year, main impact analyses focused on baseline to Year 1. However, three levels of impacts were examined for each outcome of interest: baseline to Year 1 (i.e., tenth grade) impacts (main impact), Year 1 to Year 2 (i.e., tenth grade to 11th grade) impacts (follow on), and baseline to Year 2 (i.e., the 2-year impact of CIS from baseline to 11th grade) (follow on).

3. Findings

3.1 Sample Sizes

Given the length of the study, high mobility rates of students, and number of data collection points, obtaining a uniform sample size across all study outcomes was not possible. As such, Exhibit 5 presents sample sizes and attrition rates on all measures during each study year.

Exhibit 5: Sample Size and Attrition Rates												
	Baseline to Year 1 (Main Impact)				Year 1 to Year 2 (Follow On)				Baseline to Year 2 (Follow On)			
	Sample Size		Attrition Rate		Sample Size		Attrition Rate		Sample Size		Attrition Rate	
	Treatment	Control	Overall	Diff.	Treatment	Control	Overall	Diff.	Treatment	Control	Overall	Diff.
TEAEAPEIMS												
Attendance	87	56	5.3%	3.0%	79	46	17.2%	5.6%	76	44	20.5%	5.9%
GPA	84	54	8.6%	2.8%	77	44	19.9%	6.9%	72	42	24.5%	5.0%
Credit Completion	84	54	8.6%	2.8%	77	44	19.9%	6.9%	72	42	24.5%	5.0%
Disciplinary Referrals	87	56	5.3%	3.0%	79	46	17.2%	5.6%	76	44	20.5%	5.9%
TAKS												
Mathematics	64	39	31.8%	1.6%	57	38	37.1%	4.2%	49	32	46.4%	2.5%
Reading	62	39	33.1%	0.6%	62	35	35.8%	6.3%	52	32	44.4%	0.7%
Student Survey Constructs												
Personal Responsibility	64	32	36.4%	13.6%	26	8	77.5%	14.2%	29	7	76.2%	19.1%
Self-worth	65	32	35.8%	14.7%	26	8	77.5%	14.2%	29	7	76.2%	19.1%
School/Community Involvement	64	31	37.1%	15.4%	26	8	77.5%	14.2%	29	7	76.2%	19.1%
Family Relationships/Parental Involvement	64	32	36.4%	13.6%	26	8	77.5%	14.2%	29	7	76.2%	19.1%
Behavioral Measures	64	31	37.1%	15.4%	25	8	78.1%	13.1%	28	7	76.8%	18.0%
Future Aspirations	63	31	37.7%	14.3%	25	8	78.1%	13.1%	28	7	76.8%	18.0%

3.2 Demographics

Exhibit 6 displays demographic characteristics by cohort and overall. Nonparametric tests (i.e., Mann-Whitney, Kolmogorov, and chisquared) conducted on the overall sample indicated no significant difference on any demographic variables.

Exhibit 6: Participant Demographics		
	Treatment (n = 93)	Control (n = 58)
Gender		
Male	50.5%	34.5%
Female	49.5%	65.5%
Ethnicity		
Asian/Pacific Islander	1.1%	-
African American	26.9%	20.7%
Hispanic	64.5%	67.2%
White	7.5%	12.1%
Other		
Special Education	22.6%	10.3%
ESL/LEP	14.0%	24.1%
Free/Reduced Lunch	87.1%	89.7%
At Risk ⁹	80.6%	75.9%

3.3 Service Data

Following are results from three types of collected service data: CIS service logs, student services survey, and several items on student perceptions of CIS from the end-of-year student survey. Together, these data offer a descriptive analysis of the CIS services provided, increase understanding of the counterfactual, and document study participants' perceptions of the CIS program.

CIS Service Logs

Year 1 services provided to treatment students ranged from 0 to 161 points of contact and from 0 to 119 hours. Year 2 services provided to treatment participants ranged from 0 to 118 contact points and 0 to 87 hours.¹⁰

Exhibit 7 presents the average number of case-managed service contacts and hours of services per treatment student, by activity type, by service type, and overall. Averages include all students randomized to receive CIS services, regardless of whether they received CIS services. On average, during Year 1, CIS students received 24.6 points of contact and 18.4 hours of service with the largest percentage of services focused on supportive guidance and counseling. During Year 2, treatment students received an average of 13.7 points of contact and 10.7 hours of service.

⁹ At risk indicates whether a student was at risk of dropping out of school, using State-defined criteria.

¹⁰ Fifteen students represented in Year 1 data and 52 students represented in Year 2 did not receive any services. Reasons varied from students moving/transferring before they could receive services to students refusing services. When removed from mean calculations, Year 1 averaged 29.3 points of contact and 22.0 hours of service, while Year 2 averaged 31.0 points of contact and 24.2 hours of service.

Exhibit 7: Case-managed Services Provided per Treatment Student				
	Year 1 Ninth Grade (n = 93)		Year 2 Tenth Grade (n = 93)	
	#	Hours	#	Hours
Services by Activity Type				
Supportive Guidance and Counseling	10.8	8.5	6.7	5.2
Health and Human Services	1.9	0.9	1.6	0.7
Parental and Family Involvement	1.0	0.3	0.7	0.4
Career Awareness and Employment	0.9	1.0	0.4	0.6
Enrichment	2.0	3.0	1.2	1.3
Education	1.2	0.8	0.9	1.2
Initial Assessments	6.3	3.6	2.2	1.4
Services by Service Type				
Individual Direct	9.9	5.8	6.7	3.0
Individual Indirect	6.0	3.6	2.2	1.5
Group Direct	8.4	8.9	4.7	6.2
Group Indirect	0.3	0.2	0.0	0.0
OVERALL	24.6	18.4	13.7	10.7

Additionally, several students ($n = 12$), randomized to the control condition did, in fact, receive CIS services. Year 1 control student ($n = 6$) services ranged from 0 to 63 points of contact and 0 to 32.5 hours; Year 2 control student ($n = 8$) services ranged from 0 to 32 contact points and 0 to 25.8 hours. Exhibit 8 presents the average services provided per control student.

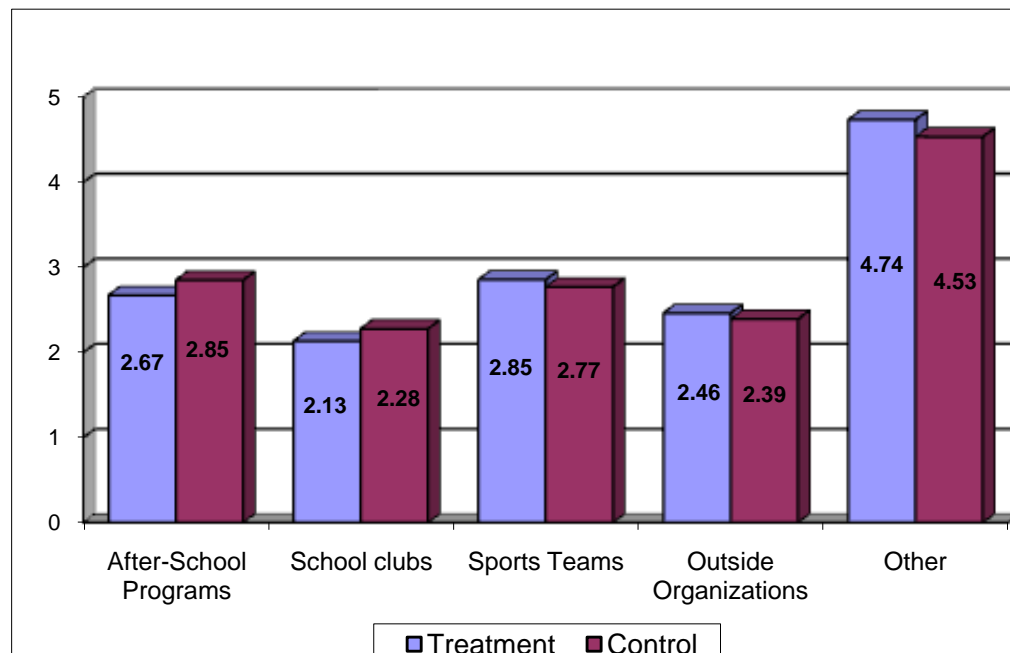
Exhibit 8: Average Case-managed Services Provided per Control Student				
	Year 1 Ninth Grade (n = 58)		Year 2 Tenth Grade (n = 58)	
	#	Hours	#	Hours
Services by Activity Type				
Supportive Guidance and Counseling	1.0	0.6	1.0	0.9
Health and Human Services	0.1	0.0	0.3	0.1
Parental and Family Involvement	0.1	0.0	0.1	0.0
Career Awareness and Employment	0.1	0.1	0.0	0.0
Enrichment	0.0	0.0	0.2	0.1
Education	0.1	0.0	0.1	0.0
Initial Assessments	0.8	0.4	0.7	0.5
Services by Service Type				
Individual Direct	1.2	0.6	1.2	0.7
Individual Indirect	0.6	0.3	0.7	0.5
Group Direct	0.2	0.2	0.5	0.5
Group Indirect	0.0	0.0	0.0	0.0
OVERALL	2.2	1.2	2.4	1.6

Services Survey

To better document the counterfactual, study participants were asked questions regarding non-CIS services several times throughout the evaluation.¹¹ Respondents were asked how often they participated in after-school programs for help with school work, school clubs or after-school activities, sports teams, activities organized by groups outside of school (e.g., Boys and Girls Club), or other types of activities.

Exhibit 9 shows item¹² averages across each administration of the services survey for treatment and control. An independent sample *t*-test found no significant differences between treatment and control students' participation in non-CIS services and no significant difference between Cohort 1 and Cohort 2 responses. Regardless of treatment condition, students appeared to participate in after-school programs, school clubs, sports teams, and outside organizations between once a month and every other week. Similarly, students participated in other activities (i.e., hanging out with friends, video games, and other extracurricular activities) most frequently, ranging from once a week to 2-3 days a week.

Exhibit 9: Non-CIS Services



¹¹ Specifically in February 2008, May 2008, November 2008, February 2009, May 2009, September 2009, January 2010, and April 2010 ($n = 129$).

¹² Items are scaled 1 to 6; 1 = Never, 2 = Once a month, 3 = Every other week, 4 = Once a week, 5 = 2-3 days a week, and 6 = Almost every day.

Perceptions of CIS

As part of each end-of-year survey, treatment participants were asked several questions regarding their overall perceptions of CIS. Exhibit 10 lists these items and student mean response¹³ for Year 1 (i.e., Cohort 1 2007/2008 school year and Cohort 2 2008/2009 school year) and Year 2 data. Overall, students overwhelmingly agreed that CIS had a positive impact on their lives after receiving 1 year of service. Moreover, Year two data suggested that positive student experiences increased after receiving 2 years of CIS services. A paired-samples *t* test indicated a significant positive difference in CIS participants perception on whether CIS had taught them skills that would be useful throughout their lives ($t(20) = 2.565, p < .05$).

Exhibit 10: Overall Perceptions of CIS		
	Mean	
	Year 1 Ninth Grade (<i>n</i> = 63)	Year 2 Tenth Grade (<i>n</i> = 20)
CIS has helped me to feel better about myself.	4.16	4.36
CIS has taught me things I can use throughout my life.	4.21	4.54
I feel like my feelings and opinions are valued in CIS.	4.29	4.43
I enjoy participating in CIS.	4.65	4.79
I can count on CIS staff to help me when I have a problem.	4.54	4.71
I trust CIS staff.	4.52	4.61
Participating in CIS has been a positive experience for me.	4.59	4.61

3.4 Impact of CIS on Student-Level Outcomes

Analyses focused on baseline to Year 1, Year 1 to Year 2, and baseline to Year 2 impacts. While no significant differences were noted between treatment and control student demographics, demographic variables with effect sizes larger than 0.05 (i.e., gender, ethnicity, special education, ESL, free/reduced lunch, and at-risk status) were included in all analytic models as covariates. In addition, cohort membership was included in all univariate models (see Appendix F for detailed results of school records' impact models).

Impacts were estimated for the following short-term and intermediate student-level outcomes:

- School attendance
- Academic performance
- Credit completion
- Disciplinary referrals
- State testing
- Personal responsibility
- Self-worth

¹³ Items are scaled 1 to 5; 1 = Strongly Disagree, 3 = Neutral, 5 = Strongly Agree.

- School/community involvement
- Family relationships/parental involvement
- Behavioral measures
- Future aspirations.

Long-term student outcomes, such as graduation, employment following graduation, enrollment in higher education, contributions to community, and family stability, were beyond the scope of the experimental design.

TEA PEIMS

Student attendance rates, course grades, credit completion, and disciplinary referrals were obtained from PEIMS data through AISD. PEIMS data for Cohort 1 included the 2006/2007, 2007/2008, and 2008/2009 school years; Cohort 2 data included the 2007/2008, 2008/2009, and 2009/2010 school years.

Attendance

Exhibit 11 displays baseline (i.e., eighth grade), Year 1, and Year 2 annual attendance rates for treatment and control students.¹⁴ Analysis of Year 1 attendance data¹⁵ found significant differences between treatment and control students. Control students demonstrated a significant decrease in attendance from baseline to Year 1 in comparison to treatment students, whose attendance rates remained relatively stable. However, Year 1 to Year 2 and baseline to Year 2 analyses found no significant differences between conditions.

¹⁴ Reported baseline and Year 1 means are based on matched baseline to Year 1 attendance rates; reported Year 2 means are based on matched baseline to Year 2 attendance rates.

¹⁵ Year 1 attendance rate by condition with baseline attendance rate, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort ($n = 143$, $F = 7.913$, $p < .01$).

Exhibit 11: Attendance Rates

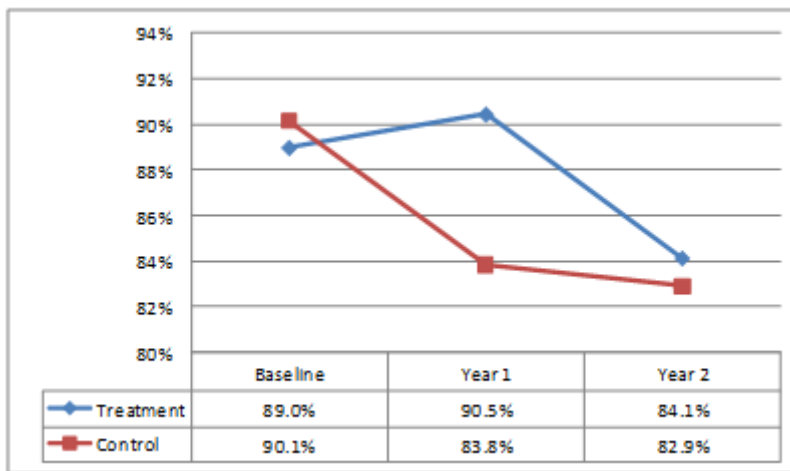


Exhibit 12 provides net change scores and effect sizes between treatment and control student attendance rates. Based on What Works Clearinghouse standards, these findings show a substantively important effect of CIS on Year 1 (i.e., ninth grade) attendance rates—a positive difference of 4.83 percent.

Exhibit 12: Attendance Rate Net Change and Effect Sizes ¹⁶		
	Net Change	Effect Size
Baseline to Year 1 (Main Impact)	4.83%	0.45*
Year 1 to Year 2 (Follow On)	-1.36%	-0.11
Baseline to Year 2 (Follow On)	1.26%	0.08

* $p < .05$.

GPA

Analysis of Year 1 GPA¹⁷ found significant differences between treatment and control students. Exhibit 13 displays baseline, Year 1, and Year 2 average GPA for treatment and control students.¹⁸ While there was an overall negative trend in GPA, treatment students' GPA did not decrease as sharply as that of control students. However, Year 1 to Year 2 and baseline to Year 2 analyses found no significant differences between conditions.

¹⁶ Year 1 to Year 2 net changes cannot be calculated from means reported in Exhibit 19.

¹⁷ Year 1 GPA by condition with baseline GPA, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort ($n = 138$, $F = 4.707$, $p < .05$).

¹⁸ Reported baseline and Year 1 means are based on matched baseline to Year 1 GPA; reported Year 2 means are based on matched baseline to Year 2 GPA.

Exhibit 13: GPA

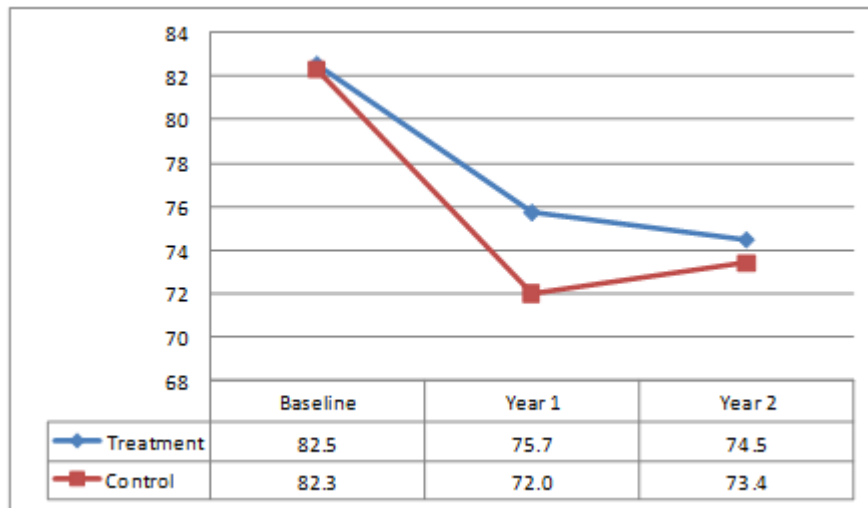


Exhibit 14 provides net change scores and effect sizes. In comparison to the control students, treatment students demonstrated a positive net change of 3.52 percentage points. These findings show a substantively important effect of receiving CIS services on student GPA during their ninth grade year. Net changes indicated a small dip in GPA from Year 1 to Year 2 for treatment students, but overall 2-year net changes remained positive.

Exhibit 14: Overall GPA Net Change and Effect Sizes ¹⁹		
	Net Change	Effect Size
Baseline to Year 1 (Main Impact)	3.52	0.38*
Year 1 to Year 2 (Follow On)	-0.30	-0.03
Baseline to Year 2 (Follow On)	1.86	0.16

* $p < .05$.

Credit Completion

Exhibit 15 displays cumulative credit completion at baseline, Year 1, and Year 2.²⁰ Analysis of Year 1 completion data²¹ found significant differences between groups on participant credit completion. As expected, both treatment and control participants had relatively few high school credits at the completion of eighth grade (i.e., baseline), but at the end of ninth grade, treatment students receiving CIS services had obtained more credits than their counterparts. Year 1 to Year 2 and baseline to Year 2 analyses found no significant differences between conditions.

¹⁹ Year 1 to Year 2 net changes cannot be calculated from means reported in Exhibit 21.

²⁰ Reported baseline and Year 1 means are based on matched baseline to Year 1 credit completion; reported Year 2 means are based on matched baseline to Year 2 credit completion.

²¹ Ninth grade credit completion by condition with eighth grade credit completion, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort ($n = 138$, $F = 6.354$, $p < .05$).

Exhibit 15: Cumulative Credit Completion

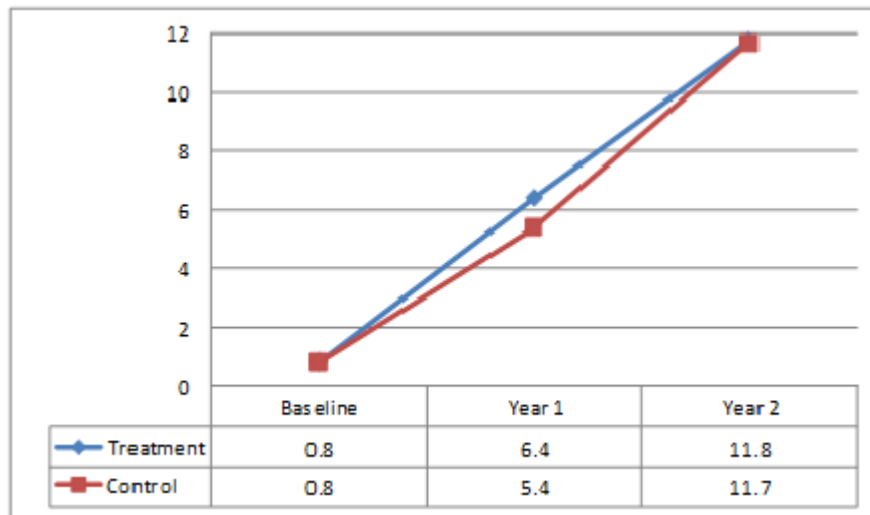


Exhibit 16 provides credit completion net change scores and effect sizes. These findings show a substantively important effect of CIS on Year 1 credit completion. On average, treatment students completed 1.06 more credits than control students.

Exhibit 16: Credit Completion Net Change and Effect Sizes		
	Net Change	Effect Size
Baseline to Year 1 (Main Impact)	1.06	0.38*
Year 1 to Year 2 (Follow On)	-0.35	-0.11
Baseline to Year 2 (Follow On)	0.09	0.02

* $p < .05$.

Disciplinary Referrals

PEIMS collects disciplinary data on an incident basis; therefore, the absence of data was interpreted as having had no disciplinary referrals. However, students with no school records information (i.e., attendance, GPA, credit completion, TAKS) were also considered to be missing for disciplinary referral data. Some students might have left the State before the end of the academic year and, therefore, this may be an underrepresentation of disciplinary referrals. However, since the data were treated the same across CIS and non-CIS conditions, it is not believed this resulted in any bias on this measure.

Exhibit 17 presents the total number, percentage, and type of disciplinary incidents, as defined in the PEIMS data standards, by condition for baseline, Year 1, and Year 2 data. Overall, these numbers show two interesting trends from baseline to Year 1/Year 2: the total number of disciplinary referrals decreased across conditions and violations of the student code of conduct were the overwhelming majority of incidents.

Exhibit 17: Total Number, Percentage, and Type of Disciplinary Incident						
	Baseline		Year 1		Year 2	
	Treatment	Control	Treatment	Control	Treatment	Control
Conduct punishable as a felony	-	-	-	-	3.0%	-
Possessed, sold, used, or was under the influence of marihuana or other controlled substance	2.5%	1.4%	3.7%	-	1.5%	5.6%
Possessed, sold, used, or was under the influence of an alcoholic beverage	-	-	1.9%	-	3.0%	-
Public lewdness or indecent exposure	-	-	1.9%	-		-
Based on conduct occurring off campus and while the student is not in attendance at a school-sponsored or school-related activity for felony offenses	-	-	-	-	4.5%	-
Violation of student code of conduct	88.8%	90.9%	79.4%	94.5%	72.7%	83.3%
Criminal mischief	0.6%	-	-	-	-	-
Emergency placement/expulsion	0.6%	-	-	-	1.5%	5.6%
Assault against someone other than a school district employee or volunteer	1.2%	-	-	-	-	-
Aggravated assault against someone other than a school district employee or volunteer	0.6%	-	-	-	-	-
Possessed, sold, used, or accepted a cigarette or tobacco product as defined in the health and safety code	0.6%	-	-	-	-	-
School-related gang violence by three or more persons	0.6%	-	-	-	-	-
Felony controlled substance violation		-	-	-	-	-
Fighting/mutual combat	3.1%	7.0	11.2%	2.7%	7.6%	2.8%
Truancy – at least 3 unexcused absences	0.6%	-	-	-	-	-
Truancy – 10 unexcused absences	0.6%	-	0.9%	2.7%	-	-
Used, exhibited, or possessed a non-illegal knife	-	0.7%	0.9%	-	4..5%	2.8%
Total Number of Incidents	161	143	107	73	66	36

In addition to the number and type of referrals, PEIMS provides information on the type of disciplinary action taken. Exhibit 18 presents type of disciplinary action taken and overall percentage by disciplinary actions, as defined in the PEIMS data standards, for baseline, Year 1, and Year 2 data. In-school suspensions were the most common disciplinary action taken during participants' baseline year, while out-of-school suspensions were most common in Year 1 and Year 2. This information, coupled with the general decrease in the number of disciplinary referrals from baseline to Year 1/Year 2, suggests a discrepancy in how disciplinary incidents were reported in each year. Particularly, minor incidents (i.e., that would normally result in an in-school suspension) might be underreported in ninth grade. However, this could be a common pattern typically associated with the transition from middle school to high school, where students are subject to a different set of expectations. This study was not designed to answer this question and can, therefore, only hypothesize as to its meaning.

Exhibit 18: Percentage and Type of Disciplinary Action Taken						
	Baseline		Year 1		Year 2	
	Treatment	Control	Treatment	Control	Treatment	Control
Out-of-school suspension	29.2%	33.6%	55.1%	52.1%	65.2%	41.7%
Partial day out-of-school suspension	1.9%	0.7%	1.9%		1.5%	5.6%
In-school suspension	47.2%	51.0%	29.9%	35.6%	9.1%	36.1%
Partial day in-school suspension	17.4%	12.6%	1.9%	4.1%	4.5%	2.8%
Placement in an on/off campus	2.5%	1.4%	9.3%	5.5%	13.6%	8.3%
Continuation of other districts' DAEP placement		0.8%				
Placement in JJAEP by court order					1.5%	2.8%
Continuation of the district's expulsion with placement to JJAEP from the prior year	0.6%					
Truancy - fine assessed	1.2%			1.4%	1.5%	
Truancy – no fine assessed			1.9%	1.4%	3.0%	2.8%
Total Number of Incidents	161	143	107	73	66	36

Analyses of disciplinary referral data²² found no significant differences between treatment and control students from baseline to Year 1, Year 1 to Year 2, or baseline to Year 2. Exhibit 19 displays baseline, Year 1, and Year 2 average number of disciplinary referrals.²³ On average, the number of disciplinary referrals per student was relatively small (i.e., from 1 to 3) across conditions and demonstrated a decrease from baseline to Year 1/Year 2.

²² Year 1 (Year 2) number of disciplinary referrals by condition with baseline (Year 2) number of disciplinary referrals, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort.

²³ Reported baseline and Year 1 means are based on matched baseline to Year 1 number of disciplinary referrals; reported Year 2 means are based on matched baseline to Year 2 number of disciplinary referrals.

Exhibit 19: Disciplinary Referrals

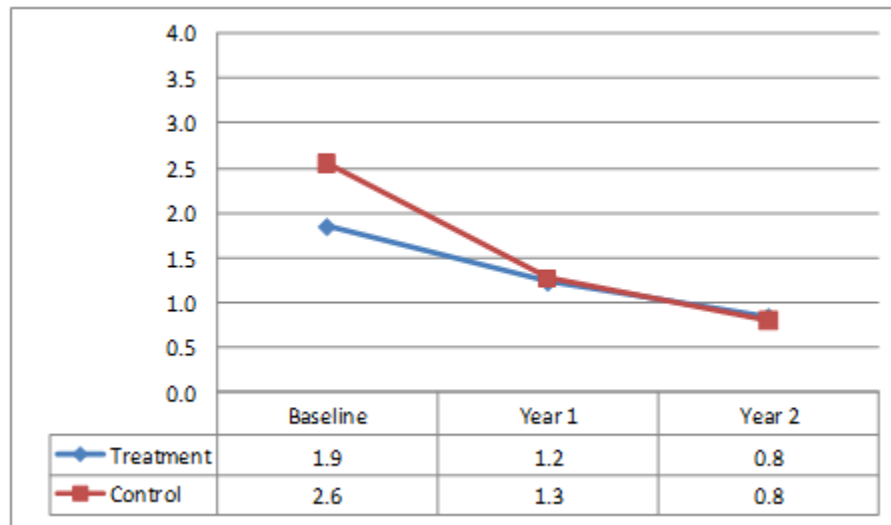


Exhibit 20 provides net change scores and effect sizes between treatment and control students for total number of disciplinary referrals and by disciplinary action taken. Net changes are reported in the actual unit of measurement (e.g., number of referrals). Positive net changes indicated an overall increase in the number of disciplinary actions taken for treatment students while negative net changes depicted a decrease.

Exhibit 20: Disciplinary Net Change and Effect Sizes ²⁴		
	Net Change	Effect Size
Baseline to Year 1 (Main Impact)	0.67	-0.21
Year 1 to Year 2 (Follow On)	0.18	-0.09
Baseline to Year 2 (Follow On)	0.80	-0.24

TAKS

Participant mathematics and reading TAKS scale scores were also obtained through AISD. TAKS data for Cohort 1 included the 2006/2007, 2007/2008, and 2008/2009 school years; Cohort 2 included the 2007/2008, 2008/2009, and 2009/2010 school years.

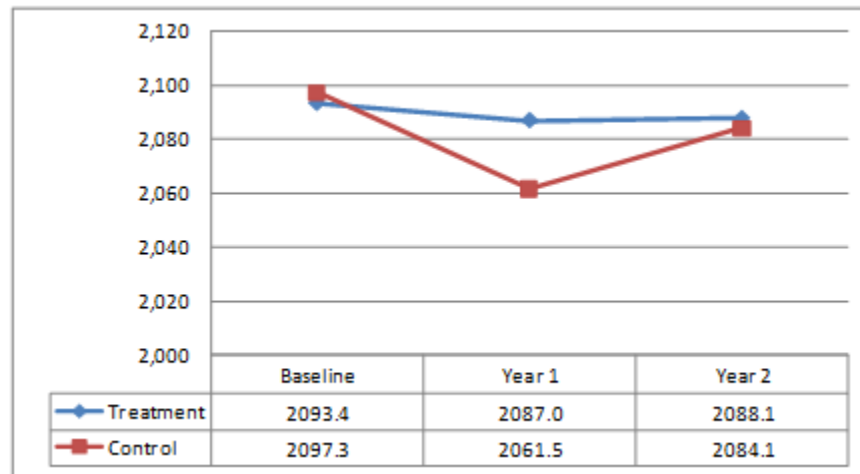
Exhibit 21 displays the average mathematics TAKS scale score for treatment and control student.²⁵ Analysis of mathematics TAKS scale scores²⁶ revealed no significant difference between participant conditions from baseline to Year 1, Year 1 to Year 2, or baseline to Year 2.

²⁴ Year 1 to Year 2 net changes cannot be calculated from means reported in Exhibit 27.

²⁵ Reported baseline and Year 1 means are based on matched baseline to Year 1 mathematics TAKS; reported Year 2 means are based on matched baseline to Year 2 mathematics TAKS.

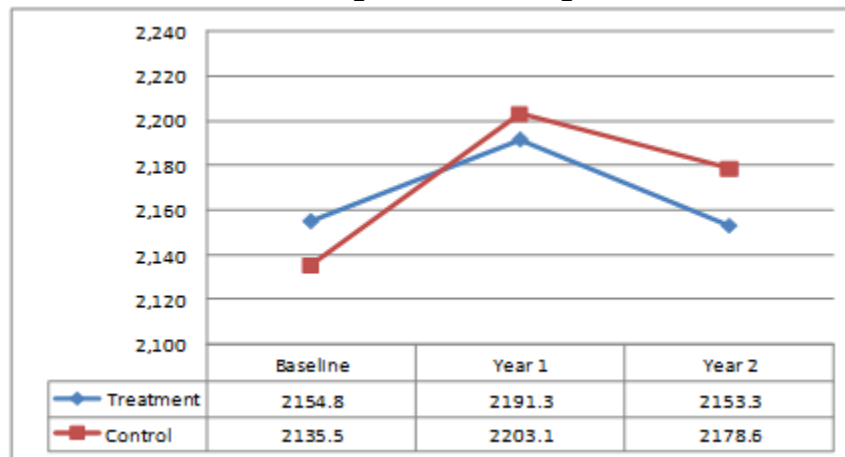
²⁶ Year 1 (Year 2) mathematics TAKS scale score by condition with baseline (Year 2) mathematics TAKS scale score, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort.

Exhibit 21: Average Mathematics TAKS Scale Score



Exhibits 22 display the average reading TAKS scale score for treatment and control students.²⁷ Similarly, analysis of reading TAKS scale scores²⁸ revealed no significant difference between treatment and control conditions from baseline to Year 1, Year 1 to Year 2, or baseline to Year 2.

Exhibit 22: Average TAKS Reading Scale Score



²⁷ Reported baseline and Year 1 means are based on matched baseline to Year 1 reading TAKS; reported Year 2 means are based on matched baseline to Year 2 reading TAKS.

²⁸ Year 1 (Year 2) reading TAKS scale score by condition with baseline (Year 1) reading TAKS scale score, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort.

Exhibit 23 presents net changes and effect sizes between treatment and control students for mathematics and reading TAKS scores. Net changes indicated positive effects on participants' mathematics scale scores and reading scale scores with one exception. Baseline to Year 1 reading scale score net changes demonstrated a negative trend.

Exhibit 23: TAKS Net Change and Effect Sizes ²⁹				
	Mathematics Scaled Scores		Reading Scaled Scores	
	Net Change	Effect Size	Net Change	Effect Size
Baseline to Year 1 (Main Impact)	29.35	0.18	-31.13	-0.11
Year 1 to Year 2 (Follow On)	2.32	0.01	23.05	0.10
Baseline to Year 2 (Follow On)	37.46	0.21	10.52	0.03

Dropout Rates

In addition to providing school records, AISD also provided a dropout indicator for study participants in the form of student leaver codes available through PEIMS. AISD defined a dropout as a student enrolled in grades 7 through 12 who did not return to a Texas public school the following fall within the school-start window, and was not expelled, did not graduate, receive a GED, continue high school outside the Texas public school system, begin college, or die.

Six students (2 treatment and 4 control) were designated as dropouts by AISD at the end of Year 1, while 8 additional students (7 treatment and 1 control) were designated as dropouts at the end of Year 2. Exhibit 24 presents Year 1, Year 2, and a combined 2-year dropout rate by condition, net changes, and effect sizes. Year 2 and combined Year 1 and Year 2 dropout rates should be considered cautiously as PEIMS 2008-2009 student leaver codes had not been finalized at the time of this report. Furthermore, review of CIS service logs indicated that 6 of the 7 treatment students identified as dropouts in Year 2 did not receive any CIS services during that year.

Exhibit 24: Dropout Rates						
	Dropout Rate				Net Change	Effect Size
	<i>n</i>	CIS	<i>n</i>	Non-CIS		
Year 1 (Main Impact)	93	2.2%	58	6.9%	-4.8%	0.7
Year 2 (Follow On)	91	7.7%	54	1.9%	5.8%	-0.90
Combined Year 1 and Year 2	93	9.7%	58	8.6%	1%	-0.08

Student Surveys

Exhibits 25 through 30 display start- and end-of-year student survey means³⁰ for both Year 1 and Year 2 of the study, by condition, for each of the six survey constructs.³¹ Analyses³² revealed no significant differences between treatment and control students on all of the student

²⁹ Year 1 to Year 2 net changes cannot be calculated from means reported in Exhibits 29 and 30.

³⁰ Means reported here are based on matched (i.e., students completed both sets) start of Year 1 and end of Year 1 surveys, and match start of Year 2 and end of Year 2 surveys.

³¹ Items are scaled 1 to 5; 1 = Never/Strongly Disagree, 5 = Always/Strongly Agree.

³² Year 1 (Year 2) *survey construct* by condition with baseline (Year 1) *survey construct*, gender, ethnicity, special education, ESL, free/reduced lunch, at-risk status, and cohort.

survey constructs after receiving 1 year of CIS services, when considering only their second year of CIS services, or the overall 2-year impact.

Exhibit 24: Personal Responsibility

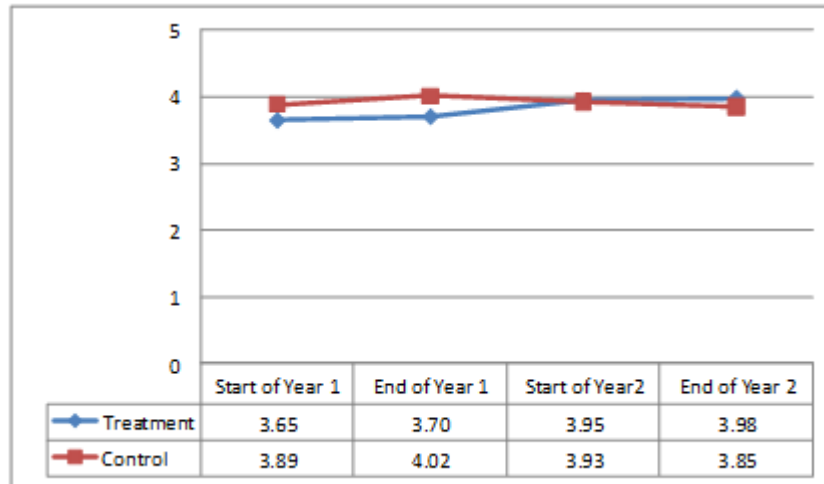


Exhibit 256: Self-worth

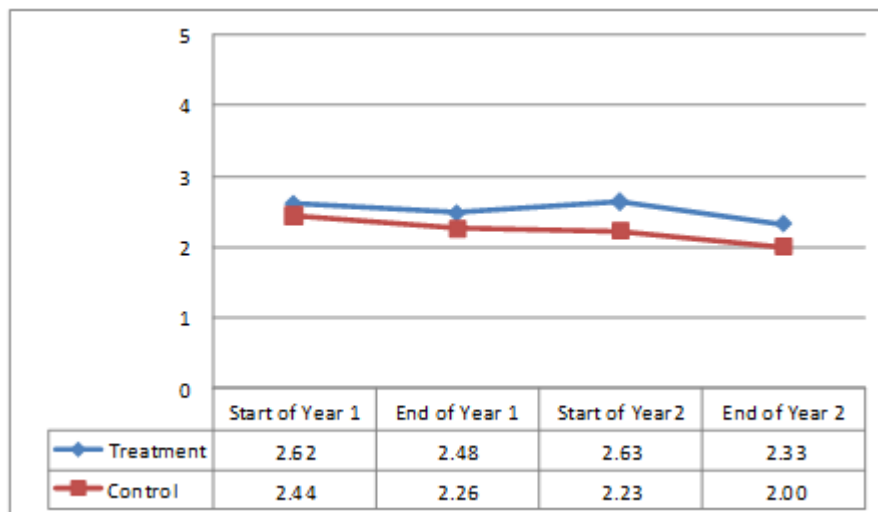


Exhibit 267: School/Community Involvement

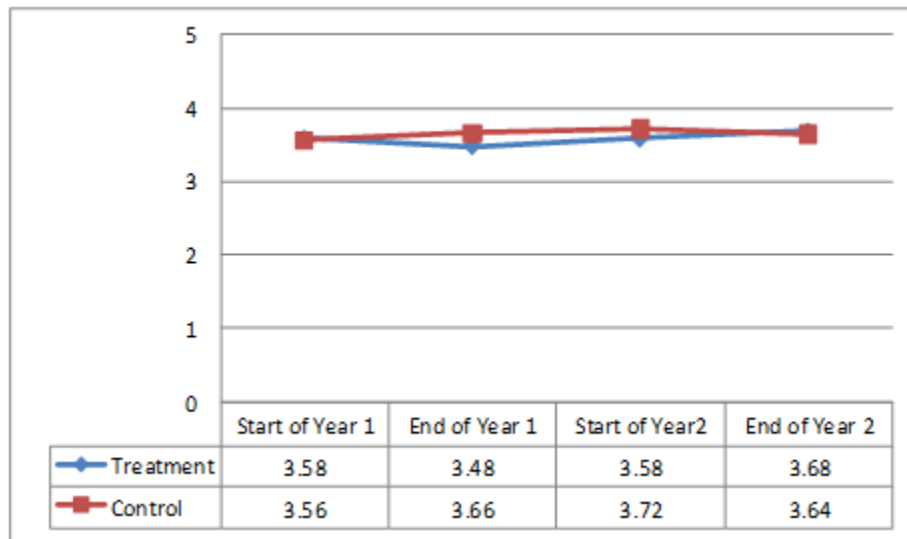


Exhibit 27: Family Relationships/Parental Involvement

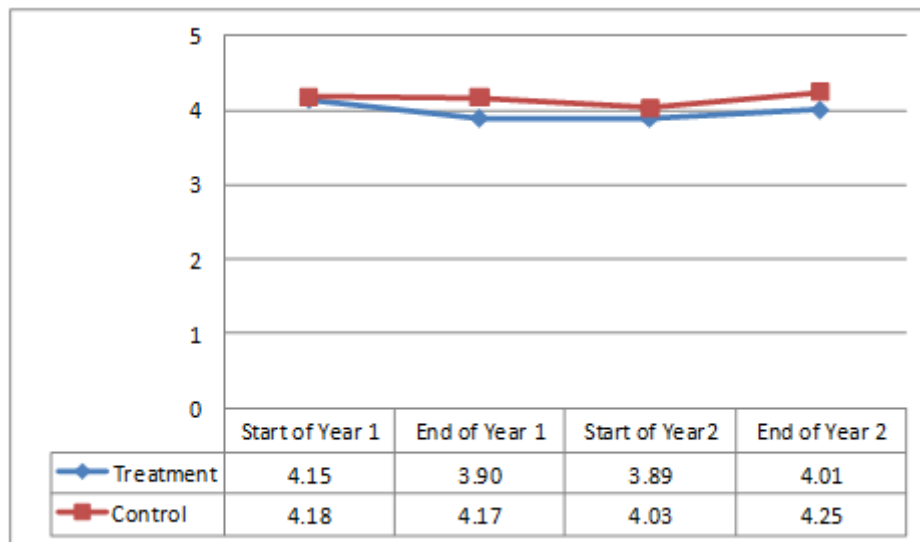


Exhibit 28: Behavioral Measures

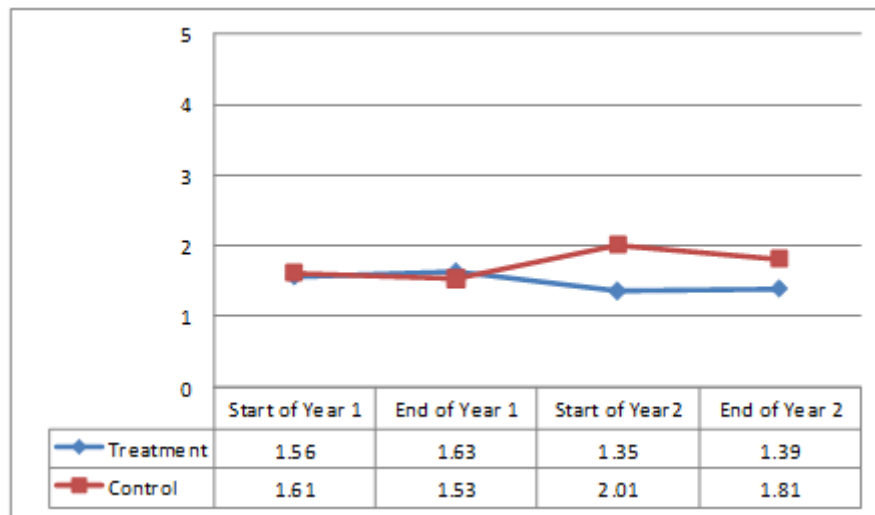


Exhibit 30: Future Aspirations

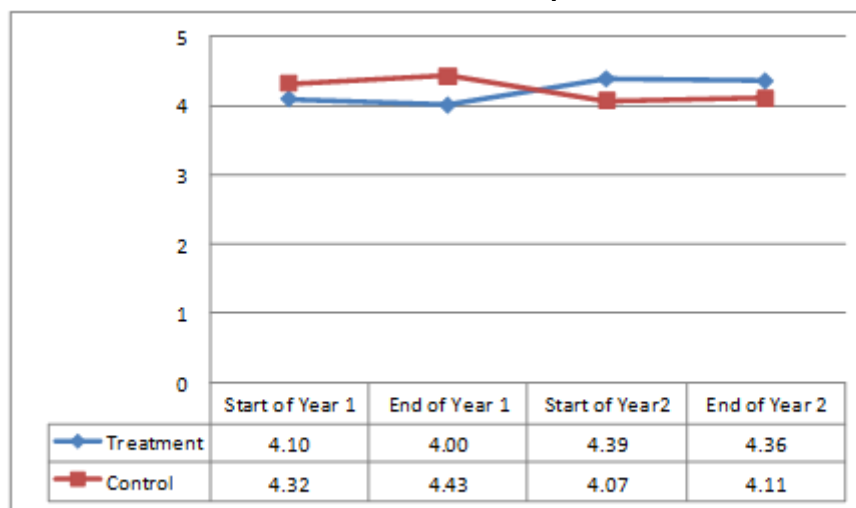


Exhibit 31 presents baseline to Year 1, Year 1 to Year 2, and baseline to Year 2 net changes³³ and effect sizes by survey construct. Positive net change indicated an increase, whereas a negative net change indicated a decrease on the given construct, with the exception of behavioral measures. Net changes for each of the six survey constructs were, for the most part, relatively small and did not favor treatment students. These findings were surprising; one possible explanation could be that CIS, in helping students confront their daily challenges, might have increased student awareness of these challenges, thereby affecting survey responses.

³³ Net changes are calculated by subtracting the difference in Year 1 end- and start-of-year surveys of CIS participants from the difference in Year 1 end- and start-of-year surveys of non-CIS participants.

Exhibit 29: Survey Constructs Net Change and Effect Sizes ³⁴						
Survey Constructs	Baseline – Year 1 (Main Impact)		Year 1 – Year 2 (Follow On)		Baseline – Year 2 (Follow On)	
	Net Change	Effect Size	Net Change	Effect Size	Net Change	Effect Size
Personal Responsibility	-0.07	-0.11	0.10	0.16	-0.10	-0.15
Self-worth	0.04	0.06	-0.08	-0.13	-0.17	-0.19
School/Community Involvement	-0.19	-0.31	0.18	0.36	-0.06	-0.08
Family Relationships/Parental Involvement	-0.24	-0.35	-0.11	-0.13	-0.41	-0.43
Behavioral Measures ³⁵	0.15	-0.28	0.25	-0.53	-0.03	0.04
Future Aspirations	-0.20	-0.25	-0.07	-0.17	0.09	0.14

Within-group analyses of individual survey items revealed statistically significant differences ($p < .05$) from the Year 1 start- to end-of-year surveys, Year 2 start- to end-of-year surveys, and Year 1 start-of-year survey to Year 2 end-of-year survey. Exhibit 32 presents these items, along with their means, at baseline and post-survey..

Exhibit 30: Significant Survey Item Differences for Treatment Participants ³⁶			
Item	Start of Year	End of Year	Difference
Start of Year 1 to End of Year 1 (Main Impact)			
What I do with my life won't make a difference one way or the other. (n=62)	2.48	2.97	0.48
I go to school only because my parents/guardians make me. (n=61)	2.2	2.69	0.49
I skipped a day of school. (n=62)	1.47	1.89	0.42
My parents/guardians encourage me to do well in school. (n=64)	4.64	4.25	-0.39
I often feel sad or unhappy. (n=62)	2.95	2.61	-0.34
I feel unwanted at home. (n=63)	1.83	2.17	0.35
I think about the things that may happen as a result of my decisions. (n=63)	3.57	3.89	0.32
How many of your close friends have dropped out or plan to drop out of school before graduating? ³⁷ (n=61)	1.57	1.75	0.18
Start of Year 2 to End of Year 2 (Follow On)			
I often feel sad or unhappy. (n=25)	2.72	2.08	-0.64
I like who I am as a person (n=26)	3.77	4.27	0.50
Start of Year 1 to End of Year 2 (Follow On)			
Teachers generally like me. (n=28)	3.32	4.11	0.79
If I get upset, I have healthy ways to make myself feel better. (n=27)	3.15	3.89	0.74
I feel like I can never do anything right. (n=27)	2.85	2.22	-0.63
People at school make me mad. (n=28)	3.43	2.86	-0.57
I often feel sad or unhappy. (n=28)	2.86	2.29	-0.57
I feel positive about my future. (n=28)	4.04	4.54	0.50

³⁴ Baseline to Year 2 net changes cannot be calculated from means reported in Exhibits 25 to 30, as they are based on matched start-of-Year 1 to end-of-Year 2 surveys.

³⁵ Behavioral measure items are negatively scaled so that an increase indicates an increase in negative behaviors.

³⁶ Items are scaled 1 to 5, unless otherwise noted; 1 = Never/Strongly Disagree, 5 = Always/Strongly Agree.

³⁷ Items are scaled 1 to 4; 1 = None of Them, 2 = Some of Them, 3 = Most of Them, 4 = All of Them.

I think about the things that may happen as a result of my decisions. (n=29)	3.72	4.21	0.48
I ask my teacher for help when I need it. (n=28)	3.71	4.18	0.46
I do thing to be more popular with my friends. (n=28)	2.04	1.61	-0.43
I will finish college. (n=28)	4.04	4.43	0.39
I will get a job I really want. (n=28)	4.21	4.5	0.29
Do you care for your brothers/sisters at home? ³⁸ (n=27)	0.89	0.67	-0.22

3.5 Within-Group Correlations

Within-group analyses of treatment students were also conducted on the basis of the activity type, service type, total duration of services provided, and student school records.³⁹ As CIS provided targeted services based on student needs, reported correlations should be interpreted cautiously.

Activity Type

Exhibit 33 provides bivariate correlations between the duration of services, in hours, by activity types and the net difference for each school record measure; significant correlations appear in boldface. Linear regression analyses were also conducted on all significant correlations to better determine their linear relationships.

Exhibit 31: Within-Group Analyses by Activity Type							
Measures	Supportive Guidance & Counseling	Health & Human Services	Parental & Family Involvement	Career Awareness	Enrichment	Education	Initial Assessments
	r	r	r	r	r	r	r
Baseline to Year 1 (Main Impact)							
Attendance	.023	-.016	.029	-.108	-.004	.020	-.055
GPA	.098	.005	-.046	-.138	-.072	-.035	-.055
Credit Completion	.298*	.081	.040	-.052	.128	.075	-.012
Disciplinary Referrals	-.184	-.131	-.053	-.110	-.055	-.166	-.120
Mathematics Scaled Score	.138	-.024	.043	.123	.216	.003	-.080
Reading Scaled Score	-.181	-.022	-.121	-.011	-.160	-.101	-.056
Year 1 to Year 2 (Follow On)							
Attendance	.079	.062	-.029	.081	.091	.129	.054
GPA	.141	.130	-.035	.038	.031	.085	.115
Credit Completion	.032	.107	-.122	.110	.010	.195	.054
Disciplinary Referrals	.262*	-.056	.044	.069	.063	-.025	-.003
Mathematics Scaled Score	.098	-.078	-.031	.007	.053	.008	.023
Reading Scaled Score	.052	-.158	-.400*	.038	.022	-.026	.079
Baseline to Year 2 (Follow On)							
Attendance	.068	.109	.094	.027	.102	.123	-.027

³⁸ Items are coded 0/1; 0 = No, 1 = Yes.

³⁹ Given the large overall and differential attrition rates on the student surveys, survey constructs were not included in these analyses.

GPA	.023	.048	.018	-.092	-.046	.060	-.079
Credit Completion	.062	.132	.010	.005	.071	.155	-.043
Disciplinary Referrals	-.178	-.142	-.080	-.094	-.144	-.090	-.192
Mathematics Scaled Score	-.101	-.198	-.130	-.135	-.122	-.032	-.151
Reading Scaled Score	-.068	-.191	-.420*	-.112	-.124	-.099	-.024

* $p < .05$

Net differences in students' baseline to Year 1 cumulative credit completion were significantly correlated with baseline to Year 1 supportive guidance and counseling services ($r = .298$, $p < .05$; $R^2 = 0.089$). As the number of supportive guidance and counseling services a student received increased, so did their credit completion.

Year 1 to Year 2 supportive guidance and counseling services were also significantly correlated with disciplinary referral net differences (i.e., Year 1 to Year 2, $r = .262$, $p < .05$; $R^2 = 0.069$); as the number of disciplinary referrals increased, so did the total duration of supportive guidance and counseling services provided. While counterintuitive to see a rise in disciplinary referrals positively correlated to the duration of counseling services provided, this finding makes sense given that CIS provides intentional and targeted services as students need them. For example, as students begin to receive additional disciplinary referrals, CIS identifies them and takes steps to provide additional counseling services.

TAKS reading scale scores were also significantly negatively correlated with Year 1 to Year 2 and baseline to Year 2 parental and family involvement activities ($r = -.420$, $p < .05$; $R^2 = 0.176$; $r = -.400$, $p < .05$; $R^2 = 0.16$, respectively), indicating that students whose Year 2 TAKS reading scale scores were lower than their baseline scores received greater amounts of parental and family involvement activities. However, this correlation should be considered with caution, as visual analysis of the data (i.e., a scatter plot) indicated an outlier for both Year 1 to Year 2 and baseline to Year 2 correlations.

Service Type

Exhibit 34 shows correlations between the total duration of services (Year 1 plus Year 2), in hours, and by service types (i.e., individual direct, individual indirect, group direct, and group indirect) and the net difference (Year 2 minus baseline) on each of the outcome measures. While no significant correlations were found, some notable correlations included student reported behavioral measures with total services, and disciplinary referrals with total services.

Exhibit 32: Within-Group Analyses by Service Type					
Measures	Total Services	Individual Direct	Individual Indirect	Group Direct	Group Indirect
	r	r	r	r	r
Baseline to Year 1 (Main Impact)					
Attendance	-.002	-.017	-.035	.018	-.082
GPA	-.024	.038	-.088	-.042	-.067
Credit Completion	.196	.140	-.050	.202	-.208
Disciplinary Referrals	-.162	-.209	-.143	-.051	-.407*
Mathematics Scaled Score	.150	.121	-.081	.147	-.071
Reading Scaled Score	-.169	-.129	-.067	-.145	.049
Year 1 to Year 2 (Follow On)					

Attendance	.108	.096	.030	.099	.018
GPA	.121	.108	.068	.106	.039
Credit Completion	.085	.095	.011	.072	-.008
Disciplinary Referrals	.145	.127	-.008	.138	.082
Mathematics Scaled Score	.054	.021	-.015	.062	.048
Reading Scaled Score	-.009	.002	.046	-.018	.020
Baseline to Year 2 (Follow On)					
Attendance	.108	.119	-.035	.092	-.108
GPA	.002	.046	-.077	-.008	-.161
Credit Completion	.097	.069	-.038	.105	-.132
Disciplinary Referrals	-.182	-.211	-.204	-.100	-.383
Mathematics Scaled Score	-.136	-.178	-.315	-.051	-.033
Reading Scaled Score	-.139	-.135	-.030	-.116	.115

* $p < .05$

Disciplinary referrals were negatively correlated with the total duration, in hours, of baseline to Year 1 and baseline to Year 2 group indirect services ($r = -.407$, $p < .05$; $R^2 = 0.166$; $r = -.383$, $p < .05$; $R^2 = 0.147$, respectively), such that as CIS students received fewer disciplinary referrals compared to their baseline, the amount of group indirect services increased. However this finding should be interpreted cautiously, as visual analysis indicated the presence a large outlier.

TAKS mathematics scale scores were also significantly negatively correlated with the total duration of Year 1 and Year 2 individual indirect activities ($r = -.315$, $p < .05$; $R^2 = 0.099$), indicating that students whose Year 2 TAKS mathematics scale scores were lower than their baseline scores received greater amounts of individual indirect activities. However, this correlation should be considered cautiously, as visual analysis of the data (i.e., a scatter plot) indicated a significant outlier.

Duration of Services

To better understand the optimal amount of services needed per student, total duration of baseline to Year 1⁴⁰ services was ranked into quartiles. Students who did not receive services ($n = 15$) were removed from the analysis prior to quartile ranking. The first quartile ($n = 19$) duration ranged from 2.8 to 10.0 hours with an average of 6.7 hours per student, the second quartile ($n = 21$) duration ranged from 10.8 to 16.8 hours with an average of 13.7 hours per student, the third quartile ($n = 19$) duration ranged from 17.5 to 27.3 hours with an average of 22.1 hours per student, and the fourth quartile ($n = 19$) duration ranged from 28 to 119 hours with an average of 46.3 hours per student.

Exhibit 35 provides correlations between total duration of services, quartile ranking of services, and the net difference of the respective study outcomes. Quartile duration of service correlations should be interpreted cautiously, as a single outlier would have had a greater effect given the

⁴⁰ Year 2 services were not included in this analysis, given the large number of students who did not receive services in Year 2 and the CIS of Central Texas predisposition to intentionally target students during their ninth grade transitional year.

smaller sample sizes. Linear regression analyses also were conducted on all significant correlations to better determine their linear relationships.

Exhibit 33: Within-Group Analyses by Year 1 Duration of Service				
	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
Measures	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>
Attendance	.002	.259	.096	.241
GPA	-.188	.489*	.142	-.375
Credit Completion	-.264	.606*	-.101	-.122
Disciplinary Referrals	-.042	-.564*	-.270	-.042
Mathematics Scaled Score	-.073	0.197	-.526	-.010
Reading Scaled Score	.191	-.151	-.380	-.321

* $p < .05$

For students ranked in the second quartile, service duration was significantly correlated to net differences in GPA ($r = .489$, $R^2 = 0.239$, $p < .05$), cumulative credit completion ($r = .606$, $R^2 = 0.367$, $p < .05$), and disciplinary referrals ($r = -.564$, $R^2 = 0.318$, $p < .05$). As duration of services increased among students ranked in the second quartile, so did their credit completion; simultaneously, the number of disciplinary referrals decreased compared to a year earlier. Considered together, these data suggest that the minimum duration of services, for CIS to be effective, is between 10.8 and 16.8 hours.

3.6 Sub-Group Comparisons

Sub-group analyses were conducted to determine whether school record outcomes differed by gender.⁴¹ Exhibit 36 presents net change scores and effect sizes on activity and service type duration by gender. Net changes for service type were calculated by taking the female service average and subtracting the male service average. In this way, a positive net change denoted that females received more services, while a negative net change indicated that males received more services.

Exhibit 34: Student Services by Gender									
	Baseline to Year 1 (Main Impact)			Year 1 to Year 2 (Follow On)			Baseline to Year 2 (Follow On)		
	<i>n</i>	Net Change	Effect Size	<i>n</i>	Net Change	Effect Size	<i>n</i>	Net Change	Effect Size
Activity Type									
Supportive Guidance & Counseling	93	-0.34	-0.04	93	-0.84	-0.09	93	-1.18	-0.08
Health & Human Services	93	-0.62	-0.30	93	-0.13	-0.07	93	-0.75	-0.23
Parental & Family Involvement	93	-0.13	-0.26	93	0.53	0.29	93	0.40	0.21
Career Awareness	93	-0.25	-0.12	93	-1.17*	-0.47	93	-1.42*	-0.41
Enrichment	93	-3.91	-0.41	93	-1.88*	-0.53	93	-5.79*	-0.50
Education	93	-1.11*	-0.45	93	-1.92	-0.40	93	-3.03*	-0.45

⁴¹ Given the large overall and differential attrition rates on the student surveys, survey constructs were not included in these analyses.

Initial Assessments	93	-0.16	-0.08	93	-0.24	-0.13	93	-0.40	-0.13
Service Type									
Total Services	93	-6.37	-0.32	93	-5.64	-0.29	93	-12.01	-0.35
Individual Direct	93	-2.64	-0.29	93	-1.37	-0.23	93	-4.01	-0.29
Individual Indirect	93	0.07	0.03	93	-0.11	-0.06	93	-0.04	-0.01
Group Direct	93	-3.69	-0.26	93	-4.08	-0.28	93	-7.76	-0.31
Group Indirect	93	-0.13	-0.18	93	-0.07	-0.22	93	-0.20	-0.24

* $p < .05$

With the exception of Year 1 to Year 2 and baseline to Year 2 parent and family involvement services and baseline to Year 1 individual indirect services, males received greater amounts of services across all activity and service types across all years. In terms of total services duration, males received approximately 6.37 additional hours of service from baseline to Year 1 and 12.01 additional hours of services from baseline to Year 2, compared to females. Independent t -tests revealed significant differences between males and females in the amount of career awareness, enrichment, and education activities they received. From baseline to Year 2, males received 1.42 additional hours of career awareness activities ($t(70.061) = -2.030, p < .05$), 5.79 additional hours of enrichment activities ($t(53.944) = -2.469, p < .05$), and 3.03 additional hours of education activities ($t(46.598) = -2.204, p < .05$).

Exhibit 37 presents net change scores and effect sizes on student records outcomes by gender. Net changes for student outcomes were calculated by taking the difference in female pre-/post-measures minus the difference in male pre-/post-measures. In this way, a positive net change denoted that females demonstrated larger improvements from pre to post, while a negative net change indicated that males demonstrated larger improvements.

Exhibit 35: Student Outcomes by Gender									
	Baseline to Year 1 (Main Impact)			Year 1 to Year 2 (Follow On)			Baseline to Year 2 (Follow On)		
Student Outcomes	n	Net Change	Effect Size	n	Net Change	Effect Size	n	Net Change	Effect Size
Attendance	87	-0.03	-0.29	79	-0.02	-0.19	76	-0.05	-0.32
GPA	84	-2.04	-0.24	77	1.37	0.15	72	-0.19	-0.32
Credit Completion	87	-0.38	-0.14	77	-0.01	0.00	72	-0.53	-0.11
Disciplinary Referrals	87	-0.37	-0.13	79	0.70	0.39	76	0.56	0.20
Mathematics Scaled Score	64	-46.32	-0.26	57	-58.56	-0.24	49	21.22	0.13
Reading Scaled Score	62	61.97	0.26	62	-46.33	-0.19	52	23.20	0.07

Baseline to Year 1 and baseline to Year 2 net changes by gender for attendance, GPA, and cumulative credit completion indicated that males demonstrated larger improvements compared to females. This trend, while not significant, was not surprising given the larger amount of services males received compared to females.

3.7 Treatment on the Treated Analyses

While the intent of this study was to conduct an intent-to-treat analysis, an exploratory treatment on the treated analysis was also conducted.⁴² In essence, all treatment students who did not receive CIS services during both Year 1 and Year 2, or conversely all control students who did receive services, were removed from the analysis. Exhibit 38 presents the results of this analysis. Overall, trends remained consistent with those found in the previous analysis. Substantially important positive effect sizes were again noted for baseline to Year 1 student attendance, GPA, and credit completion. However, when taking into account students who did/did not receive CIS services, Year 1 to Year 2 attendance and GPA results demonstrated a positive effect compared with the small negative effect found in the intent-to-treat model. This finding suggested that sustained services could continue to have prolonged and positive effects on students.

Positive effects were also found for baseline to Year 1 student number of disciplinary referrals and TAKS reading scores, demonstrating that baseline to Year 1 service provision had positive effects across all student record outcomes.

Exhibit 36: Treatment on the Treated Analysis									
Student Outcomes	Baseline to Year 1 (Main Impact)			Year 1 to Year 2 (Follow On)			Baseline to Year 2 (Follow On)		
	<i>n</i>	Net Change	Effect Size	<i>n</i>	Net Change	Effect Size	<i>n</i>	Net Change	Effect Size
Attendance	79	0.03	0.35	72	0.01	0.08	69	0.02	0.13
GPA	76	3.32	0.38	70	1.95	0.22	66	2.56	0.23
Credit Completion	76	1.15	0.42	70	-0.18	-0.06	66	0.00	0.00
Disciplinary Referrals	79	-0.19	0.05	72	0.19	-0.10	69	-0.30	0.08
Mathematics Scaled Score	56	58.87	0.44	58	-45.97	-0.25	49	-10.49	-0.07
Reading Scaled Score	58	36.88	0.12	59	17.15	0.09	50	21.28	0.06

3.8 Interviews and Focus Groups

The information gathered during each site visit provided context for the findings of the experimental study. Interviews and focus groups were conducted with program staff, school personnel, parents, and students to ensure a complete understanding of CIS of Central Texas and the programming within each high school included in the RCT. Interview and focus group guides emphasized CIS processes and outcomes, including descriptions of CIS and CIS strengths and benefits. The following are highlights from the initial interviews and focus groups.

Description of CIS

CIS of Central Texas staff agreed that CIS is “a school-based dropout prevention program that provides support, resources, and opportunities to kids so that they can succeed in school and be successful in life.”

⁴² Given the large overall and differential attrition rates on the student surveys, survey constructs were not included in these analyses.

“We deal with the emotional needs of students so that they can then focus on academics.”

- *CIS Case Manager*

“CIS staff can deal more effectively with the ‘heavy duty’ issues like abuse because they have staff with specialized training.”

- *High School Principal*

“CIS builds relationships and a safe place for students.”

- *High School Principal*

“They really care about your problems. You are not a burden to them and they don’t judge you.”

- *CIS High School Student*

Strengths of CIS

When asked to identify the strengths of CIS, similar responses emerged across stakeholder groups:

- **Support from the campus/school administration:** CIS staff stressed the importance of building relationships with teachers and other school staff, attending school meetings, and networking with staff.
- **Programs and services tailored to the needs of individual students:** CIS of Central Texas offered a variety of programs and services, including supportive guidance, health and human services, career/awareness programs, enrichment activities, and educational enhancement. Program managers provided many levels of supportive guidance to students, including group sessions, individual counseling, crisis intervention, and mentoring. Sessions covered a diverse range of topics, such as parenting support, drug and alcohol abuse prevention, gay and lesbian issues, teen dating violence, and academic achievement.
- **Full-time presence on campus:** Building relationships with students, parents, school staff, and community partners takes time. One parent pointed out that there was little stability at the high schools CIS served—teachers often quit after 1 or 2 years and principals and other administrators often changed—so stability in CIS was of the utmost importance.
- **Strong reputation in the community:** CIS of Central Texas worked with more than 70 local and national organizations to provide services to students. CIS of Central Texas saw these partnerships as beneficial to both organizations. Often, nonprofits have difficulty partnering with schools on their own. Schools are typically cautious about developing partnerships with outside organizations and looked to CIS as the “gatekeeper.”
- **Hiring staff with advanced degrees with input from school administration:** CIS of Central Texas has high standards for staff qualifications and tries to hire social services professionals with master’s or more advanced degrees. In fact, all six of the program managers interviewed held master’s degrees in social work or counseling.

- **Advocate for students; offer a place where students feel cared for and appreciated:** CIS staff have strong relationships with the students they serve. Program managers emphasized that friendly, fun, and respectful relationships with students were important to CIS success. This emphasis was clearly effective with students, who mentioned feeling very comfortable and safe with the CIS staff.
- **Mutual respect among CIS staff and school personnel:** The benefits of building strong relationships with other CIS staff and school personnel were cited repeatedly. Ongoing and open communication between CIS staff and school personnel was noted as key to building successful relationships.

When asked to describe CIS, participants offered a variety of responses, including:

“Many kids have non-academic issues in their lives that make it difficult to learn up to their highest potential. CIS is a program that focuses on the non-academic issues that children face.”

“We are school-based social service providers. People look to us for direction on how to work with high-risk populations dealing with complex ‘real life’ issues.”

“We are a program that offers social services, counseling, group programs, and mentoring.”

“We bring services into the school instead of having them [services] spread out through the community.”

“CIS is a program that helps kids stay in school.”

Patterns of Success

CIS of Central Texas program managers were asked to describe the characteristics, patterns of participation, and events associated with successful participation. Common themes emerged, including:

- **Parental involvement:** Having parental or outside adult support were repeatedly noted, from providing consistency, and non-judgmental/non-chaotic family lives, to simply having a working telephone at home.
- **Viewing CIS as a safe place:** Successful students built strong relationships with staff and other CIS members. They used CIS as a resource and communicated openly about their issues.
- **Student commitment:** Taking action, commitment to the process, internal resiliency, maturity, and consistent participation were all hallmarks of success.

Successful CIS participants demonstrated increased enthusiasm about school and CIS, developed more trusting relationships with adults and peers, and displayed an increased awareness of their situations. Early signs of success included consistent participation in CIS, advanced communication skills and insight, and a strong relationship/bond with CIS staff. In contrast, less successful CIS participants had more chaotic family lives, were distrustful, and might have been angry or negative. Early warning signs included missed connections (i.e., lack of service to match their needs), lack of interest, lack of awareness, and feeling uncomfortable with staff and other CIS members.

Program managers discussed characteristics of successful participants:

"When they get here, they are open to the process. They seem to show some signs of being stronger."

"They have a willingness to continue to participate in their own life."

"The self-referred kids do the best in that they make the fastest progress. They've already come to the realization that they need and want help to make changes in their lives. It becomes part of their identity."

"The successful students figure out how to connect with other students and CIS. They get involved."

"It's hard because you couldn't look at two students and say which will be successful. Some students have more inner strength or resiliency. They may be more mature than others."

"They do more than talk—they take action."

"They feel that they can come in here any time they need to. They feel safe. They know they can come in and talk with us about everything."

Benefits of CIS

All stakeholders reported observing positive changes in students receiving CIS services. Those positive changes included increased attendance, better grades, decreased disciplinary actions, increased self-esteem and resistance to peer pressure, and better communication with parents, siblings, and peers.

CIS of Central Texas was a very successful program, according to students and parents. Students and parents who participated in the focus groups unanimously stated they would like to continue participation in CIS and would recommend it to others. Students particularly reported enjoying the field trips and enrichment activities that CIS offered. They also enjoyed participating in groups (and meeting other CIS students) and having a trustworthy adult to advise them on their problems. Parents agreed, listing the enrichment activities/field trips and the individual counseling as the two greatest strengths of the program.

Interview and focus group participants discussed the benefits CIS offers schools, students, and families.

From school personnel:

"CIS impacts students in both measurable and intangible ways. It helps with discipline problems, improves attendance, and has helped with our graduation rates. But CIS also makes for happier students who are progressing better in school and life."

"CIS is a value-added to any school."

"You may not notice if they [CIS] are there but you sure would notice if they weren't there. I can't always quantify it, but kids would perform even less well and would come to school even less if CIS was not here."

"Our guidance counselors focus on course/academic issues and CIS focuses on social/emotional issues. We make a great team."

"CIS helps remove any excuses or barriers that students might have for not finishing high school."

"We [teachers] see CIS as an additional resource that can help us do the things we cannot do with regard to helping students since our primary responsibility is being educators."

From students:

"I've done a lot of stupid stuff and I don't do them anymore."

"CIS has helped me learn to control my anger."

"I probably would have ended up dead without this program."

"I have a better relationship with my mom because of CIS."

"CIS gives you character."

"I'm getting better grades because of CIS."

"I learned to pick my friends more wisely."

Overall, respondents agreed that CIS worked and the only deficiency was the need for more case managers. Both students and parents reported wanting more time for students in the CIS room, CIS field trips, and more one-on-one counseling time. Parents at the focus groups also hoped for more communication with CIS program managers in the future. Stakeholders also noted the desire for additional full-time CIS staff, an expansion that would allow more students to be served, and more one-on-one time with staff.

4. Conclusion

The greatest impacts of CIS of Central Texas were found at the end of Year 1 (i.e., ninth grade). These included significant positive differences in student attendance rate, GPA, and credit completion, with substantially important effect sizes ranging from 0.38 to 0.45. Year 1 dropout rates also demonstrated the positive effects that the CIS focus on ninth grade is having during an important transitional year.

Treatment on the treated analyses indicated that sustained services provided positive effects for student attendance and GPA, demonstrating a reversal of the intent-to-treat analysis findings. Moreover, detailed examination of student services and outcomes suggested that CIS of Central Texas provided more services and experienced better outcomes for males, and that the minimum duration of services, for CIS to be effective, ranged between 10.8 and 16.8 hours.

Overall 2-year impacts, while not significant and somewhat subdued, were also positive. Potential explanations for the dip in findings could be explained by considering the amount of services treatment students received during their second year, which was noticeably less than in their first year. This finding calls for careful examination of the frequency and dosage of services, including brokered/leveraged services, in relation to student outcomes. However, the stronger impacts at the end of Year 1 provide evidence that supports CIS of Central Texas' approach to providing targeted case-managed services to high need students during a critical transitional year. The longer term impact of this approach on graduation rates still needs to be examined.

Appendix A: School Level Descriptives

	Appendix A ⁴³						
	Crockett High School	Johnson High School	Johnston High School	Lanier High School	Reagan High School	Travis High School	Eastside High School ⁴⁴
Student Proficiency on State Tests - 2006							
Reading Proficiency (%)	80.8	85.1	67.7	71.8	67.6	72.3	n.a.
Math Proficiency (%)	51	70	30	43.8	33.1	40.8	n.a.
Reading and Math Proficiency (RaMP) (%)	66	77.6	48.8	58.1	50.3	57	n.a.
Reading Proficiency by Subgroup (%) - 2006							
All Students	80.8	85.1	67.7	71.8	67.6	72.3	n.a.
White	91.3	99	n.a.	83.8	n.a.	75.1	n.a.
Black	74.3	79.7	66.9	78.6	74.2	76.5	n.a.
Hispanic	75.8	75.5	68	70	63.8	70.8	n.a.
Asian/Pacific Islander	82.4	98.7	n.a.	66	n.a.	75	n.a.
American Indian/Alaska Native	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Female	86.4	88.1	73	78.8	75.1	77.5	n.a.
Male	74.5	83.1	60.6	64.7	60.5	66.4	n.a.
Economically Disadvantaged	74.7	76	65.8	70.6	66.7	70.7	n.a.
Non-Disadvantaged	87	93.7	76.3	77.4	71.5	77.5	n.a.
English Language Learners	28.5	29	34.8	33.4	30.5	32.2	n.a.
Non-English Language Learners	86.2	90.3	75.3	85.2	78	82.5	n.a.
Non-English Language Learners 1st Year	61.2	82	67	84	85.3	80.7	n.a.
Non-English Language Learners 2nd Year	73.7	50	n.a.	84.5	n.a.	79	n.a.
Students with Disabilities	53.9	40.1	28.7	45.3	22.4	55.4	n.a.
Non-Disabled Students	83.4	86.9	71.9	73.6	71.1	73.4	n.a.
Migrant	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-Migrant	80.8	85.1	67.7	71.8	67.9	72.2	n.a.
Math Proficiency by Subgroup (%) - 2006							
All Students	51	70	30	43.8	33.1	40.8	n.a.
White	71.1	97.7	n.a.	61.1	n.a.	47.9	n.a.
Black	31.1	50.3	11.3	31.2	30.5	36.9	n.a.
Hispanic	43.5	54.7	33	42.1	34	40.3	n.a.
Asian/Pacific Islander	61.3	97.6	n.a.	78.7	n.a.	83	n.a.
American Indian/Alaska Native	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Female	50.2	66.1	30.5	44.2	36.5	38.5	n.a.
Male	51.8	73.3	29	43.1	29.8	43.1	n.a.
Economically Disadvantaged	42.4	51.3	27	42.1	32.4	38.6	n.a.
Non-Disadvantaged	59.3	86.3	47	50.3	35.2	50.1	n.a.

⁴³ Data downloaded from www.schooldatairect.org on April 25th, 2008.

⁴⁴ Eastside Memorial data was obtained from AISD 2008-2009 Campus Report Card.

English Language Learners	12.5	14.2	17	23.4	11.8	14	n.a.
Non-English Language Learners	55.2	74.6	33.4	50.2	41	48.3	n.a.
Non-English Language Learners 1st Year	41.2	45.3	0	59.6	34.8	30.6	n.a.
Non-English Language Learners 2nd Year	35.7	33	n.a.	48.3	n.a.	63	n.a.
Students with Disabilities	21	22.9	6.1	7.6	2.7	10	n.a.
Non-Disabled Students	53.8	71.4	32.2	46.2	35.2	42	n.a.
Migrant	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Non-Migrant	51	70	30	43.8	33.1	40.8	n.a.
Classroom Profile - 2006							
Students Per Teacher	14.4	15.6	12.1	14.5	13.6	14.3	n.a.
Enrollment (%) - 2006							
Enrollment (#)	2,001	1,666	735	1,589	1,009	1,555	547
White	32.2	28.9	1.6	8.9	2	6.7	0.5
Black	10.2	29.2	17.7	14.7	33.9	13	16.3
Hispanic	56	35.1	80.7	73.1	63.4	79.3	83
Asian/Pacific Islander	1.2	6.5	0	3.1	0.7	0.8	0.2
American Indian/Alaska Native	0.2	0.2	0	0.3	0	0.3	0
Economically Disadvantaged	50.5	48.9	82.6	78.5	79.7	78.9	87.9
English Language Learners	7.8	8.2	19.2	28.3	22.8	22.1	23.8
Students with Disabilities	18.6	8.9	21.8	14.3	16.2	17.7	19.4
NCLB Information - 2006							
Is this school making Adequate Yearly Progress?	No	Yes	No	Yes	No	No	n.a.
School Facts							
Address	5601 Manchaca Road	7309 Lazy Creek Drive	1012 Arthur Stiles	1201 Peyton Gin Road	7104 Berkman Drive	1211 E Olto Street	1012 Arthur Stiles
City or Town	Austin	Austin	Austin	Austin	Austin	Austin	Austin
County	Travis	Travis	Travis	Travis	Travis	Travis	Travis
District	Austin ISD	Austin ISD	Austin ISD	Austin ISD	Austin ISD	Austin ISD	Austin ISD
Telephone Number	(512)414-2532	(512)414-2543	(512)414-5810	(512)414-2514	(512)414-2523	(512)414-2527	(512)414-5810
Urban Status	Large City	Large City	Large City	Large City	Large City	Large City	Large City
Grade Levels Served	9-12	9-12	9-12	9-12	9-12	9-12	9-12

Appendix B: CIS of Texas Eligibility Criteria

TEA At-Risk Criteria (Texas Education Code 29.081)

- The following are the criteria for determining eligibility for state funded case management students. This information must be verified with a school official. All criteria that apply must be checked.
- A “student at risk of dropping out of school” includes each student who is under 21 years of age, and who:
 - was not advanced from one grade level to the next for one or more school years;
 - if the student is in grade 7, 8, 9, 10, 11, or 12, did not maintain an average equivalent to 70 on a scale of 100 in two or more subjects in the foundation curriculum (Section 28.002) during a semester in the preceding or current school year, or is not maintaining such an average in two or more subjects in the foundation curriculum in the current semester.
 - did not perform satisfactorily on an assessment instrument administered to the student under the Subchapter B, Chapter 39, and who has not in the previous or current school year subsequently performed on that instrument or another appropriate instrument at a level equal to at least 110 percent of the level of satisfactory performance on that instrument;
 - if the student is in pre-kindergarten, kindergarten, or grade one, two, or three, did not perform satisfactorily on a readiness test or assessment instrument administered during the current school year;
 - is pregnant or is a parent;
 - has been placed in an alternative education program in accordance with Section 37.006 during the preceding or current school year;
 - has been expelled in accordance with Section 37.007 during the preceding or current school year;
 - currently on parole, probation, deferred prosecution, or other conditional release;
 - was previously reported through the Public Education Information Management System (PEIMS) to have dropped out of school;
 - is a student of limited English proficiency as defined by Section 29.052;
 - is in the custody or care of the Department of Protective and Regulatory Services or has, during the current school year, been referred to the department by a school official, officer of the juvenile court or law enforcement official;
 - is homeless, as defined by 42 U.S.C. Section 11302, and its subsequent amendments; <http://www.ed.gov/programs/homeless/guidance.pdf>
 - resided in the previous school year or resides in the current school year in a residential placement facility in the district, including a detention facility, substance abuse treatment facility, emergency shelter, psychiatric hospital, halfway house, or foster groups home or
 - local ISD criteria as adopted by the board of trustees.
 - Document on the comment section the type of criteria approved by the board of trustees.

Additional CIS Legislative Eligibility Criteria

The following are additional criteria that are allowable in CIS legislation. This criterion should also be checked along with any criteria in the above section. However, if the above criterion is not applicable, the following may be selected according to the guidance given below.

- A student who is eligible for free or reduced lunch; (Texas Education Code 33.151)
 - When selecting free or reduced lunch, a supporting statement summarizing the additional barriers affecting the student's success must be clearly reflected in the **comment section**.
 - If free and reduced lunch is selected it must also be selected on the Participant Information, Public Assistance.
- A student who is in family conflict or crisis; (Texas Education Code 33.151)

A student who is in family conflict or crisis may include but not limited to:

- Is experiencing trouble at home because of divorce, death in the family, incarcerated parent(s) or relative
- Experiencing difficulty because of abuse or neglect
- Has run away from home or is contemplating leaving the home
- Parents or guardian has lost job
- Has gone through a traumatic experience – lost home due to natural disaster or financial trouble

A description of the family conflict or crisis situation is required in the comment section of the CIS Eligibility Criteria Checklist.

- Temporary Assistance for Needy Family (TANF) recipient.
 - This criterion is selected only if the parent acknowledged this on the PC form or other documentation, or through an interview.

A supporting statement summarizing the additional barriers affecting the student's success must be clearly reflected in the comment section of the CIS Eligibility Criteria Checklist.

Appendix C: Randomization Lookup Tables

COHORT 1

Random Assignment Table

Participants with Birthdays Highlighted are to be included in the CIS program.

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Random Assignment Table

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Appendix D: CIS of Central Texas Service Codes



9/1/2007

SERVICE CODE

QUICK REFERENCE GUIDE

Categorized Numerically



Supportive Guidance		Parent/Family Involvement		Enrichment		Educational Enhancement		Maintenance Codes	
1001	Abstinence	2019	Legal services	4008	Career field trips	5063	Senior celebrations	7001	Advocacy
1002	Academics/grades	2020	Medical health referrals	4009	Career panel presentation	5065	School spirit	7002	Case review
1003	Anger management	2021	Nutrition/eating habits	4010	Career software/employment aptitude test	5066	Swimming activities and lessons	7003	Consultation
1004	Attendance	2022	Other health & human service linkage	4011	Employment listings/job postings	5068	Computer games / enrich technology	7004	Coordination
1005	Attitude	2023	Psychological referral	4012	Employment skills training	5067	Motivational activities	7005	File maintenance
1006	Behavior	2024	Pregnancy/reproductive health	4013	Financial planning	Educational Enhancement		7006	Assessment
1007	Character building	2025	Public assistance	4014	Job placement			7007	Intake
1008	Classroom Conduct	2026	Red ribbon week activities	4015	Job recruitment	6001	Accelerated student activities	7008	Observation
1009	Conduct a formal student assessment	2027	Safety awareness	4016	Job referral	6002	College test application	7009	Organizing social support network
1010	Conference with student	2028	School supplies assistance	4017	Job shadowing	6003	Cheer clubs	7010	Outcome
1011	Conflict resolution	2029	School uniforms assistance	4018	Mock interviews	6004	Classroom participation	7011	Progress
1012	Court advocacy	2030	Transportation	4019	Resume assistance	6005	College awareness/preparation	7012	Re-assessment
1013	Crisis intervention	2031	Victims & crime assistance	4020	School to careers activities / classes	6006	College course enrollment	7013	Staffing
1014	Encouragement/reminders tutoring	2032	Vision care screening/referrals	4022	Stock market clubs / lessons	6007	College days/events/fairs	7014	Worksite monitoring
1015	Family Conflict/Emotional Crisis	2033	Wellness enhancement	4023	Take son / daughter to work day	6008	College financial aid assistance	7015	Humane student
1016	Gang awareness	2034	Health insurance assistance	4024	Time management skills training	6009	College tour/field trips	7017	Student follow-up
1017	Goal setting	2035	Life skills (H)	4025	Organization skills	6010	Computer lab training	7018	Referrals
1018	Grief counseling/guidance	2036	Date/acquaintance rape	4026	Vocational training	6011	Creative writing	7019	Grade follow-up
1019	Leadership training	2037	Violence prevention	4027	Computer literacy	6012	Credit recovery tracking	7020	Attendance monitoring
1020	Mentoring (S)	2038	A/lateen	4028	GED-OP	6013	Essay contest	7021	Dual credit
1021	Peer mediation	2039	Drug & alcohol abuse	4029	On the job training	6014	FAFSA	7022	Concurrent enrollment
1022	Personal/confidential issues	2040	Diabetes awareness	4030	Military recruiters	6015	GED classes	7023	Advanced placement
1023	Probation monitoring	2041	Mental health referrals	4031	Career exploration	6016	Grades	7024	Tech prep
1024	Provide CIS information to a student	2042	Backpack feeding program	4032	Dress for success	6017	Higher education support	7025	Internships
1025	Relationship skills	2043	Summer feeding program	4033	Entrepreneurial activities	6018	Homework check/completion	7026	Reporting period follow-up
1026	Ropes	Parent/Family Involvement		Enrichment		6019	Homework clubs	7027	Information gathering
1027	Self-Esteem enhancement					6020	Individual student plan	7028	
1028	Social & communication Skills	3001	Adult education*	5001	Arts & crafts activities	6021	Language (ESL, LEP)	Status Codes	
1029	Students with deployed parents	3002	CIS open house	5002	After school clubs	6022	Literacy programs		
1030	Students with divorced parents	3003	College awareness -parent information	5003	Board games	6023	Peer tutoring	8001	Active
1031	Substance abuse	3004	Employment fair for family members	5004	Bowling	6024	Pen pals	8002	Follow-up
1032	Support groups	3005	Family counseling/supportive guidance	5005	Cheerleading	6025	Poster contest	Exit Codes	
1033	Teen parent groups	3006	Family history	5006	Citizen/student of the month	6026	Pre-post test		
1034	Truancy court	3007	Family literacy programs*	5007	Community service	6027	Reading program/clubs	9001	Removed by child protective services
1035	Students with incarcerated parents	3008	Graduation ceremonies (all grade levels)	5008	Cultural/gender/ethnic diversity	6028	School related planning	9002	Deceased
1036	Counseling	3009	Home visits	5009	Dance/drama/music clubs	6029	Spelling competitions	9003	Administrative withdrawal
1037	Suicide prevention	3010	Household budgeting/banking	5010	Etiquette lessons	6030	Study skills activities	9004	Non CIS participation
1038	Eating disorder	3011	Letters to parents	5011	Fashion show	6031	TAKS preparation	9005	Parents request
1039	Mental health support	3012	Newsletters/flyers	5012	Field trips	6032	Test taking skills	9006	Missing youth/runaway
1040	Weight issues	3013	Parent appreciation activities	5013	Food/clothing drives	6033	Tutoring-english	9007	Service met
1041	College life prep	3014	Parent conferences	5014	Fund-raisers	6034	Tutoring-math	9008	Within program transfer
1042	Home separation	3015	Parent orientations	5015	Games (physical/outdoor)	6035	Tutoring-science	9009	Out of program transfer
1043	Pregnancy/parenting awareness	3016	Parent surveys	5016	Graffiti clean-up	6036	Tutoring-social studies	9010	Marriage
1044	Bullying/planti-bullying	3017	Parent transportation*	5017	Incentives	6037	Personal graduation plan	9011	Pregnancy
1045	Ninth grade transition	3018	Parent volunteers	5018	Intership	6038	Eighth grade assessment	9012	Enrolled in school outside of Texas
1046	Peer pressure issues	3019	Parent/family events & activities	5019	Leadership training	6039	Science wizard	9013	Alternative program, diploma or certificate
1047	School violence	3020	Phone calls to parents	5020	Life skills (E)	6040	Service learning	9014	Completed school year
1048	Team-building activities	3021	Provide CIS information to family	5021	Lunch activities	6041	Start something	9015	Academic performance
1049	Separation anxiety guidance	3022	Parent/student meals	5022	Marital arts/self defense	6042	Youth build (EE)	9016	Alcohol or other drug abuse pr
1050	Coping skills	3023	Parent/student TAKS nights	5023	Mini olympics	6043	Math club	9017	College, pursue degree
1051	Victim support	3024	Parenting classes/life skills classes*	5024	National special month activities	6044	Scholarship information	9018	Enrolled in Texas private school
1052	Self control skills	3025	Phone calls to parents	5025	Nature walk/spiciness	6045	Student/teacher conferences	9019	Expelled, can't return
1053	Cutting / self-mutilation	3026	Provide CIS information to family	5026	Parade participation	6046	College test prep	9020	Failed to exit TAKS or TAKS
1054	Problem solving skills	3027	PTAFIT O night	5027	Scouting activities	6047	Math activities	9021	Graduated outside TX, returned left again
Health & Human Services Linkages		3028	Relationship building with child - for parent*	5028	Sign language training	6048	Science activities	9022	Home Schooling
		3029	Tax preparation assistance*	5029	Sports (games & events)	6049	Engineering activities	9023	Homeless or non permanent resident
2001	Agency referrals	3030	Translation services for parents*	5030	Sports activities	6050	Technology activities	9024	Received GED outside of Texas
	2002	3031	DAD	5031	Student clubs & meetings	6051	College admissions assistance	9025	Return to home country
2003	Basic Needs	3032	PAPA (teen parents)	5032	Student recognition/awards	6052	College career goals	9026	Student did not complete GED certificate
2004	Boys & girls associations	3033	Mailing	5033	Talent shows	6053	College preparation	9027	Student expelled, can return and has not
2005	Child abuse prevention	3034	Meeting	5034	Volunteerism	6054	College professor meeting	9028	Withdrawn delinquent acts
2006	Child care	3035	Assist with application for employment*	5035	Youth build (E)	6055	Scholarship application	9029	Withdrawn/over age
2007	Child safety	3036	Parent support group*	5036	Decision making	6056	Special education student support	9030	Illness
2008	Clothes closet	3037	Parenting education (pregnant/parenting teens)	5037	Cooking classes	6057	Dual credit	9031	Left to pursue GED in Texas
2009	Dental care/referrals	3038	College financial aid - for parents	5038	Trash clean-up	6058	Concurrent enrollment	9032	Not Eligible
2010	Emergency food	3039	Computer literacy for parents*	5039	Before/after-school activities	6059	Advanced placement (EE)	9033	Enrolled in school within Texas
2011	First aid/CPR classes	Career Awareness/Employment		5040	Creative arts	6060	College needs assessment	9034	Migrant family moved
2012	Fitness	4001	Baby Sitter/CPR certification training	5041	Problem solving	6061	Note taking	9035	Military family moved
2013	Health awareness/fairs	4002	Business environment etiquette	5042	Humane activities	6062	Tutoring-reading	9036	Student completed GED certification
2014	Health screenings	4003	Career clubs	5043	Recreational activities	6063	Tech prep	9037	Joined military
2015	HIV/AIDS/STD awareness	4004	Career counseling	5044	Guest speaker(s) - motivational	6064	College entrance exams	9038	Pursue job/job-training
2016	Housing	4005	Career days	5045	Community involvement	6065	Reading assistance	9039	Service hours not met
2017	Hygiene lessons	4006	Career development activities	5046	Adapt-A-School activities	6066		9040	In complete assessment
2018	Immunization	4007	Career fairs	5047				9041	Completed summer program

Appendix E: Survey Constructs

Exploratory Factor Analysis of Communities in School Survey Items

This appendix summarizes results from factor analyses conducted on survey items and also presents reliability and descriptive summary information for all scales used in analyses. Items for the Communities in Schools (CIS) survey were selected from a number of major surveys on youth and adolescent development. Existing surveys were selected to identify important outcome variables that may be impacted by participation in CIS and there were three sections to the survey: (1) what I do, (2) what I've done, and (3) how I feel. Since the items selected for the evaluation were from a number of pre-existing scales, factor analysis was used to identify which items comprised overarching scales in each of the three survey sections.

Exploratory factor analysis was used since this procedure only analyzes shared variance among items and is therefore useful in identifying theoretical relationships among data. As recommended, scree plot analysis was used to identify the number of factors or scales for each section. Analyses were conducted separately for each section of the survey given the large number of items and different nature of items across sections. For section one (i.e., what I do), the scree plot indicated there were four factors while analyses only indicated one scale for section two (i.e., what I've done). For section three (i.e., how I feel), the factor analyses revealed three factors, although one factor contained three items and another factor contained two items. As typically a minimum of three items is recommended for a scale, and to increase confidence in the scale for this section, one scale was used in analyses.

Factor loadings for each item in section one are listed in Exhibit F-1. Maximum likelihood estimation was used with oblimin rotation given the correlated nature of youth developmental scales. Bartlett's test of sphericity demonstrated the sample was adequate. Items that clearly loaded on one factor and were theoretically compatible were retained for the final scales. A conservative cutoff value of .45 was used.

Personal responsibility contains five items that ask if the student is committed to their education, if they set realistic goals, can solve problems without resorting to violence, and if adults available (other than parents) to discuss problems. Self-worth, the second scale, asks a number of items about how the student feels, including whether or not they often feel sad or unhappy. This scale was recoded to indicate a positive self-worth. School and community involvement ask if the student feels responsible for solving problems in these contexts and if they do their homework and do their best in school. The final scale, family relations and parent involvement, asks items regarding students' relationships with their parents/guardians and whether or not parents encourage them to do well in school.

Exhibit F-1: Factor Loadings for Section One: What I do				
	Factor 1	Factor 2	Factor 3	Factor 4
22) I am committed to my education.	.629	-.040	.427	-.434
53) If you set realistic goals, you can succeed no matter what.	.608	-.148	.258	-.377
25) I think through a situation before acting on it.	.589	-.302	.194	.116
4) There are adults in my life other than my parents that I can talk to if I have a problem.	.569	-.221	.255	-.350
18) I can solve problems without using violence.	.560	.058	.214	-.120
51) I feel all alone.	-.310	-.675	.223	-.277
24) I often feel sad or unhappy.	.160	-.612	.027	-.227
12) I feel like I can never do anything right.	.255	-.590	.227	-.213
52) I can't help the way I feel or behave.	.134	-.541	.162	-.181
29) I like who I am as a person.	.281	-.540	.142	-.243
49) People at school make me mad.	.209	-.488	.111	-.181
55) I ask my teacher for help when I need it.	.252	-.188	.726	-.004
16) I think it is my responsibility to help solve problems in my <u>school</u> .	.131	-.139	.673	-.170
17) I think it is my responsibility to help solve problems in my <u>community</u> .	.130	-.041	.621	-.044
56) I set aside time to do my homework and study.	.030	-.142	.620	-.002
32) I try to do my best in school.	.148	.187	.595	-.250
44) I look forward to learning new things at school.	.313	-.056	.556	-.128
45) I look forward to going to school.	.383	-.090	.524	-.079
39) Teachers generally like me.	.328	-.110	.517	-.213
9) My parents/guardians feel that I will be successful in life.	.438	-.214	.115	-.683
8) My parents/guardians notice when I do something good.	.348	-.206	.175	-.669
23) I feel unwanted at home.	-.214	-.427	.067	-.645
27) My parents/guardians listen to what I have to say.	.248	-.201	.235	-.626
28) My parents/guardians encourage me to do well in school.	.263	-.125	.324	-.591
Eigenvalues	5.92	4.67	5.72	4.70

Note. Since the factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Reliability and Descriptive Analyses of Community in Schools Survey Scales

Factor analysis results for section two (i.e., what I've done) and section three (i.e., how I feel) indicated that these sections should be treated as a single factor or scale. Because of this, reliability analysis was conducted on these scales and all others to ensure that the items are measuring the same theoretical concept or scale. Section one contains four scales and is described in detail above. Section two contains items that ask about "delinquent" activities, such as drinking alcohol, cheating on a test and getting into a fight. Section three, labeled future aspirations, asks students about their hopes and expectations of the future, such as graduating from high school and finishing college. Reliability and descriptive information is presented in Exhibit F-2. All scales demonstrated adequate reliability, although a couple scales are slightly below .70.

Exhibit F-2: Reliability and Descriptive Information for Community in School Survey Scales						
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Number of Items	5	6	8	5	9	7
Mean	18.32	21.38	26.44	19.83	37.28	28.16
Standard Deviation	3.48	4.19	5.59	3.81	7.09	4.84
Alpha	.64	.68	.78	.77	.85	.77

Survey Constructs

Part One: What I Do

Factor 1 (*Personal Responsibility*): alpha = .644 (n = 167)

- 4. There are adults in my life other than my parents that I can talk to if I have a problem.
- 18. I can solve problems without using violence.
- 22. I am committed to my education.
- 25. I think through a situation before acting on it.
- 53. If you set realistic goals, you can succeed no matter what.

Factor 2 (*Self-Worth*): alpha = .681 (n = 162)

- 12. I feel like I can never do anything right.
- 24. I often feel sad or unhappy.
- 29. I like who I am as a person.
- 49. People at school make me mad.
- 51. I feel all alone.
- 52. I can't help the way I feel or behave.

Factor 3 (*School/Community Involvement*): alpha = .781 (n = 162)

- 16. I think it is my responsibility to help solve problems in my school.
- 17. I think it is my responsibility to help solve problems in my community.
- 32. I try to do my best in school.
- 39. Teachers generally like me.
- 44. I look forward to learning new things at school.
- 45. I look forward to going to school.
- 55. I ask my teacher for help when I need it.
- 56. I set aside time to do my homework and study.

Factor 4 (*Family Relationships/Parental Involvement*): $\alpha = .769$ ($n = 168$)

- 8. My parents/guardians notice when I do something good.
- 9. My parents/guardians feel that I will be successful in life.
- 23. I feel unwanted at home.
- 27. My parents/guardians listen to what I have to say.
- 28. My parents/guardians encourage me to do well in school.

Part Two: What I've Done

Factor 1 (*Behavioral Measures*): $\alpha = .854$ ($n = 172$)

- 57. I carried a weapon (knife or gun) for protection.
- 58. I got in a fight where I hit or was hit by someone.
- 59. I smoked cigarettes or chewed tobacco.
- 60. I drank alcohol.
- 61. I used drugs (marijuana, pills, inhalants, etc.)
- 62. I cheated on a test or assignment.
- 63. I skipped a day of school.
- 64. I used force to get money or things from someone.
- 65. I disobeyed my parent/guardian (did something they told me not to do).

Part Three: How I Feel

Factor 1 (*Future Aspirations*): $\alpha = .768$ ($n = 161$)

- 66. I will graduate from high school.
- 67. I will finish college.
- 68. I will get a job I really want.
- 69. I am confident in my ability to stay out of fights.
- 70. I can get along well with other people.
- 74. I go to school only because my parents/guardians make me.
- 76. I have many skills that will help me succeed.

Appendix F: Test of Between-Subject Effects *F*-scores

Appendix F: Test of Between-Subject Effects <i>F</i> -scores											
	<i>df</i>	Intercept	Pre-Measure	Gender	Ethnicity	ESL Status	Free/Reduced Lunch	At Risk	Special Education Status	Cohort	Condition
Attendance											
Baseline – Year 1	1, 143	4.02*	133.13*	3.32	0.03	0.36	0.08	3.64	0.35	0.01	6.18*
Year 1 – Year 2	1, 125	3.43	145.64*	2.76	0.03	0.01	2.65	0.19	0.07	7.50*	0.28
Baseline – Year 2	1, 120	0.11	47.52*	4.55*	0.13	0.71	2.49	0.66	0.08	3.17	0.19
GPA											
Baseline – Year 1	1, 138	0.77	72.22*	0.21	1.44	6.13*	0.39	9.81*	0.14	0.01	6.18*
Year 1 – Year 2	1, 121	0.36	168.27*	0.20	1.93	1.16	0.43	2.25	0.66	4.31*	0.12
Baseline – Year 2	1, 114	1.47	45.61*	0.16	1.73	1.07	1.14	0.23	0.11	3.26	1.07
Credit Completion											
Baseline – Year 1	1, 138	17.59*	52.12*	0.45	5.60*	2.42	0.06	4.57*	1.26	0.23	4.75*
Year 1 – Year 2	1, 121	0.25	433.58*	0.92	0.40	0.68	2.65	0.15	0.04	4.86*	0.20
Baseline – Year 2	1, 114	9.82*	24.80*	2.14	2.27	4.53*	0.65	1.94	0.32	2.42	0.07
Disciplinary Referrals											
Baseline – Year 1	1, 143	2.85	26.89*	0.00	1.74	1.69	1.06	0.39	1.16	2.84	0.11
Year 1 – Year 2	1, 125	3.15	45.62*	0.56	1.36	0.00	0.64	0.36	0.02	0.71	0.01
Baseline – Year 2	1, 120	6.20*	5.60*	0.66	2.79	1.15	0.02	0.61	0.09	3.18	0.07
TAKS Mathematics											
Baseline – Year 1	1, 103	2.01	42.24*	1.45	0.04	0.18	0.86	0.81	1.49	0.13	0.50
Year 1 – Year 2	1, 95	15.70*	14.09*	3.83	0.67	2.19	1.38	6.38*	0.10	8.74*	0.13
Baseline – Year 2	1, 81	0.46	24.90*	0.32	0.49	1.89	0.19	0.82	3.73	4.90*	1.29
TAKS Reading											
Baseline – Year 1	1, 101	74.56*	10.17*	0.29	3.54	2.81	0.00	8.81*	0.09	3.55	0.33
Year 1 – Year 2	1, 97	15.26*	7.09*	1.01	0.50	0.08	0.38	0.39	0.82	1.25	0.07
Baseline – Year 2	1, 84	35.71*	0.59	1.13	0.18	0.20	1.03	1.17	0.18	1.71	0.06

* $p < .05$.