# TWO YEARS OF CASE MANAGEMENT

## FINAL FINDINGS FROM THE COMMUNITIES IN SCHOOLS RANDOM ASSIGNMENT EVALUATION

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BUILDING KNOWLEDGE TO IMPROVE SOCIAL POLICY

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# Overview

While high school graduation rates are on the rise nationwide, too many students still never reach that milestone, with 7,000 on average dropping out every day. Recognizing that many students need additional support to succeed in school, Communities In Schools (CIS) works to provide and connect students with integrated support services to keep them on a path to graduation. CIS makes some services broadly available to all students at a school, and provides individual case management to those deemed most at risk of dropping out.

This report presents the final implementation and impact findings from a two-year randomized controlled trial of CIS case management. This trial is half of a two-pronged national evaluation, the other half being a quasi-experimental study of the whole-school model. The report describes the implementation and effects of CIS case management in 24 mostly urban, low-income secondary schools in two states during the 2013-2014 school year. The study's implementation research finds:

- CIS site coordinators directly provide many services and also connect students with local partners and extant in-school services. While partner and in-school service providers help CIS meet students' needs, it is challenging to monitor and evaluate their services' quality.
- During the second year of the study, approximately 80 percent of the students assigned to case management received services. These students received services an average of 20 times, for an average of just over 18 hours. Students classified as being at high risk of dropping out received services at a lower rate than moderate-risk students.
- CIS case-managed students participated in support activities more frequently than non-case-managed students overall.

The study also estimated the effect of case management on students' nonacademic and more traditional school outcomes. After two years, the study found that case management had a positive effect on several nonacademic outcomes, including students' attitudes about school and their relationships with adults and peers. However, the study also found that case management did not improve students' school progress, achievement, attendance, or behavior.

The final chapter of this report includes implications for practice based on the evaluation findings: ensuring that high-risk students receive the most attention; keeping students engaged with services; monitoring and adjusting services over time; working to ensure the quality of services from partner organizations; and emphasizing students in transition grades. CIS's national office has already begun to implement changes based on the results of this evaluation.

The report concludes by considering the results of this random assignment study of case management together with the results of the quasi-experimental analysis of the whole-school model. Taken together, the results suggest that whole-school models of integrated student support offer the promise of positive effects. The results also indicate, however, some areas to which support providers may need to pay close attention, to ensure that students receive services that address their specific needs and that benefit them above and beyond the services already available.

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# Preface

Although graduation rates have increased in recent years, the fact is that too many young people — about one million of them — drop out of school each year. To make it through high school, many students, especially those growing up in low-income communities, require academic and social support services that go beyond the classroom. While services may be available in the school and community, they are often scattered across numerous government agencies and nonprofit organizations, which makes it difficult to coordinate them and difficult for at-risk students to use them. Integrating these services is therefore viewed as a promising way to help students stay on track to graduate.

Communities In Schools (CIS), a nonprofit organization with a national reach, offers a school-based model focused on organizing and supplementing the disparate services in a school and community. With a network of local affiliate offices in half the states in the nation (plus Washington, DC), CIS provides services of varying levels of intensity and duration based on students' levels of need. Some CIS services are broadly available to all students at a school and others are directed at those most at risk of dropping out. This report is the second of two that present the findings from an experimental evaluation of the most intensive component of the CIS model — individual case management. This study found that the case management CIS provides succeeded in getting targeted students into more support activities and improving several of their nonacademic outcomes. However, the study found that these services did not have a positive effect on students' attendance, academic performance, or behavior.

CIS has committed itself to being a learning organization, regularly evaluating aspects of its program in order to improve its work on behalf of students. For CIS, external evaluation is not an endpoint or "check-the-box" activity intended solely to assess effectiveness, but rather an independent source of information that can be used for program improvement. For example, after this evaluation found there was little differentiation in the type and amount of services provided to students receiving case management, CIS shifted from a two-tier to a three-tier model that specifies greater differentiation in services based on students' needs. In addition, CIS relies heavily on services provided by partner organizations, and this evaluation found that monitoring the quality of these services can be challenging. In response, CIS has developed tools and additional guidance to help its network engage partners, with a focus on high-quality, evidence-based interventions. During the course of this evaluation, CIS also increased its own internal research capabilities, so that in the future it can both generate its own information and collaborate even more effectively with independent research organizations.

Gordon L. Berlin
President, MDRC

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This report is based on work supported by the Social Innovation Fund, a White House initiative and program of the Corporation for National and Community Service (CNCS). The Social Innovation Fund combines public and private resources with the goal of increasing the impact of innovative, community-based solutions that have compelling evidence of improving the lives of people in low-income communities throughout the United States.

The Edna McConnell Clark Foundation's Social Innovation Fund includes support from CNCS and 15 private coinvestors: The Edna McConnell Clark Foundation, The Annie E. Casey Foundation, The Duke Endowment, The William and Flora Hewlett Foundation, The JPB Foundation, George Kaiser Family Foundation, The Kresge Foundation, Open Society Foundations, The Penzance Foundation, The Samberg Family Foundation, The Charles and Lynn Schusterman Family Foundation, The Starr Foundation, Tipping Point Community, The Wallace Foundation, and the Weingart Foundation. The Wallace Foundation also provided additional support separate from its involvement with the Social Innovation Fund. This report would not have been possible without the support of these funders.

We owe special thanks to Communities In Schools (CIS) national and affiliate staff members for their support and cooperation throughout this study. At the national level, Gary Chapman, Heather Clawson, Dan Linton, and Kevin Leary provided support for the study. Heather was critical in providing important information about the organization throughout the course of the evaluation. She also coordinated with other national and affiliate staff members to obtain data about the schools in the study, and we are grateful to them for providing this information. Affiliate staff members and school-based site coordinators supplied vital information about their work locally, which helped shape communication and planning regarding several aspects of the study. Additionally, their efforts helped make all in-school data collection activities possible, and the research team is grateful for their support and cooperation. They also helped connect the team with school district staff members, who provided critical school records data used in the analyses herein.

The research team received useful responses throughout the evaluation and insightful comments on early findings and drafts of this report from many people outside of MDRC: Heather Clawson and Kevin Leary at CIS National; Gabriel Rhoads, Kelly Fitzsimmons, and Partheev Shah at The Edna McConnell Clark Foundation, as well as members of the foundation's independent evaluation advisory committee; Hilary Rhodes and Dara Rose at The Wallace Foundation; and the reviewers at CNCS.

Survey Research Management (SRM) administered the student surveys that yielded data analyzed for this report. They formatted and produced the student surveys, administered them in the participating schools, executed the data entry, and produced the necessary data files for the research team. Linda Kuhn, Tony Lavender, Ashley Bronzan, Betsy Quicksall, and Rob Schroder led this work at SRM.

At MDRC, Leslyn Hall supported the design of student surveys, and Seth Muzzy and Nicole Morris helped manage communications between MDRC and SRM. Rachel Pedraza and Emily Pramik played roles as liaisons between the research team and local CIS and school staff members. Emily Pramik programmed and managed the online surveys administered to CIS site coordinators and school leaders. Nicholas Commins, Emily Pramik, and Kelly Quinn contributed to the processing and analysis of quantitative data, with Kelly leading the efforts at tracking and conducting many of the team's analyses during the second year of the study. Helen Chen Kingston and Rachel Pedraza contributed to the coding and analysis of qualitative data. Kelly Quinn was the fearless leader of the report production, with responsibilities that included producing exhibits and checking tables and text. Kelly also made substantial contributions to the writing of this report, playing a primary role in Appendixes C, D, and E. Kelly's support, management, and encouragement were vital to the team's success in completing this report. Daphne Chen also supported the fact-checking of this report, which was critical in getting it completed.

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The Authors

# Executive Summary

About one million students drop out of American high schools every year.[1] While graduation rates have increased over the last decade, one in five students still fail to graduate within four years. Compared with high school graduates, students who drop out are more likely to live in poverty, suffer from poor health, be involved in crime, and receive government assistance.[2] Many students at risk of dropping out need academic and social services and other forms of support to make it through high school. However, services are often scattered across numerous government agencies and nonprofit organizations, which makes it difficult to coordinate them and difficult for at-risk students to use them. Integrating these services is therefore viewed as a promising way to help students stay on track to graduate.[3]

This report presents the findings from a random assignment study of individual case management provided by Communities In Schools (CIS), a national nonprofit organization focused on reducing dropout rates by providing integrated support to at-risk students in the nation's poorest-performing schools. This study found that the case management CIS provides succeeded in getting targeted students into more support activities and improving several of their nonacademic outcomes. However, the study found that these services did not have a positive effect on students' attendance, academic performance, or behavior after two years.

## What Is the CIS Model?

Founded in 1977 by children's advocate Bill Milliken, CIS works with K-12 schools in low-income communities that have many students at risk of failing or dropping out. CIS now serves nearly 1.5 million students and their families in 25 states and the District of Columbia. It is active in approximately 2,400 schools and 360 school districts.[4]

The ultimate goal of the CIS model is to reduce dropout rates by integrating community and school-based support services within schools. In the schools included in this evaluation,

[1]National Center for Education Statistics, "Table 219.71: Population 16 to 24 Years Old and Number of 16- to 24-Year-Old High School Dropouts (Status Dropouts), by Sex and Race/Ethnicity: 1970 through 2014" (website: https://nces.ed.gov/programs/digest/d15/tables/dt15_219.71.asp, 2015).

[2]Child Trends, *High School Dropout Rates: Indicators on Children and Youth* (Bethesda, MD: Child Trends, 2015).

[3]Kristin Anderson Moore, *Making the Grade: Assessing the Evidence for Integrated Student Supports* (Bethesda, MD: Child Trends, 2014).

[4]Communities In Schools, *2014 Annual Report* (Arlington, VA: Communities In Schools, 2014).

CIS works to accomplish this goal by providing what it calls "Level 1" and "Level 2" services.[5] Level 1 services are broadly available to all students at a school and are usually short-term, low-intensity activities or services (for example, making clothing or school supplies available to students, organizing a school-wide career fair, or hosting a financial aid workshop for twelfth-graders). CIS's internal standards say that a minimum of 75 percent of students at the school must be involved in at least one Level 1 service during the year. CIS site coordinators — those responsible for all CIS school-based operations — spend much of their time focused on more intensive Level 2 "case-managed" services, which they provide to a subset of students displaying one or more significant risk factors for dropping out, such as poor academic performance, a high absentee rate, or behavioral problems. In case management, site coordinators work with individual students to identify their needs, provide support directly and connect them with support in the school and community to address those needs, and regularly monitor their progress to ensure that their needs continue to be met.

### Level 2 Case Management

This report focuses on the Level 2 case management component of the CIS model as implemented in middle and high schools.[6] The CIS model posits that providing individual support to at-risk students will provide them with the skills and resources they need to succeed.

Through a review of data or because of a referral from an adult in the school, a site coordinator identifies a student as being at risk for eventually dropping out and seeks consent from a parent or guardian for the student to receive case management. The site coordinator assesses the student's needs, develops an individual case plan, and sets goals with the student. Based on that plan, the site coordinator provides services appropriate to the student's needs or connects the student to those services. The site coordinator monitors the student's progress during the year and may adjust the plan based on changes in the student's needs.

The case management activities are expected to affect nonacademic outcomes related to students' attitudes, behaviors, and relationships. The services provided to a student are intended to foster supportive relationships with adults and peers, encourage greater engagement with school, stimulate greater effort to meet academic and behavioral expectations, and increase the value that students see in their schooling. Effects on these nonacademic outcomes are hypothesized to indirectly affect more traditional school outcomes, such as attendance, performance in

[5]As discussed below, CIS shifted from a two-tier model of services to a three-tier model after this study was completed.

[6]The comprehensive CIS model is implemented in elementary, middle, and high schools. This evaluation of case management focuses only on secondary schools.

class, and disruptive behavior in school. These traditional school outcomes, in turn, are believed to predict students' likelihood of eventually graduating from high school.[7]

## How Was the CIS Model Evaluated?

In its ongoing commitment to continuous improvement, the CIS national office looks to external organizations to provide independent and objective research intended to help its staff understand how its model is being implemented in schools and what its effect is on schools and students. A previous evaluation by ICF International suggested that young people who receive CIS services are more likely to achieve a number of positive outcomes than those who do not.[8] As part of its participation in the federal Social Innovation Fund (SIF) grant program, CIS selected MDRC, a nonprofit, nonpartisan education and social policy research organization, to conduct an independent, two-study evaluation funded by the Edna McConnell Clark Foundation, with additional funding provided by The Wallace Foundation.[9]

One of the studies in this latest evaluation examines whether introducing the model with all of its elements improves school graduation rates, dropout rates, attendance rates, and state test scores. This component of the evaluation uses a quasi-experimental comparative interrupted time series design to estimate the effect of the whole-school model.[10]

This report addresses the second study in the evaluation, which focuses on CIS Level 2 case management, examining service provision, student experiences, and student outcomes in the 2012-2013 and 2013-2014 school years. This study relies on a random assignment research

[7]Allensworth and Easton indicate that earning course credits and not failing core courses in ninth grade predicts eventual graduation. See Elaine M. Allensworth and John Q. Easton, *The On-Track Indicator as a Predictor of High School Graduation* (Chicago: University of Chicago, Consortium on Chicago School Research, 2005). Balfanz, Herzog, and MacIver have also found that as early as the sixth grade, 50 percent of future school dropouts in high-poverty schools show signs of falling off track: poor attendance, poor behavior, or poor course performance (that is, course failure). See Robert Balfanz, Liza Herzog, and Douglas MacIver, "Preventing Student Disengagement and Keeping Students on the Graduation Path in Urban Middle-Grades Schools: Early Identification and Effective Interventions," *Educational Psychologist* 42, 4 (2007): 223-235.

[8]ICF International, *CIS National Evaluation: Five Year Summary Report* (Fairfax, VA: ICF International, 2010); Allan Porowski and Aikaterini Passa, "The Effect of CIS on High School Dropout and Graduation Rates: Results From a Multiyear, School-Level Quasi-Experimental Study," *Journal of Education for Students Placed at Risk (JESPAR)* 16, 1 (2011): 24-37.

[9]The Edna McConnell Clark Foundation (EMCF) received a SIF grant from the federal Corporation for National and Community Service. CIS is a subgrantee to EMCF within the SIF program. Thus, while CIS was interested in continuing to evaluate its model, this evaluation is also being conducted as one of the required activities of the SIF grant program. It also aligns with EMCF's interest in supporting organizations that are participating in evidence-generating research.

[10]For an explanation of this quasi-experimental design, see Marie-Andrée Somers and Zeest Haider, *A Tiered Approach to Dropout Prevention: A Quasi-Experimental Evaluation of Communities In Schools* (New York: MDRC, 2017).

design. The middle schools and high schools that underwent random assignment for this study had more eligible students — those facing challenges that threatened to impede their progress toward graduation — than could be included on site coordinators' caseloads.[11] These students were randomly assigned to join site coordinators' caseloads (the *case-managed* group) or to continue with business as usual, with access to whatever other forms of support were available, including CIS Level 1 services (the *non-case-managed* group). Since random assignment created two comparable groups and the sample is large, students' individual characteristics are, on average, the same in both groups, and any differences that emerge over time between these two groups can be attributed to CIS case management. The strength of the causal inference made possible by random assignment is why it is considered the gold standard of evaluation design.

## What Did the Study of CIS Level 2 Case Management Find?

MDRC previously published an interim report after students had received case management for one year.[12] The current report focuses on 14 middle schools and 10 high schools in the second year of the study. In this second year the research team conducted additional implementation research and followed both the case-managed and non-case-managed students for another year of services.[13] The findings are consistent with the results found after one year.

### Two-Year Implementation Findings

This report presents information about the CIS services available in study schools, provides details about how CIS works in schools, and describes the amounts and types of support received by case-managed and non-case-managed students. Most schools in the study are located in or around large or midsize cities, serve predominantly black and Hispanic students, and serve low-income populations.

#### *Services Available in CIS Schools*

The study team learned that students in study schools have available to them a variety of support services from a variety of service providers. The services include Level 1 whole-

[11]The quasi-experimental and random assignment components of the evaluation did not include any of the same schools.

[12]William Corrin, Leigh Parise, Oscar Cerna, Zeest Haider, and Marie-Andrée Somers, *Case Management for Students at Risk of Dropping Out: Implementation and Interim Impact Findings from the Communities In Schools Evaluation* (New York: MDRC, 2015).

[13]Students in the comparison group continued not to receive case management during the second year of the study. One affiliate, with four study schools, opted not to continue in the study for the second year so that it could serve the students in the comparison group during that year.

school services provided by CIS site coordinators; school leaders reported that CIS is an important provider of many services, including mentoring, links to providers of basic necessities, college and career preparation activities, and family-engagement activities.

### *Working with Schools and Partners to Support Case-Managed Students*

CIS site coordinators provide many Level 2 services, and they also connect case-managed students with local partners and extant in-school services. When CIS staff members connect case-managed students to services provided by school staff members, those services "count" as Level 2 case-managed services. These services are often also available to non-case-managed students, which may mean that case-managed and non-case-managed students are sometimes receiving similar forms of support. The study team learned that one component of site coordinators' roles is to act as advocates for their case-managed students, both by making sure students take advantage of services in their schools (which they might not do otherwise) and by checking with school staff members about students' academic and behavioral progress.

One of the goals of the second year of the study was to learn more about CIS partners' role in supporting case-managed students. CIS's partners provide many important services to case-managed students, especially mentoring, academic assistance, and family-engagement activities. However, some partners work more closely with site coordinators to plan services than others. It can be challenging in any case for CIS to monitor and evaluate the quality of the services partners provide, and that problem may be exacerbated when site coordinators and partners are not working together closely.

### *Services Received by Case-Managed and Non-Case-Managed Students*

During the second year of the study, approximately 80 percent of the students in the CIS case-managed group received services.[14] Students received services as a result of case management an average of 20 times per year, totaling an average of just over 18 hours. One of the implementation findings from the first year of the study was that "high-risk" students received services as a result of case management about as many times and for about as many hours as lower-risk students.[15] In the second year, however, high-risk students received significantly different amounts of services than moderate-risk students. Specifically, 75 percent of high-risk case-managed students received services during the second year of the study, compared with 85 percent of moderate-risk students. This pattern held true for most of the catego-

[14]The 20 percent of students who did not receive services were still in the schools, as they were present to take the student survey in the spring of the second study year.

[15]"High-risk" students were those who in the year before the study began had failed a course, been chronically absent, or been suspended. A student is considered chronically absent if he or she has an attendance rate below 90 percent.

ries of services provided to case-managed students: A greater proportion of moderate-risk students received services than did high-risk students.

CIS case-managed students reported participating in more support activities than non-case-managed students, suggesting that CIS case management is providing something more than what students otherwise receive. Case-managed students reported higher levels of participation in meetings with adults at school, meetings with mentors, tutoring, and career planning activities. For example, 39 percent of case-managed students participated in mentoring, compared with 27 percent of non-case-managed students; 75 percent of the case-managed students had one-on-one meetings with adults about academics, compared with 64 percent of non-case-managed students. Case-managed students also participated in support activities more times per year than non-case-managed students.

### Two-Year Impact Findings

Level 2 case management is intended to advance CIS's larger goal of improving students' school progress. That is, CIS seeks to reduce the number of dropouts from a school and to increase its number of graduates. Because this study lasted only two years, it was not possible to track students through high school graduation. The study therefore examines nonacademic mediating outcomes and more traditional school outcomes.

#### *Nonacademic Outcomes*

These outcomes are behaviors and attitudes believed to precede students' improved success in school. CIS case management had a positive and statistically significant effect on the rate at which students reported having a caring adult at home, at school, and outside of home and school, and on the quality of their peer relationships. Case management also had positive and statistically significant effects on students' engagement with school, their educational attitudes, and their belief that education has value for their lives. However, there was no difference between case-managed and non-case-managed students in participation in school- and non-school-sponsored extracurricular activities, or in educational goals and expectations.

#### *Traditional School Outcomes*

CIS case management did not have an effect on students' traditional school outcomes. Students in the case-managed and non-case-managed groups had similar rates of chronic absenteeism, attendance, core course failure, and credit accumulation, and similar course marks. However, case-managed students had more suspensions, on average, than non-case-managed students and this difference was statistically significant. Thus, it cannot be concluded that CIS case management improved students' attendance, course performance, or behavior.

## What Conclusions Can Be Drawn from MDRC's Evaluation?

While this study did not find that CIS case management had effects on students' school outcomes, it did gather a great deal of information about CIS case management and the whole-school model. This information can help CIS improve case management practices and provide insight into how CIS might contribute to whole-school improvements.

### Considerations for CIS Case Management

The evaluation findings suggest some areas where the CIS national office might consider providing more or different guidance and support to the affiliates and schools in its network, with the goal of affecting case-managed students' school outcomes. They also offer some lessons for other integrated student-support organizations. The national office has already begun to implement some of these changes based on results from the evaluation.

**Ensuring that high-risk students receive the most attention.** This study found that students potentially at higher risk for dropping out did not receive more services than those who may have been at less risk. After the first evaluation report, which included the finding that high-risk students did not receive meaningfully different services than moderate-risk students, CIS began moving beyond the two-level model implemented by the schools in this study. Its new *three*-tiered model is intended to provide more intensive support to the students with the greatest need. Further, CIS has begun classifying students based on their level of risk or need, and is focusing on providing more differentiated forms of support to meet students' needs.[16] CIS should continue to pay attention to this issue, and collect data to monitor whether the three-tiered model delivers more appropriate services to students with greater needs.

**Keeping students engaged.** About 80 percent of the case-managed student sample received case management in the second study year. While keeping a large majority of students engaged for multiple years is a noteworthy accomplishment, it seems especially challenging to provide continuous services to high-risk students, as the percentage of those students who received case management declined substantially from the first to second year of the study. Other research has suggested that it may take at least two years for intensive case management to generate effects on students' outcomes,[17] so CIS site coordinators and practitioners might

[16]These adjustments to the model occurred after this study, and thus this study's results do not capture the effect of the changes.

[17]Maynard, Kjellstrand, and Thompson reported that the evaluations of the Check & Connect dropout prevention program that found positive effects on attendance and behavior were those that evaluated the program when implemented for at least two years. See Brandy R. Maynard, Elizabeth K. Kjellstrand, and Aaron M. Thompson, "Effects of Check and Connect on Attendance, Behavior, and Academics: A Randomized Effectiveness Trial," *Research on Social Work Practice* 24, 3 (2014): 296-309.

benefit from additional guidance about how to keep students engaged, particularly higher-risk students.

**Monitoring and adjusting services over time.** During both years of the random assignment study, there was variation in the extent to which site coordinators monitored the outcomes of case-managed students against their case plans, and revised those case plans and service provision to meet ongoing or changing student needs. Other researchers studying case management programs have emphasized the importance of carefully assessing students' needs and meeting those needs with specific services.[18] One of the recent changes CIS has made is to expect a minimum number of check-ins per student, and to provide guidance to site coordinators about what should happen during the check-ins. CIS site coordinators and other staff members providing integrated support services may also benefit from guidance regarding how to monitor and adjust services, including the development of or training in systems intended to help them stay current about students' needs.

**Working to ensure the quality of services from partner organizations.** Finally, it can be inherently challenging for integrated student support organizations like CIS to monitor the quality of services provided by different organizations and individuals. Case-managed students in this study did receive more services than non-case-managed students, but they did not have different school outcomes. It may be that the services they received did not align with their most critical needs, or it may be that not all of the extra services they received were of high quality, in which case site coordinators could benefit from additional support to ensure their quality in the future. (Or both things could be true.) Site coordinators provide some services directly, but also rely heavily on school and community partners to provide others. CIS could help school-level and affiliate staff members make decisions about which partners and practices to bring into schools and about which in-school services to draw upon by helping them assess the existing evidence about the effectiveness of these partners or practices, and by identifying evidence-based practices or organizations that might be a fit in their schools. The CIS national office has already begun moving in this direction by developing tools for its network regarding partnership engagement, with a focus on high-quality, evidence-based providers.

**Working with students beginning in transition grades.** Subgroup analyses for this study suggest that CIS case management may have the greatest potential to improve the outcomes of students who begin receiving it when they first enter middle or high school (that is, sixth- and ninth-graders). CIS site coordinators in secondary schools typically bring new students onto their caseloads when they are in those transition grades, and continuing this practice may help maximize the effects of case management on those students.

[18] Allen Schirm, Elizabeth Stuart, and Allison McKie, *The Quantum Opportunity Demonstration: Final Impacts* (Princeton, NJ: Mathematica Policy Research, 2006).

### Reflections Encompassing Both Studies

This evaluation included two studies, as mentioned above, and it is important to consider what has been learned from both of them together. This study found that CIS case management succeeded in getting secondary school students into more support activities and improving several of their nonacademic outcomes, but that it did not have a positive effect on their more traditional school outcomes. Meanwhile, the quasi-experimental study examined the CIS model as a whole in elementary, middle, and high schools. That whole-school study found that after three years of implementation, on-time graduation rates improved by a statistically significant amount in the CIS high schools, relative to what would have been expected given those schools' baseline trends. Graduation rates also improved in the comparison schools used in the study, and it is unclear whether the CIS model was *more* effective than the strategies used by the comparison schools. However, the findings do suggest that the model may be at least as effective as these other approaches. At the middle school level, ELA test scores did not improve in schools implementing the CIS model, whereas they did significantly improve for a group of similar comparison middle schools. At the elementary school level, attendance rates improved in schools implementing the CIS model more than they improved in a group of similar comparison schools.

What sense can be made of the two studies' findings taken together? While the whole-school study suggested that schools implementing the CIS model experienced improved graduation and dropout rates — and that CIS may be at least as effective as other approaches — the study of case management found that case management does not improve student outcomes thought to predict graduation within two years, though it does get students into more support activities and improves their nonacademic outcomes.

There are several possible explanations for this combination of findings. It may be that having a CIS site coordinator who works closely with a group of case-managed students allows *other* support staff members, such as guidance counselors and social workers, to work more with the non-case-managed students than they would have otherwise. If that were true, the school as a whole might improve because of CIS's presence, even though the students receiving case management did not improve more than students randomly assigned to the non-case-managed group. The non-case-managed students would then have benefited indirectly from the presence of a CIS site coordinator practicing case management.

A second possibility is that the Level 1 services CIS provides, which are accessible to the majority of students in a school, may change school-wide outcomes more than case management can, with its focus on a small minority of targeted students. This notion is supported by school leaders' reports that CIS is an important part of their schools and that CIS is an essential provider of support services.

Finally, while previous research indicates that attendance, behavior, and course performance are correlated with graduation, it may be that this study was not able to track case-managed students for long enough to see effects on these outcomes, or that these outcomes might not be the only factors that predict graduation. It is possible that over time, the positive effects of case management on students' nonacademic outcomes would translate into positive effects on their more traditional school outcomes. As indicated above, previous research suggests that case management can take at least two years to affect students' attendance and behavior. Alternatively, it may be that those nonacademic improvements could end up making a difference in keeping students in school, even though they do not alter the traditional school outcomes tracked in this study.

It remains uncertain, however, whether CIS's model makes a bigger difference than alternative approaches to school improvement. A random assignment study of the whole-school model may be the next step that would provide the most information about the model's effect relative to that of other programs and strategies. If an evaluation included a cost study on the implementation of the CIS model, along with cost data on the strategies and interventions used by the control schools, it could also determine the CIS model's relative cost-effectiveness, which would ultimately provide the most useful decision-making information for school and district leaders.

As CIS and other integrated student support organizations continue to work toward addressing students' needs, they can learn from both completed and ongoing research to refine their models. While graduation rates have risen in the last decade, it remains the case that far too many students drop out of school — roughly 7,000 every day.[19] This evaluation suggests that whole-school models of integrated student support services do offer the promise of positive effects. However, in the actual implementation of tiered-support models, it appears to be important to pay close attention to how that tiered support might improve conditions for students above and beyond the kinds of support already available in a school. As CIS and other similar organizations continue to refine their models, they should pay particular attention to reaching the students who are most in need of support and to connecting students with high-quality services. In addition, they may want to target schools for CIS implementation that do not already provide a broad range of services for students, or where service provision is particularly fragmented, as these may be the schools where they would have the most to offer.

[19]National Center for Education Statistics (2015).

## Chapter 1

# Introduction

Every day more than 7,000 students drop out of school.[1] Among black and Hispanic boys, the dropout rates are 42 percent and 48 percent, respectively.[2] Even though high school graduation rates have risen this century, too many students who enter public high school (one in five) do not graduate within four years.[3] Compared with high school graduates, dropouts are more likely to live in poverty, suffer from poor health, be involved in crime, and be dependent on social services.[4]

Students at risk of dropping out often need academic and social services and other forms of support to make it through high school to graduation. The support services available to address these students' needs are scattered across government agencies and nonprofit organizations in communities with poorly performing schools, which often means that students either do not make use of the services available or receive specific services in isolation. This lack of coordination limits the potential of any service to change the trajectory of a student who is headed toward dropping out. Within schools, teachers and principals are often overwhelmed by the emotional, social, and personal issues facing students. Integrating student support services (that is, connecting community agencies and organizations with schools and coordinating the services provided to students) is viewed as a promising way to provide assistance to school staff members and help students stay on track to graduate.[5]

## The Communities In Schools Model

Communities In Schools (CIS) provides an integrated student support model to schools and communities. Founded in 1977 by children's advocate Bill Milliken, CIS works with low-income students at risk of failing or dropping out of the nation's poorest-performing schools. The organization has an extensive national reach and now serves more than 1.3 million students and their families.[6] It is active in nearly 2,500 schools, and the national office oversees 17 state offices as well as a network of over 160 local affiliates in 25 states and the District of Colum-

[1]National Center for Education Statistics (2015).

[2]Schott Foundation for Public Education (2012).

[3]Murnane (2013); Stetser and Stillwell (2014).

[4]Child Trends (2014).

[5]Moore (2014).

[6]Communities In Schools (2015).

bia.[7] The national office is responsible for developing and enhancing the CIS model; communicating with national audiences and advocating for educational reform that includes integrated student support services; fostering collaboration within its network; supporting research about and evaluation of the model; and establishing national partnerships intended to generate resources and funding for members of the network. The local affiliates — each of which is an independent organization with its own board of directors — oversee the implementation of the model in schools. They also build community partnerships and develop local funding and resources to support the program. A CIS site coordinator implements Level 1 and Level 2 services at a school, sometimes assisted by additional CIS staff members, interns, or AmeriCorps members. The site coordinator engages in yearly school-level needs assessments and planning with school leaders, teachers, and other members of the staff.

CIS has created a comprehensive service model that seeks to reduce dropout rates by integrating community-based support within schools through both preventive "Level 1" services, which are available to many or all students in the school, and intensive, targeted, and sustained "Level 2" case management services for students who are displaying one or more significant risk factors for dropping out, such as poor academic performance, a high absentee rate, or behavioral problems.[8] The differences between the two service levels can be described in terms of accessibility and duration or intensity. Level 1 services are broadly accessible and usually consist of short-term, low-intensity activities or assistance that students usually pursue voluntarily (for example, making clothing or school supplies available to students and hosting school-wide events).[9] They also include short-term "crisis" interventions when an extreme event disrupts a student's life (for example, finding a solution if the power is turned off at the student's home or providing short-term counseling in response to a traumatic event).

The current study and this report focus on the implementation and effects of Level 2 case management services. These services target specific students, typically over a longer term and at a higher intensity than Level 1 services. Figure 1.1 is a representation of CIS's case management logic model. The "Context/Resources" column in the figure shows the kinds of resources and contextual factors that support or influence the case management work. For example, the financial resources available and the number of students in a school influence how

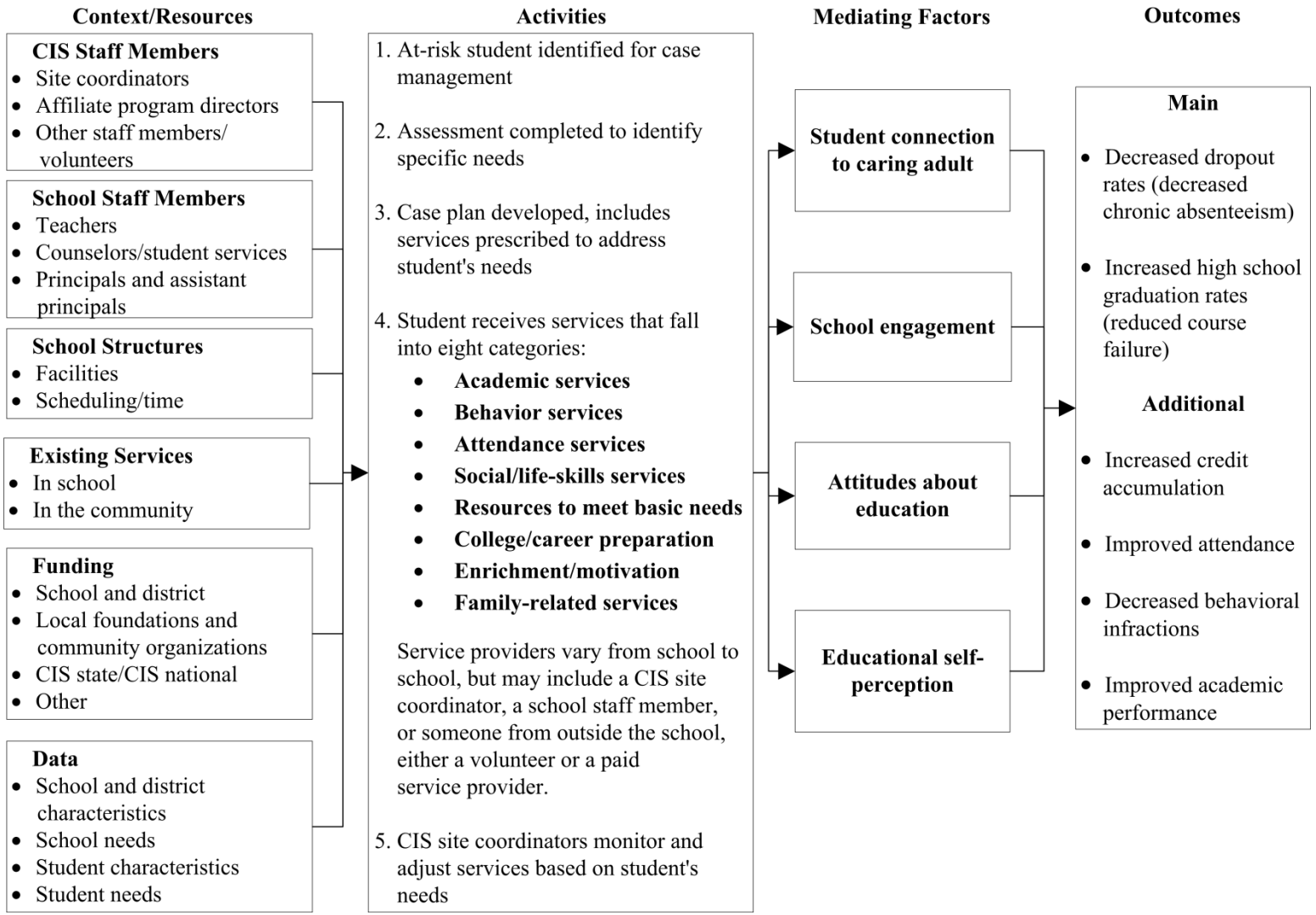
[7]Communities In Schools (2015).

[8]As discussed in Chapter 5, CIS shifted from a two-tier to a three-tier model of services after this study was completed.

[9]While Level 1 services are school-wide, some are not truly available to all students because they target a broad subgroup, such as a college financial aid application workshop open only to twelfth-graders. Also, although discussed here primarily in terms of student services, Level 1 may also include services for parents. Such services are intended to strengthen students' support at home and to more fully engage parents in order to improve a school's overall climate.

## Figure 1.1

## CIS Case Management Logic Model



many site coordinators might be assigned there. And site coordinators look to the community's existing organizations that provide youth services (such as counseling, recreation, or jobs) to build partnerships and foster opportunities for students.

The second column, labeled "Activities," outlines the steps that are part of the case management process. Through a review of data or because of a referral from another adult in the school, the site coordinator identifies a student as being at risk of eventually dropping out and begins the process of adding the student to his or her caseload, first seeking consent from the parent(s) or legal guardian(s). The site coordinator assesses the student's needs, develops an individual case plan, and sets goals with the student, then provides the appropriate services or connects the student to other individuals or organizations that can provide them. As discussed in this report, many of the services students receive as a result of case management may be services that already exist in the school (for example, tutoring offered by a teacher), but that the site coordinator ensures the case-managed student takes advantage of. During the year, the site coordinator monitors the student's progress and adjusts the plan as necessary as the student's needs change.

Case management activities are expected to affect nonacademic "Mediating Factors" (the third column in Figure 1.1) related to students' attitudes, behaviors, and relationships. The services provided to a case-managed student are intended to foster supportive relationships with peers and adults (including those adults responsible for coordinating the services), encourage greater engagement with school, stimulate greater effort to meet academic and behavioral expectations, and increase the value that the student sees in his or her schooling. Effects on these nonacademic mediating factors are eventually expected to lead to changes in traditional student performance measures such as attendance, credit accumulation, and behavior in school that requires a disciplinary response, as listed in the final column of Figure 1.1, "Outcomes."

## Evaluating the CIS Model

In its ongoing commitment to continuous improvement, the CIS national office looks to external organizations to provide independent and objective research intended to help its staff understand how its model is being implemented in schools and how it is affecting schools and students. The national office, with funding from Atlantic Philanthropies, previously commissioned ICF International to conduct a five-year evaluation of its comprehensive model and the case management component.[10] The findings from that evaluation suggested that young people who receive CIS services are more likely to achieve a number of positive outcomes than those

[10]ICF International (2008); ICF International (2010); Porowski and Passa (2011).

who do not.[11] Seeking to strengthen this evidence base, CIS welcomed further external evaluation of its comprehensive model and the case management component.[12] Accordingly, MDRC, a nonprofit, nonpartisan education and social policy research organization, is conducting an independent evaluation of CIS. This evaluation is supported primarily by the federal Social Innovation Fund. (See Box 1.1 for details.)

MDRC's evaluation of CIS includes two separate studies. One study evaluates the effect of CIS's "whole-school model" of integrated student support services, including both Level 1 and Level 2 services, using a quasi-experimental, comparative interrupted time series design. In this design, the program's effects are evaluated by determining whether schools that implemented an intervention (in this case, the CIS model) "deviated" from their baseline trends by a greater amount than a group of similar comparison schools. The current report focuses on the second component of the evaluation: a rigorous student-level randomized controlled trial of the implementation and effect of Level 2 case management specifically.

### The Study of the CIS Whole-School Model

The quasi-experimental evaluation of the whole-school model estimates the CIS model's effect on several student outcomes: graduation and dropout rates in high schools, and attendance rates and performance on state tests in elementary, middle, and high schools. The schools in the study are located in Texas and North Carolina, two states where CIS has a strong presence. This component of the evaluation examined the effect of the CIS model in the first three years it was implemented.

The study found that on-time graduation rates increased — and dropout rates decreased — in the study schools after the CIS model was launched. It is not clear whether these improvements were caused by the CIS model, however, because the comparison schools used in the study may not accurately represent what would have happened to the CIS schools had they not implemented the CIS model. The comparison schools' baseline graduation rates were almost 10 percentage points higher than those of the CIS schools. Although the size of this difference is acceptable based on commonly used criteria for baseline equivalence, the difference could be large enough to affect schools' incentives and decisions about their programs.

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[11] Porowski and Passa (2011).

[12] The Edna McConnell Clark Foundation (EMCF) received a Social Innovation Fund (SIF) grant from the federal Corporation for National and Community Service. CIS is a subgrantee to EMCF within the SIF program. While CIS was interested in continuing to evaluate its model, this evaluation is being conducted as one of the required activities of the SIF grant program. It also aligns with EMCF's interest in supporting organizations that are participating in evidence-generating research. This evaluation is also supported by funds from The Wallace Foundation.

**Box 1.1**

## The EMCF Social Innovation Fund

The Social Innovation Fund (SIF), an initiative enacted under the Edward M. Kennedy Serve America Act, directs millions of dollars in public-private funds to expand effective solutions in three issue areas: economic opportunity, healthy futures, and youth development and school support. This work seeks to create a catalog of proven approaches that can be replicated in communities across the country. The SIF generates a 3:1 private-public match, sets a high standard for evidence, empowers communities to identify solutions to social problems, and creates an incentive for grant-making organizations to direct funding more effectively to promising programs. Administered by the federal Corporation for National and Community Service (CNCS), the SIF is part of the government's broader agenda to redefine how evidence, innovation, service, and public-private cooperation can be used to tackle urgent social challenges.

The Edna McConnell Clark Foundation (EMCF), in collaboration with MDRC and The Bridgespan Group, is leading a SIF project that aims to expand the pool of organizations with proven programs that can help low-income young people make the transition to productive adulthood. The project is particularly focused on young people who are at the greatest risk of failing or dropping out of school or of not finding work, who are involved or likely to become involved in the foster care or juvenile justice system, or who are engaging in risky behavior such as criminal activity or teenage pregnancy.

EMCF, with its partners MDRC and Bridgespan, selected an initial group of nine programs and a second group of three programs to receive SIF grants: BELL (Building Educated Leaders for Life), the Center for Employment Opportunities, Children's Aid Society-Carrera Adolescent Pregnancy Prevention Program, Children's Home Society of North Carolina, Communities In Schools, the Gateway to College Network, PACE Center for Girls, Reading Partners, The SEED Foundation, WINGS for Kids, Youth Guidance, and Children's Institute, Inc. These organizations were selected through a competitive selection process based on evidence of impacts on economically disadvantaged young people; a track record of serving young people in communities of need; strong leadership and a potential for growth; and the financial and operational capabilities necessary to expand to a large scale.

The EMCF Social Innovation Fund initiative, called the True North Fund, includes support from CNCS and 15 private coinvestors: EMCF, The Annie E. Casey Foundation, The Duke Endowment, The William and Flora Hewlett Foundation, The JPB Foundation, George Kaiser Family Foundation, The Kresge Foundation, Open Society Foundations, The Penzance Foundation, The Samberg Family Foundation, The Charles and Lynn Schusterman Family Foundation, The Starr Foundation, Tipping Point Community, The Wallace Foundation, and the Weingart Foundation.

In the study's middle schools, the CIS model appears to have been less successful at improving students' scores on state tests than the strategies or reforms used by the comparison schools. The model had no effect on state test scores in elementary schools or high schools. In elementary schools, the CIS model appears to have had a positive and statistically significant effect on attendance rates equivalent to about one extra day of school during the year. The model had no effect on attendance in middle schools or high schools.

### The Study of Level 2 Case Management

As described above, a central component of the CIS whole-school model is Level 2 case management for a subset of students identified as being at risk of not making satisfactory progress in school and of dropping out. The second part of MDRC's evaluation examines the effect of CIS's Level 2 case management on student outcomes, particularly progress toward graduation, and explores how case management is implemented.

To accomplish these goals, this study relies on a random assignment research design, often referred to as the gold standard of evaluation design. Random assignment is a lottery-like process in which individuals are assigned either to participate in a specific program or else to continue with the "business-as-usual" alternative(s). In cases where there are more individuals interested in and eligible for a program than there are available slots, this process provides a fair way to determine who participates in the program and also creates conditions for two groups that are *equivalent* — that is, the characteristics of the group assigned to participate in the program should be the same as those of the group assigned to continue with business as usual. By comparing the outcomes of these groups, it is possible to assess the effect of the program rigorously, because any differences between them after random assignment can be attributed to the program. Box 1.2 includes details about student recruitment and random assignment, which took place during the first year of the study.

Meanwhile, MDRC's implementation research examined the details of the case management process, shedding light on the impact findings and aiming to provide useful information to CIS about how it might improve this component of its model.

This study of CIS case management was conducted in 28 CIS secondary schools in 5 affiliates. In each of the study schools, eligible students were randomly assigned to two groups. Students in the "case-managed group" were offered the opportunity to receive CIS case management and students in the "non-case-managed group" were not, although they did retain access to whatever other services were available in their schools (including Level 1 CIS services). This design makes it possible to evaluate the effect of CIS Level 2 case management over and above the effect of the Level 1 and other services provided in the study schools. Students in the case-managed and non-case-managed groups were followed for one school year

**Box 1.2**

## Recruitment and Random Assignment

After schools were selected for the study, the research team worked with CIS affiliates and site coordinators to plan for student recruitment. As discussed in Chapter 2, students are typically identified for CIS case management through referrals and recommendations from teachers, administrators, guidance counselors, or other student support staff members on campus. This identification process often means that CIS site coordinators do not fill their caseloads until the second semester. In order to enroll students in case management early in the school year, the research team helped affiliates work with their local school districts to collect data to preidentify students who would be eligible, based on issues such as course failures, low grade point averages, poor attendance, or behavioral infractions. While using school records was standard practice for a few study schools, whose district provides CIS with a list of at-risk students each year, it was new for most schools and affiliates in the study. Students were also considered to be eligible for case management if they were identified through one of the more typical pathways — being referred to CIS by a school staff member or parent due to a recognized need or being identified directly by a CIS site coordinator.

As part of the student recruitment process, CIS affiliate and school-based staff members provided eligible students with information about CIS and the study. At each school, students who returned both the CIS and study consent forms were entered into MDRC's random assignment database.* Students were included in the random assignment database whether or not their parents consented to study participation, as service receipt was not contingent on consent to enter the study. With the use of random assignment, every student eligible for case management (that is, every student with consent to participate and a demonstrated need for support) at each school had the same chance to be served. MDRC conducted random assignment lotteries for each school to determine which students would fill the available CIS case management slots (the case-managed group) and which students would constitute a comparison group and continue with the standard services and other forms of support available to them at their schools (the non-case-managed group).† Although this random assignment process was different from the typical CIS recruitment process, involving additional effort at the start of the year, in interviews site coordinators generally reported that the students who were randomly assigned to their caseloads were similar to the non-study students on their caseloads and to students they had served in previous years. Further, most site coordinators said that their case management processes and activities during the study years were similar to those in the preceding years.

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*These forms had to be signed by a parent or legal guardian unless the student was already an adult (18 years old).

†In some schools, two lotteries were performed, with the first occurring after a certain number of students had been recruited but before the school's overall study recruitment target had been reached. Doing so allowed CIS site coordinators to begin providing case management to the students in the first lottery sooner. A second lottery occurred at 7 of the 28 schools in the study.

in all of the study schools. In the second year of the study, 24 of the 28 study schools (in four of five affiliates) agreed to continue to participate. Students in the case-managed group in these schools could continue to receive case management for a second year (and students in the non-case-managed group were not offered case management).[13] In this group of 24 schools, both case-managed and non-case-managed students were followed for two school years.

### Interim Report Findings

The interim report from this study focused on the implementation of CIS case management and its effects after one year of services in all study schools. The main implementation finding was that each step of the case management process — identification, assessment, case planning, service provision, and monitoring and adjusting — was carried out in the study schools, but that there was some variation in how these steps were carried out.

During the first year of the study, case-managed students participated in an average of 2.5 activities per month that were the result of case management, for a total of 16 hours of services. The research team found that "high-risk" case-managed students — those who had failed a course or who had been chronically absent or suspended in the previous year — did not receive more of these services than others.[14]

The first report also included the finding that after one year, case management had positive effects on students' reports of having caring, supportive relationships with adults outside of home and school; on the quality of their friendships; and on their belief that education matters for their future. However, there was no evidence that CIS case management had improved students' attendance or course performance, or reduced behaviors that lead to disciplinary action — outcomes that would have suggested they had improved their chances of graduation.

The present report describes the effect of CIS case management after two years in the 24 schools that participated for a second year.[15] It also provides additional information on the

[13]One affiliate, with four study schools, opted not to continue in the study for the second year so that it could serve the students in the comparison group during that year. While it is common practice for CIS case-managed students to receive multiple years of service, participating in this study may have led some site coordinators to increase their efforts to keep students on their caseloads. While this study did not explicitly measure whether or not they did so, site coordinators in locations that require annual parental consent for students to receive CIS services (for example, Texas) probably made somewhat greater efforts to get new consent forms from parents during the second year of the study so they could continue to serve as many students as possible.

[14]A student is considered chronically absent if he or she has an attendance rate below 90 percent.

[15]Because the findings in this report are based on a subgroup of the study schools, the results included here are not directly comparable to those in the first report. The appendixes of the present report include implementation and impact findings after one year of services for the subgroup of schools that continued to participate in the second year of the study.

implementation of case management in these schools, including supplemental details about the case management process, CIS's collaboration with partners in the school and community, and the role of school-based staff members (for example, guidance counselors and social workers) in providing support to students and working with CIS.

### Research Questions

The main impact research questions for the second year of the random assignment study are similar to the questions for the first year:

- During the second year of the study, does case management reduce the number of students who are chronically absent?
- During the second year of the study, does case management reduce the number of students who fail one or more of their core academic classes?

Some of the implementation research questions during this second year of the study were also similar to those asked during the first year:

- During the second year of the study, what services do students receive, how many times do they receive them, and for how long do they receive them?
- During the second year of the study, does case management create a difference between the experiences of case-managed students and the experiences of non-case-managed students?
- What are the circumstances under which case management is implemented?

But the first year of implementation research also raised some additional questions that this second year of the study explores further:

- As case management is implemented, what other services are available in schools, what roles do school staff members play in supporting students, and how does CIS fit into that context?
- How does CIS work with partners and school staff members to provide case management services to students?

### Data Sources

To address these research questions, the study draws upon a number of quantitative and qualitative data sources. The data from these sources provide information that corresponds to the categories presented in the case management logic model: context, activities, mediating

factors, and outcomes (Figure 1.1). Additional details about the following data-collection activities are available in Appendixes D and E (including the full text of surveys administered during the evaluation).

**Adult surveys.** The study team administered a survey to school leaders and CIS site coordinators at the participating schools in the spring and summer of 2013 (the end of the first year of the study) and another in the spring and summer of 2014 (the end of the second year of the study).[16] The surveys provide information about school and community context; what kinds of support programs and services were available to case-managed and non-case-managed students; and what issues the respondents saw as important to the school. (See "Context" and "Activities" in Figure 1.1.)

**In-person interviews.** The research team conducted implementation research in a subset of study schools in both years of the study. In the spring of 2014, the study team visited 14 of the 24 schools participating in the evaluation across all four local affiliates who continued in the second year of the study.[17] The main focus of these visits was to conduct in-person interviews with CIS site coordinators, school principals, school support staff members, case-managed and non-case-managed students, CIS partners, and CIS affiliate staff members. The data collected from all of these interviews provide information about the local implementation contexts and program implementation. (See "Context" and "Activities" in Figure 1.1.)

**Management information system data.** A management information system is a database that holds information on program operations and that can produce reports on a program's management. In this study, management information system data recorded by CIS site coordinators are used to measure the amount and types of services case-managed students received. Depending on the local affiliate, these data came from CIS's national management information system or from similar state or local systems. (See "Activities" in Figure 1.1.)

**Student surveys.** Students in both study groups — case-managed and non-case-managed — participated in a baseline survey in the fall of 2012, and follow-up surveys in the spring of 2013 (the first year of the study) and the spring of 2014 (the second year of the study). On the follow-up surveys, students reported what kinds of support they received in and out of school, allowing the study team to compare support services received by case-managed and non-case-managed students. In addition, these surveys provide information about nonacademic

[16]In a majority of the study schools, the school leader survey was completed by the principal or assistant principal, but some cases it was completed by another staff member identified by the principal as being knowledgeable about student support services at the school (for example, the head of guidance, a guidance counselor, or a social worker).

[17]All of these schools were also visited during the first year of the study.

outcomes such as students' engagement with school, their relationships with peers and adults, and their educational aspirations. (See "Mediating Factors" in Figure 1.1.)[18]

**Student records data.** To answer the research questions about the effect of case management on students' school outcomes, the study relies on student records data obtained from the participating school districts. These districts provided baseline data (before random assignment) about students for the 2011-2012 school year and follow-up data (after random assignment) for the 2012-2013 and 2013-2014 school years (after case-managed students could have received one and two years of service, respectively). The baseline data make it possible to describe the sample of students in the study and analyze whether the case-managed students were comparable to their non-case-managed peers at the start of the study.[19] The follow-up data provide the information necessary to determine whether case management had an effect on measures related to attendance (such as chronic absenteeism and attendance rates), course performance (such as course failure rates, average grades, and credits earned in core courses), and behavior (such as number of suspensions). (See "Outcomes" in Figure 1.1.)

## Characteristics of Affiliates and Schools in the Evaluation

As described in the first report, the MDRC research team worked with the CIS national office during the 2011-2012 school year to recruit affiliates and schools. The research team selected affiliates with multiple schools in which CIS believed there were at least twice as many students in need of Level 2 case management as could be served. It was important that random assignment only took place in schools where CIS lacked the resources to serve all the students in need: When need exceeds available resources, random assignment is a fair way to allocate those scarce resources. Twenty-eight schools — 16 middle schools and 12 high schools — across the five affiliates were selected to participate in the study during the first year. Twenty-four schools — 14 middle schools and 10 high schools — in four CIS affiliates continued in the study for a second year. Two of the affiliates that continued in the study for a second year were in North Carolina and two were in Texas. Two affiliates were located in large cities and two were in midsize cities, though some of the schools they serve are located in nearby suburban and rural communities.

[18]During the first year of the study, students responded to baseline surveys before case management began. Both the baseline and follow-up surveys make use of items from the California Healthy Kids Middle School Survey (specifically items from Module A and resilience items from Module B) with permission of the California Department of Education and WestEd.

[19]In addition, because a prior measure is a good predictor of a later outcome, the baseline data are included as covariates in the impact analyses, helping to improve the precision of the impact estimates.

Table 1.1 shows the characteristics of the study schools participating in the second year of the study, the averages of all schools in the study states (Texas and North Carolina), and the national averages for middle and high schools. A majority of the schools in the study are located in or around large or midsize cities, serve predominantly black and Hispanic students, and serve relatively low-income populations. All schools in the study receive Title I funds and 74 percent of the high school students and 89 percent of the middle school students were eligible to receive free or reduced-price lunches.[20] In addition, the study schools are relatively large, with high schools serving an average of approximately 1,700 students and middle schools serving an average of approximately 780. Compared with other schools in the study states and the nation, the study schools were larger, more urban, served more low-income students, and served more black and Hispanic students and fewer white students. Study high schools also had higher proportions of ninth-graders and lower proportions of twelfth-graders than other high schools in the study states and the nation, a sign of higher dropout rates.

### Reports of Student Needs and Services Available in the Study Schools

In addition to collecting publicly available data about the study schools, the research team collected information from school leaders and CIS site coordinators on the challenges students in their schools faced in the second year of the study. As detailed in Table 1.2, school leaders and site coordinators indicated that poor academic performance and lack of parental involvement and support affected the greatest number of students in their schools — nearly half or more. In addition, they estimated that between a quarter and a third of students faced challenges related to poor attendance, behavior or discipline problems, high-risk social behavior (for example, drug use or gang participation), or family instability. At least 80 percent of school leaders and site coordinators indicated that poor academic performance, poor attendance, behavior or discipline problems, and high-risk social behavior were a high priority for their schools and for CIS. Finally, as shown in the final column of Table 1.2, school leaders' and site coordinators' estimates of the percentage of students at risk of dropping out were 24 percent and 36 percent, respectively.[21]

School leaders and site coordinators also provided information about the support services available to address the needs of the students in their schools — a critical factor for understanding the study schools' environments and the kinds of services that are available to both case-managed and non-case-managed students. Overall, the information shared by school

[20]Title I is the federal funding stream designated for schools serving low-income students.

[21]On every one of the seven issues in the survey, site coordinators estimated a larger percentage of students affected than did school leaders.

## Table 1.1

## Selected Characteristics of the Study Schools, Schools in Study States, and the National Population of High Schools and Middle Schools

| Characteristic | Study Schools | Schools in Study States[a] | National Schools[a] |
|---|---|---|---|
| **High schools** | | | |
| School locale (%) | | | |
| Large or midsize city | 80.0 | 25.0 | 19.2 |
| Urban fringe or large town | 20.0 | 23.0 | 34.1 |
| Small town or rural area | 0.0 | 52.0 | 46.6 |
| Schools with Title I status (%) | 100.0 | 75.7 | 55.0 |
| Average school enrollment | 1,696.9 | 901.7 | 790.5 |
| Average student enrollment (%) | | | |
| Grade 9 | 30.4 | 27.1 | 24.9 |
| Grade 10 | 25.2 | 25.0 | 24.5 |
| Grade 11 | 22.7 | 24.4 | 24.3 |
| Grade 12 | 21.7 | 23.4 | 25.9 |
| Students receiving free or reduced-price lunch (%) | 74.2 | 53.1 | 47.6 |
| Race/ethnicity of students (%) | | | |
| Black | 36.7 | 16.1 | 15.1 |
| Hispanic | 41.5 | 36.4 | 20.8 |
| White | 16.6 | 42.6 | 56.2 |
| Other | 4.6 | 4.9 | 8.0 |
| Female students (%) | 48.2 | 48.9 | 48.1 |
| Average number of full-time teachers | 93.7 | 60.6 | 49.6 |
| Number of schools | 10 | 1,784 | 16,312 |

(continued)

leaders and site coordinators suggests that the study schools offer a wide variety of services meant to address students' needs.[22] While Chapter 2 will focus more specifically on the services made available via CIS, Table 1.3 details the types of support services school leaders reported

[22]School leader and CIS site coordinator surveys were the primary data sources for this information, as such data are not available consistently from the school districts participating in the study.

## Table 1.1 (continued)

| Characteristic | Study Schools | Schools in Study States[a] | National Schools[a] |
|---|---|---|---|
| **Middle schools** | | | |
| School locale (%) | | | |
| Large or midsize city | 91.7 | 30.5 | 19.9 |
| Urban fringe or large town | 0.0 | 27.7 | 41.8 |
| Small town or rural area | 8.3 | 41.8 | 38.2 |
| Schools with Title I status (%) | 100.0 | 82.2 | 69.6 |
| Average school enrollment | 780.0 | 673.9 | 628.9 |
| Average student enrollment (%) | | | |
| Grade 6 | 32.5 | 33.3 | 32.6 |
| Grade 7 | 33.2 | 33.6 | 33.7 |
| Grade 8 | 31.4 | 33.1 | 33.5 |
| Students receiving free or reduced-price lunch (%) | 88.4 | 60.3 | 52.5 |
| Race/ethnicity of students (%) | | | |
| Black | 40.4 | 16.6 | 16.1 |
| Hispanic | 49.0 | 39.4 | 21.8 |
| White | 6.5 | 38.4 | 53.9 |
| Other | 4.2 | 5.6 | 8.2 |
| Female students (%) | 48.6 | 48.5 | 48.5 |
| Average number of full-time teachers | 49.3 | 43.8 | 39.9 |
| Number of schools | 12 | 1,452 | 9,970 |

SOURCE: 2011-2012 data obtained from the U.S. Department of Education National Center for Education Statistics Common Core of Data (CCD), Public School Universe Data.

NOTES: The study includes a total of 14 middle schools and 10 high schools. Of the 14 middle schools in the study, 2 schools were excluded from analysis due to their classification as elementary schools in the 2011-2012 CCD; data for grades 6-8 were not available for these two schools. One middle school in the study serves grades 6-9. To calculate average enrollment by grade for this school, grade 9 enrollment was excluded from the denominator.

Teacher counts in the CCD are reported in full-time equivalent units, which is computed by dividing the amount of time an individual is employed by the time normally required for a full-time position. The counts were rounded to the nearest whole number.

[a]National and study states samples include study schools. Some data were missing in the state and national samples due to incomplete CCD data.

## Table 1.2

## Student Issues and Their Priority for School Leaders and CIS Site Coordinators

| Measure | Poor Academic Performance | Poor Attendance | Behavior/ Discipline Problems | High-Risk Social Behavior | Lack of Parental Involvement/ Support | Family Instability | Students at Risk of Dropping Out[a] |
|---|---|---|---|---|---|---|---|
| School leader estimate of the percentage of students facing issue[b] | 53.2 | 32.3 | 28.2 | 25.0 | 48.2 | 26.8 | 24.0 |
| School leaders reporting issue is a high priority at school[c] (%) | 100.0 | 86.4 | 100.0 | 80.0 | 85.7 | 66.7 | — |
| Site coordinator estimate of the percentage of students facing issue[b] | 66.2 | 36.7 | 36.8 | 33.2 | 60.5 | 38.6 | 38.2 |
| Site coordinators reporting issue is a high priority for CIS at school[c] (%) | 95.5 | 90.5 | 100.0 | 73.7 | 57.1 | 50.0 | — |
| Number of schools: school leader survey = 22; site coordinator survey = 22 | | | | | | | |

SOURCES: School leader survey (summer 2014), site coordinator survey (summer 2014).

NOTES: The percentages presented here include only those respondents who answered the survey item; response rates vary among items. Missing values were excluded from calculations. The rates of missing responses to the school leader survey items average to 2 percent and range from 0 percent to 9 percent, while the rates of missing responses to the site coordinator survey items average to 3 percent and range from 0 percent to 10 percent.

Respondents at 2 of the 24 study schools did not return a survey.

[a]These values are calculated from an individual item on the school leader and site coordinator surveys, asking: "Of all students at your school, what percentage would you describe as being at risk of dropping out?" The percentages presented here are calculated from the mean of an 11-point answer scale that ranges from 0 = "about 0%" to 10 = "about 100%."

[b]The percentages presented here are calculated from the mean of an 11-point answer scale, where respondents estimated the percentage of students in need at their schools from 0 = "about 0%" to 10 = "about 100%."

[c]The survey item was skipped if respondents reported 0 percent of students faced the given issue, or if services relating to the issue were not offered at the school.

## Table 1.3

## Student Services As Reported by School Leaders

| Service | Leaders Reporting Service Is Offered (%) | Estimated Percentage of Students Receiving Service[a] | Leaders Reporting Service Is Available to All Students (%) | Average Yearly Service Frequency[b] | Leaders Reporting CIS Is a Key Service Provider (%) |
|---|---|---|---|---|---|
| **Academic services** | | | | | |
| Academic assistance | 90.9 | 45.0 | 90.0 | 36.0 | 36.8 |
| Meeting with an adult staff member to discuss academic goals | 86.4 | 77.9 | NA | 12.4 | 50.0 |
| **Behavior and attendance services** | | | | | |
| Behavioral intervention | 81.8 | 35.0 | NA | 18.0 | 41.2 |
| Anger management/conflict resolution | 54.5 | 25.0 | NA | 16.0 | 36.4 |
| Truancy prevention | 45.5 | 24.0 | 60.0 | 12.3 | 60.0 |
| **Social/life-skills services** | | | | | |
| Mentoring | 81.8 | 17.2 | 33.3 | 17.0 | 82.4 |
| Gang intervention/prevention | 45.5 | 22.0 | 60.0 | 9.5 | 40.0 |
| Pregnancy prevention[c] | 50.0 | 36.4 | 63.6 | 11.6 | 72.7 |
| Bullying prevention | 77.3 | 65.3 | 82.4 | 9.6 | 43.8 |
| Drug abuse prevention | 54.5 | 57.5 | 75.0 | 8.4 | 54.6 |
| Substance abuse support programs[d] | 54.5 | 4.5 | NA | 5.4 | 54.6 |
| Pregnancy/parent support programs | 54.5 | 5.0 | NA | 9.6 | 58.3 |
| Programs for young people involved in the juvenile justice system[e] | 45.5 | 5.6 | NA | 12.3 | 22.2 |
| Grief support programs | 50.0 | 6.0 | NA | 7.2 | 60.0 |
| Programs for LGBT young people[f] | 18.2 | 10.0 | NA | 10.5 | 0.0 |

(continued)

## Table 1.3 (continued)

| Service | Leaders Reporting Service Is Offered (%) | Estimated Percentage of Students Receiving Service[a] | Leaders Reporting Service Is Available to All Students (%) | Average Yearly Service Frequency[b] | Leaders Reporting CIS Is a Key Service Provider (%) |
|---|---|---|---|---|---|
| **Resources to meet basic needs** | | | | | |
| Links to providers of basic necessities | 77.3 | 28.2 | 64.7 | 25.7 | 76.5 |
| Physical health screening | 50.0 | 42.7 | 81.8 | 7.1 | 30.0 |
| Exercise class or club/obesity intervention and prevention[g] | 31.8 | 38.6 | 85.7 | 11.6 | 57.1 |
| **College/career preparation** | | | | | |
| College planning and preparation | 81.8 | 35.0 | 50.0 | 18.1 | 64.7 |
| Career development/readiness | 72.7 | 35.0 | 81.3 | 19.4 | 57.1 |
| Job shadowing or internship | 40.9 | 15.6 | 33.3 | 4.8 | 57.1 |
| **Enrichment/motivation services** | | | | | |
| Community service/service learning | 54.5 | 16.7 | 41.7 | 21.0 | 54.6 |
| After- or before-school programs | 68.2 | 30.7 | 66.7 | 30.9 | 50.0 |
| **Family-related services** | | | | | |
| Family engagement activities | 59.1 | 53.8 | 100.0 | 8.8 | 66.7 |
| Parent group meetings | 54.5 | 50.8 | 91.7 | 4.0 | 9.1 |
| School-sponsored activities for students and their families | 63.6 | 57.6 | 92.9 | 6.3 | 57.1 |
| Number of schools | 22 | | | | |

(continued)

**Table 1.3 (continued)**

SOURCE: School leader survey (summer 2014).

NOTES: The values presented in the rightmost four columns include only those surveys in which the respondent reported the service was offered at the school and answered the relevant survey item; response rates vary among items. Missing values were excluded from calculations. The rates of missing responses to the service-availability items (the third column) average to 16 percent, with a range of 5 percent to 30 percent. The rates of missing responses to the service-frequency items (the fourth column) average to 18 percent, with a range of 5 percent to 50 percent.

Respondents at 2 out of the 24 study schools did not return a survey.

LGBT = lesbian, gay, bisexual, and transgender.

NA = not applicable.

[a]The percentages presented here are based on the means of an 11-point scale, where respondents estimated the percentages of students in need at their schools from 0 = "about 0%" to 10 = "about 100%."

[b]The values presented here are approximations of the average number of times per year the service is offered. Times per year were calculated from respondents' answers to an original four-point frequency scale, where 1 = "once or twice a year" (1.5 times per year), 2 = "less than once a month" (4.5 times per year), 3 = "1-2 times a month" (13.5 times per year), and 4 = "one or more times a week" (36 times per year).

[c]The missing rate for this service-frequency item was 27 percent.

[d]The missing rate for this service-frequency item was 29 percent.

[e]The missing rate for this service-frequency item was 25 percent.

[f]The missing rate for this service-frequency item was 50 percent.

[g]The missing rate for this service-frequency item was 30 percent.

being generally available in their schools. At least 80 percent of school leaders reported that the following services are available: academic assistance, meeting with adult staff members to discuss academic goals, behavioral intervention, mentoring, and college planning and preparation. In schools where these services are offered, leaders reported that half of all students, or more, participate in bullying prevention, drug-abuse prevention, meetings with adult staff members to discuss academic goals, and school activities and engagement activities with their families. Academic assistance was the service offered the most frequently, averaging 36 times per year, or about once a week. Other services such as behavioral intervention and mentoring were also frequently offered, averaging one or more times a month. School leaders' responses regarding the services available in their schools also suggest that they view CIS as an important service provider in their schools, with half of the school leaders or more reporting CIS is an important provider of most of these services.

In addition to school leaders' survey responses, most school leaders and school support staff members stated during interviews that they consider CIS to be an important part of their schools' support systems. Details regarding CIS's services and work with school staff members are included in the following chapter.

## Structure of This Report

Chapter 2 presents information about the CIS services available in study schools and provides details about how — and with whom — CIS works in these schools. Chapter 3 describes the study participants, looks at how much support case-managed students received, and investigates whether case-managed and non-case-managed students received different types and amounts of support. Chapter 4 presents findings on the effect of CIS case management after two years. It first discusses effects on nonacademic outcomes, then turns to effects on attendance, behavior, course performance, and school progress. Finally, Chapter 5 highlights conclusions that can be drawn from the random assignment component of the evaluation and reflects on the evaluation's overall findings, taking into account both the random assignment and quasi-experimental studies.

Chapter 2

# Case Management and Building Communities of Support in the Study Schools

This chapter focuses on Communities In Schools (CIS) service provision and provides details about how — and with whom — CIS works in local schools. It begins by reviewing Level 1 services and the steps of the Level 2 case management process, and then discusses the Level 2 services available to case-managed students. It then provides details about how CIS works both with external partners and school staff to "broker" services for case-managed students in order to address those students' needs. Finally, this chapter seeks to provide a better understanding of the support-service contexts in which CIS operates by exploring the work of non-CIS support staff members in the schools; how those staff members work with, alongside, and apart from site coordinators; and how school support staff members view CIS's role.

Highlights from this chapter include:

- Students in study schools — case-managed students in particular — have many support services available to them from a variety of service providers, though some services are offered more consistently than others. These services include but are not limited to the services provided by CIS site coordinators.
- CIS's partners play an important role in providing services to case-managed students, though there is variation in how closely partners and site coordinators work together to plan and to provide students with services. While partner service providers allow CIS to meet case-managed students' needs, it can be challenging for CIS to monitor and evaluate the quality of the services partners provide.
- CIS's model is based on the notion that multiple adult advocates working inside and outside schools are needed to provide comprehensive services for students with varied academic and social needs. In addition to their outside partners, CIS site coordinators work closely with school staff members to address the needs of their case-managed students collaboratively.

## Implementing the CIS Model

CIS program implementation is led at each school by one or more site coordinators responsible for all on-site operations. Affiliates determine how many site coordinators to place in a school

based on a variety of factors, including the location of a school, its students' needs, and the funding available. Each of the study schools had at least one full-time site coordinator, and half had two or more. The site coordinators in these schools were relatively experienced and well educated: In the spring of 2014, site coordinators in the study schools had an average of 5.9 years of experience working in that role and 3.5 years of experience in that role in their current schools. In addition, over 65 percent of the site coordinators either had or were pursuing graduate degrees, with a majority focused on social work or counseling.

While this report focuses on Level 2 case management, CIS site coordinators are responsible for managing all CIS operations in their schools. To understand how site coordinators divide their time among Level 1 services, Level 2 case management, and other responsibilities, a survey of site coordinators (one of the adult surveys described in Chapter 1) asked respondents to indicate the proportion of their time they spent on each during a typical week. Site coordinators reported spending less than 20 percent of their time planning, providing, or coordinating Level 1 services. They reported spending approximately 41 percent of their time directly planning for or providing Level 2 services and an additional 12 percent of their time working with or managing partners who provide Level 2 services. Site coordinators in the study reported having an average of 115 Level 2 students on their caseloads during the 2013-2014 school year. The remaining 27 percent of their time was spent on CIS-related administrative work, which includes such tasks as entering data on the services students received into CIS's management information system.

## The Availability of Level 1 Services

Table 2.1 shows site coordinators' reports of Level 1 activities, the frequency at which they are provided, and the extent to which non-case-managed students receive them. Overall, the services available to students cover a broad range of categories, including academics, behavior, and attendance. Site coordinators also reported that the majority of services that are available are offered at least 10 times a year on average. In addition, approximately a third of the services are received by roughly an even split of case-managed and non-case-managed students, and a quarter of services are received by more non-case-managed students than case-managed students. These proportions indicate that at least some non-case-managed students are making use of some CIS support services, even if those services are less intensive than the ones received by case-managed students.

## Table 2.1

## Level 1 Service Provision As Reported by Site Coordinators

| Service | Site Coordinators Reporting Service Is Offered (%) | Average Yearly Service Frequency[a] | Proportion of Students Receiving Services Who Are Case-Managed[b] |
|---|---|---|---|
| **Academic services** | | | |
| Academic assistance | 68.2 | 30.9 | 0.6 |
| Meeting with an adult staff member to discuss academic goals | 59.1 | 20.5 | 0.6 |
| **Behavior and attendance services** | | | |
| Behavioral intervention | 54.5 | 21.5 | 0.5 |
| Anger management/conflict resolution | 50.0 | 17.6 | 0.5 |
| Truancy prevention[c] | 40.9 | 21.5 | 0.3 |
| **Social/life-skills services** | | | |
| Mentoring | 54.5 | 20.9 | 0.6 |
| Gang intervention/prevention[d] | 40.9 | 14.8 | 0.6 |
| Pregnancy prevention[e] | 22.7 | 7.5 | 0.4 |
| Bullying prevention | 68.2 | 15.1 | 0.5 |
| Drug abuse prevention | 59.1 | 16.5 | 0.4 |
| Substance abuse support programs | 40.9 | 10.5 | 0.4 |
| Pregnancy/parent support programs | 31.8 | 17.1 | 0.5 |
| Programs for young people involved in the juvenile justice system | 31.8 | 8.6 | 0.5 |
| Grief support programs[f] | 27.3 | 13.5 | 0.5 |
| Programs for LGBT young people[g] | 9.1 | 24.8 | 0.3 |
| **Resources to meet basic needs** | | | |
| Links to providers of basic necessities | 77.3 | 18.4 | 0.7 |
| Physical health screening | 36.4 | 2.6 | 0.6 |
| Exercise class or club/obesity intervention and prevention[h] | 18.2 | 13.1 | 0.4 |
| **College/career preparation** | | | |
| College planning and preparation | 72.7 | 9.3 | 0.6 |
| Career development/readiness | 72.7 | 11.0 | 0.6 |
| Job shadowing or internship | 54.5 | 6.0 | 0.7 |
| **Enrichment/motivation services** | | | |
| Community service/service learning | 40.9 | 10.3 | 0.5 |
| After- or before-school programs | 40.9 | 20.5 | 0.5 |

(continued)

**Table 2.1 (continued)**

| Service | Site Coordinators Reporting Service Is Offered (%) | Average Yearly Service Frequency[a] | Proportion of Students Receiving Services Who Are Case-Managed[b] |
|---|---|---|---|
| **Family-related services** | | | |
| Family engagement activities | 40.9 | 12.5 | 0.6 |
| Parent group meetings | 45.5 | 10.1 | 0.5 |
| School-sponsored activities for students and their families | 68.2 | 6.6 | 0.3 |
| Number of schools | | | 22 |

SOURCE: Site coordinator survey (summer 2014).

NOTES: The values presented in the final two columns include only those surveys in which respondents reported the service was offered and answered the relevant survey items; response rates vary among items. Missing values were excluded from calculations. The rates of missing responses to the service-frequency items (the second column) average to 18 percent, with a range of 0 percent to 60 percent. The rates of missing responses to the case-managed student proportion items (the third column) average to 23 percent, with a range of 8 percent to 43 percent.

Respondents at 2 of the 24 study schools did not return a survey.

LGBT = lesbian, gay, bisexual, and transgender.

[a]The values presented here are approximations of the average number of times per year the service is offered. Times per year were calculated from respondents' answers on a four-point frequency scale, where 1 = "once or twice a year" (1.5 times per year), 2 = "less than once a month" (4.5 times per year), 3 = "one or two times a month" (13.5 times per year), and 4 = "one or more times a week" (36 times per year).

[b]The values presented here are the means of a three-point scale, where 0 = "mostly non-case-managed students," 0.5 = "an even mix of case-managed and non-case-managed students," and 1 = "mostly case-managed students."

[c]The missing rate for this service-frequency item is 25 percent.

[d]The missing rate for this service-frequency item is 25 percent.

[e]The missing rate for this service-frequency item is 38 percent.

[f]The missing rate for this service-frequency item is 25 percent

[g]The missing rate for this service-frequency item is 60 percent.

[h]The missing rate for this service-frequency item is 33 percent.

## Level 2 Case Management

CIS case management focuses on providing individual attention and guidance to a relatively small group of students who are at risk of dropping out. Site coordinators explained that they aim to develop trusting relationships with their case-managed students, providing and connecting students with support customized to each one's needs, creating safe spaces for them to share

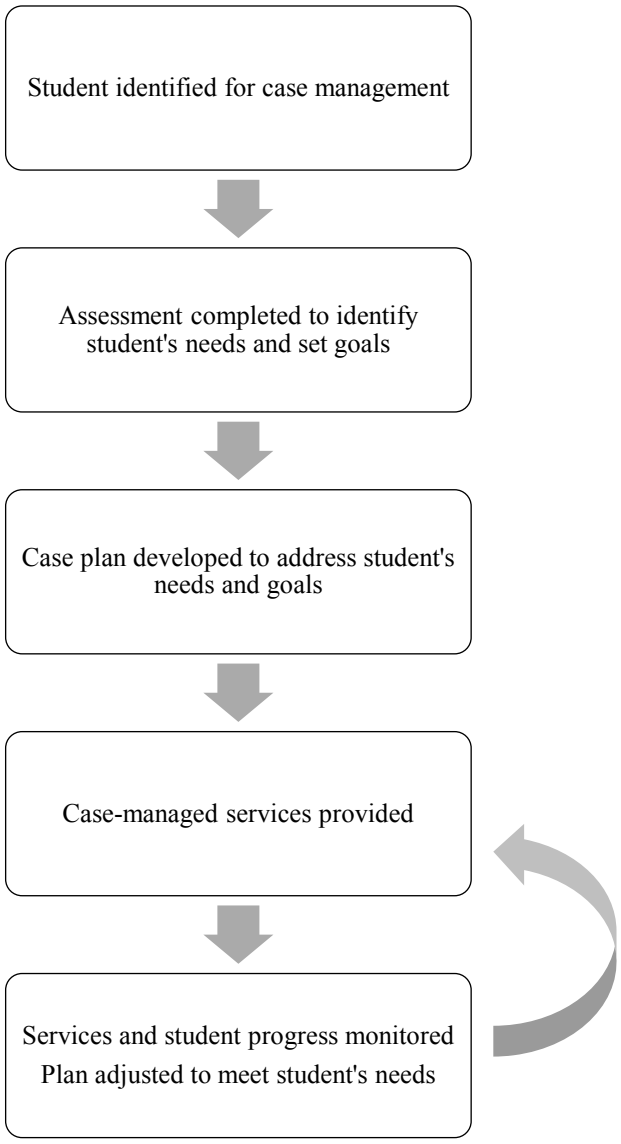
and discuss their problems, and offering them opportunities to experience new things that they might not otherwise (for example, visiting colleges or engaging in community service). There are five steps in the case management process: (1) identifying students in need of case management, (2) completing assessments to identify students' needs and set goals, (3) developing case plans to address those needs and goals, (4) connecting students with services or providing them directly, and (5) monitoring students' progress and adjusting services as needed (see Figure 2.1). As described in more detail in the first report and summarized in Box 2.1, each step of the case management process was implemented in the 18 schools that the research team visited during the first year of the study, but the details of how each step was implemented varied among affiliates. For example, needs assessments were conducted differently at different affiliates, site coordinators included varying levels of detail in students' case plans, and site coordinators reviewed students' school records more or less often for the purpose of formally adjusting their case plans.

As described in Box 2.1, a critical step in the case management process is providing services matched to students' individual needs or connecting students with those services from other sources. Table 2.2 summarizes site coordinators' overall assessments of whether most or all of their case-managed students are receiving the services they need to address their individual challenges, and their assessments of the quality of those services. At least two-thirds of site coordinators reported that all or most students in need receive services to address poor academic performance, poor attendance, and behavior or discipline problems. However, site coordinators also acknowledged that for most of the issues students face, the services they receive through case management partly address the issue, but more support is needed.

### The Availability of Level 2 Services

Table 2.3 shows the percentages of site coordinators who reported that a given service was offered at their schools during the 2013-2014 school year, as well as the averages of their estimates of how often the service was offered. Site coordinators indicated that academic services and behavioral support services were among the Level 2 services most frequently available to case-managed students in their schools, and that these services were generally provided at least once a month. Additionally, about two-thirds of site coordinators reported providing truancy-prevention activities at least twice a month to students struggling with attendance. Some coordinators also reported offering case-managed students other services and forms of support with relative consistency and frequency, including mentoring, college planning and preparation, community service and service-learning opportunities, and family-engagement activities, as well as resources to meet their basic needs.

**Figure 2.1**
**The CIS Case Management Process**




CIS also supports case-managed students who might benefit from social and life-skills services. Some of these social and life-skills services were provided more frequently than others. For example, more than half of site coordinators indicated that they provided mentoring, gang prevention, and bullying prevention. However, fewer than half reported providing other

**Box 2.1**

## The CIS Case Management Process in More Detail

***Student identification.*** The CIS case management process begins with the identification of at-risk students who would benefit from additional services. Site coordinators gave relatively consistent descriptions of how these students are identified: Site coordinators encourage teachers, administrators, and other student support staff members on campus to make student referrals and recommendations. Some CIS affiliates also have their own guidelines for identifying eligible students, or follow district-wide guidelines. For example, one affiliate has contractual agreements with local agencies such as the city housing authority and the foster care system that require site coordinators to enroll at least a certain number of students served by those agencies. Students also sometimes simply choose to enroll in the program.

***Needs assessment.*** After identifying students to receive case management, site coordinators conduct individual assessments to learn more about those students' needs. Site coordinators at almost all schools explained that they review school data such as attendance records, grades, and behavioral incident records to better understand their students' needs. They also reported using a variety of standardized assessment tools to measure students' levels and areas of need. During the two years of the study, site coordinators indicated in interviews and surveys that the issues their students most commonly faced were poor academic performance, lack of parental involvement, poor attendance, behavior problems, family instability, and high-risk social behavior (for example, drug use or gang participation).

***Case planning.*** After conducting the individual needs assessment, site coordinators create individual case plans that document each student's areas of need, goals, and service plans for the school year. Most site coordinators reported that students actively participate in the development of their case plans.

While all of the schools in the study appear to document this case plan in some way, site coordinator and affiliate interviews indicate that there is variation in the levels of effort and detail involved. In one affiliate, for example, site coordinators suggested that a case plan developed early in the year does not fully reflect the depth of a student's needs and is more of a formality than a useful document to guide student services, while in two other affiliates staff members and site coordinators described much more specific, detailed procedures for developing case plans.

***Service provision.*** Based on their students' needs assessments and subsequent case plans, site coordinators provide Level 2 services and connect students with Level 2 services from other providers. Site coordinators reported spending the greatest amount of their time on planning for or providing Level 2 services, and they said during interviews that their responsibilities to case-managed students are a priority over their Level 1 duties. The services provided to case-managed students during the second year of the study are described in the main text.

***Monitoring student progress.*** The final step of the case management process involves monitoring student progress and adjusting the services that students receive. These last two steps in the process are cyclical, and may take place numerous times throughout the school year. In all

(continued)

**Box 2.1 (continued)**

schools site coordinators indicated that they have access to student data and that they use it to track students' progress. Site coordinators in almost all schools visited said they monitored their case-managed students at least quarterly, primarily by checking grades and attendance and writing progress reports about them. Most site coordinators said they had access to student data in "real time," while some said they only had access to students' records at the end of each marking period. Site coordinators also reported that they rely on teachers, counselors, and other school staff members to help them monitor student progress.

types of social and life-skills services such as programs for young people involved in the justice system. Those who did report offering these services suggested that they provide them less than twice a month.

Table 2.4 provides more specific information about who provides these same services to case-managed students. As described previously, CIS provides some services itself but also draws upon existing community and school resources. Site coordinators reported that many of the services included in Table 2.3 are directly provided either by themselves or other CIS staff members. But Table 2.4 also indicates that CIS partners and school staff members play a substantial role in providing Level 2 services.

### CIS Partnerships

Because CIS partners and school staff members play such an important role in providing Level 2 services to case-managed students, the research team sought to learn more about CIS's partnerships during the second year of the study by including additional questions about partnerships in interviews with CIS staff members and by conducting interviews with CIS partners. Site coordinators in all of the affiliates in the study described the "brokering" of student support services as an essential part of their work: When site coordinators learn about their students' individual needs, they connect those students with partners from the community who can provide resources or services to address those needs. When a CIS site coordinator plays the role of "broker" in this way, these services are "counted" as Level 1 or Level 2 services, depending on the nature of the service. For many of the types of services listed in Table 2.4, site coordinators explained in interviews that the support they provide directly may be different from that provided by partners or school staff members. For example, many site coordinators said that they may connect students with teachers or tutors who provide tutoring, and if they directly provide services to address students' academic needs, they may be less

## Table 2.2

## Case-Managed Student Issues and Service Details As Reported by Site Coordinators

| Measure | Poor Academic Performance | Poor Attendance | Behavior/ Discipline Problems | High-Risk Social Behavior | Lack of Parental Involvement/ Support | Family Instability |
|---|---|---|---|---|---|---|
| Respondents' estimate of the percentage of case-managed students facing this issue[a] | 60.9 | 35.9 | 35.9 | 28.6 | 54.5 | 33.8 |
| Site coordinators reporting most or all students in need are served (%) | 72.7 | 66.7 | 75.0 | 42.1 | 47.6 | 60.0 |
| Service-quality rating[b] | 0.6 | 0.6 | 0.7 | 0.6 | 0.5 | 0.5 |
| Number of schools | | | | | | 22 |

SOURCE: Site coordinator survey (summer 2014).

NOTES: The values presented include only those surveys in which the respondent answered the survey item; response rates vary among items. Items for the second and third measures were skipped if respondents reported "about 0%" of case-managed students faced the given issue at their school, or if services relating to the issue were not offered at the school. Missing values were excluded from calculations. The rates of missing responses to the above measures average to 2 percent, with a range of 0 percent to 18 percent.

Respondents at 2 of the 24 study schools did not return a survey.

[a]The percentages presented here are calculated from the mean of an 11-point answer scale, where respondents estimated the percentage of students in need at their school from 0 = "about 0%" to 10 = "about 100%."

[b]The values presented here are means on a three-point quality scale, where 0 = "services don't address this issue, services are not appropriate for need," 0.5 = "services partially address this issue, more support is needed," and 1 = "services address this issue well."

## Table 2.3

## Case-Managed Service Provision and Frequency As Reported by Site Coordinators

| Service | Service Is Offered at School (%) | Average Yearly Service Frequency[a] |
|---|---|---|
| **Academic services** | | |
| Academic assistance[b] | 90.9 | 28.0 |
| Meeting with an adult staff member to discuss academic goals | 90.9 | 15.0 |
| **Behavior and attendance services** | | |
| Behavioral intervention[b] | 90.9 | 25.9 |
| Anger management/conflict resolution | 86.4 | 23.1 |
| Truancy prevention | 63.6 | 23.3 |
| **Social/life-skills services** | | |
| Mentoring | 90.9 | 24.2 |
| Gang intervention/prevention | 59.1 | 20.6 |
| Pregnancy prevention | 59.1 | 16.9 |
| Bullying prevention | 72.7 | 17.1 |
| Drug abuse prevention[b] | 72.7 | 23.9 |
| Substance abuse support programs | 40.9 | 18.8 |
| Pregnancy/parent support programs | 40.9 | 12.8 |
| Programs for young people involved in the juvenile justice system[c] | 36.4 | 18.9 |
| Grief support programs[d] | 54.5 | 17.5 |
| Programs for LGBT young people[e] | 13.6 | 13.5 |
| **Resources to meet basic needs** | | |
| Links to providers of basic necessities | 95.5 | 18.9 |
| Physical health screening | 54.5 | 6.8 |
| Exercise class or club/obesity intervention and prevention | 36.4 | 17.6 |
| **College/career preparation** | | |
| College planning and preparation | 95.5 | 12.1 |
| Career development/readiness programs | 86.4 | 12.5 |
| Job shadowing or internship | 68.2 | 10.0 |
| **Enrichment/motivation services** | | |
| Community service/service learning[f] | 77.3 | 10.7 |
| After- or before-school programs[b] | 68.2 | 27.9 |

(continued)

**Table 2.3 (continued)**

| Service | Service Is Offered at School (%) | Average Yearly Service Frequency[a] |
|---|---|---|
| **Family-related services** | | |
| Family engagement activities | 90.9 | 8.3 |
| Parent group meetings | 68.2 | 7.2 |
| School-sponsored activities for students and their families | 72.7 | 9.5 |
| Number of schools | | 22 |

SOURCE: Site coordinator survey (summer 2014).

NOTES: Response rates vary among items. Missing values were excluded from calculations. The rates of missing responses to the service-frequency items average to 18 percent, with a range of 0 percent to 50 percent.

Respondents at 2 of the 24 study schools did not return a survey.

LGBT = lesbian, gay, bisexual, and transgender.

[a]The values presented here are approximations of the average number of times per year the service is offered. Times per year were calculated from respondents' answers on a four-point frequency scale, where 1 = "once or twice a year" (1.5 times per year), 2 = "less than once a month" (4.5 times per year), 3 = "one or two times a month" (13.5 times per year), and 4 = "once or more per week" (36 times per year).

[b]Of the site coordinators who reported that this service is offered, more than 50 percent reported that this service is offered once or more per week.

[c]The missing rate for this service-frequency item is 30 percent.

[d]The missing rate for this service-frequency item is 25 percent.

[e]The missing rate for this service-frequency item is 50 percent.

[f]The missing rate for this service-frequency item is 28 percent.

likely to tutor students and more likely to do things like checking and discussing grades with students or talking to teachers about students' academic progress.

For 11 of the 26 services covered in the survey, at least 50 percent of site coordinators indicated that partners play a role in providing the service in their schools. In particular, partners were highly involved in mentoring, college and career preparation activities, and drug abuse prevention activities. For example, nearly 75 percent of site coordinators reported that partners provided mentoring services. In their interviews, site coordinators explained that they use mentors from local colleges, universities, and community-based nonprofit organizations, along with individuals who apply directly to the affiliate. Drawing on partners to help provide services also allows CIS to offer a greater variety of services to students, as community partners often

## Table 2.4

## Providers of Services for Case-Managed Students As Reported by Site Coordinators

| Service | Service Is Provided by CIS Staff (%) | Service Is Provided by CIS Partners (%) | Service Is Provided by School Staff (%) |
|---|---|---|---|
| **Academic services** | | | |
| Academic assistance | 72.7 | 54.6 | 54.6 |
| Meeting with an adult staff member to discuss academic goals | 81.8 | 36.4 | 36.4 |
| **Behavior and attendance services** | | | |
| Behavioral intervention | 81.8 | 54.6 | 40.9 |
| Anger management/conflict resolution | 77.3 | 50.0 | 36.4 |
| Truancy prevention | 59.1 | 9.1 | 31.8 |
| **Social/life-skills services** | | | |
| Mentoring | 68.2 | 72.7 | 18.2 |
| Gang intervention/prevention | 40.9 | 27.3 | 13.6 |
| Pregnancy prevention | 45.5 | 31.8 | 22.7 |
| Bullying prevention | 45.5 | 45.5 | 31.8 |
| Drug abuse prevention | 54.6 | 59.1 | 18.2 |
| Substance abuse support programs | 22.7 | 36.4 | 13.6 |
| Pregnancy/parent support programs | 36.4 | 36.4 | 9.1 |
| Programs for young people involved in the juvenile justice system[a] | 22.7 | 31.8 | 4.6 |
| Grief support programs[b] | 18.2 | 18.2 | 13.6 |
| Programs for LGBT young people[c] | 4.6 | 4.6 | 0.0 |
| **Resources to meet basic needs** | | | |
| Links to providers of basic necessities | 86.4 | 50.0 | 27.3 |
| Physical health screening | 22.7 | 27.3 | 27.3 |
| Exercise class or club/obesity intervention and prevention | 18.2 | 13.6 | 4.6 |
| **College/career preparation** | | | |
| College planning and preparation | 86.4 | 59.1 | 45.5 |
| Career development/readiness programs | 77.3 | 59.1 | 36.4 |
| Job shadowing or internship | 50.0 | 50.0 | 13.6 |
| **Enrichment/motivation services** | | | |
| Community service/service learning[d] | 68.2 | 31.8 | 13.6 |
| After- or before-school programs | 54.6 | 50.0 | 22.7 |

(continued)

**Table 2.4 (continued)**

| Service | Service Is Provided by CIS Staff (%) | Service Is Provided by CIS Partners (%) | Service Is Provided by School Staff (%) |
|---|---|---|---|
| **Family-related services** | | | |
| Family engagement activities | 77.3 | 45.5 | 50.0 |
| Parent group meetings | 54.6 | 40.9 | 40.9 |
| School-sponsored activities for students and their families | 59.1 | 50.0 | 50.0 |
| Number of schools | | | 22 |

SOURCE: Site coordinator survey (summer 2014).

NOTES: Response rates vary among services. Missing values were included in calculations. The rates of missing responses average to 18 percent, with a range of 0 percent to 50 percent.
Respondents at 2 of the 24 study schools did not return a survey.
LGBT = lesbian, gay, bisexual, and transgender.
[a]The missing rate for this item is 30 percent.
[b]The missing rate for this item is 25 percent.
[c]The missing rate for this item is 50 percent.
[d]The missing rate for this item is 28 percent.

work with CIS on drug abuse prevention, bullying prevention, after-school programs, and job shadowing.

Connecting students with partner adults who can help address their needs means that students are ultimately making more connections with more adults, and that more adults are aware of and actively working with them. Just as site coordinators build and maintain relationships with students, they also build and maintain relationships with partners, and help partners nurture their own relationships with case-managed students. Moreover, partners may allow site coordinators to focus attention and resources where they feel attention and resources are really needed. As one site coordinator explained:

> I think there's wonderful opportunity for symbiosis [with partnerships]. I see these groups that are in the community wanting to reach out to populations and this is an opportunity that I have to present them with the population. And it's also beneficial for me not to have to create and provide all of the programming.... I think, "Why not tap into those resources, other ideas, other people bringing different energy?"

### Partnership Formation and Monitoring

Site coordinators in all affiliates described partnering extensively with other nonprofit organizations that concentrate on children and young people to provide Level 2 services, such as Girl Scouts of America, YMCA/YWCA, and AmeriCorps. CIS staff members and staff members from partner organizations reported that the affiliate office often reaches out to establish partnerships initially, while site coordinators maintain the day-to-day relationship with partner staff members in schools. Some described instances in which site coordinators established partnerships themselves through personal connections, and in some cases, site coordinators identify organizations with which they are interested in partnering, and affiliate-level staff members make the initial connections to those organizations. CIS staff members also explained that representatives from outside organizations reach out to CIS themselves to establish partnerships.

The degree to which partners are formally and operationally integrated into CIS's work appears to vary from partner to partner, from school to school, and from affiliate to affiliate. CIS staff members discussed having formal agreements with at least some of their partner organizations, but not with all partners. In addition, some partners are more likely than others to be granted autonomy in planning and delivering services, and some affiliates are more likely than others to grant it. A site coordinator may refer a student to a partner service provider when the site coordinator feels that the student's particular needs are best handled by an external professional (for example, if the student is pregnant or suicidal). In those cases the site coordinator may not work closely with the partner to plan the specifics of the service once the connection is made. In other cases — especially if a partner organization is relatively well integrated into the school — the site coordinator may collaborate with the partner to plan the details of service provision. For example, one partner staff member said that she meets monthly with her school's site coordinator to discuss service provision and to brainstorm solutions to any issues that may have arisen with the case-managed students receiving her services. Similarly, another site coordinator indicated that he meets with tutors regularly to discuss students' progress and adjust their tutoring plans as needed. Given the different backgrounds and needs of case-managed students, it is perhaps not surprising that the levels of involvement and the roles of these external partners vary.

In addition to describing this variation in the integration of external partners, in interviews CIS staff members also suggested that it is challenging to evaluate the quality of the partners' services themselves. Site coordinators have many responsibilities, and may not have time to assess whether all the services being provided to case-managed students are of high quality. Site coordinators reported that there is not a formal way of evaluating how well the partner-provided services are working. Most site coordinators indicated that they do not receive training or guidance about how to assess the effectiveness or quality of partner-provided

services. They said that they rely on students telling them whether or not the services are going well, and that they generally make conclusions about the effectiveness of those services based on students' outcomes.

## School Staff Members and CIS

As discussed in Chapter 1, CIS operates in high-poverty schools whose students face challenges that may threaten their academic success (see Tables 1.1 through 1.3). While school leaders indicated that CIS plays an important role in providing support to students, there are often many other services available in the school. During the second year of the study, the research team sought to gain a better understanding of the school contexts in which CIS operates by learning more about the work of non-CIS support staff members, how CIS works with school staff members (including with regard to case-managed students), and how school support staff members view CIS.

### School Support Staff Members' Roles

Nationally, schools rely on a mix of guidance counselors, social workers, and similar staff members to address students' needs. Nearly all school leaders (95 percent) reported having guidance counselors in their schools, 68 percent reported having social workers, and 18 percent reported having other support staff members (cited examples include graduation coaches and learning-lab support specialists). In schools that had these support positions, school leaders indicated having an average of 3.1 full-time equivalent (FTE) guidance counselors, 1.1 FTE social workers, and 2 FTE other support staff members.[1] Across all the schools in the sample, the average number of support staff members was 4.3 FTEs, not including the CIS site coordinator.

School leaders reported that during the 2013-2014 school year, guidance counselors, social workers, and other support staff members had caseloads averaging 323 students, 420 students, and 400 students per FTE, respectively. During interviews, many school leaders said that these caseload sizes are one reason they turn to CIS to supplement the services available to their students. They also suggested that these large caseloads may prevent staff members from devoting the time and attention it would take to fully address all of an individual student's needs. In addition, guidance counselors noted that the challenge is exacerbated by the wide variety of services they are responsible for providing: monitoring academic progress and

[1]FTEs indicate the number of full-time employees at an organization plus the number of part-time employees, standardized to a full-time basis. For example, an organization with 4 full-time and 3 half-time employees would have 5.5 FTEs.

behavioral needs, handling testing, addressing crises, tracking progress to graduation, and leading the school's student support team.

### School Staff Members and Level 2 Services

In all schools in the study, interviewees reported that CIS staff members regularly work with the school's staff, especially teachers and support staff members. Just as site coordinators rely on CIS's partners to provide some services to case-managed students, they also work with the other adults in their schools. School staff members frequently provide services to address the types of challenges faced by case-managed students, and site coordinators often draw on those services. As shown in the final column of Table 2.4, over half of the site coordinators surveyed indicated that school staff members provide academic assistance to case-managed students, and more than one-third said that school staff members meet with case-managed students to discuss setting academic goals.

Many site coordinators also reported that other school staff members provided behavioral, attendance, college and career, and family-related services to their case-managed students, as detailed in Table 2.4. Over one-third of site coordinators responded that school staff members provided behavioral interventions and anger-management services, and nearly one-third noted that they conducted truancy prevention. Between one-third and half of site coordinators also reported that school staff members provide college preparation and career development support to case-managed students. Finally, half of all surveyed CIS site coordinators indicated that school staff members coordinate family-engagement activities attended by case-managed students, or organize other school-sponsored activities for students and their families.

As indicated above, when CIS staff members connect case-managed students to services provided by school staff members (and partners), these services "count" as Level 2 services — even if the services are also available to non-case-managed students. In other words, one part of a site coordinator's job is to make sure case-managed students take advantage of the services already available to them.

Interview data provide more evidence that CIS staff members regularly interact with school staff members about their case-managed students, checking on their academic and behavioral progress. Interviewees from all schools described discussions with teachers and counselors to assess how well case-managed students were doing in classes, and in several schools it appeared that the site coordinators serve as the conduits through which information passes between teachers and students. For example, some teachers provided site coordinators with additional worksheets to complete with case-managed students who were falling behind on assignments or who needed tutoring. In other schools, site coordinators advocate for students who are struggling academically and who may have difficulty articulating what assistance they need from their teachers. One site coordinator noted that as a result of such discussions, teachers

allow one of her case-managed students to do class work in the CIS office during class time, provided that the student turns in that work at the end of class. This accommodation allows the student to receive personal attention in a quieter space than the classroom would offer. Site coordinators from one affiliate also shared that teachers have asked them to attend class periodically to help with a lesson or with classroom management, or to observe a case-managed student's behavior as a first step toward deciding how to improve it.

Interview data also suggest that staff members at most schools help CIS site coordinators forge stronger connections with students' parents and family members. At some schools, for example, guidance counselors and teachers sometimes invite site coordinators to participate in parent conferences so they can comment together about their attendance checks and behavioral monitoring of case-managed students. In other schools, the site coordinators and school staff members coordinate parent advocacy and involvement groups in order to set up home visits together or in-school meetings where parents can hear from teachers, site coordinators, and guidance counselors.

### Additional Work with School Staff Members

Interviewees at almost all schools indicated that site coordinators and school support staff members cooperate to put on school social events such as awards assemblies, graduation parties, movie nights, and literacy nights. Site coordinators and guidance counselors at several schools also said that together they coordinate programs that provide basic resources for both case-managed and non-case-managed students, such as food pantries or on-campus closets with school supplies and uniforms.

Finally, most of the study schools organize intervention teams composed of guidance counselors, social workers, administrators, and teachers — and often CIS site coordinators — who meet regularly to align or divide up services to students based on their needs. Site coordinators from all schools the research team visited in three affiliates described being part of these teams, which often meet at least once a month. During these meetings, members of the intervention teams confer about individual students' needs and, depending on the school, may either plan to collaborate to have a student receive services from multiple adults (for example, the site coordinator and the social worker) or decide which students will be served by whom. In addition, interviewees reported that several intervention teams also meet to organize schoolwide activities or events, such as field trips and parental outreach sessions.

### School Staff Members' Perceptions of CIS

When asked about what they consider to be the primary roles of CIS at their schools, guidance counselors, social workers, and school administrators generally said that site coordinators provide additional support to students, especially those who need the most help academical-

ly and behaviorally. At the same time, site coordinators described some confusion among school staff members about CIS's role, and said that the process for referring students to CIS needed to be streamlined. One site coordinator, for example, reported creating an instructional flow chart that outlined different referral protocols and encouraged the school's administration team and teaching staff to use it.

In all schools and affiliates, school staff members cited site coordinators' ability to form personal relationships with students as an important benefit of having CIS in the school. School administrators most often said that CIS's primary role is to establish emotionally supportive relationships with students, and often said CIS site coordinators have responsibilities similar to those of their guidance counselors, social workers, and behavior specialists. Interviewees also pointed out, though, that CIS site coordinators had more time and flexibility to reach students personally in ways other support staff members could not. In fact, both CIS site coordinators and school support staff members said that this additional time allows site coordinators to forge closer and more sustainable relationships with students. Guidance counselors at several schools said that they had to focus on grades, graduation credit checks, or class scheduling, and to do so for relatively larger caseloads of students than site coordinators. In most cases, guidance counselors' impressions were that CIS site coordinators had the time to engage students in more personal interactions that were not solely focused on administrative tasks or scheduling because they did not have these constraints.

## Discussion

Much of this chapter focused on the provision of case-managed services by CIS staff members, partners, and other school support staff members. While site coordinators provide many services directly, they also connect students to a range of other service providers within their schools and around their communities. They aim to serve as advocates for their case-managed students, which often involves making sure they take advantage of the services already offered in their schools. Site coordinators regularly described partnerships as an essential way to maximize the number of students they can assist and the types of services they can offer them. While site coordinators see value in having a range of services available for students, it may also be valuable to improve the processes through which site coordinators can monitor the quality of those services, and to help them connect students to those services more efficiently. The findings presented in this chapter suggest that CIS staff members receive varying amounts of guidance regarding how to monitor the services provided by partners, and that there is not a uniform method for evaluating those services' effects on students. CIS may be able to promote high-quality services in part by exploring ways to monitor, evaluate, and create new strong partnerships.

CIS works closely with other school support staff members such as guidance counselors and behavior specialists, and those support staff members value CIS as an important contributor to the pool of adults who address students' needs. However, drawing distinctions between the roles and responsibilities of site coordinators and those of other support staff members may in some instances be a challenge. CIS could address misconceptions about site coordinators' roles by providing additional information and guidance to schools about those roles and responsibilities, and about the various ways students may come to receive support services.

## Chapter 3

# Study Students and Support Services Received

This chapter focuses on the students who participated in the study and the support services they received during the 2013-2014 school year. Using data from school records, student surveys, and Communities In Schools (CIS) management information systems, this chapter begins with a description of the case-managed and non-case-managed students in the study. While the previous chapter describes the services *available* to students in the study schools, this chapter provides details about the services *received* by both case-managed and non-case-managed students during the year. This information is useful for understanding the difference between case management and "business as usual" for similar students in the study schools. In addition, this chapter includes an investigation of whether the highest-risk students (that is, those with a recent history of course failures, suspensions, and very poor attendance) received different or more services than moderate-risk students.

Highlights from this chapter include:

- As was the case in the first year of the study, the students in the case-managed and non-case-managed groups for the second year of the study had similar baseline characteristics.
- During the second year of the study, approximately 80 percent of the students in the case-managed group received services. Those students received services an average of nearly 20 times during the year, which amounted to an average of just over 18 total Level 2 service hours. Nineteen percent of the students in the case-managed group did not receive any services.
- Compared with non-case-managed students, case-managed students reported participating in support activities more frequently, suggesting that CIS case management is providing something above and beyond what students otherwise receive. Specifically, case-managed students were significantly more likely to report participating in individual and group meetings with adults in school, meeting with mentors, and receiving tutoring. Nonetheless, even those students not receiving CIS Level 2 case management were getting some support services, as opposed to being a "no-service" comparison group.
- There were significant differences in the services received by case-managed students based on their classification as being at either high or moderate risk of dropping out. Specifically, a smaller proportion of high-risk case-managed

students received services during the second year of the study than did moderate-risk students: 75 percent of high-risk students received services compared with 85 percent of moderate-risk students. Further, in most service categories a greater proportion of moderate-risk students received services than did high-risk students.

## Student Samples

The schools included in this study serve students facing many challenges that may hinder their progress in school. Before and during this study, CIS and school staff members emphasized that a large proportion of the students in their schools were in need of the kind of supplementary support provided to Level 2 case-managed students. As described in Chapter 1, students were assigned at random to either receive or not receive case management because CIS did not have the resources to serve all the students in need in the study schools.

To assess the effect of CIS case management, the analyses in this report discuss two samples of students. The *stable school records sample,* which includes a total of 1,501 students, is used to examine students' demographic characteristics and outcomes that can be measured using their school records (for example, grades and attendance). Students are included in this sample if they had school records data for both Year 1 and Year 2 of the study.[1] The second sample is the *stable student survey sample*, which includes a total of 1,416 students who responded to both the spring 2013 (Year 1) and spring 2014 (Year 2) surveys.[2] This sample is used to examine students' responses to survey questions related to their backgrounds and experiences in and out of school.[3]

Table 3.1 examines students' baseline demographic characteristics and shows that the students in the case-managed and non-case-managed groups included in the stable school records sample were similar when they enrolled in the study. (See Box 3.1 for an explanation of how to interpret the baseline and effect tables in this report.) Overall, the students were

[1]The stable school records sample represents 85 percent of all students in the study sample who were eligible to participate in the second year of the study (that is, the 1,764 students who had not graduated from high school and were enrolled in the 24 schools that agreed to participate in the study for a second year). See Appendix B for further information on response rates.

[2]The stable student survey sample represents 80 percent of all students in the study sample who were eligible to participate in the second year of the study (see previous note). See Appendix B for further information on response rates.

[3]The two samples mostly overlap: 89 percent of students in the stable school records sample are in the stable student survey sample, and 95 percent of students in the stable student survey sample are in the stable school records sample.

**Box 3.1**

## Reading and Interpreting the Findings in the Report Tables

Many of the tables in this report show the baseline characteristics, services received, or student outcomes of students in the case-managed and non-case-managed group — as well as the difference between these two groups of students. The values presented in these tables are presented as follows:

**"Case-managed" column:** This column shows data for the students randomly assigned to receive case management. This column reflects the outcomes of the average student in the analysis sample.

**"Non-case-managed" column:** This column shows data for the students randomly assigned to the non-case-managed group. These values are intended to represent what the outcomes of the students in the case-managed group would have been had they not been assigned to case management.

**"Estimated effect" or "estimated difference" column:** This column shows the difference between students in the case-managed and non-case managed group with respect to their baseline characteristics, the services that they received, or their outcomes. The values in this column should be interpreted as the estimated effect or impact for the average student in the analysis sample. *Statistical significance* is a measure of the degree of certainty one may have that a program's effect is actually nonzero. If an effect estimate is statistically significant, then one may conclude with some confidence that the program really had an effect on the outcome being assessed. If an effect estimate is not statistically significant, then the nonzero estimate is more likely to be a product of chance. In this report, statistical significance is based on a significance level of 10 percent, and in these tables, statistical significance of the estimated effect or impact is indicated (*) when the p-value is less than or equal to 10 percent.

**"Effect size" (Chapter 4 and Appendixes A and C):** This column shows the estimated effect scaled as an effect size. The "effect size" is a metric that is widely used for gauging whether the magnitude of a program's effect is large or small. It is defined as the estimated effect of a program (or the difference in outcomes between case-managed and non-case-managed students) divided by the standard deviation of the outcome of interest. For example, an effect size of 0.20 represents an improvement in student outcomes that is equal to 20 percent of the standard deviation of the student-level distribution for that particular outcome. The effect size, therefore, provides an indication of how much CIS improved a student's outcomes relative to where they would have been in the outcome distribution for students in the program's target population. In this report, effect sizes are calculated based on the standard deviation of the outcome of interest for students in the non-case-managed group. The standard deviation for the non-case-managed group reflects the expected variability in the outcome that one would find in the absence of CIS.

## Table 3.1

## Students' Baseline Characteristics

| Baseline Characteristic (%) | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| Race/ethnicity | | | * | 0.087 |
| Hispanic | 60.0 | 60.7 | -0.7 | |
| Black, non-Hispanic | 35.1 | 31.8 | 3.4 | |
| White, non-Hispanic | 2.6 | 4.0 | -1.4 | |
| Asian | 1.5 | 2.2 | -0.7 | |
| Other | 0.6 | 1.4 | -0.7 | |
| Male | 43.7 | 42.9 | 0.8 | 0.753 |
| Eligible for free or reduced-price lunch[a] | 47.2 | 44.7 | 2.5 | 0.119 |
| English as a second language | 13.9 | 13.1 | 0.8 | 0.640 |
| Qualified for a gifted program | 2.4 | 3.2 | -0.8 | 0.375 |
| Chronically absent | 8.7 | 8.8 | 0.0 | 0.981 |
| Average attendance rate | 95.7 | 95.6 | 0.1 | 0.714 |
| Failed at least 1 core course | 21.8 | 21.9 | -0.1 | 0.973 |
| Average core course marks | 80.8 | 80.9 | 0.0 | 0.909 |
| Joint test of difference between groups[b] | ($\chi^2$ = 18.6) | | | 0.667 |
| Number of students (total = 1,501) | 751 | 750 | | |

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample, which includes all students with course-failure data for the 2012-2013 and 2013-2014 school years. Due to small numbers, percentages for the Native American demographic group are not included in the table.

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school. The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

(continued)

**Table 3.1 (continued)**

Due to missing values, the number of students included varies by characteristic. The average percentage of missing data for any given characteristic is 14 percent and ranges from 0 percent (gender) to 37.7 percent (free or reduced-price lunch eligibility). The percentage of missing data is high for free or reduced-price lunch eligibility because data for this characteristic were not available for students in two of the six districts in the stable school records sample.

[a]Data for this characteristic were missing for 37.7 percent of the sample.

[b]A chi-square test was used to determine whether there is a systematic difference between the case-managed group and the non-case-managed group when they joined the study, based on the characteristics included in this table as well as indicators of missing data for all relevant student characteristics.

predominantly minority and from relatively low-income families — more than 90 percent were black or Hispanic and nearly 50 percent were eligible for free or reduced-price lunches. Approximately 60 percent were female. The baseline student surveys suggest that students in the case-managed and non-case-managed groups also had similar family characteristics, educational aspirations, engagement with school, and adult support at home, at school, and outside of home and school. (see Table 3.2).

Overall, the supplemental information students provided on baseline surveys confirms that many of them face challenges in their lives. For example, fewer than 60 percent of students reported living with both parents, approximately one-third of the students with older siblings reported that a sibling had dropped out of high school, and at least half of students either reported that their mother or father (or both) did not complete high school or that they did not know their parents' educational attainment.

## Services Received by Case-Managed Students

This section provides details about the types, frequencies, and amounts of services received by CIS case-managed students (see the "Activities" column in Figure 1.1, the CIS case management logic model). The research team learned these details from management information system data documented by CIS site coordinators.[4] Whenever a case-managed student receives

[4]The research team received management information system data for students in the case-managed group. The CIS national office provided information for two affiliates using the national database, and two affiliates provided data from their own or state systems. To compare service-provision information from these three different data systems, the research team collapsed the data into the eight service types described below. However, not all affiliates had information regarding all eight categories. These are the best estimates of service receipt that can be derived from these data, but due to the inconsistencies in the ways the three systems gather data, those estimates may over- or understate how much service students in the sample received.

## Table 3.2

## Selected Student Responses on the Baseline Survey

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| Household makeup[a] (%) | | | | |
| Lives with 2 or more parents/guardians | 58.8 | 56.6 | 2.3 | 0.398 |
| Lives with 1 parent/guardian | 34.3 | 36.5 | -2.2 | 0.391 |
| Lives with 1 or more grandparent(s) | 7.8 | 9.0 | -1.2 | 0.423 |
| Lives with his/her own child | 2.0 | 1.8 | 0.2 | 0.799 |
| Language predominantly spoken at home[b] (%) | | | | |
| English | 71.9 | 71.6 | 0.3 | 0.915 |
| Not English | 28.1 | 28.4 | -0.3 | 0.915 |
| Parent educational attainment (%) | | | | |
| Father | | | | 0.270 |
| Not a high school graduate | 16.1 | 19.6 | -3.6 | |
| High school graduate or equivalent | 22.4 | 21.6 | 0.7 | |
| College graduate or higher | 12.4 | 12.8 | -0.3 | |
| Don't know | 49.1 | 46.0 | 3.1 | |
| Mother | | | | 0.422 |
| Not a high school graduate | 17.5 | 21.1 | -3.6 | |
| High school graduate or equivalent | 25.4 | 25.3 | 0.1 | |
| College graduate or higher | 23.3 | 22.6 | 0.8 | |
| Don't know | 33.8 | 31.0 | 2.7 | |
| Did any siblings leave high school before graduation?[c] | | | | |
| None left high school | 66.2 | 69.8 | -3.6 | 0.259 |
| At least 1 left high school | 33.8 | 30.2 | 3.6 | 0.259 |
| Student engagement with school (1-4)[d] | 2.88 | 2.93 | -0.04 | 0.263 |
| How far would you like to go in school? (%) | | | | 0.737 |
| Some high school | 1.1 | 1.1 | 0.0 | |
| Finish high school | 11.5 | 8.2 | 3.3 | |
| Some college or trade/technical school | 4.6 | 5.2 | -0.6 | |
| Finish college or trade/technical school | 42.6 | 45.6 | -3.0 | |
| Graduate school after college | 32.2 | 31.9 | 0.2 | |
| Don't know | 8.0 | 7.9 | 0.1 | |

(continued)

## Table 3.2 (continued)

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| How far do you think you will actually go in school? (%) | | | | 0.838 |
| Some high school | 1.9 | 1.3 | 0.6 | |
| Finish high school | 13.3 | 13.6 | -0.3 | |
| Some college or trade/technical school | 10.5 | 11.9 | -1.4 | |
| Finish college or trade/technical school | 35.5 | 38.3 | -2.8 | |
| Graduate school after college | 26.4 | 25.1 | 1.3 | |
| Don't know | 12.5 | 9.8 | 2.7 | |
| Caring adult at home (1-4)[e] | 3.38 | 3.40 | -0.02 | 0.403 |
| Caring adult at school (1-4)[f] | 3.29 | 3.25 | 0.04 | 0.328 |
| Caring adult outside of home or school (1-4)[g] | 3.45 | 3.49 | -0.04 | 0.206 |
| Joint test of difference between groups[h] | ($\chi^2$ = 40.1) | | | 0.718 |
| Number of students (total = 1,416) | 701 | 715 | | |

SOURCE: MDRC calculations based on the fall 2012 baseline student survey.

NOTES: The analyses reported in this table are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys. Questions with the same wording as those in the baseline student survey appear in the follow-up student survey in Appendix D.

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school. The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Due to missing values, the number of students included varies by survey item. The sample size reported here is for the stable student survey sample. The percentage of missing data for any given survey item averages to 18 percent and ranges from 13 percent to 44 percent.

[a]These survey categories are not mutually exclusive.

[b]Of those who responded that English was not the predominant language at home, 92 percent reported speaking Spanish at home.

[c]Respondents without siblings old enough for high school are omitted.

[d]Scale based on responses to survey questions 9a-9e, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.83.

[e]Scale based on responses to survey questions 17a-17g, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.81.

[f]Scale based on responses to survey questions 8a-8f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.89.

[g]Scale based on responses to survey questions 15a-15f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.89.

[h]A chi-square test was used to determine whether there is a systematic difference between the case-managed group and the non-case-managed group when they joined the study, based on the characteristics included in this table as well as indicators of missing data for all relevant student characteristics.

any type of Level 2 service, that service should be documented in the system by a site coordinator. As described in Chapter 2, activities are recorded in the system as Level 2 services when those services are provided directly by CIS and when site coordinators connect case-managed students to services provided by someone else.

CIS affiliates' management information systems provide information about the services and other forms of support students received in up to eight categories: academics, behavior, attendance, social or life skills, resources to meet basic needs, college and career preparation, enrichment or motivation, and family (see Box 3.2 for examples of each). For every case-managed student, site coordinators track both "service contacts" — each time any service is received — and the length of time each service contact lasts. For example, if a student attended two tutoring sessions, those would be counted as two service "contacts" and the number of minutes each session lasted would also be recorded (rounded to the nearest 15-minute interval).

The students who could have received services in this second year of the study were those who were originally assigned to the case-managed group during the 2012-2013 school year and who remained in their schools or moved to other schools with CIS programs during the 2013-2014 school year. Among students in the stable student survey sample, 701 students were eligible to receive services in the second year of the study. Of these 701 students, 81 percent (566 students) had at least one service contact during the school year, as indicated in Table 3.3.[5] These students received an average of nearly 20 service contacts during the year and an average of 18.4 total service hours, which amounts to approximately an hour of service about every other week during the school year. In the second year of the study, case-managed students had slightly more service contacts and hours than did case-managed students in the first year of the study (16.5 and 16.9, respectively).[6] Tables for the first year of the study are included in Appendix C.

Overall, the type of service received by the greatest proportion of case-managed students was academic services: 73 percent of students received an average of 5.6 service contacts totaling 5.2 hours of service during the year. At least half of all students received services related to social and life skills, enrichment and motivation, and family, or received resources to help meet their basic needs. Just over 40 percent of students received college and career

[5]While reaching four out of five students is a notable accomplishment, the remaining 19 percent of the students assigned to the case-managed group did not have any direct services documented. They also had not dropped out of school, as they were present to take the student survey in the spring of the second study year.

[6]This increase may be related to the fact that, during the second year of the study, site coordinators could provide services from the start of the school year, rather than waiting until after random assignment was completed in the fall. It also may be related to the fact that they served a lower percentage of students assigned to the case-managed group in the second year (81 percent compared with 91 percent in the first year).

**Box 3.2**

## What Is Included in Each Service Type?

**Academic services:** Adult or peer tutoring, homework assistance, study-skills activities, student/teacher conferences

**Behavioral services:** Conflict-resolution groups, anger management or other behavioral counseling, violence-prevention activities, behavior monitoring and interventions

**Attendance services:** In-person attendance check-ins and planning

**Social services/life skills:** Goal-setting activities; self-esteem enhancement activities; girls/boys groups; social, relationship, and communication activities; team-building games and activities; crisis/grief counseling services

**Resources to meet basic needs:** School supplies assistance; assistance with utilities, rent, etc.; food and clothing assistance; health activities/check-ups

**College/career preparation:** College-admissions preparation and assistance, career counseling, college visits and career field trips, college awareness activities/programs

**Enrichment/motivation:** Community service, noncollege/career field trips, sports or exercise activities, scouting activities, arts and crafts activities, student recognition activities and incentives

**Family-related:** Parent education, home visits, parent conferences and contacts, parent/family events and activities, family counseling

preparation services, and 35 percent received behavioral services. Of the various service types students received, behavioral and social/life-skills services had the greatest number of service contacts — nearly 8 average contacts for each — and also had relatively high numbers of hours — 4.4 and 6.0 respectively. This information conforms with site coordinators' reports that students who participate in groups focused on behavior or social skills often do so on a regular basis for a portion of the school year (for example, one quarter or one semester).[7]

[7]While Table 3.3 indicates that the smallest proportion of students received attendance services (approximately 13 percent), data on this service type were only available for 62 percent of the students in the sample. The other service types had higher rates of data availability — all data sources provided information on academic, behavioral, and social/life-skills services. Data on resources to meet basic needs and on services related to college and career preparation, enrichment and motivation, and family were available for 84 percent of students in the sample.

## Table 3.3

## Services Received by Case-Managed Students According to CIS Databases

| Service Received | Percentage of Students Receiving Service | Average Number of Times Service Was Received | Average Total Hours of Service Received |
|---|---|---|---|
| **Overall** | | | |
| Any service type | 80.7 | NA | NA |
| Across all service types | NA | 19.9 | 18.4 |
| **By service type** | | | |
| Academic | 72.6 | 5.6 | 5.2 |
| Behavioral | 34.5 | 7.6 | 4.4 |
| Social/life skills | 55.9 | 7.7 | 6.0 |
| Resources to meet basic needs | 54.2 | 2.4 | 2.0 |
| College/career preparation | 41.5 | 2.0 | 3.5 |
| Enrichment/motivation | 50.5 | 2.7 | 4.0 |
| Family-related | 52.2 | 1.0 | 0.5 |
| Attendance | 12.8 | 2.6 | 0.6 |
| Number of students | | | 701 |

SOURCES: The Communities In Schools Data Management system (CISDM) and two local CIS service-provision databases (2013-2014).

NOTES: The analyses in this table are for case-managed students only, and are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys.

NA = not applicable.

The services offered are not mutually exclusive; a student could have received more than one type of service during his or her enrolled period.

Calculations for the percentage of students receiving a given service are based on a consistent denominator of 701 case-managed students. However, not all service types were available in each data source. All data sources provided information on academic, behavioral, and social/life-skills services. Information on resources to meet basic needs and college/career preparation, enrichment/motivation, and family-related services was available for 83.6 percent of student records. Information on attendance services was available for 62.2 percent of student records.

Rounding may cause slight discrepancies in averages and percentages.

Services described in this table were received over the entire time students were enrolled in CIS case management during the 2013-2014 school year. The averages presented for number of times and total hours of service include only those students who received the service in question.

Of all case-managed group students (701), 19.3 percent did not receive case management. In addition, of all non-case-managed group students (715), 7.7 percent received case management but are not included in this table.

## Services Reported by Case-Managed and Non-Case-Managed Students

To understand the difference that CIS case management makes for students, the research team also compared the types of services and activities reported by case-managed and non-case-managed students. The study students in the non-case-managed group experienced a "business-as-usual" condition — that is, they had access to the services that exist in their schools, including the Level 1 services provided or arranged by CIS. While schools did not consistently collect data on the services received by non-case-managed students, the research team did administer surveys asking case-managed and non-case-managed students about the activities they participated in and the services they received.

Table 3.4 shows case-managed and non-case-managed students' reports of service participation. For almost every service category shown in the table, higher percentages of case-managed students received services than non-case-managed students, whether the difference between them is statistically significant or not — as was also the case in the first year of the study. Significantly greater proportions of case-managed students reported receiving tutoring or homework help; meeting with mentors; and earning rewards for positive behavior, grades, or reaching goals. For example, 39 percent of the students in the case-managed group participated in mentoring, compared with 27 percent of students in the non-case-managed group. In addition, larger proportions of students in the case-managed group reported having in-school meetings with adults, including individual and group meetings focused on academics, individual meetings to receive support during life-changing events, and group meetings for social activities.

Students in the case-managed group were also more likely than non-case-managed students to report meeting with an adult at school to set specific goals for the year (68 percent compared with 50 percent) and to report that an adult in school connected them with support programs or help outside of school (51 percent compared with 40 percent). Much of this information comports with site coordinators' survey responses about the types of services available for case-managed students in their schools (described in Chapter 2).[8]

[8]Students were also asked about the frequency with which they participated in these activities during the school year. Their responses are shown in Appendix Table C.2. Case-managed students reported participating in many support activities a greater number of times per year than non-case-managed students, a pattern similar to the one shown in Table 3.4.

## Table 3.4

## Effects on Percentages of Students Who Received Services According to the Student Survey

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Effect |
|---|---|---|---|---|
| **In-school support activities (%)** | | | | |
| Tutoring or homework help | 73.7 | 67.9 | 5.8 ** | 0.018 |
| Mentoring | 38.6 | 27.2 | 11.4 *** | 0.000 |
| Community service/volunteering | 36.8 | 34.7 | 2.1 | 0.405 |
| Exercise class or club † | 12.8 | 18.2 | -5.3 *** | 0.006 |
| Positive behavior program such as drug-free/antibullying | 30.6 | 28.9 | 1.7 | 0.474 |
| College planning activity | 50.9 | 52.2 | -1.3 | 0.635 |
| Career planning activity | 39.9 | 38.5 | 1.4 | 0.583 |
| Job shadowing/internship | 21.1 | 18.6 | 2.5 | 0.232 |
| After-school program | 36.0 | 37.6 | -1.6 | 0.532 |
| Assistance such as school supplies, food, bus pass, clothing, or gifts | 31.8 | 28.2 | 3.5 | 0.146 |
| Health check-up | 52.0 | 52.3 | -0.3 | 0.910 |
| **In-school meetings with adults (%)** | | | | |
| Individual meeting about academics † | 74.5 | 64.2 | 10.3 *** | 0.000 |
| Individual meeting for support during a life-changing event | 34.5 | 30.2 | 4.3 * | 0.095 |
| Individual meeting about personal goals and behavior | 50.6 | 42.9 | 7.7 *** | 0.005 |
| Group meeting about academics | 54.1 | 42.9 | 11.2 *** | 0.000 |
| Group meeting for support during a life-changing event | 27.1 | 26.8 | 0.3 | 0.915 |
| Group meeting about personal goals and behavior | 38.9 | 34.5 | 4.4 * | 0.093 |
| Group meeting for social activities | 50.1 | 30.1 | 20.0 *** | 0.000 |

(continued)

**Table 3.4 (continued)**

| Survey Item | Case Managed Group | Non-Case Managed Group | Estimated Difference | P-Value for Estimated Effect |
|---|---|---|---|---|
| Met with an adult at school to set specific goals for the year (%) | 67.8 | 49.9 | 17.8 *** | 0.000 |
| Could earn rewards for improving grades, attendance, behavior, or for reaching or making progress toward goals (%) | 59.4 | 53.6 | 5.7 ** | 0.029 |
| An adult in school connected student to support programs or help outside of school (%) | 50.9 | 39.8 | 11.1 *** | 0.000 |
| Number of students (total = 1,416) | 701 | 715 | | |

SOURCE: MDRC calculations based on the spring 2014 follow-up student survey.

NOTES: The analyses reported in this table are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys.

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted, controlling for the blocking of random assignment by school, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, and special education status.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case managed group. The "Non-Case-Managed Group" values in the next column are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable student survey sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data for any given outcome does not exceed 4 percent.

A dagger (†) indicates that there is a statistically significant difference between the estimated effects in Year 1 and Year 2 at the 5 percent level.

Rounding may cause slight discrepancies in calculating sums and differences.

## Services Received by High- and Moderate-Risk Case-Managed Students

While the primary analyses for this study examine all study students, both CIS and school staff members noted that the students eligible for case management demonstrate varied levels of need. As noted in the interim report, CIS staff members explained that certain students have

more intensive needs — which are evidenced by failing grades, very poor attendance, behavioral infractions, and other social and personal challenges — and that these students should therefore receive more services than other case-managed students. To begin to understand how service provision and receipt may vary based on levels of student need, the research team conducted a set of analyses to examine variation in service receipt for students who could be considered at "high risk" of dropping out compared with more "moderate-risk" students.[9] Using school records data, the research team classified students as being at high risk if they were chronically absent (had less than 90 percent attendance), failed one or more core courses, or were suspended in the 2011-2012 school year — the year before the study.[10]

The first report from this study found that there was little difference in the services received by high-risk and moderate-risk students, though it did find that a significantly greater proportion of the high-risk students received any services (93 percent compared with 88 percent among moderate-risk students) and it found that more high-risk students received behavioral services, but fewer received college and career-preparation and enrichment services.[11] Table 3.5 details the CIS services received by case-managed students during the second year of the study and shows that there were many differences in the services received by high- and moderate-risk students — more than there had been in the first year of the study. In nearly all of these cases, more moderate-risk students than high-risk students received services in Year 2, and received them more often.

Overall, 74 percent of the high-risk case-managed students received services in the second year of the study, which means that one out of four case-managed students in the high-risk subgroup did not receive any. This number represents a substantial decrease from the first year of the study, when 93 percent of high-risk case-managed students received services. While the proportion of moderate-risk case-managed students receiving services remained steady, the proportion of high-risk students receiving services dropped *below* the proportion of moderate-risk students in Year 2.

The bottom panel of Table 3.5 shows the percentages of high- and moderate-risk students who received specific services. There were significant differences between the groups in the percentages of students receiving every type of service, with the differences in all but behavioral services favoring the moderate-risk students. Compared with the first year, there were decreases in the percentages of high-risk students receiving every service type, with

[9]The two groups are referred to as high and moderate risk rather than high and low risk because being eligible for case management itself implies some level of risk.

[10]The research team also separately examined service differentiation based on each of these risk factors, but the results were not substantially different from the results for the group as a whole.

[11]Corrin et al. (2015).

## Table 3.5

## Services Received by High- and Moderate-Risk Case-Managed Students According to CIS Databases

| Service Received | Percentage of Students Receiving Service: High-Risk Students | Percentage of Students Receiving Service: Moderate-Risk Students | Average Number of Times Service Was Received: High-Risk Students | Average Number of Times Service Was Received: Moderate-Risk Students | Average Total Hours of Service Received: High-Risk Students | Average Total Hours of Service Received: Moderate-Risk Students |
|---|---|---|---|---|---|---|
| **Overall** | | | | | | |
| Any service type | 74.4 | 84.9 *** | NA | NA | NA | NA |
| Across all service types | NA | NA | 19.8 | 20.0 | 19.1 | 18.1 |
| **By service type** | | | | | | |
| Academic | 68.2 | 75.5 ** | 6.3 | 5.1 ** | 6.2 | 4.6 ** |
| Behavioral | 39.0 | 31.6 ** | 7.0 | 8.1 | 4.1 | 4.5 |
| Social/life skills | 48.4 | 60.9 *** | 7.4 | 7.9 | 6.3 | 5.8 |
| Resources to meet basic needs | 44.4 | 60.6 *** | 2.3 | 2.5 | 2.0 | 2.0 |
| College/career preparation | 35.0 | 45.8 *** | 1.7 | 2.1 * | 3.5 | 3.5 |
| Enrichment/motivation | 40.1 | 57.3 *** | 2.4 | 2.8 | 3.6 | 4.2 |
| Family-related | 45.9 | 56.4 *** | 1.0 | 1.0 | 0.5 | 0.5 |
| Attendance | 10.1 | 14.6 * | 2.6 | 2.7 | 0.4 | 0.7 ** |
| Number of students | 277 | 424 | 277 | 424 | 277 | 424 |

(continued)

## Table 3.5 (continued)

SOURCES: The Communities In Schools Data Management system (CISDM) and two local CIS service-provision databases (2013-2014).

NOTES: The analyses in this table are for case-managed students only, and are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys.

The services offered are not mutually exclusive; a student could have received more than one type of service during his or her enrolled period.

Calculations for the percentage of students receiving a given service are based on a consistent denominator of 277 high-risk students and 424 moderate-risk students. However, not all service types were available in each data source. All data sources provided information on academic, behavioral, and social/life-skills services. Information on resources to meet basic needs and college/career preparation, enrichment/motivation, and family-related services was available for 83.6 percent of student records. Information on attendance services was available for 62.2 percent of student records.

Rounding may cause slight discrepancies in averages and percentages.

A two-tailed t-test was conducted to test for differences between findings for high- and moderate-risk students. Statistical significance levels are indicated as: *** = 1 percent, ** = 5 percent, * = 10 percent.

Services described in this table were received over the entire time students were enrolled in CIS case management during the 2013-2014 school year. The averages presented for number of times and total hours of service include only those students who received the service in question.

High-risk students are defined as those who were chronically absent, who failed a core course, or who were ever suspended in the 2011-2012 school year. Moderate-risk students include those who were never chronically absent, never failed a core course, and were never suspended in the 2011-2012 school year. Students who were missing data on chronic absenteeism, suspension, and course failure were classified as moderate-risk.

Of all high-risk case-managed group students (277), 25.6 percent did not receive case management. In addition, of all high-risk non-case-managed group students (259), 7.7 percent received case management but are not included in this table.

Of all moderate-risk case-managed group students (424), 15.1 percent did not receive case management. In addition, of all moderate-risk non-case-managed group students (456), 7.7 percent received case management but are not included in this table.

double-digits drops in services related to academics, behavior, and social and life skills, and in resources to meet basic needs.[12] While there were also decreases in the percentages of moderate-risk students receiving academic and behavioral services, the declines were not as steep, and there were small increases in the percentages of moderate-risk students receiving social/life-skills, college and career preparation, enrichment, and family-related services.

Among the high- and moderate-risk students who did receive a given type of service, however, there were fewer differences between the two subgroups in the amount of services they received, which more closely mirrors the findings from the first year. One notable excep-

[12]Corrin et al. (2015).

tion is that high-risk students who received academic services during the second year of the study received more service contacts and hours, on average, than moderate-risk students receiving this service. Specifically, high-risk students getting academic support received an average of 6.3 service contacts totaling 6.2 hours, compared with 5.1 contacts and 4.6 hours for moderate-risk students.[13]

While the services for high- and moderate-risk students were not as differentiated as one might expect, the research team explored the possibility that services might have been differentiated in other ways. Specifically, the team analyzed whether services varied based on whether students faced substantial struggles in their academic performance, behavior, or attendance. For example, the team examined whether students who struggled academically received substantially greater amounts of academic services. It turned out that services were largely not differentiated based on these indicators. It is possible that other factors played a role in creating differences in service receipt (for example, whether a student was experiencing emotional challenges or other personal difficulties), but the research team was not able to measure such factors in this study.

## Discussion

This chapter includes information about the students participating in this study and describes the services received by students assigned to both the case-managed and non-case-managed groups. Greater proportions of students in the case-managed group reported participating in support activities and services than those in the non-case-managed group. However, it is critical to determine whether case-managed students received *enough* additional services to lead to differences in their school outcomes. This question will be explored further in Chapter 4.

This chapter also explored whether high-risk and moderate-risk students received different amounts of services. It appears that CIS may be providing more services to those who are easier to serve — moderate-risk students — and who might fare relatively well even in the absence of those services. Site coordinators appeared to struggle to serve the students who were probably at the greatest risk of not succeeding in school. While site coordinators reached 91 percent of the high-risk case-managed students during the first year of the study, they were only able to reach 74 percent during the second year. These results suggest that CIS may benefit from developing strategies for serving or continuing to serve higher-risk students. These

[13]In addition to the analysis presented in this section, the research team also examined the survey responses of case-managed *and* non-case-managed students based on their status as being at either high or moderate risk. There is some variation in activities undertaken by high- and moderate-risk case-managed and non-case-managed students, but there is no consistent pattern of effects. High-risk students are not consistently doing more activities or receiving more services. See Appendix Table C.3.

students may be the most challenging to serve or to keep attached to support from year to year, but they are also the students who need support the most.

Finally, while the case management process includes an individual needs assessment, when the research team analyzed whether students who were struggling with academic performance, behavior, or attendance received different services in response to those needs, it largely found that they did not. CIS may therefore want to consider how to target services more specifically, to make sure that students receive services that match their needs.

## Chapter 4

# The Effect of Case Management

This chapter focuses on the effect of Communities In Schools (CIS) Level 2 case management on students' academic and behavioral outcomes after two years. As discussed in Chapter 1, this study uses a random assignment research design, estimating the effect of Level 2 case management by comparing the outcomes of students who were randomly assigned to be offered case management (the case-managed group) with the outcomes of students who were not, but who retained access to whatever other types of services were available in their schools (the non-case-managed group). Students in the case-managed group were offered Level 2 services for two school years, and this chapter describes the effect of these services on student outcomes in the second follow-up year. As discussed in the previous chapter, however, not all students in the case-managed group actually participated in Level 2 case management for a second year, so the findings in this chapter represent the effect of *offering* students two years of case management rather than the effect of *receiving* two years of case management.[1]

As detailed in Chapter 1, this study investigates the effect of CIS case management on two types of outcomes: nonacademic mediating outcomes and more traditional school outcomes. The nonacademic outcomes are behaviors and attitudes believed to be precursors to students' improved success in school: school engagement, students' relationships with adults and peers, students' self-perception, and students' educational aspirations and expectations (shown in Figure 1.1 as "Mediating Factors"). Examining effects in these areas can provide insight into how CIS may produce effects on traditional school outcomes (shown in Figure 1.1 as "Outcomes"). Among the school outcomes, this study designated chronic absenteeism and course failure as the main or central outcomes to track, because chronic absenteeism and course failure are among the factors that most strongly predict whether students stay in school until graduation (CIS's ultimate goal).[2] In addition, the study is tracking measures of school progress (core credit accumulation), student behavior (average attendance rate and number of suspensions), and academic achievement (average course grades).

The tables in this chapter show estimated effects on each of these outcomes in the second follow-up year. The tables also present these estimates as effect sizes, a metric that makes it

[1] In other words, the findings in this report are "intent-to-treat" estimates of the effect of offering students two years of services.

[2] Given the time frame of this evaluation, the study team cannot track the full sample of middle school and high school students through high school graduation.

possible to compare the size of effects in different areas. (See Box 3.1 for an explanation of how to interpret the findings in the report tables.)[3] Highlights from the chapter include:

- **Nonacademic mediating outcomes:** In the second follow-up year, CIS case management had positive and statistically significant effects on students' reports of having a caring adult at home, at school, and outside of home and school, as well as on the quality of their peer relationships. In addition, case management also had positive and statistically significant effects on students' engagement with school, their educational attitudes, and their belief that education has a positive value for their lives. There was no difference between case-managed and non-case-managed students for the remaining mediating outcomes — school- and non-school-sponsored extracurricular activities and educational goals and expectations.

- **Traditional school outcomes:** In the second follow-up year, CIS case management did not have statistically significant positive effects on the students' school outcomes. Students in the case-managed and non-case-managed groups had similar rates of chronic absenteeism and attendance, core course failure, credit accumulation, and course marks. However, case-managed students had more suspensions, on average, than non-case-managed students and this difference was statistically significant. Thus, it cannot be concluded that CIS case management improved students' attendance, course performance, or behavior.

## Effects on Nonacademic Mediating Outcomes

As shown in the case management logic model (Chapter 1), nonacademic mediating outcomes are considered predictors of future academic outcomes. It is expected that if students experience positive effects in some or all of these areas, they will be more likely to experience effects on subsequent school outcomes that are directly related to reducing student dropouts (CIS's main mission). As discussed in the previous chapter, case-managed students receive eight types of direct services, and the most frequently offered services are those in the areas of academics, social or life skills, resources to meet basic needs, and enrichment or motivation. According to the CIS model, being provided with these services should increase the level of attention a student receives from a CIS site coordinator, through connections with other adults within and outside the school, or both. These mechanisms of additional support should help students feel more engaged, motivated, and connected in school.

[3]Estimated effects after one year of case management can be found in Appendix C.

Table 4.1 presents the estimated effects of CIS Level 2 case management on nonacademic mediating outcomes in the second year of the study. The outcomes in this table are drawn from the survey administered to students in the spring of 2014. The first panel of the table relates to students' reports that they have relationships with caring adults in school, at home, or outside of school and home.[4] These three outcomes are based on scales rating whether students feel that the adults care, listen, believe in them, and encourage them. There are small, positive, statistically significant differences between the case-managed and non-case-managed groups for all three items related to reports of a caring adult relationship: caring adult at home (effect size = 0.15, p-value = 0.001), caring adult at school (effect size = 0.14, p-value = 0.004), and caring adult outside of home or school (effect size = 0.14, p-value = 0.004). These differences indicate that after two years of Level 2 case management services, students in the case-managed group had more caring relationships at home, in school, and outside of home and school than non-case-managed-students.[5] CIS's positive effect on relationships with caring adults outside of school or home is consistent with the finding that case-managed students reported more often that they have access to an adult in school who can connect them to support or help outside of school (Table 3.4).

It worth noting that CIS's effect on students' relationships with adults is a preventive one. Compared with their answers when they enrolled in the study (Table 3.2), in the second year non-case-managed students were less likely to report that they had caring adults at home or outside of home and school, while the case-managed students were about equally likely to do so. Both case-managed and non-case-managed students were less likely to report relationships with caring adults at school in the second follow-up year (3.26 and 3.16 respectively) than they were when they enrolled in the study (3.29 and 3.25 respectively); however, case-managed students' reports of having such relationships declined less than non-case-managed students', resulting in a positive effect on the case-managed students.

The next scale reported in Table 4.1 is based on student reports about their friends and peers. Items in this scale relate to having caring friends, friends who help out during hard times, friends who talk about problems, and friends who do what is right. The case-managed group reported a higher quality of friendships than the non-case-managed group, and the estimated effect is statistically significant (effect size = 0.15; p-value = 0.002). This result suggests that

[4]Examples of such adults outside of school and home could include a counselor at a family counseling center, a coach for a sports team not affiliated with the school, a staff member from a community organization such as a YMCA, or a youth minister at a local church's after-school program.

[5]After one year of services, there was a significant and positive effect on students' reports of having a caring adult outside of home or school and not on the other outcomes related to caring adults (see Appendix Table C.4)

## Table 4.1

## Effects on Students' Attitudes and Activities

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | | P-Value for Estimated Effect |
|---|---|---|---|---|---|---|
| Caring adult at home (1-4)[a] | 3.42 | 3.32 | 0.10 | 0.15 | *** | 0.001 |
| Caring adult at school (1-4)[b] | 3.26 | 3.16 | 0.10 | 0.14 | *** | 0.004 |
| Caring adult outside of home or school (1-4)[c] | 3.46 | 3.34 | 0.12 | 0.14 | *** | 0.004 |
| Friend quality (1-4)[d] | 2.99 | 2.90 | 0.09 | 0.15 | *** | 0.002 |
| School-sponsored extracurricular activities | | | | | | |
| Students selecting at least 1 activity (%) | 81.7 | 85.0 | -3.2 | -0.09 | | 0.107 |
| Mean number of activities done sometimes | 2.58 | 2.7 | -0.16 | -0.05 | | 0.379 |
| Mean number of activities done often | 2.74 | 2.7 | 0.06 | 0.02 | | 0.741 |
| Non-school-sponsored extracurricular activities | | | | | | |
| Students selecting at least 1 activity (%) † | 74.9 | 75.6 | -0.8 | -0.02 | | 0.742 |
| Mean number of activities done sometimes | 1.64 | 1.6 | 0.02 | 0.01 | | 0.836 |
| Mean number of activities done often | 1.55 | 1.6 | -0.09 | -0.04 | | 0.390 |
| Student engagement with school (1-4)[e] | 2.79 | 2.70 | 0.09 | 0.11 | ** | 0.020 |
| Educational attitudes (1-4)[f] | 3.02 | 2.97 | 0.05 | 0.09 | ** | 0.037 |
| Positive educational self-perception and effort[g] | 2.70 | 2.66 | 0.04 | 0.05 | | 0.263 |
| Negative educational self-perception and effort[h] | 2.11 | 2.07 | 0.03 | 0.05 | | 0.323 |
| Positive valuation of education[i] | 3.31 | 3.21 | 0.11 | 0.15 | *** | 0.001 |
| How far would you like to go in school? (%) † | | | | | | 0.412 |
| Some high school | 0.9 | 0.8 | 0.1 | 0.01 | | |
| Finish high school | 7.7 | 9.5 | -1.7 | -0.06 | | |
| Some college or trade/technical school | 3.7 | 5.7 | -2.0 | -0.09 | | |
| Finish college or trade/technical school | 33.8 | 33.3 | 0.4 | 0.01 | | |
| Graduate school after college | 42.9 | 41.4 | 1.5 | 0.03 | | |
| Don't know | 11.0 | 9.6 | 1.5 | 0.05 | | |
| How far do you think you will actually go in school? (%) | | | | | | 0.477 |
| Some high school | 1.0 | 2.1 | -1.1 | -0.08 | | |
| Finish high school | 13.2 | 13.4 | -0.3 | -0.01 | | |
| Some college or trade/technical school | 9.3 | 9.7 | -0.4 | -0.01 | | |
| Finish college or trade/technical school | 32.6 | 33.9 | -1.2 | -0.03 | | |
| Graduate school after college | 29.5 | 28.5 | 1.0 | 0.02 | | |
| Don't know | 14.4 | 12.8 | 1.6 | 0.05 | | |
| Number of students (total = 1,416) | 701 | 715 | | | | |

(continued)

## Table 4.1 (continued)

SOURCE: MDRC calculations based on the spring 2014 follow-up student survey.

NOTES: The analyses reported in this table are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys. See Appendix D for survey questions.

Estimated effects are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, special education status, and a baseline measure of the outcome variable.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the stable student survey sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable student survey sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data for any given outcome does not exceed 1 percent.

A dagger (†) indicates that there is a statistically significant difference between the estimated effects in Year 1 and Year 2 at the 5 percent level.

[a]Scale based on responses to survey questions 17a-17g, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.90.

[b]Scale based on responses to survey questions 8a-8f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.89.

[c]Scale based on responses to survey questions 15a-15f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.94.

[d]Subscale based on responses to survey questions 10a-10f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.72.

[e]Scale based on responses to survey questions 9a-9e, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.84.

[f]Scale based on responses to survey questions 11a-11n, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.83.

[g]Subscale based on responses to survey questions 11b, 11e, 11f, 11g, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.71.

[h]Subscale based on responses to survey questions 11a, 11c, 11d, 11h, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.75.

[i]Subscale based on responses to survey questions 11i-11n, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.79.

Level 2 case management may help the case-managed students form more trusting and supportive relationships with their peers and friends than do non-case-managed students. This effect is consistent with the finding presented in Chapter 3 that case-managed students reported being

more involved in peer-group meetings led by adults, a setting in which supportive peer relationships could have been cultivated.

Students also responded to survey questions about how often they participated in school-sponsored and non-school-sponsored extracurricular activities such as school sports teams, art or music groups, academic clubs, Junior ROTC, or cultural groups. The differences in the percentages of case-managed and non-case-managed students who participated in at least one school-sponsored activity or in at least one non-school-sponsored activity were less than 2 percentage points in each case and not statistically significant. In addition, case-managed and non-case-managed students who did participate in activities did so with similar frequency.

The items in the school-engagement scale shown in Table 4.1 ask whether students feel happy, feel safe, feel that they are treated fairly, and feel like a part of their school. The items in the educational-attitudes scale ask about students' own perceptions of whether they do well at school, plan their work, persist with homework and schoolwork, give up easily, or have trouble figuring out answers in school. There are statistically significant differences between case-managed students' and non-case-managed students' reports about their engagement with school (effect size = 0.11, p-value = 0.020) and overall educational attitudes (effect size = 0.09, p-value = 0.037), meaning that case-managed students reported greater engagement with school and more positive educational attitudes than did non-case-managed students.[6] It is interesting to note that both case-managed and non-case-managed students' ratings on the school engagement scale decreased from the baseline year (when it was approximately 2.90 for both groups), but decreased less for the case-managed group (from 2.88 to 2.79) than the non-case-managed group (from 2.93 to 2.70).

Table 4.1 shows three subscales related to students' educational attitudes. The first subscale focuses on students' positive educational self-perception and effort. The items in this scale ask students whether they believe they do well at school, feel that they are as smart as other students, and are persistent with homework and study plans. The second subscale relates to negative educational self-perceptions: for example, whether students think they are slow in finishing their homework, have trouble figuring out answers, or easily give up if a task is hard. There is no notable or statistically significant difference between case-managed and non-case-managed groups in their positive and negative educational self-perceptions. The third educational-attitude subscale is about students' view of education, including items about whether students believe that education will be valuable to get a job, whether it is important to get good grades, and whether school is useful in making good decisions in life. For this subscale there is a statistically significant difference between the case-managed and non-case-managed groups

[6]After one year of services, there was a positive effect on student engagement with school, but the result was not statistically significant (see Appendix Table C.4).

(effect size = 0.15; p-value = 0.001), which suggests that compared with non-case-managed students, the support that case-managed students receive through CIS may be helping them value education more and understand how it can influence their future.[7]

Finally, Table 4.1 shows the effect of CIS Level 2 case-managed services on students' academic goals and expectations. An omnibus test of statistical significance in this area shows that there is no difference overall between the case-managed and non-case-managed group with regard to their reported educational goals — how far they would like to go in their education — and educational expectations — how far they think they actually will go with their education. While case-managed students see greater value in their education than their non-case-managed peers, this perception has not improved their self-reported educational goals and expectations.

## Effects on Academic Outcomes

Table 4.2 presents the estimated effect of CIS Level 2 case management on traditional school outcomes after two years of offering services. As stated at the beginning of this chapter, the study's main outcomes are related to factors that impede students' progress toward graduation: chronic absenteeism and course failure. The study also tracked additional outcomes related to student behavior and other aspects of course performance and attendance, which also predict students' progress toward graduation. It is worth noting that in Table 4.2, the desired effect may be either positive or negative — that is, for chronic absenteeism, course failure, and average number of suspensions, a negative estimated effect would indicate fewer of these problems for case-managed students than for non-case-managed students, and therefore *better* outcomes for the case-managed group.

The results in Table 4.2 show that in the second follow-up year, there is no difference between case-managed and non-case-managed students in their rates of chronic absenteeism or in the percentages of them who failed at least one core course.[8] Compared with baseline levels (Table 3.1), the rate of chronic absenteeism increased among both case-managed and non-case-managed students (from around 9 percent to 21 percent). A similar pattern is seen for the percentage of students who failed at least one core course (an increase from around 22 percent to 32 percent among both groups of students).

Among the additional outcomes the study tracked, the one school-progress outcome — core credit accumulation toward graduation — reflects the percentage of core credits

[7]The result after one year of services was similar.

[8]This result is similar to the estimated effect after one year of services (see Appendix Table C.5).

## Table 4.2

## Effects on Students' Academic and Behavioral Outcomes

| Outcome | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | P-Value for Estimated Effect |
|---|---|---|---|---|---|
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) | 21.3 | 21.4 | -0.1 | 0.00 | 0.973 |
| Failed at least 1 core course (%) | 32.2 | 31.6 | 0.6 | 0.01 | 0.780 |
| School progress | | | | | |
| Core credit accumulation for graduation[b] (%) | 40.7 | 41.5 | -0.8 | -0.06 | 0.464 |
| Behavior | | | | | |
| Average attendance rate (%) | 92.6 | 92.3 | 0.3 | 0.04 | 0.422 |
| Number of suspensions | 1.55 | 1.22 | 0.33 | 0.11 * | 0.051 |
| Academic achievement | | | | | |
| Average core course marks (%) | 79.1 | 79.3 | -0.3 | -0.03 | 0.483 |
| Number of students (total = 1,501) | 751 | 750 | | | |

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample, which includes all students with course-failure data for the 2012-2013 school year.

Estimated effects are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, special education status, and a baseline measure of the outcome variable.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the school records analysis sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable school records sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data is 0.5 percent for attendance rates and absenteeism, 16 percent for credit accumulation, and 0 percent for other outcomes.

[a]A student is considered chronically absent if he or she has an attendance rate below 90 percent.

[b]This outcome is for high school students only, and in Year 2 is a cumulative measure for the 2012-2013 and 2013-2014 school years; the state-level graduation requirements for the four core subjects are used in this calculation. A student can be expected to accumulate about 25 percent of core credits in each year of high school.

accumulated to meet state graduation requirements. To graduate from high school in four years, a student would need to earn an average of 25 percent of required core credits annually. The results in Table 4.2 show that over two years the non-case managed group accumulated a marginally higher percentage of these credits (by around 1 percentage point), but this difference is not statistically significant.

The student-behavior domain includes effects on average attendance and number of suspensions. The estimated difference between the average attendance rates of the case-managed and non-case managed groups is small and not statistically significant. (At baseline the average attendance rate was around 3 percentage points higher for both case-managed and non-case-managed students.)[9] However, there is a statistically significant effect on the number of suspensions: Case-managed students were suspended 0.33 times more than non-case-managed students (effect size = 0.11, p-value = 0.051).[10] Finally, both groups of students had similar academic achievement as measured by average course marks: 79 out of 100 points, or about a B-/C+ average mark.[11]

Effects on academic outcomes were also examined for the high- and moderate-risk sub-groups of students (defined in Chapter 3). These results are shown in Table 4.3. The findings are similar to the overall findings. Among the moderate-risk students there are no statistically significant differences between the case-managed and the non-case-managed group. Among the high-risk students there is a significant difference between the case-managed and non-case-managed group only when it comes to numbers of suspensions: The case-managed high-risk students had more suspensions than the non-case-managed high-risk students (effect size = 0.25, p-value = 0.049).

Finally, effects were also examined separately for students who were assigned to begin receiving CIS case management in sixth or ninth grade (versus other grade levels), because these are important transition years into middle or high school and also the grade levels when students typically join CIS site coordinators' caseloads.[12] These analyses suggest that CIS case management may have greater potential to improve the outcomes of students who join it in

[9]Attendance rate is calculated as the number of days present divided by the total number of days in the school year. A student is chronically absent if his or her attendance rate is below 90 percent. While the attendance rate does include chronically absent students, it may mask the number of students who have attendance problems since they are a small proportion of the sample. The chronic absenteeism measure describes a subset of students who are not regularly attending school.

[10]After one year of services the effect on number of suspensions was small and not statistically significant (see Appendix Table C.5).

[11]The average course marks were almost 2 percentage points higher for both groups of students in the baseline year.

[12]See Appendix Tables C.6 and C.7 for the full results of these analyses.

## Table 4.3

## Effects on Academic and Behavioral Outcomes Among High- and Moderate-Risk Students

| Outcome | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | P-Value for Estimated Effect |
|---|---|---|---|---|---|
| **High-risk students** | | | | | |
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) | 35.3 | 33.4 | 1.9 | 0.05 | 0.610 |
| Failed at least one core course (%) | 48.7 | 46.6 | 2.1 | 0.05 | 0.597 |
| School progress | | | | | |
| Core credit accumulation for graduation (%) | 18.4 | 18.9 | -0.5 | -0.05 | 0.735 |
| Behavior | | | | | |
| Average attendance rate (%) | 89.4 | 89.2 | 0.1 | 0.01 | 0.870 |
| Number of suspensions | 2.98 | 2.23 | 0.75 ** | 0.25 | 0.049 |
| Academic achievement | | | | | |
| Average core course marks (%) | 75.5 | 75.8 | -0.3 | -0.04 | 0.668 |
| Number of students (total = 588) | 306 | 282 | | | |
| **Moderate-risk students** | | | | | |
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) | 11.4 | 13.3 | -1.9 | -0.05 | 0.376 |
| Failed at least one core course (%) | 20.8 | 21.6 | -0.8 | -0.02 | 0.760 |
| School progress | | | | | |
| Core credit accumulation for graduation (%) | 20.5 | 21.1 | -0.6 | -0.07 | 0.481 |
| Behavior | | | | | |
| Average attendance rate (%) | 94.9 | 94.4 | 0.5 | 0.05 | 0.223 |
| Number of suspensions | 0.56 | 0.59 | -0.03 | -0.01 | 0.815 |
| Academic achievement | | | | | |
| Average core course marks (%) | 81.6 | 81.7 | -0.1 | -0.01 | 0.838 |
| Number of students (total = 910) | 442 | 468 | | | |

(continued)

## Table 4.3 (continued)

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample, which includes all students with course-failure data for the 2012-2013 and 2013-2014 school years.

Estimated effects are regression-adjusted using ordinary least squares, controlling for the blocking of random assignment by school and grade level at random assignment, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, and special education status.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case managed group. The "Non-Case-Managed Group" values in the next column are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the stable school records sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

[a]A student is considered to be chronically absent if he or she has an attendance rate of less than 90 percent.

these transition grades than it does in other grades. After two years, effects on the study's two main outcomes — chronic absenteeism and course failure — are not statistically significant for students who were first offered case management in sixth and ninth grade compared with non-case-managed students in those grades. However, the effects are significantly different from the effects on students first assigned to these services in nontransition grades. For example, 4.0 percentage points *fewer* students who began case management in ninth grade were chronically absent in the second year compared with their non-case-managed peers. This -4.0 percentage point effect is not statistically significant. But among students who began case management in nontransition grades (that is, grades 10 and 11), 5.7 percent *more* of them were chronically absent in the second year compared with their non-case-managed peers. This 5.7 percentage point effect is also not statistically significant. However, the 9.7 percentage point difference between the -4.0 and 5.7 percentage point effects is statistically significant, suggesting that case management is making more of a desired difference for students who join caseloads in ninth grade than it is for students who join caseloads in later grades.

In high schools, estimated effects on core credit accumulation follow a similar, but more striking pattern. After two years, students assigned to receive case management in ninth grade had earned significantly more credits than non-case-managed students (estimated effect = 1.99 percentage points). Further, this effect is significantly larger than the effect on this outcome at the end of the first year, which suggests that the benefits of receiving case management accumulated over time. These results suggest that providing CIS case management to ninth-

grade students for multiple years may help them progress toward high school graduation. Conversely, for students who were assigned to receive case management beginning in tenth or eleventh grade, the estimated effect on core credit accumulation is statistically significant in the wrong direction (estimated effect = -3.40 percentage points), an effect which is significantly more negative than the effect at the end of the first year. Core credit accumulation is the only outcome for which there are statistically significant differences between the first- and second-year effects.[13]

## Discussion

The analyses conducted after the second follow-up year indicate that CIS case management had an effect on several nonacademic mediating outcomes, but that it did not have a statistically significant effect on the study's main school outcomes — chronic absenteeism or the percentage of students failing at least one core course.

Specifically, Level 2 case management had positive and statistically significant effects on students' reports that they had caring adults at home, school, and outside of home or school, as well as on their reports of friendship quality, which suggests that case management may be helping case-managed students have more trusting connections and networks of support with peers and adults compared with non-case-managed students. This finding comports with what many site coordinators describe as some of their primary responsibilities: setting up meetings with students and linking students to other resources and people inside and outside of school.

However, Level 2 case management did not have a positive effect on more traditional school outcomes. In fact, the levels of chronic absenteeism and course failure increased at similar rates among both case-managed and non-case-managed students from the time they enrolled in the study to the end of the second follow-up year. In addition, case management did

[13] Also, the estimated effect on core credit accumulation at the end of the second year is significantly different for students assigned to case management in ninth grade versus higher grades. See Appendix C for grade-level subgroup tables.

The study team also examined whether the estimated effect of CIS case management varies among the schools in the study. The team found that the estimated effects on one of the two main outcomes — chronic absenteeism — do vary by a statistically significant amount among schools, but there is very little consistency across study years in which schools have the largest or smallest effects: The correlation between school-level effects in Year 1 and Year 2 is only 0.04. Nonetheless, because there is variation in effects among schools, the study team investigated whether there is an association between school-level effects on chronic absenteeism and various school-level features of the program (for example, caseload size, site coordinator education and experience, average hours and frequency of case management services provided to students, etc.) and school characteristics (size, need, staffing, etc.). These analyses did not generate any fruitful hypotheses as to why case management has a greater effect in some schools than others. None of the examined program features or school characteristics were consistently and reliably associated with effects at the school level.

not lead to statistically significant differences in attendance rates, credit earning, or course performance between the case-managed and non-case-managed groups. Although CIS did have a statistically significant effect on the number of suspensions, this effect was in the wrong direction: Students in the case-managed group had more suspensions than students in the non-case-managed group. Overall, these results indicate that it cannot be concluded that CIS case management improved students' attendance, course performance, or behavior.

## Chapter 5

# Conclusion

This chapter briefly reviews findings from this experimental study of case management and discusses some implications for practice, notably for Communities In Schools (CIS) but also for other organizations that organize or coordinate integrated student support services. The chapter then discusses the findings from the quasi-experimental study of the CIS whole-school model and reflects on the findings across both halves of this evaluation: whole-school and case management.

## What Effect Has CIS Case Management Had on Students?

On average in the schools that participated in this evaluation, CIS case management succeeded in getting students to participate in more support activities and had an effect on students' nonacademic mediating outcomes related to being connected to adults, maintaining relationships with more positive or supportive peers, and being connected to some services intended to support their performance and progress in school. While these are encouraging findings that suggest case management is meaningfully affecting the experiences of students, within two years case management did not have positive effects on students' school progress, achievement, attendance, or behavior. On average, outcomes in these domains worsened for the case-managed and non-case-managed students in the study sample. The only statistically significant difference between case-managed and non-case-managed students was in the average number of suspensions, where case-managed students averaged more suspensions than non-case-managed students.

## What Are the Implications for Practice Based on This Evaluation of Case Management?

The evaluation findings suggest some areas where the CIS national office might consider providing more or different guidance and support to the affiliates and schools in its network. The random assignment study's implementation findings may be particularly useful for informing possible adjustments to CIS practice, and may reveal some areas other integrated student support organizations may also want to focus on. As discussed below, the CIS national office has already begun to implement changes based on the results of this evaluation.

- This study found that students potentially at higher risk of dropping out received similar levels of service as those who may have been less at risk. The first report from this evaluation contained similar findings, and in response

CIS has already begun moving beyond the two-level model implemented by schools in this study to a three-tiered model intended to provide more intensive support to the students with the most need. Further, CIS has begun classifying students based on their level of risk or need and is focusing on providing more differentiated support to students to meet their needs.[1] *CIS should continue to pay attention to this issue, and collect data to monitor whether the three-tiered model delivers more appropriate services to students with greater needs.*

- About 80 percent of the case-managed student sample received case management in the second study year. While keeping a large majority of students engaged for multiple years is a noteworthy accomplishment, it seems especially challenging to provide continuous services to high-risk students, as the percentage of those students who received case management declined substantially from the first to second year of the study. Other research has suggested that it may take at least two years for intensive case management to generate effects on student outcomes,[2] so *CIS site coordinators and other practitioners might benefit from additional guidance about how to keep students engaged, particularly higher-risk students.*

- The data gathered for this evaluation also underscore the importance of being able to monitor student progress continually and adjust services as needed. During both years of the random assignment study, there was variation in the extent to which site coordinators monitored the outcomes of case-managed students, compared their progress with case plans, and revised case plans and service provision to keep services aligned with students' needs. Other researchers studying case management programs have emphasized the importance of carefully assessing student needs and directing specific services to address individual students' needs.[3] One of the recent changes the CIS national office has made is to expect a minimum number of check-ins per student and to provide guidance to site coordinators about what should happen during the check-ins. *CIS site coordinators may also benefit from guidance and support regarding how to monitor and adjust services, including the de-*

[1]This adjustment to the model occurred after the years of this study, and thus this study's results do not capture the effect of this change.

[2]For example, Maynard, Kjellstrand, and Thompson (2014) reported that the Check & Connect dropout-prevention program had positive effects on attendance and behavior only when the program had been implemented for at least two years.

[3]Schirm, Stuart, and McKie (2006).

*velopment of or training in systems intended to help them stay current about students' needs.*

- It can be inherently challenging for integrated student support organizations like CIS to monitor the quality of services provided by outside organizations and individuals. Case-managed students in this study did receive more services than non-case-managed students, but they did not have different school outcomes. It may be that the services they received did not address their most critical needs, or it may be that not all of the extra services they received were of high quality, and site coordinators could benefit from assistance to ensure their quality. Site coordinators rely regularly on others to provide direct services to students, and given their range of responsibilities and the priority of their work with students, they may not be able to monitor the quality of those outside services. They may need additional support from their affiliates to do so. This support could consist of more targeted training for site coordinators, or it could consist of a designated person at the affiliate level who monitors the quality of schools' outside services. *CIS could help school-level and affiliate staff members make decisions about which partners and practices to bring into schools and about which in-school services to draw upon by giving them ways to assess the existing evidence about the effectiveness of these partners or practices*, *and by identifying evidence-based practices or organizations that might be a fit in their schools.* The CIS national office has already begun moving in this direction by developing tools for the network regarding partnership engagement, with the aim of selecting high-quality, evidence-based providers.

- Subgroup analyses for this study suggest that CIS case management may have the greatest potential to improve the outcomes of students who begin receiving it when they first enter middle or high school (that is, in sixth and ninth grades). *CIS secondary school site coordinators typically bring new students onto their caseloads when they are in those transition grades, and continuing to do so may help maximize the impact of case management.*

Furthermore, other research about case management offers some additional considerations for case management practices:

*Case management priorities and practices should be responsive to the changing needs and experiences of students at different levels of schooling*. One experimental evaluation of CASASTART, a program that targets 11- to 13-year-olds at risk for substance abuse, delinquent behavior, and negative school outcomes, found several statistically significant positive effects

based on two years of case management: reductions in drug use, drug sales, and violent crimes; improved peer support; and less association with delinquent peers.[4] An evaluation of the effect of the Quantum Opportunity Program (QOP) on students who were entering ninth grade when they joined found no effects on a variety of outcomes such as the delinquent behaviors studied in the CASASTART evaluations and no effects on earning a high school diploma or the equivalent, grades, test scores, course credits earned, or postsecondary education and employment. The QOP evaluators note that students entering high school were already involved in risky behaviors that may have required different forms of support than the program was prepared to provide.[5] Case management for middle school students may help to prevent behaviors that those students have not yet have begun, while case management for high school students may require different approaches to address students' existing behaviors.[6] Although this experimental evaluation of CIS case management did not find differences between the effects in middle schools and high schools, other research provides a reminder that case management should recognize and respond to differences in students' needs based on where they are in their developmental and educational trajectories.

*Identifying students in need is important, but difficult, and multiple sources of information should be used to identify at-risk students whenever possible*. Students in need (and at risk of dropping out) are often identified based on available data indicating prior struggles, such as attendance issues or suspensions from school. However, research on dropout prevention suggests that individual risk factors alone are inefficient predictors of whether students will drop out.[7] That is, while they may identify many potential dropouts, they also identify other students who will not drop out and still miss some students who eventually do drop out. Using multiple risk factors, rather than individual ones, identifies potential dropouts more efficiently, but it is still an imperfect method.[8]

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[4]This experimental evaluation by Harrell, Cavanaugh, and Sridharan (1999) randomized young people within specific neighborhoods to participate in the program or not. The researchers also conducted a quasi-experimental evaluation that compared outcomes in these neighborhoods with similar high-risk neighborhoods. It did not find impacts. CASASTART was formerly known as Children at Risk, and is referred to by that name in the evaluation report.

[5]Shirm, Stuart, and McKie (2006). The researchers also note that in practice the program did not meet its target of 750 service hours per year, and schools had difficulty implementing the education/tutoring component of the model.

[6]Furthermore, Dynarski et al. (1998) suggest that dropout-prevention interventions (including those that use case management) have a greater chance of benefiting middle school students than high school students. Balfanz, Herzog, and Mac Iver (2007) find that indicators of potential dropout are better predictors of later outcomes for students before or early in middle school than they are in high school, suggesting that the existing methods of identifying students in need of support may be more accurate if applied early.

[7]Tyler and Lofstrom (2009).

[8]Dynarski and Gleason (1998); Balfanz, Herzog, and Mac Iver (2007).

To improve these risk or needs assessments, researchers have suggested accounting for transitory events, psychological factors, and the persistence of risk characteristics over time, all of which can be difficult to assess.[9] If it were possible to identify or develop standardized assessments that measure social and emotional characteristics such as resiliency and conscientiousness, then those assessments could be used to more accurately identify students who need case management, and to decide which services might benefit them. CIS site coordinators often consider students for their caseloads based on referrals by other adults in the school. These referrals often take into account issues like transitory events in students' lives. This study also found that some site coordinators identify students who might be in need of case management using school data about attendance, course performance, or disciplinary problems. The research cited here suggests that site coordinators may have the most success at identifying students in need when they draw on multiple sources and types of information.

## Case Management Is One Component of the CIS Model. Does the Whole-School Model Make a Difference for Students?

Although this study focused on the implementation and effects of case management alone, the larger evaluation included a separate study, as indicated at the beginning of the report, intended to assess the effect of the complete CIS whole-school model. Findings in this arm of the evaluation — which used a quasi-experimental, comparative interrupted time series design and included elementary, middle, and high schools — were mixed, but more promising.[10] Results from this study include the following:

- After three years of CIS implementation, on-time graduation rates and dropout rates improved by statistically significant amounts in CIS high schools, relative to what would have been expected given their baseline trends. However, it is not clear whether these improvements were caused by the CIS model. On the one hand, graduation and dropout rates improved more in the CIS high schools than in comparison high schools, which suggests that the CIS model may have improved schools' graduation and dropout rates more than they would have improved otherwise. On the other hand, the comparison high schools and CIS high schools had different graduation and dropout rates before the CIS model was implemented, so the comparison schools may not provide a credible reference point. For this reason, it is not possible to determine whether the CIS model is more effective than the dropout-prevention strategies used by the comparison schools, though the study's findings do

[9]Dynarski and Gleason (1998).

[10]Somers and Haider (2017).

suggest that the CIS model may be at least as effective as those other approaches.

- State test scores did not improve in the CIS middle schools relative to what would have been expected given their baseline trends. During the same time period, state test scores did improve by a statistically significant amount in the comparison schools. CIS schools' test scores appear to be lower than they would have been otherwise. There were no effects on state test scores in high schools or elementary schools.

- Attendance rates improved in CIS elementary schools by a statistically significant amount relative to what would have been predicted given their baseline trend, and the improvement in attendance rates for these CIS schools was larger than the improvement in comparison schools by a statistically significant amount. The CIS model appears to have improved CIS elementary schools' attendance rates more than they would have improved otherwise, an increase equivalent to about an additional day of school on average. There were no effects on attendance in high schools or middle schools.

Because the findings from the whole-school study are based on a small number of purposefully selected schools that started implementing the model a decade ago, they may not represent the effect of the CIS model nationally as it exists today. Therefore, the results from this study should be considered alongside the results of other evaluations of the CIS model, two of which are worth noting. The first is a national quasi-experimental study of the CIS model conducted by ICF International.[11] The second is an (as yet) unpublished school-level random assignment evaluation of the CIS model in Chicago K-8 schools.[12]

A notable finding from this broader body of research is that in all three studies of the CIS model conducted thus far, there have been positive effects on the attendance rates of younger students. With respect to state test scores, the effect of the CIS model appears to depend on the local context: MDRC's quasi-experimental study finds negative effects at the middle school level, whereas the Chicago study finds positive effects. This difference suggests that in some settings, the CIS model *can* have positive effects on students' test scores and be more effective than the other strategies available.

The body of findings in high schools is more difficult to interpret. The ICF study finds an improvement of 1.7 percentage points in ninth-grade students' probability of graduating from

[11]ICF International (2008).

[12]Figlio (2015).

high school, but these effects are not statistically significant. In MDRC's quasi-experimental study, graduation rates improved for the CIS schools after they launched the model, but it is unclear to what extent graduation rates would have improved had these schools not implemented the CIS model.

## What Has Been Learned from the Two Studies in This Evaluation?

What sense can be made of the findings from the study of case management together with the findings from the study of the whole-school model? While the whole-school study showed that schools implementing the CIS model experienced improved graduation and dropout rates relative to what would have been predicted given their baseline trends, the study of case management found that after two years case management does not improve the student outcomes thought to predict graduation, though it does get students into more support activities and improves their nonacademic outcomes. It is important to note that the two studies included different schools and covered different time periods: The whole-school study spanned three years and the case management study covered only two. Nonetheless, given that all the study schools were implementing the full CIS model, do the two studies together provide insights into why the study of the full model finds increasing graduation rates in CIS high schools, while the case management study finds no effects on attendance, behavior, and course performance measures that often predict graduation?

There are several possible explanations for this combination of findings:

- It may be that having a CIS site coordinator who works closely with a group of case-managed students allows *other* support staff members, such as guidance counselors and social workers, to work more with the non-case-managed students than they would have otherwise. If that were true, the school as a whole might improve because of CIS's presence, even though the students receiving case management did not improve more than students randomly assigned to the non-case-managed group. The non-case-managed students would then have benefited indirectly from the presence of a CIS site coordinator practicing case management.

- A second possibility is that the Level 1 services CIS provides, which are accessible to the majority of students in a school, may change school-wide outcomes more than case management can, with its focus on a small minority of targeted students. This notion is supported by school leaders' reports that CIS is an important part of their schools and that CIS is an essential provider of support services.

- Finally, while previous research indicates that attendance, behavior, and course performance are correlated with graduation, it may be that this study was not able to track case-managed students for long enough to see effects on those outcomes, or that those outcomes might not be the only factors that predict graduation. This study was only able to follow students for two years. It is possible that over a longer time, the positive effects of case management on students' nonacademic outcomes would translate into positive effects on their more traditional school outcomes. Alternatively, it may be that those nonacademic improvements could end up making a difference in keeping students in school, even though they never affect the traditional school outcomes tracked by this study.

It remains uncertain, however, whether CIS's model makes a bigger difference than alternative approaches to school improvement. A random assignment study of the whole-school model may be the next step that would provide the most information about the model's effect relative to that of other programs and strategies. If an evaluation included a cost study on the implementation of the CIS model, along with cost data on the strategies and interventions used by the control schools, it could also determine the CIS model's relative cost-effectiveness, which would ultimately provide the most useful decision-making information for school districts.

As CIS and other integrated student support organizations continue to work toward addressing students' needs, they can learn from both completed and ongoing research to refine their models. While graduation rates have risen in the last decade, it remains the case that far too many students drop out of school — roughly a million every year.[13] Many communities have support services available to address these students' needs, but the services are often offered by many different organizations, which makes it difficult to coordinate them and difficult for students to make use of them. This evaluation suggests that whole-school models of integrated student support services do offer the promise of positive effects. However, in the actual implementation of tiered-support models, it appears to be important to pay close attention to how that tiered support might improve conditions for students above and beyond the kinds of support already available in a school. In addition to implementing the changes discussed above, CIS has been making efforts to strengthen its model by identifying affiliates who will focus on expanding their growth and on trying out innovative strategies to increase their effect on the students and schools they serve. As CIS and other similar organizations continue to refine their models, they should pay particular attention to reaching the students who are most in need of support and to connecting students with high-quality services. In addition, they may want to target schools for CIS implementation that do not already provide a broad range of services for

[13]National Center for Education Statistics (2015).

students, or where service provision is particularly fragmented, as these may be the schools where they would have the most to offer.

## Appendix A

# The Statistical Model and Statistical Power

This appendix discusses various technical issues related to the estimation of program effects. The first section provides the statistical model used to estimate the effect of Communities In Schools (CIS) case management on student outcomes. The second section discusses the minimum detectable effect size for the main effect findings in the study. The final section presents effect estimates that are not adjusted for students' baseline characteristics.

## Statistical Model for Estimating Effects

The impact of CIS case management on student outcomes is estimated by fitting the following regression model to the relevant student sample (the stable school records sample or the stable student survey sample):

$$Y_i = \beta T_i + \sum_K \lambda_k B_{ki} + \sum_S \delta_s X_{si} + \sum_S \omega_s M_{si} + \varepsilon_i, \quad (1)$$

where:

$Y_i$ = the outcome of interest for student *i*

$T_i$ = one if student *i* was assigned to the case-managed group and zero otherwise

$B_{ki}$ = a set of *K* random assignment block indicators, equal to one if student *i* is in random assignment block *k* and zero otherwise

$X_{si}$ = a set of *S* baseline characteristics for student *i*

$M_i$ = a set of *S* missing indicators for each of the student characteristics, coded one if missing and zero otherwise

$\varepsilon_i$ = an error term for student *i*.

Therefore:

$\beta$ = the estimated effect of case management on outcome *Y*.

The block indicators are included in the model to capture a central feature of the research design in which random assignment was conducted separately for each school.[1] Controlling for random assignment blocks in the model also accounts for the clustering of student

[1] In one school, random assignment was also conducted by grade level and gender because a specific number of boys and girls in each grade had to be served. In total, there are 30 random assignment blocks in the full study sample, the stable student survey sample, and the stable school records sample.

outcomes by school, because it explains all of the between-school variation in student outcomes.[2]

Controlling for students' baseline characteristics is not necessary for obtaining unbiased estimates of effects, because random assignment should ensure that the program and control group have similar observed and unobserved characteristics when they enrolled in the study.[3] However, controlling for student characteristics can increase the *precision* of the effect estimates, because these characteristics explain part of the within-block variation in the outcome measure. Controlling for student characteristics can also be used as a "safeguard" to ensure that the program and control group are comparable in all characteristics.[4] (As a point of reference, unadjusted effect estimates are presented later in this appendix.)

The statistical significance of effect estimates (and other estimates) in this report is assessed using a two-tailed t-test. In this report, statistical significance is based on a significance level of 10 percent.

Finally, it is important to note that the estimated effects presented in this report are "intent-to-treat" estimates of the effect of two years of CIS case management. Some students assigned to case management did not receive the intended two years of services (in the stable student survey sample, 10 percent of students in the case-managed group received one year of services, and 9 percent did not receive any services). Thus, the findings in this report represent the estimated effect of *offering* two years of case management to students rather than the effect of *receiving* two years of case management. Because students' participation in educational interventions is typically voluntary, intent-to-treat estimates of the effect of offering a program or service are relevant to policy.

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[2]The random assignment ratio differs across blocks (minimum = 0.27, maximum = 0.67, median = 0.51 in the full study sample). These differences in the random assignment ratio must be accounted for to obtain an unbiased estimate of effects. There are several ways to account for variation in the random assignment ratio. The two most common are to (1) "block-mean" center the covariates on the right-hand side of the model or (2) include block fixed effects in the model. Raudenbush (2009) shows that these two methods produce the same effect estimate. This model is based on the latter approach.

[3]The following covariates are included in the statistical model: whether the student has English as a second language, whether a student is qualified for a gifted program, a student's special education status, whether a student is eligible for free or reduced-price lunch, the student's race/ethnicity and gender, and a baseline measure of the outcome variable. These covariates were chosen because they are strong predictors of academic achievement; the decision about which covariates to include in the model was made before starting the impact analysis.

[4]In particular, when differences between the program and control group are between 0.05 and 0.25 standard deviations (as they are in this study; see Appendix B), the What Works Clearinghouse recommends that these characteristics be included as covariates in the impact model. See What Works Clearinghouse (2014).

## Minimum Detectable Effect Sizes

This section examines how large the effect of CIS case management would have to be for the evaluation to be able to detect it. A common way to convey a study's statistical power is through the minimum detectable effect (MDE) or the minimum detectable effect size (MDES). Formally, the MDE is the smallest true program effect that can be detected with a reasonable degree of power (in this case, 80 percent) for a given level of statistical significance (in this case, 10 percent for a two-tailed test). The MDES is the MDE scaled as an effect size — in other words, it is the MDE divided by the standard deviation of the outcome of interest. Effect sizes are used widely for measuring the effects of educational programs and are defined in terms of the underlying population's standard deviation of student achievement. For example, an MDES of 0.20 indicates that an effect estimator can reliably detect a program-induced increase in student achievement that is equal to or greater than 0.20 standard deviations of the existing student distribution.

The MDE and MDES for a study are a function of the standard error of the estimated program effect:[5]

$$MDE = M_{N-B-X} * s.e.(\hat{\beta}) \tag{2a}$$

$$MDES = M_{N-B-X} * \frac{s.e.(\hat{\beta})}{\sigma} \tag{2b}$$

where:

$s.e.(\hat{\beta})$ = the standard error of the effect estimate

$\sigma$ = the standard deviation that is used to calculate effect sizes (for example, in this study, it is the standard deviation of the non-case-managed group)

$N$ = the number of students in the sample

$B$ = the number of random assignment blocks in the impact analysis

$X$ = the number of student baseline characteristics and missing-data indicator variables included as covariates in the impact model (see previous section)

[5]They are so because the standard error of the effect estimate is what determines whether the effect estimate is statistically significant.

$M_{N-B-X}$ = the "degrees-of-freedom" multiplier, which is calculated to be 2.5 in this study, assuming a two-tailed test with a statistical power level of 0.80 and a statistical significance level of 0.10.

Appendix Table A.1 presents the MDES after two years of services for the outcomes in this report measured using school records, including the study's two main outcomes (chronic absenteeism and course failure). As shown in this table, in the second follow-up year, the study is able to detect an effect of 4.9 percentage points on chronic absenteeism (an effect size of 0.12) and an effect of 5.5 percentage points on the percentage of students who fail at least one course (an effect size of 0.12).

## Unadjusted Effect Estimates

As explained earlier, the statistical model used to estimate effects controls for several measures of students' baseline characteristics and prior achievement (see Equation 1). Although it is not strictly necessary to control for these baseline characteristics when using a random assignment design, the main impact analysis does so in order to improve the precision of the impact estimates. Controlling for students' baseline characteristics should not appreciably affect the estimated effect — but it should reduce its standard error.

To confirm that this expectation is true, Appendix Table A.2 compares estimated effects from Chapter 4 (which are adjusted for student baseline characteristics) with effect estimates that are adjusted for blocking only (not adjusted for student characteristics). The table also shows the standard error of these effect estimates. As expected, controlling for student characteristics does not affect the magnitude of the estimated effects, but it does decrease their standard error. The extent to which controlling for student characteristics reduces the standard error varies among outcomes — from a reduction of 0.1 percent in the standard error for the impact on chronic absenteeism to a reduction of 3.4 percent in the standard error for the effect on core credit accumulation.

## Appendix Table A.1

## Minimum Detectable Effects and Effect Sizes for Effects on Academic and Behavioral Outcomes

| Outcome | Number of Students | MDE | MDES |
|---|---|---|---|
| Main outcomes | | | |
| Chronic absenteeism[a] (%) | 1,493 | 4.91 | 0.12 |
| Failed at least 1 core course (%) | 1,501 | 5.54 | 0.12 |
| School progress[b] | | | |
| Core credit accumulation for graduation (%) | 413 | 2.87 | 0.19 |
| Behavior | | | |
| Average attendance rate (%) | 1,493 | 1.08 | 0.00 |
| Number of suspensions | 1,501 | 0.42 | 0.00 |
| Academic achievement | | | |
| Average core course marks (%) | 1,501 | 0.90 | 0.00 |

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample, which includes all students with course-failure data for the 2012-2013 and 2013-2014 school years.

The minimum detectable effect (MDE) and minimum detectable effect size (MDES) in this table are calculated based on the standard error of the impact estimate (adjusted for random assignment blocks and student baseline characteristics) and the number of students in the school records analysis sample. A statistical significance level of 10 percent is assumed. The MDES is calculated by dividing the MDE by the standard deviation of the outcome measure for students in the school records analysis sample who are in the non-case-managed group.

[a]A student is considered chronically absent if he or she has an attendance rate below 90 percent.

[b]This outcome is for high school students only; the state-level graduation requirements for the four core subjects are used in this calculation. A student can be expected to accumulate around 25 percent of core credits in each year of high school.

## Appendix Table A.2

### Estimated Effects on Students' Academic and Behavorial Outcomes, Adjusted and Unadjusted for Students' Baseline Characteristics

| | Adjusted for Blocking and Full Set of Student Characteristics[a] | | | Adjusted for Blocking Only | | |
|---|---|---|---|---|---|---|
| Outcome | Estimated Effect (S.E.) | Effect Size | P-Value for Estimated Effect | Estimated Effect (S.E.) | Effect Size | P-Value for Estimated Effect |
| Main outcomes | | | | | | |
| Chronic absenteeism[b] (%) | -0.07 | 0.00 | 0.973 | -0.25 | -0.01 | 0.897 |
| | (1.974) | | | (1.975) | | |
| Failed at least 1 core course (%) | 0.62 | 0.01 | 0.780 | 0.75 | 0.02 | 0.740 |
| | (2.227) | | | (2.244) | | |
| School progress[c] | | | | | | |
| Core credit accumulation for graduation (%) | -0.84 | -0.06 | 0.464 | -0.88 | -0.06 | 0.459 |
| | (1.150) | | | (1.191) | | |
| Behavior | | | | | | |
| Average attendance rate (%) | 0.35 | 0.04 | 0.422 | 0.29 | 0.03 | 0.510 |
| | (0.432) | | | (0.445) | | |
| Number of suspensions | 0.33 * | 0.11 | 0.051 | 0.33 ** | 0.11 | 0.049 |
| | (0.167) | | | (0.167) | | |
| Academic achievement | | | | | | |
| Average core course marks (%) | -0.25 | -0.03 | 0.483 | -0.37 | -0.05 | 0.310 |
| | (0.360) | | | (0.365) | | |
| Number of students | 1,501 | | | 1,501 | | |

(continued)

## Appendix Table A.2 (continued)

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample, which includes all students with course-failure data for the 2012-2013 and 2013-2014 school years.

All estimated effects are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school and grade level.

"S.E." indicates standard error, given in parentheses.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the school records analysis sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable school records sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data is 0.5 percent for attendance rates and absenteeism, 11 percent for credit accumulation, and 0 percent for other outcomes.

[a]Estimated effects are adjusted for blocking and the following variables: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, special education status, and a baseline measure of the outcome variable.

[b]A student is considered to be chronically absent if he or she has an attendance rate below 90 percent.

[c]This outcome is for high school students only; the state-level graduation requirements for the four core subjects are used in this calculation. A student can be expected to accumulate around 25 percent of core credits in each year of high school.

## Appendix B

# Samples and Response Rates

This appendix provides additional information about the samples of students in the study and response rates. The three exhibits for this appendix show how the different student samples were formed, provide baseline characteristics for the full study sample, and give the survey response and school record response rates for case-managed and non-case-managed students.

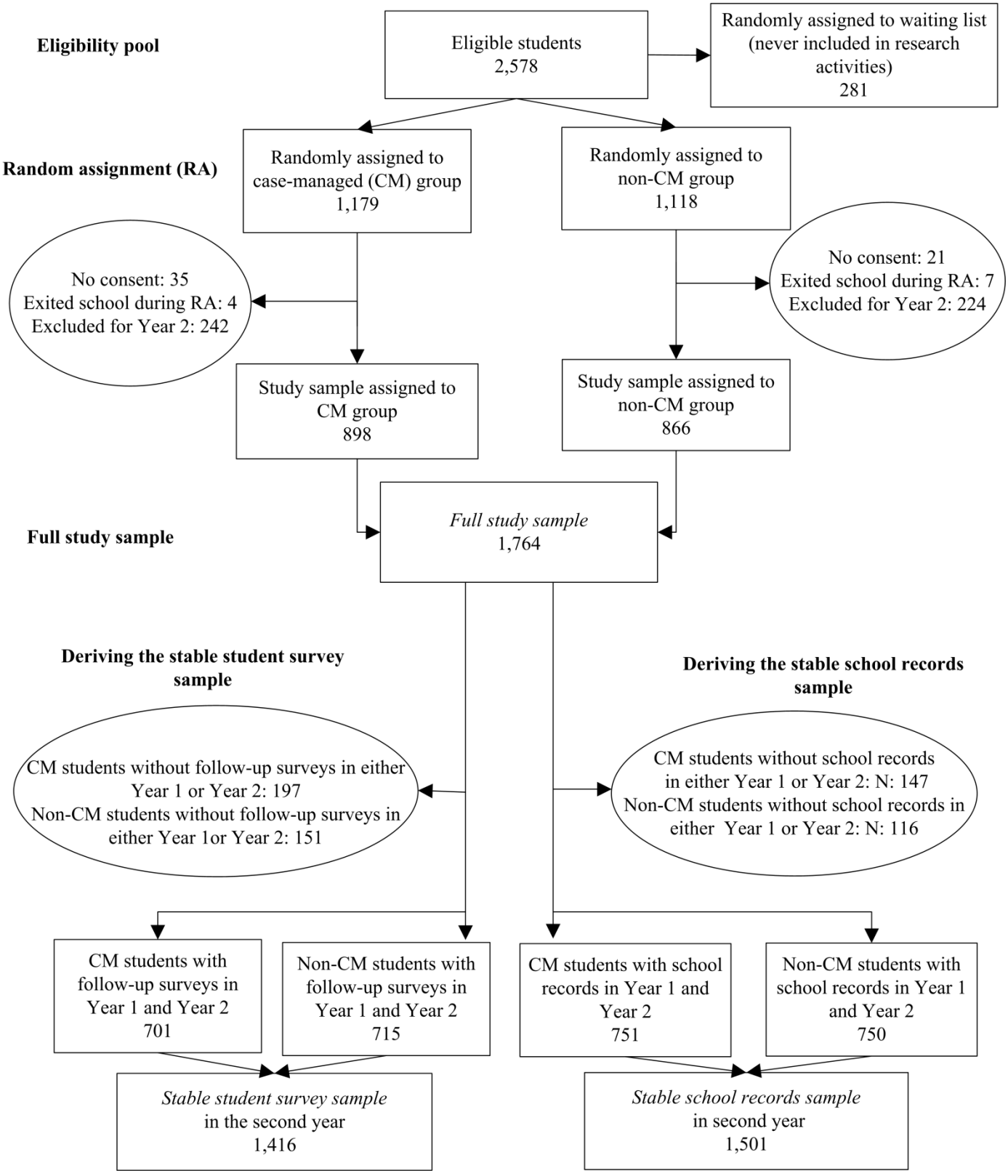
Appendix Figure B.1 shows how the original pool of students recruited for participation in the evaluation was reduced to the samples of students whose data were analyzed in this report. The eligibility pool of 2,578 represents all recruited students whose parents consented to their participation in Communities In Schools (CIS) case management.[1] To provide all students with the same opportunity to receive CIS case management, MDRC implemented a random assignment process that assigned students to one of three groups: a case-managed group to fill open caseload slots in participating schools (1,179 students), a non-case-managed control group (1,118 students), and a "wait-list" group (281 students who could fill caseload slots that might open during the course of the school year but who would not participate in the research activities and would not be included in any analyses). In the second year of the study, 533 of the students assigned to the first two groups were removed from the study sample for one of the following reasons: (1) because they consented to participate only in CIS case management and not the evaluation, (2) because they left their participating schools after submitting consent forms but before random assignment had been conducted, or (3) because they graduated or their districts chose not to participate in the second year of the study.[2] This left a *full study sample* of 898 case-managed students and 866 non-case-managed students, or a total of 1,764 students.

However, follow-up data on student outcomes were not available for all students in the full study sample. Of the 1,764 students in the full study sample, 348 did not respond to the surveys administered at the end of the first year (2012-2013) or the second year (2013-2014) of the study, or both. Similarly, the study team was unable to obtain records data for 263 of the study students. In this report, therefore, effects on outcomes that are measured using survey responses are based on the *stable student survey sample*, which is defined as students who responded to both follow-up surveys (1,416 students). Effects on outcomes measured using student records are based on the *stable school records sample*, which is defined as students for whom school records are available in both follow-up years (1,501 students). As mentioned in Chapter 3, these two samples overlap a great deal: 89 percent of students in the stable school records sample are in the stable student survey sample, and 95 percent of students in the stable student survey sample are in the stable school records sample. There is also overlap between the

[1]Students who were 18 years of age or older — adults — were able to sign consent forms for themselves and did not need parental consent to participate.

[2]Although these students who left their schools did so before random assignment, the research team was not informed about their exits until after random assignment occurred.

**Appendix Figure B.1**
**Creation of the Student Samples in the Second Year**



full study sample and both stable samples (the stable school records sample and the stable student survey sample): 80 percent of the full study sample is represented in the stable student survey sample and 85 percent of the full study sample is represented in the stable school records sample.

Appendix Table B.1 presents the baseline characteristics of the 1,764 students in the full study sample. As Chapter 3 shows for the stable student survey sample and the stable school records sample, the case-managed and non-case-managed students in the full study sample are highly similar, as indicated by the p-value of 0.979 for the overall test of difference that includes all measured characteristics. Also, the case-managed and non-case-managed groups' values on these baseline measures are very similar to the values presented separately for the stable student survey sample and the stable school records sample in Tables 3.1 and 3.2.

Appendix Table B.2 compares the survey response rates of the case-managed and non-case-managed students and gives the percentage of students in each of those two groups for whom school records data were obtained, in the first and second year of the study. The table also shows the percentages of students with data in both years (that is, the percentage of students who are included in the stable student survey and stable school records samples). Overall, the response rates for the two data sources (school records and survey) were high in the first year — over 90 percent. In the second year of the study, the response rates for the survey and school records were lower, between 80 and 87 percent. The differences in response rates between the case-managed and non-case-managed students are small in both years, ranging from 1.1 to 3.6 percentage points depending on the data source and study year. These differences qualify as "low differential attrition" based on the current standards of the What Works Clearinghouse. Those standards indicate that for overall attrition of 20 percent, a difference between experimental groups of less than 5.4 percentage points is considered to be "low differential attrition."[3]

[3]What Works Clearinghouse (2014).

## Appendix Table B.1

## Baseline Characteristics of Students in the Full Study Sample

| Characteristic | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | Effect Size | P-Value for Estimated Difference |
|---|---|---|---|---|---|
| Race/ethnicity (%) | | | | | 0.175 |
| Hispanic | 60.7 | 61.1 | -0.4 | 0.0 | |
| Black, non-Hispanic | 33.8 | 30.5 | 3.3 | 0.1 | |
| White, non-Hispanic | 3.0 | 4.7 | -1.7 | -0.1 | |
| Asian | 1.5 | 2.2 | -0.8 | -0.1 | |
| Other | 0.8 | 1.5 | -0.7 | -0.1 | |
| Male (%) | 44.2 | 43.1 | 1.1 | 0.0 | 0.642 |
| Eligible for free or reduced-price lunch (%) | 46.7 | 44.7 | 2.0 | 0.0 | 0.177 |
| English as a second language (%) | 13.5 | 12.8 | 0.7 | 0.0 | 0.670 |
| Qualified for a gifted program (%) | 2.4 | 2.7 | -0.3 | 0.0 | 0.725 |
| Chronically absent (%) | 9.7 | 10.3 | -0.6 | 0.0 | 0.715 |
| Average attendance rate (%) | 95.5 | 95.5 | 0.1 | 0.0 | 0.765 |
| Failed at least 1 core course (%) | 24.0 | 23.5 | 0.5 | 0.0 | 0.794 |
| Average core course marks (%) | 80.4 | 80.5 | -0.1 | 0.0 | 0.694 |
| Household makeup[a] (%) | | | | | |
| Lives with 2 or more parents/guardians | 54.5 | 53.5 | 1.0 | 0.0 | 0.680 |
| Lives with 1 parent/guardian | 38.7 | 39.1 | -0.3 | 0.0 | 0.888 |
| Lives with 1 or more grandparent(s) | 7.9 | 9.1 | -1.2 | 0.0 | 0.389 |
| Lives with his/her own child | 2.0 | 1.9 | 0.1 | 0.0 | 0.867 |
| Language predominantly spoken at home[b] (%) | | | | | |
| English | 75.0 | 74.1 | 1.0 | 0.0 | 0.650 |
| Not English | 25.0 | 25.9 | -1.0 | 0.0 | 0.650 |
| Parent educational attainment (%) | | | | | |
| Father | | | | | 0.643 |
| Not a high school graduate | 15.4 | 19.2 | -3.8 | -0.1 | |
| High school graduate or equivalent | 24.2 | 20.9 | 3.3 | 0.1 | |
| College graduate or higher | 12.6 | 13.5 | -1.0 | 0.0 | |
| Don't know | 47.9 | 46.4 | 1.5 | 0.0 | |
| Mother | | | | | 0.709 |
| Not a high school graduate | 16.9 | 20.6 | -3.8 | -0.1 | |
| High school graduate or equivalent | 26.5 | 26.2 | 0.3 | 0.0 | |
| College graduate or higher | 23.5 | 22.8 | 0.7 | 0.0 | |
| Don't know | 33.1 | 30.3 | 2.7 | 0.1 | |

(continued)

## Appendix Table B.1 (continued)

| Characteristic | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | Effect Size | P-Value for Estimated Difference |
|---|---|---|---|---|---|
| Did any siblings leave high school before graduation?[c] (%) | | | | | |
| None left high school | 64.7 | 68.6 | -3.9 | -0.1 | 0.171 |
| At least 1 left high school | 35.3 | 31.4 | 3.9 | 0.1 | 0.171 |
| Student engagement with school (1-4)[d] | 2.85 | 2.90 | -0.06 | -0.1 | 0.119 |
| How far would you like to go in school? (%) | | | | | 0.989 |
| Some high school | 0.8 | 1.1 | -0.3 | 0.0 | |
| Finish high school | 12.4 | 9.6 | 2.8 | 0.1 | |
| Some college or trade/technical school | 5.4 | 5.2 | 0.2 | 0.0 | |
| Finish college or trade/technical school | 42.2 | 43.7 | -1.5 | 0.0 | |
| Graduate school after college | 31.6 | 31.9 | -0.4 | 0.0 | |
| Don't know | 7.7 | 8.5 | -0.8 | 0.0 | |
| How far do you think you will actually go in school? (%) | | | | | 0.984 |
| Some high school | 1.9 | 1.1 | 0.8 | 0.1 | |
| Finish high school | 14.1 | 14.3 | -0.2 | 0.0 | |
| Some college or trade/technical school | 11.1 | 11.1 | 0.0 | 0.0 | |
| Finish college or trade/technical school | 35.4 | 38.1 | -2.7 | -0.1 | |
| Graduate school after college | 25.9 | 25.1 | 0.8 | 0.0 | |
| Don't know | 11.6 | 10.3 | 1.3 | 0.0 | |
| Caring adult at home (1-4)[e] | 3.38 | 3.40 | -0.02 | 0.0 | 0.446 |
| Caring adult at school (1-4)[f] | 3.30 | 3.27 | 0.03 | 0.0 | 0.338 |
| Caring adult outside of home or school (1-4)[g] | 3.44 | 3.48 | -0.04 | -0.1 | 0.180 |
| Joint test of difference between groups[h] | ($\chi^2$ = 61.4) | | | | 0.979 |
| Number of students (total = 1,764) | 898 | 866 | | | |

(continued)

## Appendix Table B.1 (continued)

SOURCES: MDRC calculations based on school records and the fall 2012 baseline student survey.

NOTES: The analyses reported in this table are based on the full study sample, which includes all students the study team expected to receive in the second year of the study (that is, those who did not graduate and who were not part of the affiliate that dropped out of the study). Due to small numbers, percentages for the Native American demographic group are not included in the table.

Questions with the same wording as those in the baseline student survey appear in the follow-up student survey in Appendix D.

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school. The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Effect sizes are calculated by dividing the estimated difference by the standard deviation of the characteristic for students in the full study sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Due to missing values, the number of students included varies by characteristic. The sample size reported here is for the full study sample. The average percentage of missing data for any given characteristic is 11 percent and ranges from 0 percent to 38 percent.

[a]These survey categories are not mutually exclusive.

[b]Of those students who responded that English was not the predominant language at home, 92 percent reported speaking Spanish at home.

[c]Respondents without siblings old enough for high school are omitted.

[d]Scale based on responses to survey questions 9a-9e, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.83.

[e]Scale based on responses to survey questions 17a-17g, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.81.

[f]Scale based on responses to survey questions 8a-8f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.89.

[g]Scale based on responses to survey questions 15a-15f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.89.

[h]A chi-square test was used to determine whether there is a systematic difference between the case-managed group and the non-case-managed group when they joined the study, based on the characteristics included in this table as well as indicators of missing data for all relevant student characteristics.

## Appendix Table B.2

## Percentages of Full Study Sample Students Included in the Analysis

| Data Source for Outcomes (%) | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| School records | | | | |
| Year 1 | 95.8 | 96.9 | -1.1 | 0.215 |
| Year 2 | 84.2 | 87.1 | -2.9 * | 0.082 |
| Stable school records sample[a] | 83.6 | 86.4 | -2.8 | 0.102 |
| Survey | | | | |
| Year 1 | 92.4 | 95.3 | -2.9 ** | 0.011 |
| Year 2 | 79.5 | 82.8 | -3.3 * | 0.080 |
| Stable student survey sample[b] | 78.1 | 81.6 | -3.6 * | 0.061 |
| Number of students (total = 1,764) | 898 | 866 | | |

SOURCES: MDRC calculations based on the spring 2013 and 2014 follow-up student surveys and student records obtained from school districts for the 2012-2013 and 2013-2014 school years.

NOTES: The analyses reported in this table are based on the full study sample, The analyses reported in this table are based on the full study sample, which includes all students the study team expected to receive in the second year of the study (that is, those who did not graduate and who were not part of the affiliate that dropped out of the study).

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school. The values in the column labeled "Case-Managed Group" are the observed response rate for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted response rates for students randomly assigned to the non-case-managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

[a]The stable school records sample includes students who had data on course failure in both Year 1 and Year 2 of the study.

[b]The stable student survey sample includes students who responded to both the first (spring 2013) and second (spring 2014) student surveys.

## Appendix C

# Additional Results

This appendix provides information about additional analyses conducted by the research team. The various exhibits in this appendix show the estimated effects of Communities In Schools (CIS) case management on different subgroups of students, as well as estimated effects in the first year of the study (after one year of case management).

Appendix Table C.1 shows the services received by case-managed students in the first year of the study (2012-2013). Around 91 percent of case-managed students received a service at least once during the school year. These students received services an average of nearly 17 times during the year for an average of 16.9 total service hours. In other words, students receiving case management in the first year of the study received services at slightly lower rates and for slightly fewer hours than students in the second year of the study (19.9 service contacts and 18.4 service hours, as shown in Table 3.3).

Appendix Table C.2 presents a supplementary analysis of the services received by students in the case-managed and the non-case-managed groups. It shows the number of times per year that students in each group participated in in-school support activities and in-school meetings with adults. (This table is the counterpart of Table 3.4 in Chapter 3, which shows the *proportion* of students in each group who received these services.) For all of the activities listed in Appendix Table C.2, case-managed students participated more frequently than non-case-managed students (whether the difference is statistically significant or not). For example, case-managed students met with mentors around four times per year, whereas students in the non-case-managed group met with mentors around twice per year (p-value for the difference = 0.000).

Appendix Table C.3 shows the services received by high- and moderate-risk students. For a number of the services, there are statistically significant differences in service receipt between case-managed and non-case-managed students in one or both of the two subgroups. However, in general the contrast in service receipt was not consistently or significantly greater for high-risk students than it was for moderate-risk students (or vice versa).[1] The table also shows that two subgroups received similar *levels* of services: High-risk students in the case-managed group did not necessarily receive more services than their moderate-risk peers.

Appendix Tables C.4 and C.5 show the first-year results for the study's nonacademic mediating outcomes and traditional school outcomes. The pattern of results is similar to that shown in Chapter 4. After one year of implementation, case-managed students reported more

[1]The one exception is with respect to the number of meetings with a mentor. Among high-risk students, students in the case-managed group met with mentors 3.1 times more often than students in the non-case-managed group. Among moderate-risk students, the difference between the case-managed and non-case managed group is 1.3 times. The service contrast for the high-risk group (3.1 times) is greater than the service contrast for the moderate-risk subgroup (1.3 times) by a statistically significant amount.

caring relationships with adults at home, at school, and outside of home and school than did non-case-managed students. Similarly, case-managed students had more positive views of education than non-case-managed students after one year. These results are statistically significant. For the main outcomes (as shown in Appendix Table C.5), there are no statistically significant differences between case-managed and non-case-managed students in chronic absenteeism or in the percentage of students who failed at least one core class. Finally, there are also no statistically significant differences between the two groups in any of the other outcomes of school progress, student behavior, or academic achievement.

Appendix Tables C.6 and C.7 examine whether the grade level at which students are assigned to case management has an effect on this study's main outcomes — chronic absenteeism and core course failure — or on school progress, behavior, attitudes, or academic achievement. Table C.6 presents the two-year effects of CIS case management on students who were in ninth grade at the time of random assignment, as well as on their tenth- and eleventh-grade counterparts. While case-managed students who entered ninth grade at the beginning of the study outperformed their peers in the non-case-managed group in chronic absenteeism, core credit accumulation (p-value for the estimated difference = 0.066), attendance, and course marks, they were also slightly more likely to be suspended (p-value for the estimated difference = 0.053) and fail a core course. In contrast, students who began receiving case management later in their high school careers were considerably more likely to fail at least one core course, accumulate fewer credits toward graduation, and achieve lower course marks after two years than students in the non-case-managed group (all significant at $p = 0.05$ or lower). Although not all effects were statistically significant, the ninth- and non-ninth-grade subgroups trend in the opposite directions for almost every outcome measure, suggesting that ninth-graders may benefit from CIS case management more than tenth- and eleventh-graders.

Appendix Table C.7 shows the results of a parallel analysis for middle school students, examining the two-year effects of case management on students who began receiving services in sixth grade, another transition year, compared with those who began in seventh or eighth grade. While the results are not statistically significant for any outcome, the outcome levels for middle school students further support the notion that CIS has a greater effect when implemented at important junctures where students are most likely to fall off track. Students in sixth grade who received case management performed better than their peers in the non-case-managed group on all outcome measures, with the exception of number of suspensions. Conversely, seventh- and eighth-grade case-managed students were outperformed by their counterparts in the non-case-managed group on all applicable measures.

Taken together, the results presented in Appendix Tables C.6 and C.7, while largely not statistically significant, suggest that CIS may be better able to influence students' trajectories if it intervenes in a transition year — sixth or ninth grade.

## Appendix Table C.1

## Services Received by Case-Managed Students in Year 1

| Service Received | Percentage of Students Receiving Service | Average Number of Times Service Was Received | Average Total Hours of Service Received |
|---|---|---|---|
| **Overall** | | | |
| Any service type | 91.3 | NA | NA |
| Across all service types | NA | 16.5 | 16.9 |
| **By service type** | | | |
| Academic | 83.6 | 4.1 | 4.9 |
| Behavioral | 53.5 | 2.9 | 3.8 |
| Social/life skills | 60.2 | 5.0 | 6.0 |
| Resources to meet basic needs | 61.8 | 1.6 | 2.5 |
| College/career preparation | 40.7 | 0.9 | 4.7 |
| Enrichment/motivation | 49.8 | 1.0 | 4.1 |
| Family-related | 51.4 | 1.2 | 0.4 |
| Attendance | 16.8 | 0.7 | 0.3 |
| Number of students | | | 701 |

SOURCES: The Communities In Schools Data Management system (CISDM) and two local CIS service-provision databases (2013-2014).

NOTES: The analyses above are for case-managed students only, and are based on the stable student survey sample, which includes all students who responded to the spring 2013 and 2014 follow-up student surveys. Outliers and students with missing data are excluded from the analyses; for details, see Appendix E.

The services offered are not mutually exclusive; a student could have received more than one type of service over his or her enrolled period.

Calculations for the percentage of students receiving a given service are based on a consistent denominator of 701 case-managed students. However, information on all service types was not available in each data source. All data sources provided information on academic, behavioral, and social/life-skills services.

Rounding may cause slight discrepancies in averages and percentages.

NA = not applicable.

The services described in this table were received over the entire time students were enrolled in CIS case management during the 2013-2014 school year. The averages presented for number of times and total hours of service include only those students who received the service in question.

Of all case-managed group students (701), 8.7 percent did not receive case management. In addition, of all non-case-managed group students (715), 1.5 percent received case management but are not included in this table.

## Appendix Table C.2

## Effects on the Times Per Year Students Received Services According to the Student Survey

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| **In-school support activities**[a] | | | | |
| Tutoring or homework help | 7.0 | 6.0 | 1.0 ** | 0.026 |
| Mentoring | 3.7 | 1.8 | 2.0 *** | 0.000 |
| Community service/volunteering | 2.9 | 2.5 | 0.4 | 0.251 |
| Exercise class or club † | 1.5 | 2.2 | -0.7 ** | 0.016 |
| Positive behavior program such as drug-free/antibullying | 2.3 | 2.0 | 0.3 | 0.337 |
| College planning activity | 5.0 | 4.6 | 0.4 | 0.408 |
| Career planning activity | 3.4 | 2.6 | 0.8 ** | 0.021 |
| Job shadowing/internship † | 1.6 | 1.2 | 0.4 | 0.123 |
| After-school program | 4.4 | 4.6 | -0.3 | 0.550 |
| Assistance such as school supplies, food, bus pass, clothing, or gifts | 2.4 | 2.3 | 0.2 | 0.621 |
| Health check-up | 2.8 | 2.6 | 0.2 | 0.474 |
| **In-school meetings with adults**[a] | | | | |
| Individual meeting about academics | 6.9 | 5.6 | 1.3 *** | 0.005 |
| Individual meeting for support during a life-changing event | 2.6 | 1.8 | 0.7 ** | 0.025 |
| Individual meeting about personal goals and behavior | 4.9 | 4.1 | 0.7 | 0.105 |
| Group meeting about academics | 4.9 | 3.6 | 1.3 *** | 0.004 |
| Group meeting for support during a life-changing event | 2.0 | 1.7 | 0.3 | 0.275 |
| Group meeting about personal goals and behavior | 3.5 | 3.3 | 0.2 | 0.655 |
| Group meeting for social activities | 5.1 | 2.7 | 2.4 *** | 0.000 |

(continued)

## Appendix Table C.2 (continued)

| Survey Item | Case Managed Group | Non-Case Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| Met with an adult at school to set specific goals for the year (%) | 67.8 | 49.9 | 17.8 *** | 0.000 |
| Could earn rewards for improving grades, attendance, behavior, or for reaching or making progress toward goals (%) | 59.4 | 53.6 | 5.7 ** | 0.029 |
| An adult in school connected student to support programs or help outside of school (%) | 50.9 | 39.8 | 11.1 *** | 0.000 |
| Number of students[b] (total = 1,416) | 701 | 715 | | |

SOURCE: MDRC calculations based on the spring 2014 follow-up student survey.

NOTES: The analyses reported in this table are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys.

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted, controlling for the blocking of random assignment by school, as well as the following baseline characteristics: race, gender, free and reduced-price lunch, English as a second language, whether qualified for a gifted program, and special education status.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable student survey sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data on any given outcome does not exceed 4 percent.

A dagger (†) indicates that there is a statistically significant difference between the estimated effects in Year 1 and Year 2 at the 5 percent level .

[a]The times-per-year measure was created by combining a measure of duration ("for how long did you do this activity?") and a measure of frequency ("how often did you do this activity?") for each of the above support activities in the spring 2014 follow-up student survey. The duration measure was converted from a four-point scale to an estimate of the number of weeks per school year a student participated in the activity: "I never did this activity" = 0 weeks, "less than half of the school year" = 9 weeks, "about half of the school year" = 18 weeks, and "most or all of the school year" = 27 weeks. The frequency measure was converted from a four-point scale to an estimate of the number of times per week a student participated in the given activity: "I never did this activity" = 0, "less than once a month" = 0.125, "1-2 times a month" = 0.375, and "one or more times a week" = 1.

## Appendix Table C.3

## Effects on Times Per Year Students Received Services According to the Student Survey, by Risk Category

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| **In-school support activities (times per year)**[a] | | | | |
| Received tutoring or homework help | | | | |
| High-risk students | 7.8 | 6.3 | 1.5 ** | 0.045 |
| Moderate-risk students | 6.5 | 5.8 | 0.7 | 0.211 |
| Met with a mentor † | | | | |
| High-risk students | 5.0 | 2.0 | 3.1 *** | 0.000 |
| Moderate-risk students | 2.8 | 1.6 | 1.3 *** | 0.002 |
| Community service/volunteering | | | | |
| High-risk students | 2.7 | 2.6 | 0.1 | 0.787 |
| Moderate-risk students | 3.0 | 2.5 | 0.5 | 0.216 |
| Exercise class or club | | | | |
| High-risk students | 1.3 | 1.6 | -0.3 | 0.498 |
| Moderate-risk students | 1.6 | 2.6 | -1.0 ** | 0.017 |
| Positive behavior program such as drug-free/antibullying | | | | |
| High-risk students | 2.3 | 2.3 | 0.0 | 0.953 |
| Moderate-risk students | 2.3 | 1.9 | 0.5 | 0.241 |
| College planning activity | | | | |
| High-risk students | 5.0 | 4.3 | 0.7 | 0.293 |
| Moderate-risk students | 4.9 | 4.8 | 0.1 | 0.803 |
| Career-planning activity | | | | |
| High-risk students | 3.3 | 2.5 | 0.8 | 0.168 |
| Moderate-risk students | 3.4 | 2.6 | 0.8 * | 0.067 |
| Job shadowing/internship | | | | |
| High-risk students | 2.1 | 1.3 | 0.9 ** | 0.046 |
| Moderate-risk students | 1.3 | 1.2 | 0.1 | 0.857 |
| After-school program | | | | |
| High-risk students | 4.9 | 4.4 | 0.5 | 0.529 |
| Moderate-risk students | 4.0 | 4.8 | -0.8 | 0.203 |
| Assistance such as school supplies, food, bus pass, clothing, or gifts | | | | |
| High-risk students | 2.7 | 2.5 | 0.2 | 0.738 |
| Moderate-risk students | 2.2 | 2.1 | 0.2 | 0.718 |
| Health check-up | | | | |
| High-risk students | 2.6 | 2.6 | 0.0 | 0.958 |
| Moderate-risk students | 2.9 | 2.6 | 0.4 | 0.360 |

(continued)

## Appendix Table C.3 (continued)

| Item | Case-Managed Group | Non-Case-Managed Group | Estimated Difference | P-Value for Estimated Difference |
|---|---|---|---|---|
| **In-school meetings with adults (times per year)**[a] | | | | |
| Individual meeting about academics | | | | |
| High-risk students | 7.7 | 6.0 | 1.7 ** | 0.040 |
| Moderate-risk students | 6.4 | 5.3 | 1.1 * | 0.063 |
| Individual meeting for support during a life-changing event | | | | |
| High-risk students | 2.9 | 1.6 | 1.3 ** | 0.012 |
| Moderate-risk students | 2.3 | 1.9 | 0.4 | 0.368 |
| Individual meeting about personal goals and behavior | | | | |
| High-risk students | 5.3 | 4.8 | 0.5 | 0.509 |
| Moderate-risk students | 4.6 | 3.7 | 0.9 | 0.136 |
| Group meeting about academics | | | | |
| High-risk students | 5.0 | 3.6 | 1.4 ** | 0.043 |
| Moderate-risk students | 4.7 | 3.6 | 1.1 ** | 0.039 |
| Group meeting for support during a life-changing event | | | | |
| High-risk students | 2.3 | 2.1 | 0.2 | 0.714 |
| Moderate-risk students | 1.8 | 1.4 | 0.4 | 0.263 |
| Group meeting about personal goals and behavior | | | | |
| High-risk students | 3.9 | 3.9 | -0.1 | 0.933 |
| Moderate-risk students | 3.2 | 2.9 | 0.3 | 0.521 |
| Group meeting for social activities | | | | |
| High-risk students | 4.7 | 2.7 | 2.0 *** | 0.004 |
| Moderate-risk students | 5.3 | 2.6 | 2.6 *** | 0.000 |
| Met with an adult at school to set specific goals for the year (%) † | | | | |
| High-risk students | 71.2 | 55.5 | 15.7 *** | 0.000 |
| Moderate-risk students | 65.6 | 46.5 | 19.1 *** | 0.000 |
| Could earn rewards for improving grades, attendance, or behavior, or for reaching or making progress toward goals (%) † | | | | |
| High-risk students | 57.8 | 53.4 | 4.4 | 0.309 |
| Moderate-risk students | 60.4 | 53.8 | 6.6 ** | 0.048 |
| An adult in school connected student to support programs or help outside of school (%) † | | | | |
| High-risk students | 54.7 | 42.6 | 12.1 *** | 0.005 |
| Moderate-risk students | 48.3 | 38.0 | 10.4 *** | 0.002 |
| Number of students (total = 1,416) | 701 | 715 | | |
| High-risk students (total = 536) | 277 | 259 | | |
| Moderate-risk students (total = 880) | 424 | 456 | | |

(continued)

## Appendix Table C.3 (continued)

SOURCE: MDRC calculations based on the spring 2014 follow-up student survey.

NOTES: The analyses reported in this table are based on the stable student survey analysis sample, which includes all students who responded to the spring 2013 and 2014 follow-up student surveys.

The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted, controlling for random assignment blocks by school as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, and special education status.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

High-risk students include those students who were chronically absent, who failed at least one core course, or who were ever suspended in the baseline (2011-2012) school year. Moderate-risk students include those who were never chronically absent, never failed a core course, and were never suspended in the baseline year.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable student survey sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data for any given outcome does not exceed 5 percent.

A dagger (†) indicates that there is a statistically significant difference between the estimated effects on moderate- and high-risk students at the 5 percent level.

[a]The times-per-year measure was created by combining a measure of duration ("for how long did you do this activity?") and a measure of frequency ("how often did you do this activity?") for each of the above support activities in the spring 2014 follow-up student survey. The duration measure was converted from a four-point scale to an estimate of the number of weeks per school year a student participated in the activity: "I never did this activity" = 0 weeks, "less than half of the school year" = 9 weeks, "about half of the school year" = 18 weeks, and "most or all of the school year" = 27 weeks. The frequency measure was converted from a four-point scale to an estimate of the number of times per week a student participated in the given activity: "I never did this activity" = 0, "less than once a month" = 0.125, "1-2 times a month" = 0.375, and "one or more times a week" = 1.

## Appendix Table C.4

## Effects on Students' Attitudes and Activities After One Year

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | | P-Value for Estimated Effect |
|---|---|---|---|---|---|---|
| Caring adult at home (1-4)[a] | 3.38 | 3.31 | 0.07 | 0.10 | ** | 0.021 |
| Caring adult at school (1-4)[b] | 3.21 | 3.13 | 0.08 | 0.11 | ** | 0.015 |
| Caring adult outside of home or school (1-4)[c] | 3.45 | 3.35 | 0.10 | 0.13 | *** | 0.008 |
| Friend quality (1-4)[d] | 2.94 | 2.88 | 0.06 | 0.10 | ** | 0.026 |
| School-sponsored extracurricular activities | | | | | | |
| Students selecting at least 1 activity (%) | 84.0 | 80.9 | 3.1 | 0.08 | | 0.124 |
| Mean number of activities done sometimes | 2.92 | 3.0 | -0.13 | -0.03 | | 0.497 |
| Mean number of activities done often | 2.20 | 2.3 | -0.12 | -0.04 | | 0.425 |
| Non-school-sponsored extracurricular activities | | | | | | |
| Students selecting at least 1 activity (%) | 78.2 | 79.8 | -1.6 | -0.04 | | 0.454 |
| Mean number of activities done sometimes | 1.96 | 1.9 | 0.01 | 0.00 | | 0.924 |
| Mean number of activities done often | 1.58 | 1.6 | -0.05 | -0.02 | | 0.612 |
| Student engagement with school (1-4)[e] | 2.76 | 2.71 | 0.05 | 0.06 | | 0.172 |
| Educational attitudes (1-4)[f] | 3.00 | 2.96 | 0.04 | 0.08 | * | 0.067 |
| Positive educational self-perception and effort[g] | 2.66 | 2.64 | 0.02 | 0.03 | | 0.502 |
| Negative educational self-perception and effort[h] | 2.13 | 2.09 | 0.04 | 0.05 | | 0.233 |
| Positive valuation of education[i] | 3.31 | 3.21 | 0.10 | 0.15 | *** | 0.001 |
| How far would you like to go in school? (%) | | | | | | 0.339 |
| Some high school | 1.2 | 2.0 | -0.8 | -0.06 | | |
| Finish high school | 12.5 | 9.0 | 3.5 | 0.12 | | |
| Some college or trade/technical school | 5.2 | 4.5 | 0.7 | 0.03 | | |
| Finish college or trade/technical school | 25.3 | 29.3 | -4.0 | -0.09 | | |
| Graduate school after college | 45.5 | 44.8 | 0.7 | 0.01 | | |
| Don't know | 10.4 | 10.8 | -0.4 | -0.01 | | |

(continued)

## Appendix Table C.4 (continued)

| Survey Item | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | P-Value for Estimated Effect |
|---|---|---|---|---|---|
| How far do you think you will actually go in school? (%) | | | | | |
| Some high school | 3.2 | 2.5 | 0.7 | 0.04 | |
| Finish high school | 13.8 | 14.6 | -0.8 | -0.02 | |
| Some college or trade/technical school | 8.9 | 10.1 | -1.2 | -0.04 | |
| Finish college or trade/technical school | 27.6 | 28.2 | -0.6 | -0.01 | |
| Graduate school after college | 30.9 | 30.1 | 0.7 | 0.02 | |
| Don't know | 15.7 | 14.8 | 0.9 | 0.03 | |
| Number of students (total = 1,416) | 701 | 715 | | | |

SOURCE: MDRC calculations based on the spring 2013 follow-up student survey.

NOTES: The analyses reported in this table are based on the stable student survey sample, which includes all students who responded to the spring 2013 and spring 2014 follow-up student surveys. See Appendix D for survey questions.

Estimated effects are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, special education status, and a baseline measure of the outcome variable.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the stable student survey sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample sizes reported in the table are for the stable student survey sample. However, the sample sizes vary across outcomes due to missing data. The percentage of missing data for any given outcome does not exceed 1 percent.

[a]Scale based on responses to survey questions 17a-17g, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.89.

[b]Scale based on responses to survey questions 8a-8f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.86.

[c]Scale based on responses to survey questions 15a-15f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.93.

[d]Subscale based on responses to survey questions 10a-10f, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.71.

[e]Scale based on responses to survey questions 9a-9e, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.84.

[f]Scale based on responses to survey questions 11a-11n, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.83.

[g]Subscale based on responses to survey questions 11b, 11e, 11f, 11g, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.72.

[h]Subscale based on responses to survey questions 11a, 11c, 11d, 11h, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.75.

[i]Subscale based on responses to survey questions 11j-11n, ranging from 1 = "not at all true" to 4 = "very much true." Cronbach's alpha = 0.79.

## Appendix Table C.5

## Effects on Students' Academic and Behavioral Outcomes After One Year

| Outcome | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | P-Value for Estimated Effect |
|---|---|---|---|---|---|
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) | 16.0 | 13.9 | 2.1 | 0.06 | 0.277 |
| Failed at least 1 core course (%) | 29.6 | 29.7 | -0.2 | 0.00 | 0.928 |
| School progress | | | | | |
| Core credit accumulation for graduation[b] (%) | 21.1 | 21.7 | -0.6 | -0.07 | 0.386 |
| Behavior | | | | | |
| Average attendance rate (%) | 94.2 | 94.5 | -0.3 | -0.04 | 0.410 |
| Number of suspensions | 1.6 | 1.5 | 0.1 | 0.03 | 0.469 |
| Academic achievement | | | | | |
| Average core course marks (%) | 79.6 | 79.9 | -0.3 | -0.04 | 0.277 |
| Number of students (total = 1,501) | 751 | 750 | | | |

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample, which includes all students with course-failure data for the 2012-2013 school year.

Estimated effects are regression-adjusted using ordinary least squares, controlling for random assignment blocks by school, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, special education status, and a baseline measure of the outcome variable.

The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed mean covariate values for the case-managed group as the basis for the adjustment.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the school records analysis sample who are in the non-case-managed group.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

The sample size reported in the table is for the stable school records sample. However, the sample size varies across outcomes due to missing data. The percentage of missing data is 24 percent for attendance rates and absenteeism, 4 percent for suspensions, 6 percent for credit accumulation, and 0 percent for other outcomes.

[a]A student is considered chronically absent if he or she has an attendance rate below 90 percent.

[b]This outcome is for high school students only; the state-level graduation requirements for the four core subjects are used in this calculation. A student can be expected to accumulate about 25 percent of core credits in each year of high school.

## Appendix Table C.6

## Effects on Ninth-Grade and Non-Ninth-Grade Students' Academic and Behavioral Outcomes

| Outcome | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | P-Value for Estimated Effect |
|---|---|---|---|---|---|
| **Students in ninth grade at random assignment** | | | | | |
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) † | 21.4 | 25.4 | -4.0 | -0.10 | 0.487 |
| Failed at least 1 core course (%) † | 42.7 | 41.9 | 0.9 | 0.02 | 0.898 |
| School progress | | | | | |
| Core credit accumulation for graduation (%) † | 20.3 | 18.3 | 2.0 * | 0.22 | 0.066 |
| Behavior | | | | | |
| Average attendance rate (%) | 92.1 | 90.0 | 2.1 | 0.21 | 0.178 |
| Number of suspensions | 2.1 | 1.2 | 0.98 * | 0.33 | 0.053 |
| Academic achievement | | | | | |
| Average core course marks (%) † | 77.6 | 76.6 | 1.0 | 0.13 | 0.330 |
| Sample size (total = 258) | 131 | 127 | | | |
| **Students in tenth- and eleventh-grade at random assignment** | | | | | |
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) † | 33.9 | 28.2 | 5.7 | 0.14 | 0.362 |
| Failed at least 1 core course (%) † | 44.2 | 29.8 | 14.4 ** | 0.31 | 0.020 |
| School progress | | | | | |
| Core credit accumulation for graduation (%) † | 18.7 | 22.1 | -3.4 *** | -0.37 | 0.002 |
| Behavior | | | | | |
| Average attendance rate (%) | 89.9 | 89.3 | 0.6 | 0.06 | 0.697 |
| Number of suspensions | 0.4 | 0.3 | 0.16 | 0.05 | 0.261 |
| Academic achievement | | | | | |
| Average core course marks (%) † | 76.6 | 81.0 | -4.4 *** | -0.56 | 0.000 |
| Sample size (total = 230) | 120 | 110 | | | |

(continued)

## Appendix Table C.6 (continued)

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample. The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted using ordinary least squares, controlling for the blocking of random assignment by school and grade level at random assignment, as well as the following baseline characteristics: race, gender, free or reduced-price lunch status, English as a second language, whether qualified for a gifted program, and special education status. The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case-managed group. The "Non-Case-Managed Group" values in the next column are the regression-adjusted means for students randomly assigned to the non-case-managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Rounding may cause slight discrepancies in calculating sums and differences.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the stable school records sample who are in the non-case-managed group.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

A dagger (†) indicates that there is a difference between the estimated effects on ninth-grade and non-ninth-grade students that is statistically significant at the 5 percent level.

[a]A student is considered to be chronically absent if he or she has an attendance rate of less than 90 percent.

## Appendix Table C.7

## Effects on Sixth-Grade and Non-Sixth-Grade Students' Academic and Behavioral Outcomes

| Outcome | Case-Managed Group | Non-Case-Managed Group | Estimated Effect | Effect Size | P-Value for Estimated Effect |
|---|---|---|---|---|---|
| **Students in sixth grade at random assignment** | | | | | |
| Main outcomes | | | | | |
| Chronic absenteeism[a] (%) † | 15.7 | 17.9 | -2.2 | -0.05 | 0.484 |
| Failed at least 1 core course (%) † | 17.6 | 21.5 | -4.0 | -0.09 | 0.209 |
| School progress | | | | | |
| Core credit accumulation for graduation (%) | NA | NA | NA | NA | NA |
| Behavior | | | | | |
| Average attendance rate (%) | 94.2 | 93.9 | 0.2 | 0.02 | 0.708 |
| Number of suspensions | 1.6 | 1.6 | 0.08 | 0.03 | 0.793 |
| Academic achievement | | | | | |
| Average core course marks (%) | 81.5 | 80.8 | 0.7 | 0.09 | 0.143 |
| Sample size (total = 491) | 256 | 235 | | | |
| **Students in seventh and eighth grade at random assignment** | | | | | |
| Primary outcomes | | | | | |
| Chronic absenteeism[a] (%) † | 20.6 | 18.3 | 2.3 | 0.06 | 0.469 |
| Failed at least 1 core course (%) † | 36.7 | 33.5 | 3.2 | 0.07 | 0.401 |
| School progress | | | | | |
| Core credit accumulation for graduation (%) | NA | NA | NA | NA | NA |
| Behavior | | | | | |
| Average attendance rate (%) | 92.7 | 93.5 | -0.7 | -0.08 | 0.177 |
| Number of suspensions | 1.7 | 1.5 | 0.21 | 0.07 | 0.443 |
| Academic achievement | | | | | |
| Average core course marks (%) | 78.6 | 79.1 | -0.5 | -0.06 | 0.422 |
| Sample size (total = 518) | 240 | 278 | | | |

(continued)

## Appendix Table C.7 (continued)

SOURCE: MDRC calculations based on student records obtained from school districts.

NOTES: The analyses reported in this table are based on the stable school records sample. The estimated differences between the case-managed group and the non-case-managed group are regression-adjusted using ordinary least squares, controlling for the blocking of random assignment by school and grade level at random assignment, as well as the following baseline characteristics: race, gender, free or reduced-price lunch, English as a second language, whether qualified for a gifted program, and special education status. The values in the column labeled "Case-Managed Group" are the observed means for students randomly assigned to the case managed group. The "Non-Case-Managed Group" values in the next column are the regression-adjusted means for students randomly assigned to the non-case managed group, using the observed distribution of the case-managed group across random assignment blocks as the basis for the adjustment.

Rounding may cause slight discrepancies in calculating sums and differences.

Effect sizes are calculated by dividing the impact estimate by the standard deviation of the outcome measure for students in the stable school records sample who are in the non-case-managed group.

A two-tailed t-test was applied to differences between the case-managed and non-case-managed groups. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

NA = not applicable.

A dagger (†) indicates that there is a difference between the estimated effects on sixth-grade and non-sixth-grade students that is statistically significant at the 5 percent level.

[a]A student is considered to be chronically absent if he or she has an attendance rate of less than 90 percent.

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# Earlier MDRC Publications on Communities In Schools

*Case Management for Students at Risk of Dropping Out*
*Implementation and Interim Impact Findings from the Communities In Schools Evaluation*
2015. William Corrin, Leigh Parise, Oscar Cerna, Zeest Haider, and Marie-Andrée Somers.

*Using Integrated Student Supports to Keep Kids in School*
*A Quasi-Experimental Evaluation of Communities In Schools*
2017. Marie-Andrée Somers and Zeest Haider.

# About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York City and Oakland, California, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are proactively shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-offenders and people with disabilities, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.

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