

Chicago Public Schools Community Schools Initiative

Findings from an Examination of Initiative
Impact among Schools Funded in the FY13
Cohort

Neil Naftzger, PhD, Lauren Stargel, PhD, and Allison Belmont
American Institutes for Research

JUNE 2022



Advancing Evidence.
Improving Lives.

Chicago Public Schools Community Schools Initiative

Findings from an Examination of Initiative Impact among Schools Funded in the FY13 Cohort

Neil Naftzger, PhD, Lauren Stargel, PhD, and Allison Belmont
American Institutes for Research

JUNE 2022



AIR® Headquarters
1400 Crystal Drive, 10th Floor
Arlington, VA 22202-3289
+1.202.403.5000 | **AIR.ORG**

Notice of Trademark: “American Institutes for Research” and “AIR” are registered trademarks. All other brand, product, or company names are trademarks or registered trademarks of their respective owners.

Copyright © 2022 American Institutes for Research®. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, website display, or other electronic or mechanical methods, without the prior written permission of the American Institutes for Research. For permission requests, please use the Contact Us form on [AIR.ORG](https://www.air.org).

Contents

- 1. Introduction 1
 - 1.1 Background..... 1
 - 1.2 Schools Represented in the FY13 Cohort..... 4
- 2. Study Design 5
 - 2.1 Additional Evaluation Questions..... 8
 - 2.2 Comparison Schools..... 8
- 3. Report Organization..... 13
- 4. Changes in the Activity and Service Infrastructure at FY13 Schools 13
 - 4.1 CSI Program Attendance Over Time..... 19
- 5. Characteristics of the Treatment Population in FY13 Schools..... 20
- 6. Impact Analysis 25
 - 6.1 Comparative Interrupted Time Series (CITS) 25
 - 6.2 Outcomes Examined 27
- 7. Conclusions and Recommendations..... 32
- References 34
- Appendix A: CITS Results 35

Exhibits

Exhibit 1. The CSI Implementation Framework	3
Exhibit 2. List of Schools Represented in the FY13 Cohort	4
Exhibit 3. Covariate Balance Before and After Matching	10
Exhibit 4. Percentage of School Student Population Participating in Activities Associated with CSI	15
Exhibit 5. Percentage of School Student Population Participating in Activities Associated with Any Programs Tracked in Cityspan	16
Exhibit 6. Other Programming that Youth in Candidate Comparison Schools Participated in, Compared to CSI Program Participation at FY13 Schools.....	16
Exhibit 7. Total Student Participation Hours Associated with CSI	17
Exhibit 8. Total Student Participation Hours Associated with Any of the Programs Tracked in Cityspan.....	18
Exhibit 9. Average Total Hours of Participation for Other Programming that Youth in Comparison Schools Participated in, Compared to CSI Program Participation at FY13 Schools	18
Exhibit 10. The Number and Percentage of Students Attending CSI Programming by Years of Participation, In Any Year and Consecutively	19
Exhibit 11. Student Demographics for the FY13 Schools during Preintervention and Intervention Time Periods	21
Exhibit 12. Average Percentage of School Days Attended by Students at FY13 Schools	22
Exhibit 13. Average Number of Disciplinary Incidents per Student at FY13 Schools	23
Exhibit 14. The Average Total Number of Days Suspended per Student at FY13 Schools for Students who Received Suspensions	23
Exhibit 15. Average Scale Scores on 5Essentials Student Surveys at FY13 Schools	24
Exhibit 16. List of Student Outcomes Examined by School Year	27
Exhibit 17. Student Outcomes Where FY13 Schools Were Found to Have a Significant Effect Compared With a Matched Set of Comparison Schools Based on CITS Analyses	29

1. Introduction

Starting with the 2012–13 school year, Chicago Public Schools (CPS) began providing funding to 21 schools to implement community school programming supported by a series of grants received through the 21st Century Community Learning Centers (21st CCLC) program administered by the Illinois State Board of Education. These grants were designed to support the design and delivery of afterschool and summer learning programming provided at each of these schools for a 10–year period concluding with the end of the 2021–22 school year. CPS has used 21st CCLC grants to provide afterschool and summer learning opportunities as part of a larger effort to transform the schools receiving funding into community schools aligned with a specific implementation framework. Implementation of the CPS community school strategy at each school, associated with what is known as the fiscal year 2013 (FY13) cohort, was intended to support the achievement of a variety of outcomes related to social and emotional learning, student perceptions of the climate of the school, and behaviors related to school success.

The purpose of this report is to outline what was learned about how well schools represented in the FY13 cohort achieved positive outcomes for students participating in activities and services supported by the Community Schools Initiative (CSI).

1.1 Background

The Community Schools Initiative

Since 2002, CPS has looked to community schooling as a strategy to support students, their families, and the broader school community. Leveraging resources provided through the 21st CCLC program and through the creation of partnerships between district schools and community–based organizations and providers, community schooling has resulted in additional programming and services being provided in CPS schools. A key component of the Initiative is ensuring that the needs of the school community are identified and that high-quality programming and services are provided to address these needs, particularly the academic, social, and emotional needs of students enrolled in CSI schools. It is expected that the investment that CPS has made in community schools will result in positive outcomes for participating youth, including the development of social and emotional skills and competencies, improved school climate, the development of behaviors important to school success, and better health and well–being among enrolled youth.

CSI Implementation Framework

Schools represented in the FY13 cohort were asked to implement the community school strategy by following key components of the CSI Implementation Framework. The CSI Implementation Framework was constructed by an internal CSI evaluation team after extensive key informant interviews in a sample of schools aimed at identifying key drivers of CSI implementation (Zander, Burnside, & Poff, 2010). The framework articulated the core features of community schooling in Chicago and the steps and processes that schools need to go through and adopt in order to fully implement the strategy.

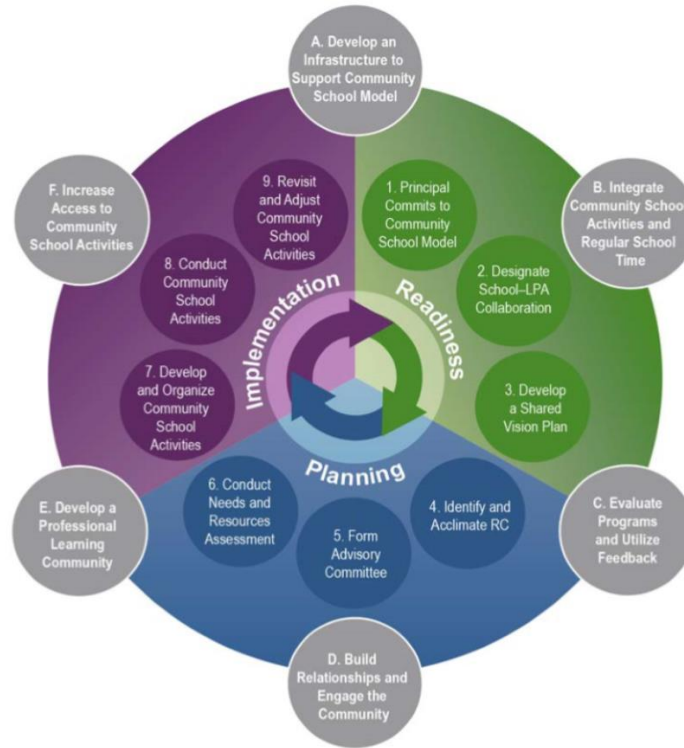
As shown in Exhibit 1, the framework includes nine steps related to implementation. These steps address

- readiness (principal commitment to the community school, a designated partnership between the school and a lead partner agency, and the development of a shared vision);
- preparation (hiring and preparing a resource coordinator who manages the community school strategy, forming an advisory committee, and conducting a needs and resources assessment); and
- implementation (developing, organizing, and conducting community school activities and revisiting these activities with the goal of program improvement).

The framework conveys to new CSI schools the steps they should follow in transforming themselves into a community school and reminds existing CSI schools about the need to evaluate and adapt programming throughout the lifetime of the community school.

The six sustainability factors are closely related to the implementation steps—emphasizing infrastructure, community relationships, evaluation, professional learning communities, program expansion as needed, and continued and close links to the school. Represented in the outer ring in Exhibit 1, the sustainability factors are essential for maintaining and developing the community school, particularly as certain components change, such as funding sources and partnerships.

Exhibit 1. The CSI Implementation Framework



Continuous Quality Improvement Process

Starting in 2011, CPS began working with a new evaluation team composed of the American Institutes for Research (AIR) and the Diehl Consulting Group. The team utilized the CSI Implementation Framework as the catalyst to develop a quality improvement tool and process predicated on the CSI Implementation Framework. Schools enrolled in the Initiative can use this tool to promote strategies for successful community schooling. This effort resulted in the creation of the CQIP and an aligned set of self-assessment rubrics.

In undertaking the CQIP, schools are asked to complete a self-assessment annually using the CQIP rubrics. The goal of the self-assessment is to help schools identify where they stand on key elements related to effective implementation of the strategy; target areas where improvements can be made; and develop and implement an action plan for areas targeted for improvement.

The intent of the CQIP is to help schools become more familiar with the core attributes of community schooling in Chicago and take steps to enhance their efforts to implement the strategy in accordance with the Implementation Framework. Schools represented in the FY13 cohort were involved in CQIP-related processes during the entire period they were receiving 21st CCLC funding, although both the rubrics and process evolved during this period to enhance

the feasibility of completing CQIP tasks, the elevation of key implementation components, and the broader inclusion of CSI advisory committees in the self-assessment and action planning processes. In this sense, schools in the FY13 cohort have been exposed to key concepts reflected in the CSI Implementation Framework more than any other school enrolled in the Initiative during the span of the past 20 years.

1.2 Schools Represented in the FY13 Cohort

A total of 21 schools are associated with the FY13 cohort (see Exhibit 2) composed of 18 elementary schools, 1 middle school, and 2 high schools. This report will focus on the impact of CSI participation in this set of schools.

Exhibit 2. List of Schools Represented in the FY13 Cohort

School
Ashburn Community Elementary School
Carroll Elementary School
Christopher Elementary School
Claremont Academy Elementary School
Dawes Elementary School
Dore Elementary School
Durkin Park Elementary School
Edwards Elementary School
Hale Elementary School
Hampton Elementary Fine and ...
Hernandez Middle School
Hubbard High School
John F. Kennedy High School
Lee Elementary School
McKay Elementary School
Morrill Elementary Math and Science
Nightingale Elementary School
Pasteur Elementary School
Sawyer Elementary School
Talman Elementary School
Tonti Elementary School

2. Study Design

The primary purpose of this report is to answer the following evaluation question:

What effect did receipt of 21st CCLC funding to support CSI implementation at FY13 schools have on student outcomes relative to similar schools not receiving 21st CCLC funding?

Implementation of the community school strategy at a given school ideally will support the achievement of a wide variety of possible positive outcomes for participating youth, including, as previously noted, the development of social and emotional skills and competencies, improvements in school climate, the development of behaviors important to school success, and better health and well-being among enrolled youth.

To date, AIR has completed multiple impact reports oriented at assessing how well CSI schools receiving 21st CCLC funding across a variety of grant cohorts are doing in supporting these types of school-related outcomes. Each of these analyses involved the inclusion of a comparison group. In past reports, one of two study designs involving comparison groups were employed:

1. **Students participating in 21st CCLC programming at a defined threshold in terms of the number of hours of participation across time were compared with similar students not participating in afterschool and summer programming funded by 21st CCLC.** In most of these analyses, students were selected for inclusion in the *treatment group* if they had participated in 120 hours or more of 21st CCLC-funded programming over two school years. In this sense, students in the treatment group had been active participants in CSI-related activities and services over time. This threshold was selected given a consistent set of findings from statewide evaluations of the 21st CCLC program undertaken by AIR that indicated an association between program participation at similar levels and positive school-related outcomes (Naftzger, Devaney, & Newman, 2015; Naftzger et al., 2018). Students in the matched *comparison group* that did not participate in 21st CCLC programming were selected using a method called propensity score matching from either similar schools without 21st CCLC funding or from schools with 21st CCLC funding depending on the analysis (see Naftzger, Williams, & Liu, 2014 and Naftzger & Liu, 2019 respectively).

Generally, previous analyses employing this approach to defining treatment and comparison groups yielded positive results. The most consistent results across the last two reports employing this methodology demonstrated that participating in 21st CCLC

programming for 120 hours or more over two years was associated with higher rates of school attendance, fewer disciplinary incidents, and more desirable scores on a series of survey scales appearing on the 5Essentials survey relative to similar students not participating in programming (Naftzger, Williams, & Liu, 2014 and Naftzger & Liu, 2019). In the last report where this approach was employed in relation to CSI schools funded by 21st CCLC in the FY15 cohort, positive results were also found in relation to annual grade point average (GPA) and Northwest Evaluation Association (NWEA) scores in reading and mathematics (Naftzger & Liu, 2019).

However, in each of these analyses, it was still possible that there may have been key differences between CSI participants and similar students not attending CSI programming that were not accounted for in our models because we did not have data to control for them. This would include things like levels of parent involvement, student motivation, and interests. It is possible that differences in students outcomes observed between 21st CCLC participants and nonparticipants may have been influenced by these types of pre-existing differences between the treatment and comparison groups that we were not able to measure and therefore potentially control for in our models. In this sense, why results using this methodology are promising in relation to the potential positive effects associated with student participation in 21st CCLC programming, we cannot fully discount the influence of other possible differences between the treatment and comparison groups that may be biasing these results.

- 2. Schools receiving 21st CCLC funding were compared over time with matched comparison schools without 21st CCLC funding.** Analyses in this group are different than those described in the preceding section in that all students attending a CSI school were considered to be part of the treatment group, irrespective of whether or not they actually participated in any CSI programming funded by the 21st CCLC program. In this sense, implementation of the CSI strategy at a given school was seen as a whole school reform effort that was expected to impact the overall culture, climate, instruction, and supports at the school in question, thereby impacting substantial portions of the student body. This concept reflects a fully actualized community school that is likely to have an impact on all the school's students and their families. In many respects, this is a high bar to reach.

Analyses comparing CSI schools receiving 21st CCLC funding with matched comparison schools where 21st CCLC funding was absent have also been undertaken by the evaluation team using a comparative interrupted time series (CITS) design. CITS is one of the strongest quasi-experimental designs that can be used when a comparison or control series can be constructed in the absence of a randomized controlled trial

(Bloom, 2003; Shadish et al., 2001). The goal of a CITS analysis is to compare the trends for a given outcome over time between a treatment group (in this case, schools receiving 21st CCLC funding) and a comparison group. This requires having data about the outcomes being examined before 21st CCLC funding was received at a given school and then after implementation has begun for both the treatment and comparison schools. What we hope to see is that the trends for the treatment schools will begin to shift in a more positive manner after CSI implementation is underway compared with the trendlines for the comparison schools.

In recent years, AIR has conducted two CITS analyses in relation to CSI. The first analysis focused on a subset of higher implementing CSI schools receiving 21st CCLC funding in the FY13 and FY15 cohorts. This analysis yielded few positive findings across a series of school-related outcomes that were examined by the AIR evaluation team, with only a subset of schools in the treatment sample demonstrating significant improvement on a series of 5Essentials survey constructs relative to schools in the comparison group (Naftzger et al., 2020).

The second analysis focused on schools funded by the Sustainable Community Schools (SCS) Initiative, a District-funded effort at 20 district schools. The purpose of the SCS initiative is to provide approximately \$400,000 to \$500,000 in additional funding to participating schools annually to support the implementation of a comprehensive community schools model. The CITS analysis undertaken in relation to the SCS initiative focused on early implementation and found a series of significant positive effects related to school day attendance-related outcomes, particularly among English learners and some reductions in out-of-school suspension days (Naftzger, Vinson, & Swanlund, 2021).

Time Series Design

A comparative interrupted time series (CITS) study design (Bloom, 2003; Shadish et al., 2002) is one of the most rigorous methods for establishing program impact when an experimental study is not possible. The research design uses the preintervention trend line of an outcome variable (e.g., school attendance) as a comparison for the outcome measurements obtained after the intervention is implemented. Following the intervention, changes in the overall level of the outcome or its slope over time provide evidence about whether implementation of the CSI strategy is having an impact on key school outcomes.

Generally, CITS is a more robust design than the dosage-based, participant–nonparticipant design described in the preceding section. For the analyses described in this report, a CITS design was utilized to assess how being enrolled in a CSI school in the FY13 cohort may have supported a series of school-related outcomes. This approach was decided upon given that schools in the FY13 cohort had received consistent 21st CCLC funding over a ten year period, providing time for schools to theoretically develop the structures and processes needed to implement a broader vision

of the community school strategy beyond the provision of afterschool and summer learning programming. More specifically, the CITS analyses examined in this report examine a treatment period spanning from the 2012–13 to 2020–21 school years, with a preintervention period including both the 2010–11 and 2011–12 school years. Normally, for most CITS analyses, it would be desirable to have 3 to 4 years of preintervention data on the outcomes being examined to establish the preintervention timeline and to support matching analyses oriented at selecting comparison schools; however, for the outcomes examined in this report, data were only available for the 2010–11 and 2011–12 school years for most of the outcomes in question. The reader should take note of this limitation associated with the study design used to conduct the analyses described in this report.

2.1 Additional Evaluation Questions

In addition to the central guiding evaluation question relative to the effect enrollment in a FY13 CSI school had on student outcomes, the analyses outlined in this report were also designed to answer the following set of additional evaluation questions:

- To what extent were students enrolled in FY13 CSI schools participating in 21st CCLC programming and services, and how did this compare to students in the comparison schools? Other afterschool and summer learning programs?
- To what extent did students enrolled in the FY13 cohorts participate in 21st CCLC-funded programming over time?
- What were the demographic and school outcome characteristics of students served in 21st CCLC programming/other afterschool and summer learning programs on average?

AIR examined quantitative data using descriptive analyses to answer each of these questions, with a particular emphasis on data maintained in CPS’s data warehouses and data on activity and service provision collected in Cityspan, a web–based data collection system that tracks afterschool, summer, and family engagement activities and events.

2.2 Comparison Schools

For most of the analyses summarized in this report, the characteristics and performance of the 21 schools represented in the FY13 cohort receiving 21st CCLC funding are compared with 80 potential comparison schools and 63 schools that were eventually selected to serve as comparison schools in the CITS analyses summarized in the report. Potential comparison schools were selected using two key criteria: (1) schools were initially selected as potential candidates to receive funding through the Sustainable Community Schools Initiative but were not ultimately selected to receive SCS funding or (2) were schools that eventually received 21st CCLC funding as part of the FY21 cohort. Most of the schools selected for inclusion in the

candidate comparison pool were schools deemed initially eligible to receive SCS funding by CPS and the Chicago Teachers Union. While this list was initially comprised of 117 schools, schools were removed from the candidate list if (a) they also received 21st CCLC funding in the FY13 cohort or later funding cohorts during the intervention period though grants held by community-based organizations and (b) they lacked data for the preintervention and intervention periods under consideration. Schools receiving 21st CCLC grants in the FY21 grantmaking cycle were also included in the candidate pool given that most FY21 schools did not start trying to implement the CSI strategy until the spring semester of 2021, and these efforts were substantially limited in light of the ongoing effects associated with the Covid-19 pandemic. In this sense, in selecting comparison schools, we tried to focus on schools in the District that were either deemed initially eligible for community school funding through the SCS Initiative or eventually received funding through the 21st CCLC program. Ultimately, application of these criteria left us with 80 comparison school candidates.

The final matched set of comparison of 63 schools was selected via propensity scores. This approach modeled the propensity (probability) that a school received 21st CCLC funding based on a large list of preintervention variables. FY13 schools were then matched to comparison pool schools with similar propensity scores.

The matching process was conducted using a litany of school contextual and performance variables, including the following:

- Student demographics: percentage of African American, Hispanic, or White students; students in special education; students receiving free or reduced-price lunches; and student mobility
- School enrollment and grade levels served
- Student school day attendance and chronic truancy rates
- Student behavior: number and types of disciplinary incidences, number and types of suspensions, and length of suspensions
- Other school variables: school type (elementary, middle, or high school)

Variables that were similar to outcomes that would be modeled at the student level (e.g., attendance, disciplinary incidents, etc.) were matched not only for the immediate preintervention year, but for all years in the prior trend. This helped control for schools' overall level of performance on these variables as well as for any trends in those variables that may be occurring prior to the receipt of 21st CCLC funding. Matching results were moderately acceptable but the robustness of the CITS design helped to ameliorate less than optimal matching results.

Exhibit 3 details how comparable FY13 and comparison schools were on student– and school– level characteristics during the preintervention school years. Good comparability was seen for almost all characteristics examined with three notable exceptions.

1. FY13 schools were substantively larger than matched comparison schools in terms of total enrollment, having 278 to 286 more students on average relative to the matched comparison schools during the preintervention period.
2. FY13 schools were characterized by a larger percentage of students that were Hispanic than the matched comparison schools (66% versus 46% respectively) and a lower percentage of students that were Black (26% versus 48% respectively).
3. FY13 schools demonstrated a substantively higher rate of Group 1 and Group 2 disciplinary incidents relative to the matched comparison schools (a 24 to 34 incident rate relative to a 9 to 11 incident rate).

While these differences are important to make note of, CITS is generally robust enough method to accommodate these types of differences between the treatment and comparison schools.

Exhibit 3. Covariate Balance Before and After Matching

Covariates Used in Matching	Before Matching			After Matching		
	Treatment (n = 21)	Comparison (n = 80)	SMD	Treatment (n = 21)	Comparison (n = 63)	SMD
Elementary School	86%	86%	–0.02	86%	89%	–0.09
Middle School	5%	3%	0.11	5%	03%	0.08
High School	10%	11%	–0.06	10%	8%	0.05
School Level 2010–2011 School Year						
Total Enrollment	940.76	602.69	0.74	940.76	654.40	0.63
Percent White	6.31%	3.21%	0.29	6.31%	3.93%	0.22
Percent Black	26.04%	55.63%	–0.85	26.04%	48.18%	–0.64
Percent Asian	0.32%	0.91%	–1.50	0.32%	1.08%	–1.92
Percent Native American	0.45%	0.30%	0.36	0.45%	0.34%	0.27
Percent Hawaiian or Pacific Islander	0.05%	0.09%	–0.40	0.05%	0.10%	–0.44
Percent Multi–Racial	0.53%	0.52%	0.02	0.53%	0.53%	0.01

Covariates Used in Matching	Before Matching			After Matching		
	Treatment (n = 21)	Comparison (n = 80)	SMD	Treatment (n = 21)	Comparison (n = 63)	SMD
Percent Hispanic	66.07%	39.02%	0.83	66.07%	45.50%	0.63
Percent Special Education	15%	11%	0.31	15%	11%	0.34
Percent Economically Disadvantaged	90%	93%	-0.34	90%	93%	-0.34
Chronic Truancy Rates	9.71	7.65	0.32	9.71	8.38	0.21
Percentage of Days Attended	93.82%	93.59%	0.07	93.82%	93.91%	0.02
In-School-Suspension Rates	7.07	4.90	0.18	7.07	4.41	0.22
Out-of-School Suspension Rates	19.66	19.18	0.01	19.66	17.96	0.05
Misconduct Incidents in Groups 1 & 2 Rates	33.93	11.89	0.21	33.93	11.00	0.22
Misconduct Incidents in Groups 3 & 4 Rates	14.17	18.30	-0.28	14.17	16.78	-0.18
Misconduct Incidents in Groups 5 & 6 Rates	1.79	2.16	-0.14	1.79	1.91	-0.05
School Level 2011–2012 School Year						
Total Enrollment	928.76	598.63	0.74	928.76	650.86	0.62
Percent White	6.16%	3.28%	0.27	6.16%	3.94%	0.21
Percent Black	25.35%	55.42%	-0.87	25.35%	48.04%	-0.66
Percent Asian	0.41%	0.94%	-0.63	0.41%	1.08%	-0.79
Percent Native American	0.49%	0.27%	0.56	0.49%	0.31%	0.46
Percent Hawaiian or Pacific Islander	0.09%	0.12%	-0.30	0.09%	0.14%	-0.50

Covariates Used in Matching	Before Matching			After Matching		
	Treatment (n = 21)	Comparison (n = 80)	SMD	Treatment (n = 21)	Comparison (n = 63)	SMD
Percent Multi-Racial	0.43%	0.51%	-0.17	0.43%	0.54%	-0.25
Percent Hispanic	66.48%	39.10%	0.85	66.48%	45.60%	0.65
Percent Special Education	15%	11%	0.32	15%	11%	0.33
Percent Economically Disadvantaged	91%	93%	-0.26	91%	93%	-0.23
Chronic Truancy Rates	16.43	25.04	-0.53	16.43	20.34	-0.24
Percentage of Days Attended	94.28%	93.95%	0.09	94.28%	94.44%	-0.04
In-School-Suspension Rates	4.70	3.83	0.13	4.70	3.88	0.12
Out-of-School Suspension Rates	14.39	16.52	-0.10	14.39	15.50	-0.05
Misconduct Incidents in Groups 1 & 2 Rates	24.13	10.48	0.18	24.13	9.28	0.19
Misconduct Incidents in Groups 3 & 4 Rates	13.76	13.35	0.03	13.76	12.45	0.08
Misconduct Incidents in Groups 5 & 6 Rates	1.72	2.11	-0.13	1.72	1.85	-0.04

Note. Source: CPS Data Warehouses, 2010–2011 and 2011–2012 school years

3. Report Organization

The remainder of this report is organized into three primary sections. Section 4 provides information on the degree to which FY13 schools served students enrolled in CSI programming during the treatment period and how this compared with similar types of programming that was provided at the comparison schools.

Section 5 explores the demographic and school outcome characteristics associated with students served in CSI programming relative to overall school populations. The goal of this section is to provide the reader with a clear understanding of who participated in CSI programming and how they compared to the overall population of the schools in question.

Section 6 of the report describes results from the impact analyses oriented at answering the primary evaluation question underpinning the study. Here again, impact analyses are focused on outcomes related to school day attendance, disciplinary incidents, and school climate–related scores from the 5Essentials survey.

Finally, a conclusion and recommendations section provides a summary of what was learned from the impact analyses described in the report and a series of recommendations regarding what may warrant consideration in future analyses.

4. Changes in the Activity and Service Infrastructure at FY13 Schools

To what extent were students enrolled in FY13 CSI schools participating in 21st CCLC programming and services, and how did this compare to students in the comparison schools? Other afterschool and summer learning programs?

The primary purpose of the 21st CCLC program is to fund additional student supports and opportunities through afterschool and summer learning programming. In order to explore how afterschool and summer programming changed at FY13 schools with the onset of 21st CCLC funding, the evaluation team first calculated the following metrics related to student enrollment and engagement in afterschool and summer learning:

1. The percentage of the school’s population attending afterschool and/or summer programming supported as part of CSI implementation at the school.

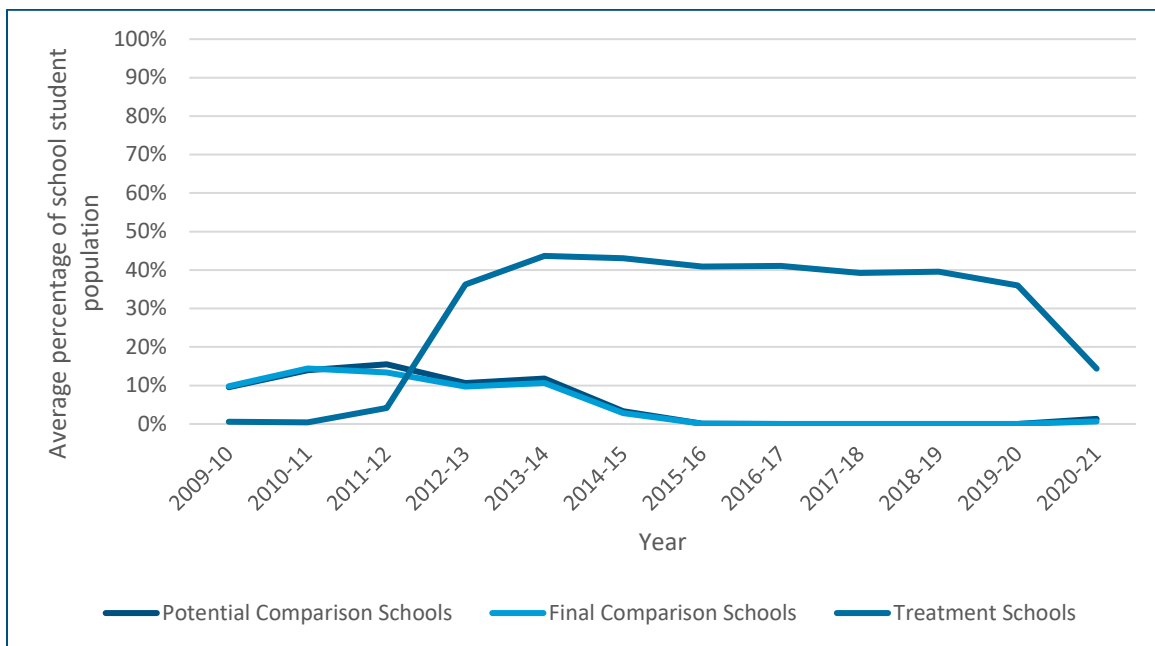
2. The percentage of the school's population attending any afterschool and/or summer programming irrespective of the funding source documented in Cityspan.
3. The total number of participation hours students spent in afterschool and summer programming supported as part of CSI implementation at the school.
4. The total number of participation hours students spent in afterschool and summer programming irrespective of the funding source documented in Cityspan.

These metrics were based on data collected in Cityspan between the 2009–2010 and 2020–2021 school years and were calculated for the FY13 schools (n=21), the full complement of candidate comparison schools (n=80), and the schools ultimately selected as comparison schools for the CITS analyses detailed later in this report (n=63).

Exhibit 4 outlines the percentage of the student population in FY13, candidate comparison schools, and the selected comparison schools for the CITS analysis. As shown in Exhibit 4, prior to the onset of 21st CCLC funding in the FY13 schools, virtually no afterschool and summer programming were being provided in the FY13 schools. Conditions were slightly different in the comparison schools during this period, with roughly 10% to 15% of students across these schools collectively were identified as participating in CSI-supported programming and services. However, with the onset of 21st CCLC funding in 2012–13, the percentage of students enrolled in FY13 schools enrolled in CSI programming ballooned to between 36% and 44% of the school population between the 2012–13 and 2019–20 school years before falling to 14% in 2020–21 with the onset of the Covid–19 pandemic.

In the comparison schools, the rate of involvement in CSI programming remained at around 10% of enrolled students until 2014–15 when the level of involvement of students in programming fell to near 0% for the remainder of the implementation period under consideration. Between 2009–10 and 2014–15, there were anywhere between 8 and 14 schools in the comparison group that appeared to have some levels of CSI funding during this period (between 2012–13 and 2014–15, this number was 8 to 10 schools) although the overall level of service provision in these schools supported by this funding stream appeared to rather low generally. Additionally, these schools were also not engaged in the CQIP activities described previously which were meant to enhance the capacity of schools in the FY13 cohort to implement key structures associated with the newly adopted CSI Implementation Framework (see Exhibit 1).

Exhibit 4. Percentage of School Student Population Participating in Activities Associated with CSI.



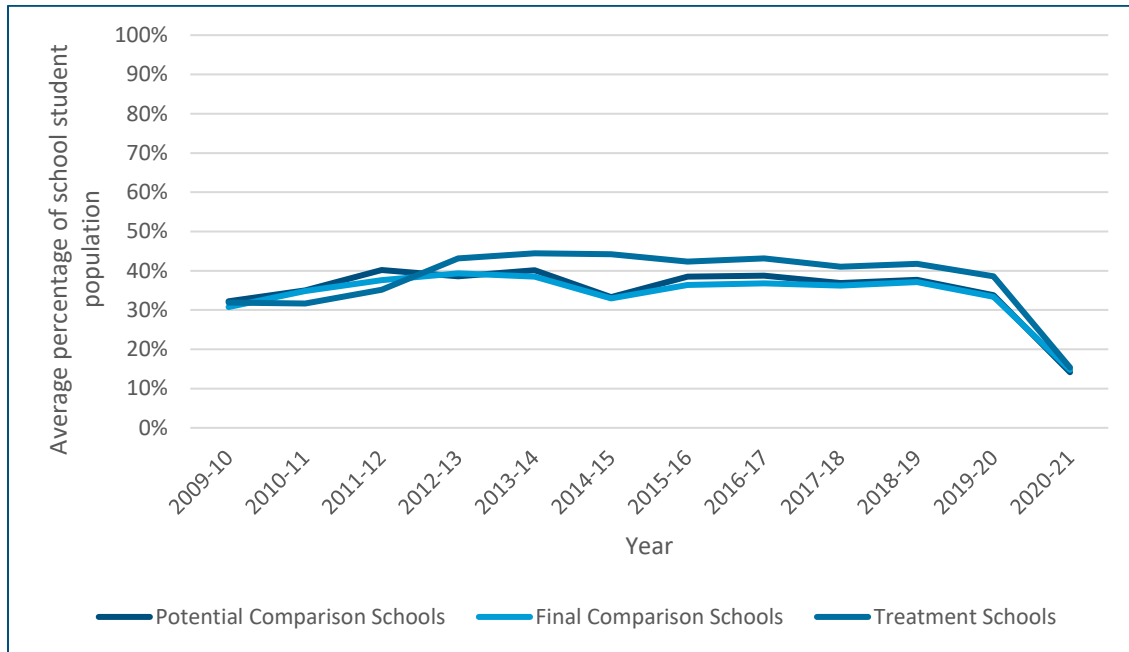
Note. Source: Cityspan, 2009–2010 to 2020–2021 school years.

In order to obtain as comprehensive an understanding as possible of what youth experienced in each type of school, both treatment and comparison, steps were also taken to explore the percentage of a school’s population in each group that participated in all forms of afterschool and summer programming collected in Cityspan irrespective of funding source, both during the preintervention and treatment periods. These results are outlined in Exhibit 5.

What is remarkable about the result shown in Exhibit 5 is the consistency in the percentage of students enrolled in afterschool and summer learning programming at both the treatment and comparison schools during the period examined, ranging between 30% and 45% of the school’s population across all groups, until the onset of the Covid–19 pandemic. The FY13 schools gain a slight 4 to 7 percentage point advantage in terms of the percentage of students served in programming with the onset of 21st CCLC funding in 2012–13 over the comparison schools, which they retained until the start of the Covid–19 pandemic.

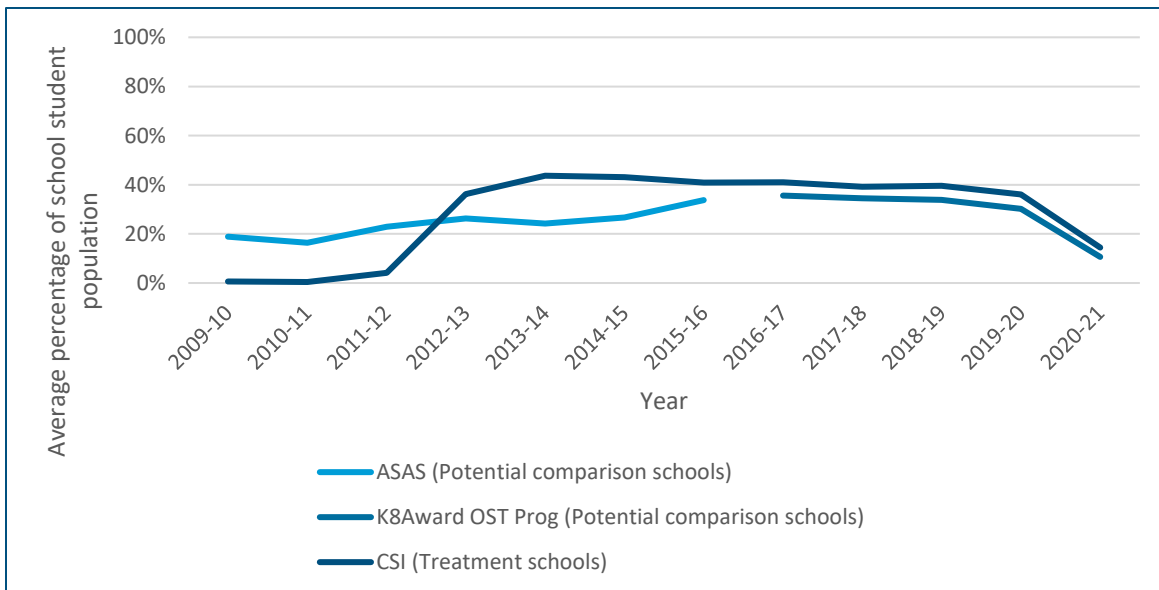
In Exhibit 6, we more closely examine what sources of funding were being used to provide afterschool and summer learning opportunities to students in the comparison schools during the period under consideration. As shown in Exhibit 6, comparison schools were largely relying on After School All Stars (ASAS) funding between 2009–10 and 2015–16 to support programming and the K–8 Out-of-School (OST) grant award program funded directly by the District between 2016–17 and 2020–21.

Exhibit 5. Percentage of School Student Population Participating in Activities Associated with Any Programs Tracked in Cityspan.



Note. Source: Cityspan, 2009–2010 to 2020–2021 school years.

Exhibit 6. Other Programming that Youth in Comparison Schools Participated in, Compared to CSI Program Participation at FY13 Schools.

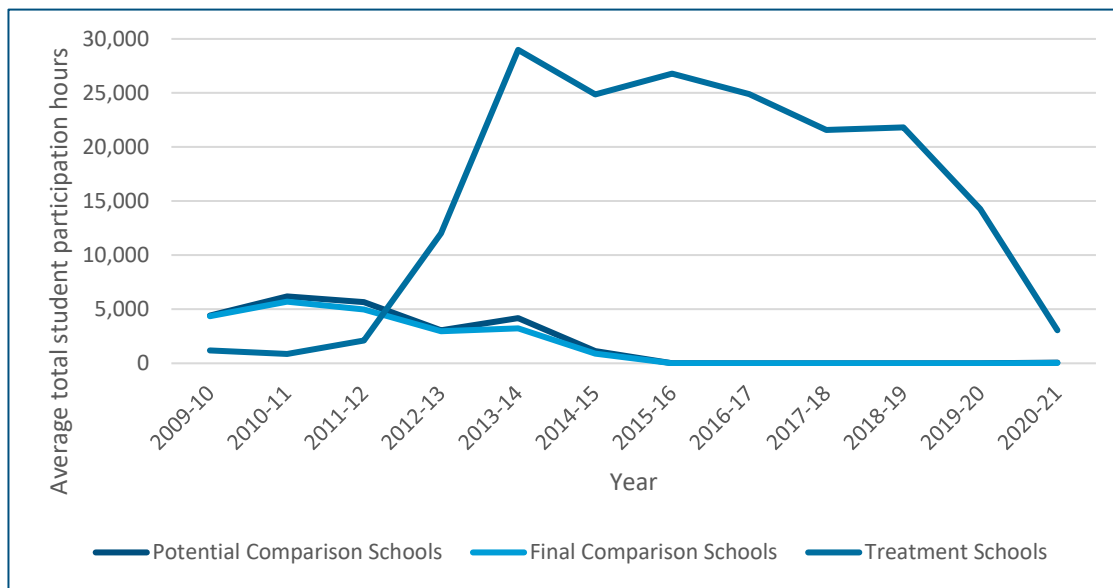


Note. Source: Cityspan, 2009–2010 to 2020–2021 school years.

In addition to assessing the percentage of students enrolled in afterschool and summer programming, it also seemed pertinent to assess the total number of participation hours in programming in order to better understand the service contrast between treatment and comparison schools. Exhibit 7 highlights the change in total participation hours in afterschool and summer programming in FY13 schools compared to the comparison schools once the former set of schools start receiving 21st CCLC funding in 2012–13. As shown in Exhibit 7, there was substantial growth in total CSI participation hours starting in 2012–13 with the start of 21st CCLC funding, peaking in 2013–14, and then slowing falling between 2015–16 and 2018–19 until 2019–20 when the start of the Covid-19 pandemic leads to a precipitous decline in participation in 21st CCLC programming.

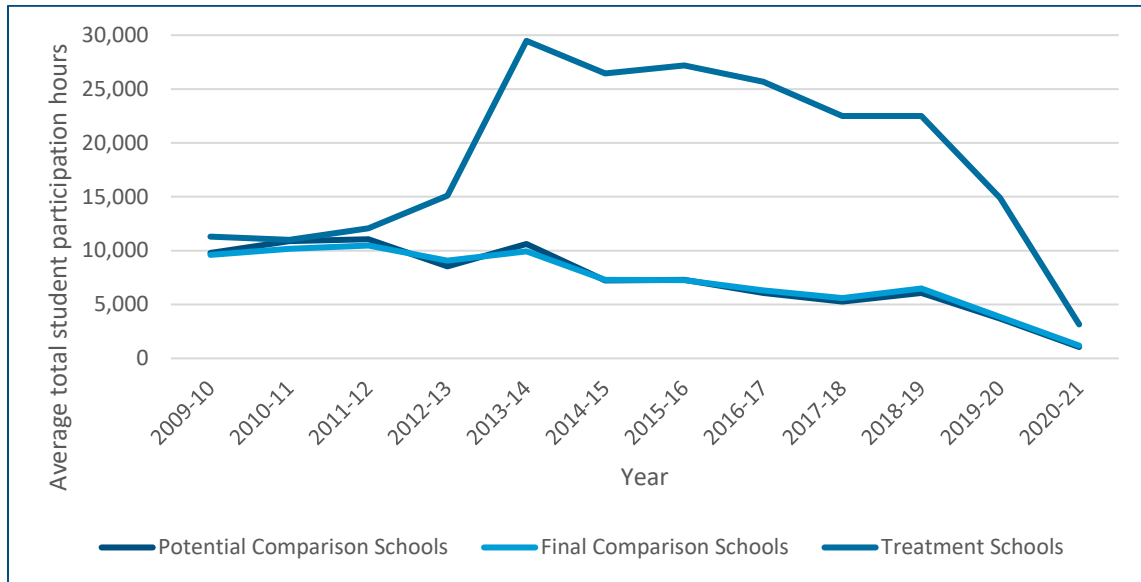
A similar trend is seen in Exhibit 8, which considers participation in all afterschool and summer programming tracked in Cityspan. During the intervention period up until 2019–20, students in comparison schools spent between 5,000 and 10,000 hours total in afterschool and summer programming. By comparison, in FY13 schools, total participation hours largely ranged between 20,000 and 29,000 total hours of participation, suggesting a clear service contrast between FY13 and comparison schools, particularly during the period ranging from 2013–14 and 2018–19.

Exhibit 7. Total Student Participation Hours Associated with CSI.



Note. Source: Cityspan, 2009–2010 to 2020–2021 school years.

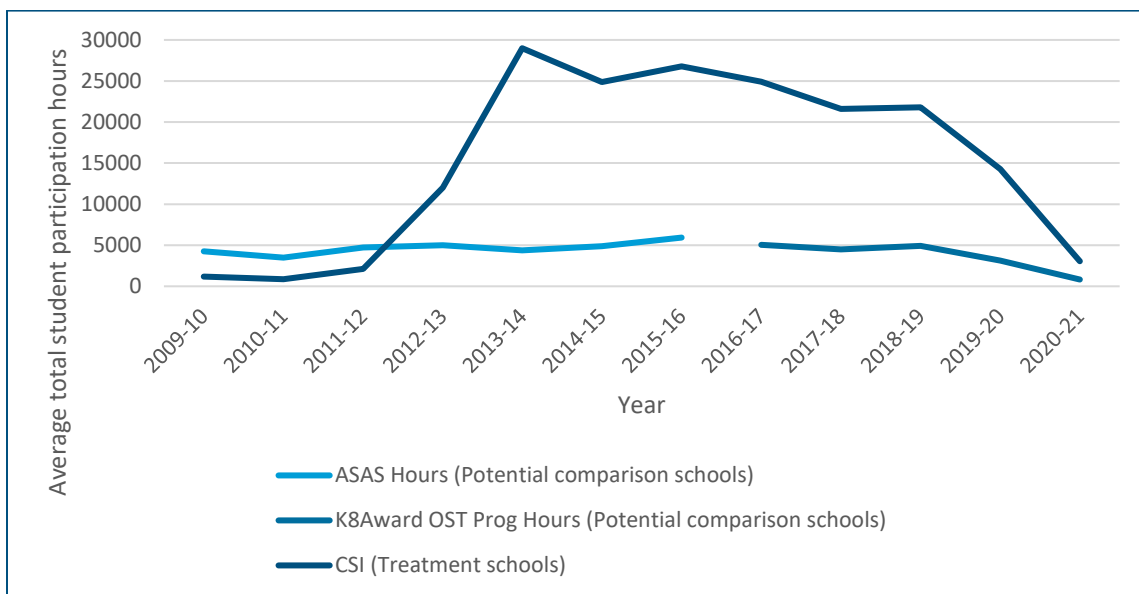
Exhibit 8. Total Student Participation Hours Associated with Any of the Programs Tracked in Cityspan.



Note. Source: Cityspan, 2009–2010 to 2020–2021 school years.

Finally, as outlined previously, most of the afterschool and summer learning programming being provided in comparison schools was being supported first by After School All Stars and later by the K–8 OST grant award program, although participation levels in terms of hours of participation were not nearly as equivalent to hours of CSI participation in FY13 schools (see Exhibit 9).

Exhibit 9. Average Total Hours of Participation for Other Programming that Youth in Comparison Schools Participated in, Compared to CSI Program Participation at FY13 Schools.



Note. Source: Cityspan, 2009–2010 to 2020–2021 school years.

4.1 CSI Program Attendance Over Time

Finally, in order to understand the degree to which students enrolled in FY13 schools were exposed to 21st CCLC programming, steps were also taken to assess how many years students enrolled in FY13 schools participated in CSI programming during the intervention period. As shown in Exhibit 10, 82% of students enrolled in FY13 schools appearing in Cityspan attended programming at some point during the intervention period, although the plurality attended for only one year, while another 20% attended CSI programming for at least 2 years, leaving just under a quarter of students attending programming for 3 years or more. If students did attend CSI programming for consecutive years, it was likely to be for 2 or 3 consecutive years in most cases.

Exhibit 10. The Number and Percentage of Students Attending CSI Programming by Years of Participation, In Any Year and Consecutively

Years of participation in CSI programming	All students, any year		All students, multiple consecutive years	
	Number of students	Percentage of students	Number of students	Percentage of students
0 Years	6,318	17.6%	NA	NA
1 Year	13,824	38.4%	NA	NA
2 Years	7,338	20.4%	7,083	51.2%
3 Years	4,151	11.5%	3,460	25.0%
4 Years	2,322	6.5%	1,802	13.0%
5 Years	1,144	3.2%	808	5.8%
6 Years	531	1.5%	392	2.8%
7 Years	230	0.6%	196	1.4%
8 Years	89	0.2%	81	0.6%
9 Years	8	<0.1%	8	0.1%
Total	35,955	100.0%	13,830	100.0%

Note. Sample includes all students with Cityspan data at the treatment schools. Source: Cityspan, 2009–2010 to 2020–2021 school years.

KEY EVALUATION FINDINGS

Based on the data presented in Exhibits 4–9, the onset of 21st CCLC funding during the 2012–2013 school year was associated with a rise in the percentage of students attending CSI schools who were enrolled in afterschool and summer programming (from 35% in 2011–2012 to 43% in 2018–2019), as well as a substantial rise in the total number of participation hours associated with this programming relative to schools in the comparison group (from 12,065 hours in 2011–2012 to 29,474 in 2013–2014 once schools were fully implementing the 21st CCLC grant). However, by 2020–2021, each of these metrics were in sharp decline due to the challenges associated with the COVID-19 pandemic.

Interestingly, 82% of students enrolled in FY13 schools and that were enrolled in Cityspan attended CSI programming at some point during the intervention period, although 38% of students attended for only one year, while just under half attended programming for 2 years or more.

While the comparison schools served a slightly lower percentage of their school populations in afterschool and summer learning programs largely funded by either After School All Stars or the K–8 OST grant award program, the number of participation hours averaged between 5,000 and 10,000 during most of the intervention period. Overall then, there appeared to be a meaningful service contrast between the FY13 schools and the domain of comparison schools included in the study, making an assessment of potential impact associated with sustained 21st CCLC more feasible to undertake.

5. Characteristics of the Treatment Population in FY13 Schools

What were the demographic and school outcome characteristics of students served in 21st CCLC programming/other afterschool and summer learning programs on average?

Next, the evaluation team explored the demographic and school outcome characteristics associated with students served in CSI programming relative to the overall school population within the treatment schools. These characteristics were examined for the overall school population during the preintervention period (2010–2012), as well as for the overall population and for CSI participants specifically during the intervention period (2013–2021), with the goal of

providing a clear picture of how CSI participants compared to the overall population at FY13 schools. As shown in Exhibit 11, the percentage of students who identified as Black or White decreased slightly from the preintervention to intervention periods, while the percentage of students who identified as Hispanic increased slightly. CSI participants consisted of a slightly larger percentage of females compared to the full student population (54% and 49% respectively), as well as a slightly smaller percentage of students identified as receiving special education (12% and 15% respectively).

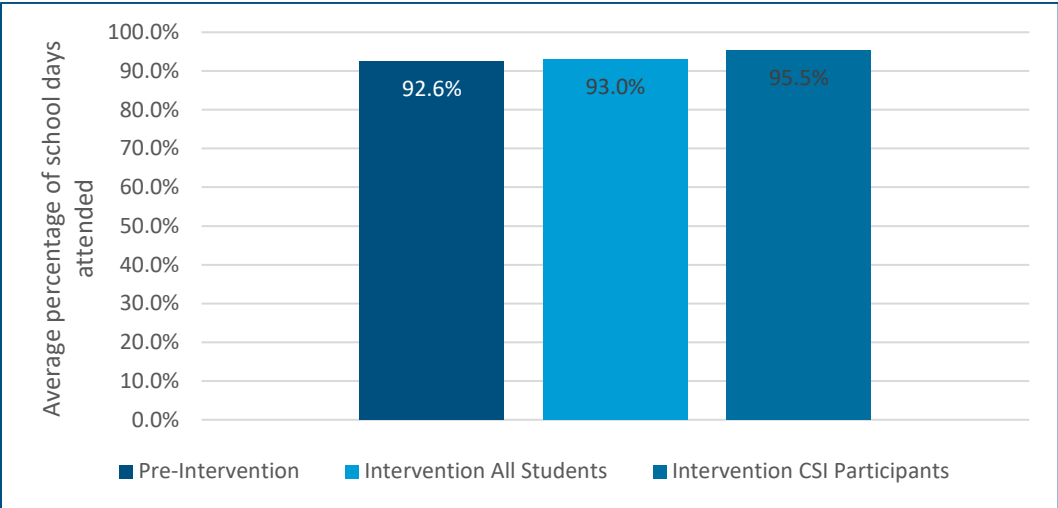
Exhibit 11. Student Demographics for the FY13 Schools during Preintervention and Intervention Time Periods.

Student Demographics	Preintervention	Intervention: All Students	Intervention: CSI Participants
Female	48.8%	48.9%	54.1%
Free or reduced-price lunch	92.4%	89.7%	89.7%
Special Education	13.1%	15.0%	12.1%
English Language Learner	23.1%	25.0%	22.2%
Race/Ethnicity			
Black	19.3%	16.1%	16.8%
Hispanic	72.4%	77.0%	76.7%
White	7.1%	5.7%	5.4%

Note. Preintervention period includes data from 2009–10 to 2011–12. Intervention period includes data from 2012–13 to 2020–21. For all students, N ranges from 16,423 to 22,209 students. For CSI participants, N ranges from 2,103 to 8,227 students. Source: CPS Data Warehouse and Cityspan data from 21 FY13 schools.

The average percentage of school days attended by the full population of students at treatment schools remained fairly consistent during both the preintervention and intervention periods (approximately 93%), while CSI participants showed a slight increase in their school-day attendance rate during the intervention period (see Exhibit 12).

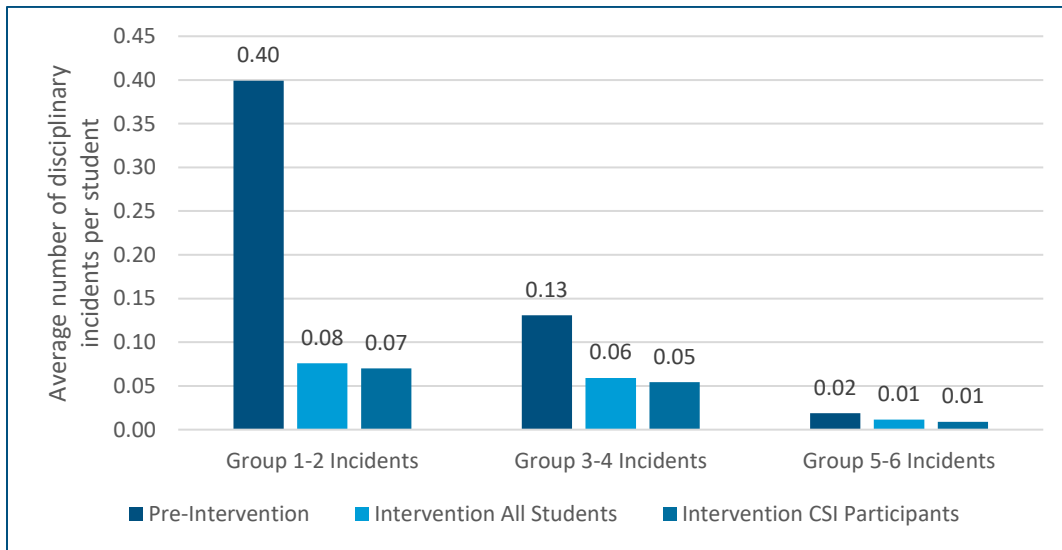
Exhibit 12. Average Percentage of School Days Attended by Students at FY13 Schools.



Note. Preintervention period includes data from 2009–10 to 2011–12. Intervention period includes data from 2012–13 to 2020–21. For all students, N ranges from 17,425 to 22,478 students. For CSI participants, N ranges from 5,931 to 8,241 students. Source: CPS Data Warehouse and Cityspan data from 21 FY13 schools.

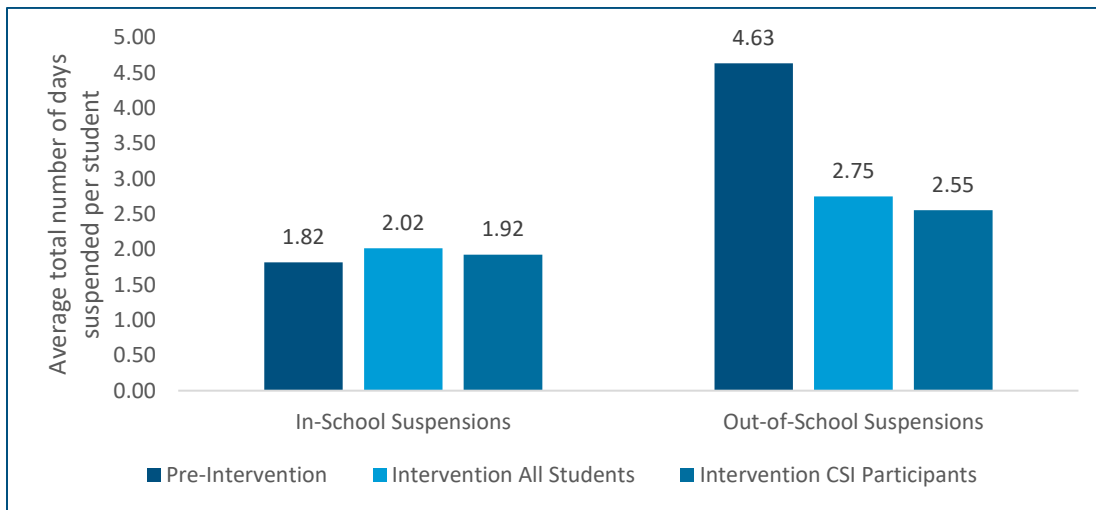
To examine discipline outcomes, the evaluation team considered both the number of disciplinary incidents a student incurred, as well as the total number of days spent in in-school suspensions (ISS) or out-of-school suspensions (OSS) for students who received a suspension. For disciplinary incidents of all types (groups 1-6), the average number of disciplinary incidents per student decreased from the preintervention period to the intervention period. CSI participants saw a slightly larger decrease in the average number of disciplinary incidents compared to the full student population (see Exhibit 13). The average total number of days spent in ISS increased slightly for both CSI participants and the full student population during the intervention period, while time spent in OSS decreased for both groups (see Exhibit 14).

Exhibit 13. Average Number of Disciplinary Incidents per Student at FY13 Schools.



Note. Preintervention period includes data from 2010–11 to 2011–12. Intervention period includes data from 2012–13 to 2020–21. For all students, N ranges from 17,425 to 22,478 students. For CSI participants, N ranges from 5,931 to 8,241 students. Source: CPS Data Warehouse and Cityspan data from 21 FY13 schools.

Exhibit 14. The Average Total Number of Days Suspended per Student at FY13 Schools for Students who Received Suspensions.

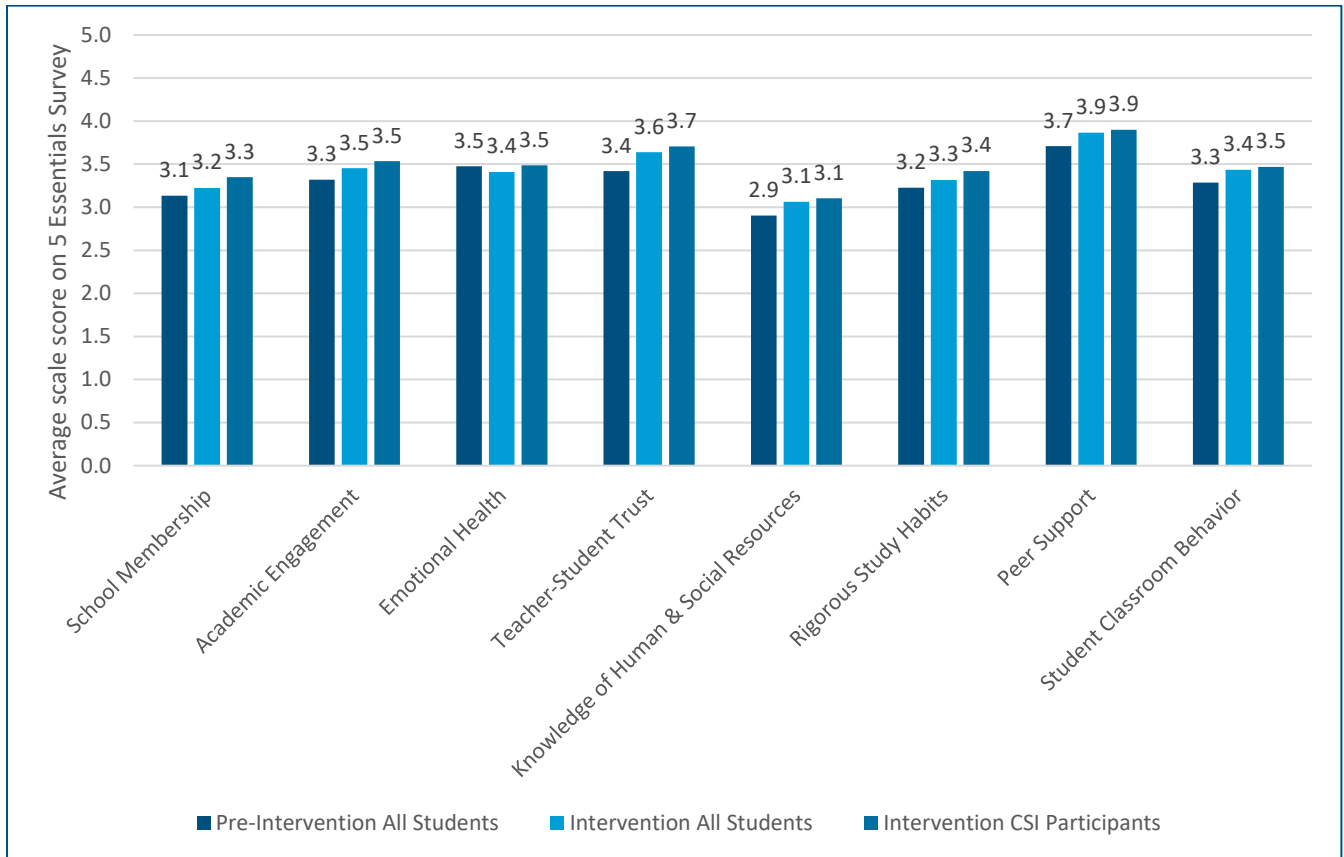


Note. Preintervention period includes data from 2010–11 to 2011–12. Intervention period includes data from 2012–13 to 2019–20. For all students, N ranges from 216 to 1,894 students. For CSI participants, N ranges from 46 to 415 students. Source: CPS Data Warehouse and Cityspan data from 21 FY13 schools.

The evaluation team also analyzed students’ responses to eight specific scales on the 5Essentials school climate student survey: psychological sense of school membership, academic engagement, emotional health, teacher–student trust, knowledge of human and social

resources in the community, rigorous study habits, peer support for academic work, and student classroom behavior. For all eight scales, CSI participants had slightly higher scale scores compared to the full student population during both the preintervention and intervention periods (see Exhibit 15).

Exhibit 15. Average Scale Scores on 5Essentials Student Surveys at FY13 Schools.



Note. Preintervention period includes data from 2010–11 to 2011–12. Intervention period includes data from 2012–13 to 2020–21, excluding 2019–20 due to the pandemic. For all students, N ranges from 4,943 to 7,789 students. For CSI participants, N ranges from 677 to 3,492 students. Source: CPS Data Warehouse and Cityspan data from 21 FY13 schools.

KEY EVALUATION FINDINGS

Generally, students participating in CSI programming at FY13 schools were reflective of the student population for the overall school, with CSI participants being slightly more female and less associated with special education or English learner status. Descriptively, students engaged in CSI programming generally performed better on outcomes related to school-day

attendance, disciplinary incidents, and scales measured by the 5Essentials survey than students enrolled in FY13 schools before the receipt of 21st CCLC funding and school-level performance on these outcomes taking into consideration all students enrolled at FY13 schools during the intervention period.

6. Impact Analysis

What effect did receipt of 21st CCLC funding to support CSI implementation at FY13 schools have on student outcomes relative to similar schools not receiving 21st CCLC funding?

As described at the outset of this report, implementing the CSI model at a given school is hypothesized to support the achievement of a wide variety of possible positive outcomes for enrolled students and their families, including exposure to new opportunities and content, the development of social and emotional skills and competencies, the development of behaviors deemed important for school success, and better health and well-being among enrolled youth. In this sense, the CSI model, when fully implemented, represents a substantive and complex whole-school reform strategy that is likely to take years to implement in an optimal fashion. It has to be acknowledged, however, that with average annual funding of approximately \$150,000 annually, there are limits on how much progress can be made in fully instantiating a community school model predicated on a service delivery infrastructure that fills all support and opportunity gaps schools associated with the FY13 cohort were likely to have encountered during the span of the past 10 years. In light of this, we encourage the reader to set expectations appropriately for what school-level effects are likely to have been achieved through the provision of 21st CCLC support.

6.1 Comparative Interrupted Time Series (CITS)

In order to complete an assessment of how implementation of the CSI model may have affected student outcomes, the evaluation team opted to employ a comparative interrupted time series (CITS) design. As previously noted, CITS is one of the strongest quasi-experimental designs that can be used when a comparison or control series can be constructed in the absence of a randomized controlled trial (Bloom, 2003; Shadish et al., 2001). The goal of a CITS analysis is to compare the trends for a given outcome over time between a treatment group (in this case, the 21 schools enrolled in the FY13 cohort) and a comparison group (in this case, the original list of 63 schools matched to schools in the FY13 cohort using the propensity score matching methods described previously that did not receive 21st CCLC funding as part of the

FY13 cohort grant). This requires having data about the outcomes being examined before the CSI model was implemented at a given school and then after implementation has begun for both the treatment and comparison schools. What we hope to see is that the trends for the treatment schools will have shifted in a more positive manner after CSI implementation was underway compared with the trendlines for the comparison schools. The CITS design relied on pre-21st CCLC funding data from the 2010–2011 to 2011–2012 school years, with the exception of models examining effects related to scales associated with the 5Essential surveys, which used data just from 2011–2012, the first year these data were available.

The relatively short period for which preintervention data were available was not optimal. Normally, for a CITS analysis of this type, it would be desirable to have 3 to 4 years of preintervention data available. The fact that this was not the case for these analyses summarized in this report is one substantive limitation associated with these findings.

The impact analysis focused on the 21 CSI schools associated with the FY13 cohort. As described previously, potential comparison schools were first limited to the pool of CPS schools who were eligible to receive the SCS funding but did not and to those schools that would eventually receive 21st CCLC funding as part of the FY21 cohort. The final matched set of comparison schools was selected via propensity scores. This approach models the propensity (probability) that a school received FY13 cohort funding based on a large list of pre-funding variables. FY13 schools were then matched to comparison pool schools with similar propensity scores. Each FY13 school was matched to three comparison schools given that there were a larger number of potential comparison schools (80).

The research design used the preintervention trend line of an outcome variable (e.g., school day attendance, disciplinary incidents) as a comparison for the outcome measurements obtained after the onset of FY13 21st CCLC funding. Changes in the overall level of the outcome (intercept change) or its slope over time following the start of FY13 funding provided evidence about whether the initiative had an impact on students and their schools.

In a CITS design, a school's performance is first compared to its expected performance based on pre-CSI implementation. In general, CITS robustly controlled for fixed differences between the FY13 and comparison schools (e.g., performance outcomes, demographic composition, neighborhood effects, etc.).

CITS designs are strengthened by adding a comparison group of schools that are not implementing the intervention in question—in this case, FY13 21st CCLC funding. The primary reason for including a comparison group for a CITS design is to account for “history threat.” History threat can occur when multiple factors may have been influencing changes in performance in the FY13 schools, with those factors occurring simultaneously with the

introduction of 21st CCLC funding. The comparison group can protect against this threat by averaging out the effect of other policy and practice changes that may have happened in the district at the same time as the introduction of FY13 funding. The CITS models were run for both the full comparison group and the matched comparison group. Matched results are highlighted in the report.

6.2 Outcomes Examined

The outcome categories examined in undertaking the CITS analysis were selected based on previous impact analyses conducted by the evaluation team where effects related to CSI implementation were found to be especially prominent:

- Outcomes related to school–day attendance
- Outcomes related to disciplinary incidents
- Outcomes related to scales appearing on the 5Essentials survey

In Exhibit 16, we outline the outcomes that we examined when conducting the CITS analyses, along with the preintervention and postintervention periods included in each analysis. As noted previously and in Exhibit 16, only two years of preintervention data were used for outcomes associated with school-day attendance and disciplinary incidents, while only one year of preintervention data was available for the 5Essentials survey scales. Additionally, when conducting the propensity score matching–based analyses, only outcome data related to school-day attendance and disciplinary incidents were included in these processes, while data related to the 5Essential survey were not given the availability of these data for only one preintervention year. This is another limitation of the analyses outlined in this section of the report.

Exhibit 16. List of Student Outcomes Examined by School Year

School outcomes	Preintervention		Treatment
	2010–2011	2011–2012	2012–2013 to 2020–2021*
School–day attendance			
Percent of school membership days attended	●	●	●
School–day disciplinary incidents			
Sum of incidents in offense groups 1 and 2	●	●	●
Sum of incidents in offense groups 3 and 4	●	●	●
Sum of incidents in offense groups 5 and 6	●	●	●

School outcomes	Preintervention		Treatment
	2010–2011	2011–2012	2012–2013 to 2020–2021*
Out-of-school suspensions	●	●	●
In-school suspensions	●	●	●
5Essential survey scales			
Psychological sense of school membership		●	●
Academic engagement		●	●
Emotional health		●	●
Teacher–student trust		●	●
Knowledge of human and social resources in the community		●	●
Rigorous study habits		●	●
Peer support for academic work		●	●
Student classroom behavior		●	●

*5Essentials survey data were not collected for the 2019–20 school year due to the Covid-19 pandemic

6.3 CITS Results

Annual effect estimates comparing FY13 schools with the 63 comparison school resulting from the CITS that were statistically significant can be found in Exhibit 17. The summary highlighted in Exhibit 17 outlines both significant positive (i.e., resulting in a desired outcome) and negative (i.e., resulting in a non-desirable outcome) effects. In the Exhibit, the following structure is used to communicate effects found to be significant or moderately significant:

- indicates a significant positive effect ($p < .05$).
- indicates a moderately significant positive effect ($p < .10$).
- indicates a moderately significant negative effect ($p < .10$).

As shown in Exhibit 17, the vast majority of the statistically significant and moderately significant effects were found to be both positive and related to improvements in outcomes related to disciplinary incidents in FY13 schools. More detailed results for each model with significant results can be found in Appendix A.

Exhibit 17. Student Outcomes Where FY13 Schools Were Found to Have a Significant Effect Compared With a Matched Set of Comparison Schools Based on CITS Analyses

Outcomes	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21
Disciplinary Incidents									
Incidents in offense groups 1 and 2	●		●	●	●		○		
Incidents in offense groups 3 and 4				○	○	○	○		
Incidents in offense groups 5 and 6			○		○				
Out-of-school suspensions	●	○	●	●	○	○	●		
In-school suspensions	○		●	●	○				
5Essential survey scales									
Peer support for academic work			●						

Note. CITS = comparative interrupted time series. No 5Essentials survey data was collected in 2019–20 due to the Covid-19 pandemic. Source: CPS Data Warehouse data from 21 FY13 schools and 63 comparison schools.

- indicates a significant positive effect ($p < .05$).
- indicates a moderately significant positive effect ($p < .10$).
- indicates a moderately significant negative effect ($p < .10$)

6.4 Significant Positive Impacts in FY13 Schools

As shown in Exhibit 17, the most consistent significant, positive effects were found in relation to **reductions in disciplinary incidents in FY13 schools**, particularly during the 2014–2015 to 2016–2017 school years, which would have been during years 3 through 5 of the FY13 cohort’s first round of 21st CCLC grant funding. Additional details related to positive improvements in the outcomes examined related to disciplinary incidents are as follows:

- **Decline in incidents in offense groups 1 and 2.** Significant reductions in disciplinary incidents in offense groups 1 and 2 were found in 4 of the 5 years associated with the first round of 21st CCLC funding, with a moderately significant reduction in incidents in this group also occurring in year 7 of funding. More specifically, we found a 72% reduction in the number of discipline incidents among students in FY13 schools when compared to comparison students in the first year of CSI implementation. Similar reductions in the number of group 1 and 2 discipline incidents among students in FY13 schools compared to students in comparison schools were found in years 3 to 5 of 21st CCLC funding.
- **Decline in incidents in offense groups 3 and 4.** Only moderately significant reductions were found in relation to disciplinary incidents in offense groups 3 and 4 in years 4 to 7 of 21st CCLC funding. For example, we found a moderate 40% reduction in the number of group 3 and 4 discipline incidents among students in FY13 schools when compared to comparison students in the fourth year of the intervention. In addition, there were similarly moderate reductions in the number of discipline incidents among students in FY13 schools compared to students in comparison schools in years 5 to 7 following the start of CSI implementation.
- **Decline in incidents in offense groups 5 and 6.** Here again, only moderately significant reductions were found in relation to disciplinary incidents in offense groups 5 and 6, specifically in years 3 and 5 of 21st CCLC funding. In this case, a moderate 41% reduction was observed in the third year of CSI implementation and a moderate 43% reduction in the fifth year in the number of group 5 and 6 discipline incidents among students in FY13 schools when compared to students enrolled in the comparison schools.
- **Decline in out-of-school suspensions.** Reductions in out-of-school suspensions was the most consistent effect associated with CSI implementation, with significant or moderately significant effects observed in the first seven years of CSI implementation at FY13 schools. We found a 51% reduction in the number of out-of-school suspensions among students in FY13 schools compared to comparison students in the first year of

CSI implementation, with similar reductions in the number of suspensions in later years where the effect was found to be statistically significant.

- **Decline in in-school suspensions.** Although we found a moderately significant negative effect (meaning a higher number of incidents) in FY13 schools related to in-school suspensions in the first year of 21st CCLC funding, significant or moderately significant reductions were observed in years 3 to 5 in FY13 schools relative to students in the comparison schools. More specifically, we found a significant 58% reduction in the number of suspensions among students in intervention schools when compared to comparison students in the third year of the intervention and similarly in year 4.

Finally, one positive effect was also found in relation to the **peer support for academic work** scale of the 5Essentials survey among schools in the FY13 cohort in year 3 of CSI implementation. In this case, we found that students in FY13 schools showed a 0.12 scale score point improvement on the peer support scale (which ranged from 1 to 5) compared to comparison students in the third year of the CSI implementation.

KEY EVALUATION FINDINGS

As highlighted in Exhibit 17, enrollment in an FY13 school during the CSI implementation period was associated with a general reduction in all disciplinary incidents assessed, particularly during years 3 to 5 of 21st CCLC funding relative to students in the matched comparison schools. Reductions were especially sustained in relation to out-of-school suspensions and in relation to incidents in offense groups 1 and 2 where significant and moderately significant reductions were noted across several years of 21st CCLC funding, ranging from 50% to 70% respectively on an annual basis relative to schools in the matched comparison group.

No significant effects were found in relation to outcomes related to school-day attendance or in relation to most of the 5Essentials survey scales examined, with the exception of peer support for academic work where one significant, positive effect was found in relation to being enrolled in a FY13 school in year 3 of 21st CCLC funding.

7. Conclusions and Recommendations

The primary purpose of this report was to answer the following primary evaluation question in relation to the 21 schools receiving 21st CCLC funding as part of the FY13 cohort:

What effect did receipt of 21st CCLC funding to support CSI implementation at FY13 schools have on student outcomes relative to similar schools not receiving 21st CCLC funding?

In order to answer this question, a series of CITS analyses were run to examine how students enrolled in FY13 schools during the 2012-13 to 2020-21 school year performed on a series of school-related outcomes compared to students enrolled in 63 comparison schools selected through propensity score matching. More specifically, the evaluation team examined outcomes related to school-day attendance, disciplinary incidents, and scales related to school climate assessed on the 5Essentials survey. Results from these analyses demonstrated substantive reductions in the full domain of outcomes examined related to disciplinary incidents, particularly in relation to incidents classified in groups 1 and 2 and out-of-school suspensions and especially during years 3 to 5 of 21st CCLC funding which overlapped with the 2014-15 to 2016-17 school years. Additionally, an isolated positive effect was also observed in relation to the peer support for academic work scale of the 5Essentials survey in one year of CSI implementation among schools in the FY13 cohort.

Overall, the effects assessed through the CITS summarized in this report are more expansive and positive than what we have observed in other similar analyses conducted in relation to CSI programs implemented by the District (Naftzger et al., 2020, Naftzger, Vinson, & Swanlund, 2021).

Notably, schools in the FY13 cohort were the first set of CSI schools that were exposed to the CSI Implementation Framework and that were asked to engage in the CQIP process for the full lifecycle of CSI funding. We do not have any evidence to suggest that this resulted in more positive outcomes, but generally fidelity to the requirements associated with the CQIP were relatively high among schools in the FY13 cohort.

Finally, we think it is advisable to spend additional time exploring these findings by (a) more closely examining outcomes among students with sustained involvement in programming over time, including what the characteristics of these students were and what CSI activities they participated in and (b) the extent to which outcome trends may have varied among different schools represented in the FY13 cohort. These types of analyses may help further unravel why

some of the positive effects in question were observed which may help inform the types of practices and approaches that may warrant broader adoption and replication in the future.

References

- Bloom, H. (2003). Using “short” interrupted time-series analysis to measure the impacts of whole-school reforms: With applications to a study of accelerated schools. *Evaluation Review*, 27(1), 3–49.
- Naftzger, N., Diehl, D., Bradley, D., Vinson, M., Liu, F., & Vote, A. (2020). *2019-20 Chicago Public Schools Community Schools Initiative annual evaluation report: Fiscal year 2013 cohort*. American Institutes for Research.
- Naftzger, N., & Liu, F. (2019). *Chicago Public Schools Community Schools Initiative: FY15 cohort impact analysis findings*. American Institutes for Research.
- Naftzger, N., Vinson, M., and Swanlund, A. (2021). *Chicago Public Schools Sustainable Community Schools Initiative: Findings from an initial examination of initiative impact*. American Institutes for Research.
- Naftzger, N., William, R., & Liu, F. (2014). *Chicago Public Schools Community Schools Initiative evaluation: 2011-12 impact report*. American Institutes for Research.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2001). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth Cengage Learning.
- Zander, K., Burnside, E., & Poff, M. (2010). *The development of an implementation and sustainability process strategy (ISPS) for the Chicago Public Schools Community Schools Initiative: Findings and recommendations*. Chicago, IL: Chicago Public Schools.

Appendix A: CITS Results

Exhibit A.1. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Percent of Schools Days Present

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.00	0.01	.98
Year 2 effect	-0.00	0.01	.55
Year 3 effect	-0.01	0.01	.36
Year 4 effect	-0.01	0.01	.40
Year 5 effect	-0.01	0.01	.17
Year 6 effect	-0.01	0.01	.19
Year 7 effect	-0.01	0.01	.45
Year 8 effect	-0.01	0.01	.54
Year 9 effect	0.00	0.01	.96

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.2. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Group 1 & 2 Discipline Incidents

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	-1.29	0.47	.01
Year 2 effect	-1.00	1.01	.32
Year 3 effect	-1.89	0.88	.03
Year 4 effect	-1.96	0.85	.02
Year 5 effect	-1.84	0.88	.04
Year 6 effect	-1.53	1.00	.12
Year 7 effect	-1.59	0.94	.09
Year 8 effect	-1.25	1.02	.22
Year 9 effect	-1.51	1.11	.17

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.3. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Group 3 & 4 Discipline Incidents

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	-0.20	0.21	.35
Year 2 effect	-0.52	0.39	.18
Year 3 effect	-0.52	0.46	.26
Year 4 effect	-0.52	0.27	.05
Year 5 effect	-0.60	0.36	.09
Year 6 effect	-0.60	0.36	.10
Year 7 effect	-0.68	0.35	.05
Year 8 effect	-0.34	0.40	.39
Year 9 effect	-0.39	0.59	.52

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.4. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Group 5 & 6 Discipline Incidents

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	-0.23	0.19	.22
Year 2 effect	-0.16	0.24	.51
Year 3 effect	-0.53	0.27	.05
Year 4 effect	-0.35	0.27	.19
Year 5 effect	-0.56	0.30	.06
Year 6 effect	-0.34	0.44	.44
Year 7 effect	-0.37	0.54	.49
Year 8 effect	0.09	0.33	.78
Year 9 effect	-0.34	0.79	.66

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.5. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—In School Suspension Incidents

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.80	0.42	.06
Year 2 effect	0.67	0.55	.22
Year 3 effect	-0.86	0.36	.02
Year 4 effect	-0.86	0.30	.004
Year 5 effect	-0.78	0.44	.08
Year 6 effect	0.21	0.43	.63
Year 7 effect	-0.12	0.34	.72
Year 8 effect	-0.39	0.55	.49
Year 9 effect	-0.34	0.50	.50

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.6. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Out of School Suspension Incidents

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	-0.72	0.25	.004
Year 2 effect	-0.74	0.43	.09
Year 3 effect	-0.71	0.32	.03
Year 4 effect	-0.61	0.28	.03
Year 5 effect	-0.93	0.48	.05
Year 6 effect	-0.80	0.48	.09
Year 7 effect	-0.98	0.46	.03
Year 8 effect	-0.11	0.43	.80
Year 9 effect	-0.28	0.54	.61

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.7. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Psychological Sense of School Membership Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.00	0.04	.91
Year 2 effect	-0.02	0.05	.68
Year 3 effect	0.01	0.06	.84
Year 4 effect	-0.07	0.05	.21
Year 5 effect	-0.03	0.06	.68
Year 6 effect	-0.00	0.05	.99
Year 7 effect	-0.03	0.04	.42
Year 8 effect	-	-	-
Year 9 effect	-0.01	0.05	.92

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.8. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Academic Engagement Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.02	0.03	.55
Year 2 effect	-0.05	0.05	.29
Year 3 effect	-0.01	0.06	.89
Year 4 effect	-0.06	0.05	.27
Year 5 effect	-0.05	0.05	.34
Year 6 effect	-0.02	0.04	.66
Year 7 effect	-0.05	0.04	.21
Year 8 effect	-	-	-
Year 9 effect	0.00	0.05	.93

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.9. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Emotional Health Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.03	0.03	.39
Year 2 effect	0.00	0.04	.94
Year 3 effect	0.02	0.05	.72
Year 4 effect	-0.05	0.04	.25
Year 5 effect	-0.05	0.05	.30
Year 6 effect	0.02	0.04	.64
Year 7 effect	-0.02	0.03	.49
Year 8 effect	-	-	-
Year 9 effect	-0.03	0.04	.40

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.10. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Teacher-Student Trust Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.03	0.04	.46
Year 2 effect	-0.02	0.06	.68
Year 3 effect	0.03	0.07	.67
Year 4 effect	-0.02	0.05	.67
Year 5 effect	-0.03	0.05	.49
Year 6 effect	0.02	0.05	.58
Year 7 effect	-0.05	0.04	.25
Year 8 effect	-	-	-
Year 9 effect	-0.00	0.06	.98

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.11. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Peer Support for Academic Work Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.04	0.04	.32
Year 2 effect	0.06	0.05	.26
Year 3 effect	0.12	0.05	.02
Year 4 effect	-0.04	0.06	.49
Year 5 effect	-0.01	0.05	.81
Year 6 effect	-0.01	0.04	.76
Year 7 effect	-0.02	0.04	.55
Year 8 effect	-	-	-
Year 9 effect	0.03	0.04	.54

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.12. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Knowledge of Human and Social Resources in the Community Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.02	0.03	.63
Year 2 effect	0.01	0.04	.89
Year 3 effect	0.04	0.05	.45
Year 4 effect	-0.02	0.04	.68
Year 5 effect	-0.01	0.04	.82
Year 6 effect	-0.05	0.04	.27
Year 7 effect	-0.03	0.04	.49
Year 8 effect	-	-	-
Year 9 effect	0.04	0.04	.33

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.13. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Student Classroom Behavior Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.02	0.04	.65
Year 2 effect	0.01	0.05	.91
Year 3 effect	0.06	0.05	.21
Year 4 effect	-0.02	0.05	.66
Year 5 effect	-0.00	0.05	.99
Year 6 effect	0.05	0.05	.24
Year 7 effect	0.02	0.04	.66
Year 8 effect	-	-	-
Year 9 effect	-0.01	0.05	.83

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

Exhibit A.14. Summary of FY13 Effects Compared With a Matched Set of Comparison Schools Based on a CITS Analysis by Year—Rigorous Study Habits Scale

Annual Effect	Estimate	S.E.	<i>p</i> value
Year 1 effect	0.01	0.04	.82
Year 2 effect	-0.04	0.04	.24
Year 3 effect	0.01	0.05	.84
Year 4 effect	-0.02	0.04	.58
Year 5 effect	-0.04	0.04	.34
Year 6 effect	-0.03	0.04	.56
Year 7 effect	-0.05	0.04	.17
Year 8 effect	-	-	-
Year 9 effect	0.05	0.05	.30

Note. Source: CPS Data Warehouse data from 21 FY13 schools and a matched set of 63 comparison schools.

About the American Institutes for Research

Established in 1946, with headquarters in Arlington, Virginia, the American Institutes for Research® (AIR®) is a nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance to solve some of the most urgent challenges in the U.S. and around the world. We advance evidence in the areas of education, health, the workforce, human services, and international development to create a better, more equitable world. The AIR family of organizations now includes IMPAQ, Maher & Maher, and Kimetrica. For more information, visit [AIR.ORG](https://www.air.org).



AIR® Headquarters

1400 Crystal Drive, 10th Floor
Arlington, VA 22202-3289
+1.202.403.5000 | [AIR.ORG](https://www.air.org)