# Analysis of CitySchools Collaborative Supports for Tutoring Providers and Student Outcomes

Josh Boots and Rose Hoffman EmpowerK12 August 2025



Math tutoring at DC Scholars PCS.

## Analysis of CitySchools Collaborative Supports for Tutoring Providers and Student Outcomes

## **Executive Summary**

This report presents findings from an evaluation of CitySchools Collaborative's, formerly CityTutor DC, intermediary model for supporting high-impact tutoring (HIT) during the 2024-25 school year. Support offerings included Design Sprints to help schools craft HIT implementation plans, a standards-aligned math curriculum designed specifically for tutors, and comprehensive implementation and technical assistance services for schools and tutoring providers. Last year, CitySchools Collaborative (CSC) served 5,810 students through direct funding and support to 24 tutoring providers and 92 schools across 18 school districts, a 10% increase from 2023-24.

In 2024-25, students received a combined 8.4 million minutes of tutoring from CSC providers, a 14% increase in the total minutes of tutoring received compared to the prior year. CSC defines HIT as students receiving at least 900 minutes, representing 90 minutes per week for ten or more weeks, of one-on-one or small group tutoring in the same subject during the school year. Students who were offered tutoring attended 84% of the scheduled sessions and 68% received a HIT-level dosage of tutoring in math or reading. This implementation success occurred despite significant challenges at partner schools that included high rates of chronic absenteeism and funding delays that affected program launch dates.

Stakeholder surveys demonstrated satisfaction with program quality and perceived impact with 4 in 5 students, tutors, educators, and caregivers recommending their tutoring program(s). Students reported increased confidence in understanding academic material, and teachers expressed that tutors built positive professional relationships with students.

To assess the impact of CSC services on student outcomes empirically, we calculated a regression-adjusted estimate of the correlation between tutoring received and academic growth rates, weighted by the inverse probability of treatment (IPTW), whereby non-tutored students who are most similar characteristically (i.e. same demographics, school, and grade level) with the tutored student universe receive greater weight in the regression. Tutored students that received HIT dosage from CSC providers were associated with greater than expected annual growth in math equivalent to receiving an additional 59 instructional days compared to similar students who were identified for tutoring but did not receive 900+ minutes. The effects in reading were mixed with positive results across the network in 2023-24 and varied results by provider in 2024-25.

We examined the impact of engagement in CSC services on student outcomes utilizing a similar IPTW methodology to compare academic growth rates of CSC tutored students served by providers that were highly engaged, as determined by CSC staff, with other providers. High engagement in CSC services was associated with better academic growth in math. Students receiving HIT dosage from highly engaged providers gained an equivalent of 90 additional instructional days in math learning compared to non-highly engaged providers.

Finally, we assessed whether specific CSC services (i.e. Communities of Practice, Design Sprints, math tutoring curriculum) when isolated were linked to improved academic growth of students by comparing provider performance year-over-year and qualitative survey results. Evidence suggests that participation in Design Sprints and Communities of Practice might lead to improved student outcomes, but gains were not statistically significant. While data does not suggest that providers that adopted CSC's math tutoring curriculum improved their impact on student academic growth in math in 2024-25, tutors felt more confident in teaching academically challenging material.

#### Introduction

The COVID-19 pandemic fundamentally altered the educational landscape in Washington, DC, exacerbating existing achievement gaps and creating unprecedented learning challenges for students furthest from opportunity. Historic levels of missed in-person instruction disproportionately impacted DC's economically disadvantaged students, with the number of proficient students from low-income families declining by 63% in math and dropping 28% in English language arts (ELA) from pre-pandemic levels. These disparities, combined with escalating chronic absenteeism rates, posed complex challenges requiring innovative, evidence-based interventions.

High-impact tutoring (HIT) emerged as a proven recovery strategy with demonstrated effectiveness in the DC context. Research has consistently shown that students who receive adequate dosage of high-quality tutoring make significant academic gains. In DC specifically, students who received full tutoring dosage of 900 or more minutes over ten weeks during the 2022-23 school year significantly outperformed their peers in both ELA and math assessments. Beyond academic gains, tutored students showed higher attendance rates and stronger indicators of school belonging and connection. Emerging data also suggested that tutoring programs were contributing to building a more diverse talent pipeline for DC schools.

Implementing HIT at the scale needed to address citywide learning challenges required a comprehensive and centralized support system to ensure quality and effectiveness across multiple school systems, school contexts, and tutoring providers. This led to the development of CitySchools Collaborative's intermediary model, which focuses on activating more tutors, building capacity across the ecosystem, and supporting quality implementation rather than providing direct tutoring services.

CitySchools Collaborative (CSC) was established in early 2021 as Washington, DC's strategic, coalition-led approach to implementing HIT at scale. Selected as the strategic partner to the Office of the State Superintendent for Education (OSSE), CitySchools Collaborative operates as a backbone organization that both funds and supports a diverse ecosystem of tutoring providers and school partners. The organization serves as a catalyst, convener, and quality assurance mechanism for the citywide tutoring initiative, working to ensure that all students furthest from opportunity have access to effective tutoring support. Within the CSC tutoring provider network, there are different categories of providers. Some providers have limited interaction with CSC services and mostly receive funding, providing data about their tutoring activities in return. Other providers, nonprofits, and schools receive funding and comprehensive support from CSC to implement their tutoring programs and share their data.

CSC's support model emphasizes building shared understanding of high impact tutoring standards, providing technical assistance to improve program quality, and creating systems for measuring and tracking student outcomes across the network. The intermediary model focuses on three core areas of support that collectively aim to strengthen the tutoring ecosystem.

- 1. Comprehensive engagement through technical assistance and data-driven continuous improvement. CSC provides ongoing technical assistance and professional development through Communities of Practice, individual coaching, and collaborative problem-solving sessions. These supports help providers and schools navigate implementation challenges, share effective practices, and continuously improve their dosage and programming based on student outcome data and stakeholder feedback. CSC maintains comprehensive data systems and evaluation processes that enable continuous monitoring of program quality and student outcomes.
- 2. **Instructional resources for tutors.** CSC develops and disseminates high-quality instructional resources, including a standards-aligned math curriculum that was a focus of this evaluation. Recognizing that many tutors lack adequate content knowledge or pedagogical training, CSC creates materials

- specifically designed for effective use by paraprofessionals, college students, and other non-teacher tutors while maintaining alignment with classroom instruction and state standards.
- 3. **Design Sprints.** CSC facilitates Design Sprints with schools to develop effective systems for integrating tutoring into academic programming. Rooted in the "equityXdesign" framework of design thinking to serve marginalized groups, Design Sprints are multi-week intensive support for school teams to shift mindsets and build technical skills to launch and support higher-quality, higher-impact tutoring interventions. These intensive workshops guide school teams through the process of analyzing student data, designing appropriate tutoring models, and creating sustainable implementation plans aligned with high-impact tutoring research.

During the 2024-25 school year, CSC received funding through Accelerate's Call to Effective Action program to implement and rigorously evaluate key service offerings. The evaluation presented in this report examines the impact of CSC's intermediary model on both program implementation quality as assessed by a survey of key stakeholders (i.e. students, tutors, teachers, and caregivers) and student academic outcomes during the 2024-25 school year.

## Program Model and Implementation

As an intermediary organization, CitySchools Collaborative plays a pivotal role in raising and strategically disseminating funds to expand access to high-impact tutoring (HIT) across Washington, DC. Rather than delivering tutoring directly, CSC acts as a backbone for the citywide initiative, channeling financial resources to established and emerging tutoring providers and school partners. Through this approach, CSC works to ensure that investments are targeted to reach students furthest from opportunity, while also fostering innovation and accountability within DC's tutoring ecosystem. CSC's support extends beyond funding. They provide robust technical assistance to drive continuous improvement, develop and distribute high-quality instructional resources such as standards-aligned curricula, and facilitate Design Sprints to help schools integrate effective tutoring models into their academic programs. By offering this comprehensive menu of support—financial, instructional, and strategic—CSC works collaboratively with providers and schools to implement HIT with greater fidelity and measurable results, amplifying the collective impact of efforts to close achievement gaps citywide. This evaluation analyzes the impact of CSC's entire portfolio of providers and how their different supports (i.e. engagement with technical assistance, math curriculum for tutors, participation in Design Sprints) impact tutoring quality as measured by surveys of students, educators, and families and student academic growth in math and reading.

The first service offering examined is both school and provider engagement with CSC's comprehensive intermediary support services. We compare schools and providers with high engagement levels to those with lower engagement to understand the differential impacts of intensive intermediary support. CSC's support is two-pronged, working with tutoring providers and school teams. First, CSC supports tutoring providers by offering programmatic coaching aligned with national research that is responsive to local needs. Providers that were highly engaged with CSC received funding, attended monthly check-ins with CSC staff, and participated in quarterly Communities of Practice. Additionally, CSC supports schools and LEAs with implementing strong tutoring programs that are better integrated into school schedules, budgets, and instructional priorities. CSC staff tracked engagement of all providers and schools with their technical assistance offerings throughout the school year, coding each provider-school combination into high and low engagement categories.

Recognizing that citywide data revealed dire needs for math tutoring in grades 3-8 along with the lack of standards-aligned, tutor-accessible resources, CSC partnered with the Office of the State Superintendent for Education, DC Public Schools, and experienced local educators to develop comprehensive math tutoring lessons. The resulting curriculum, and second service examined, addresses a gap created by commonly utilized math intervention materials that prove difficult for non-educators to implement effectively. Lessons are easy-

to-implement with clear scripted prose and aligned mathematical visuals. More than 300 students across multiple sites received tutoring from providers that implemented the curriculum during the study period.

The third service examined, Design Sprints, represents a four-week intensive support for school teams rooted in an "equityXdesign" framework of design thinking to serve marginalized groups. These sessions focus on shifting mindsets and building technical skills necessary to launch and support high quality, high impact tutoring interventions. Communities of Practice (CoP) convene practitioners with similar roles in tutoring spaces to facilitate cross-sector conversations about implementation challenges and promising practices. Technical assistance provided by CSC staff during CoP sessions included answering specific implementation questions, coaching, and offering other forms of specialized support for schools and providers.

This program evaluation employs rigorous research design and utilizes multiple data sources including student academic assessments, session-level attendance records, stakeholder surveys, and program quality observations. Research questions focus on understanding student and school demographic characteristics, implementation dosage and quality, stakeholder perceptions of program usefulness, and student learning improvements associated with different levels of curriculum usage and intermediary support engagement.

#### A focus on high dosage tutoring for high-need students

Providers funded and supported by CSC implement programs aligned with HIT standards based on leading national research on effective tutoring practices. Providers and their tutors receive guidance on how to build trusting relationships with students and ensure that sessions are scheduled to occur frequently for at least 90 minutes per week over at least 10 weeks for a total of 900+ minutes of tutoring in the same subject per student. Program leaders get trained in how to recruit effective tutors with content knowledge, carefully supervise tutoring implementation, utilize high-quality curriculum grounded in research and aligned to classroom materials, and take a data-driven approach to inform session content and success.

Funded providers and those that receive support from CSC are encouraged to work with schools and educators to provide tutoring to students whose baseline achievement levels are below national averages for their grade. Our analyses provide results for all students and students who receive HIT-level dosage of 900+ minutes that scored below the national average on their fall baseline assessment. Tutored students attend DC Public Schools and DC public charter schools across the city. Given the achievement gaps that exist, students who received tutoring tend to be more economically disadvantaged and lower achieving than their non-tutored peers.

Table 1. Characteristics of students that CSC tutoring providers served

Sample	Total number of students	Percent economically disadvantaged	Percent English learners	Percent of students with an IEP	Percent lower achievers	
All students in outcomes sample	27,632	66%	10%	19%	68%	
Students tutored by all CSC providers	5,810	70%	11%	16%	81%	
Students tutored by providers engaged with CSC support	4,723	69%	10%	16%	80%	
Program variants						
Math Curriculum	1,656	74%	2%	9%	83%	
Design Sprints	3,297	68%	14%	16%	81%	

## Research Questions and Methodology

#### Research Questions

At the conclusion of the 2024-25 school year, we examined the impact of CSC's intermediary model through comprehensive analysis of both program implementation and student outcomes. The study addresses three primary research questions designed to assess the association of CSC-supported tutoring services overall and the differential impacts of various support offerings with qualitative survey results and student growth.

First, we investigate the quality and fidelity of tutoring program implementation across CSC's network, examining dosage delivery, stakeholder satisfaction, and adherence to HIT standards. This analysis provides essential context for understanding the conditions under which student outcomes were achieved and helps stakeholders identify factors that facilitated or impeded effective program delivery.

Second, we assess whether students who received tutoring through CSC-supported providers demonstrated greater academic growth compared to similar students that did not receive HIT in the same schools and grade levels. We share results for the entire CSC network as well as focus on the outcomes for providers that were engaged with their services, a key component of CitySchools Collaborative's Accelerate funding.

Third, we examine the differential impacts of CSC's intermediary services by comparing outcomes for students served by providers that participated in each identified service: utilization of the newly developed math curriculum and participation in a Design Sprint. We compare providers that received support to others within the CSC network in 2024-25 and across years to examine whether supports were associated with improved outcomes over time.

## Methodological Approach

We start by examining overall results from surveys and student academic growth data without controlling for external factors that might influence the results. To obtain a more empirical assessment of whether CSC services are associated with student academic growth, the evaluation employs an inverse probability of treatment weighting (IPTW) methodology to address the fundamental challenge of comparing tutored and non-tutored students who may differ systematically in ways that affect academic outcomes. Unlike randomized controlled trials where treatment assignment ensures comparable groups, observational studies of tutoring programs like this one must account for the reality that students are typically selected for tutoring based on academic need, behavioral factors, or other characteristics that may independently influence their learning trajectories.

IPTW methodology attempts to address selection bias by creating weighted comparison groups that are statistically balanced on observed characteristics. The approach involves two primary steps. First, we estimated the probability that each student would receive tutoring based on their baseline characteristics using logistic regression models. These propensity scores captured the likelihood of treatment assignment based on factors that influence both tutoring selection and academic outcomes, and weighted observations in our outcome analyses by the inverse of these probabilities.

For the primary analysis comparing tutored and non-tutored students, we developed propensity score models that included comprehensive measures of student baseline academic performance, demographic characteristics, prior attendance patterns, and school contextual factors. Baseline academic performance was captured through students' fall assessment scores on NWEA MAP and i-Ready assessments. These measures provide indicators of students' academic standing prior to tutoring intervention and offer nationally normed within-year growth expectations.

Student demographic characteristics include whether a student lives in an economically disadvantaged household and has an English learner designation or special education status. These variables are essential for ensuring that tutored and non-tutored student groups are comparable across key demographic dimensions that research has shown to be associated with both tutoring selection and academic outcomes. Prior year attendance rates were included to account for chronic absenteeism patterns that might influence the likelihood of receiving tutoring and subsequent academic growth. The model also includes school and grade band indicators to account for differences in academic growth rates by age and school level contexts.

After weighing the sample using IPTW, we estimate the effects of tutoring on academic growth using least squares regression. In this model, each student's outcome was regressed on the treatment variables, with weights equal to the inverse of their propensity score. This approach ensures that the estimated treatment effect is more likely to reflect differences in academic growth attributable to tutoring by accounting for baseline differences between groups. To assess the impact of engagement with CSC services, we employed a similar IPTW methodology comparing students served by different providers based on their utilization of CSC's intermediary support. The propensity score models for these analyses include an indicator for whether providers utilized or were highly engaged with the service of interest, the same student and school covariates as the overall analysis, and a control for tutoring dosage provided to students.

## About the Data Analysis and Outcome Measures

Academic outcomes were measured using NWEA MAP and i-Ready computer-adaptive diagnostic assessments of reading and math administered in the fall and spring of each year. These assessments provide nationally normed measures of student performance that allow for comparison of growth rates relative to expected development patterns. The primary outcome of interest is within-year academic growth, which is calculated as a percentage of expected growth met by students between fall and spring assessment periods. We express differences between actual and expected growth data in terms of instructional days to convey a more meaningful interpretation of differences between treatment and control groups.

Tutoring implementation data were collected through comprehensive tracking systems that capture session-level attendance, tutoring dosage, and program characteristics for each student. This data enables analysis of students who received HIT level dosage of 900+ minutes in comparison with other students who were identified for tutoring but did not receive HIT dosage. This comparison is essential information for understanding how the CSC intermediary model influenced student outcomes as they scale their program to more students Districtwide.

Stakeholder survey data provides additional context for interpreting quantitative findings through measures of program satisfaction, perceived effectiveness, and implementation quality from the perspectives of students, tutors, teachers, and families. This data provides a qualitative understanding of how CSC's intermediary model influenced program quality.

## **Analytical framework**

An inverse probability of treatment (IPTW) methodology was implemented using grade band-specific analyses that we aggregate using weighted averages by n-size to produce overall estimates. This approach was required to account for the significant variation in expected scale score growth on the MAP and i-Ready assessments across student developmental stages.

Balance diagnostics were conducted to verify that the IPTW procedure successfully created comparable treatment and comparison groups. Models were evaluated for standardized mean differences in covariates before and after weighting to ensure that observed characteristics were well-balanced between treatment groups. Sensitivity tests explored the robustness of findings to alternative model specifications and weighting

approaches, which led us to capping individual student weights to avoid extreme weights potentially skewing the outcomes and to limit analyses to only those with more than 100 observations in the treatment and control groups. We believe this methodological approach provides a more rigorous empirical approach to assessing the effectiveness of CSC's intermediary model, accounting for some of the complex selection processes inherent in real-world tutoring program implementation.



Math tutoring at Tubman Elementary School.

## **Key Findings**

## Tutoring Dosage and Attendance Patterns

The implementation of CSC-supported tutoring programs during the 2024-25 school year demonstrated fidelity to HIT standards despite challenging contextual factors. Students across all CSC-supported providers received an average of 1,368 minutes of tutoring over 14.8 weeks, exceeding the target dosage of 900 minutes that defines HIT. Students attended 84% of their scheduled tutoring sessions, demonstrating meaningful participation rates despite challenges posed by chronic absenteeism that affected many DC schools during the study period. Notably, 51% of students achieved session attendance rates of 90% or higher, while 63% of students received HIT dosage.

Table 2. Summary of tutoring dosage received by participating students in 2024-25

Sample	Average weeks with any tutoring	Average sessions received per student	Average minutes received per student	Attendance rate	Percentage of students with 90% attendance	Percentage of students receiving 900+ minutes	
Students tutored by all CSC providers	14.8	35.8	1,368	84%	51%	63%	
Students tutored by providers engaged with CSC support	15.2	37.8	1,433	84%	54%	65%	
Program variants							
Math Curriculum	15.2	34.9	1,602	84%	55%	83%	
Design Sprints	12.0	23.5	1,322	87%	58%	64%	

Sample	Average weeks with any tutoring	Average sessions received per student	Average minutes received per student	Attendance rate	Percentage of students with 90% attendance	Percentage of students receiving 900+ minutes	
Student characteristics							
Economically disadvantaged	14.7	35.3	1,319	82%	47%	61%	
English learners	13.8	32.0	1,601	89%	65%	70%	
Students with disabilities	14.6	34.4	1,325	83%	52%	58%	
Lower achievers	14.9	35.8	1,372	83%	49%	92%	

During the 2024-25 school year, CSC-supported tutoring providers expanded the number of students served and improved their fidelity to HIT standards by increasing the average number of minutes of tutoring received and percentage of students meeting the HIT dosage of 900 minutes. This simultaneous achievement of greater scale and higher quality provides evidence of the effectiveness of CSC's approach to building provider capacity while maintaining fidelity to evidence-based tutoring practices.

#### Variation by provider engagement and program components

Analysis of implementation patterns revealed meaningful differences based on provider engagement with CSC's intermediary services. Providers with high engagement in CSC support delivered higher dosages, with students receiving an average of 1,433 minutes of tutoring over 15.2 weeks, or the equivalent of two additional tutoring sessions per student on average. Tutoring organizations that implemented the new math curriculum component provided tutored students with an average of 1,602 minutes of tutoring over 15.2 weeks, representing the highest dosage among program variants.

Programs associated with schools that participated in Design Sprints for the first time typically started tutoring a few weeks later than other programs on average, which is associated with fewer weeks of tutoring and average minutes received per student. While the total dosage was lower than other variants, Design Sprint schools achieved a higher attendance rate at 87%, suggesting that the intensive planning process may have enhanced student engagement even though overall program duration was shorter. Additional research in 2025-26 may help confirm the longer term impact of Design Sprints on implementation and effectiveness.

#### Implementation across student subgroups

Implementation analysis revealed important patterns across different student populations served by CSC-supported providers. Economically disadvantaged students, who comprise most tutored students, received an average of 1,319 minutes of tutoring with 61% meeting HIT dosage. English learner students demonstrated higher engagement patterns, receiving an average of 1,601 minutes of tutoring and 70% meeting HIT dosage. Students with disabilities received comparable services to the overall population, with 1,325 minutes of tutoring and 58% receiving HIT dosage.

Lower achieving students, defined as those scoring below the national average on baseline assessments, showed strong implementation across most metrics. They received 1,372 minutes of tutoring with 83% attendance, and notably, 92% received high-impact dosage levels. This finding demonstrates that tutoring programs were more likely to successfully prioritize and serve students with the greatest academic needs.

## Stakeholder Satisfaction and Program Quality Perceptions

Comprehensive stakeholder surveys provide additional evidence of program implementation through measures of satisfaction, perceived effectiveness, and program quality across multiple perspectives. These surveys complement the quantitative implementation metrics by capturing stakeholders' experiences with and perceptions of tutoring program quality.

The student survey responses demonstrated satisfaction with tutoring services across CSC-supported providers. Students reported a Net Promoter Score of 37, indicating positive program endorsement, with 79% expressing overall satisfaction with their tutoring experience. Academic confidence measures showed that 74% of students felt confident in their ability to understand tutoring material, while 77% reported that their tutor made it easier to understand classwork. There were no statistically meaningful differences in the student survey results across the different provider types focused on in this report.

How confident are you that you Net Did your tutor make it easier for Satisfaction Sample **Promoter** can understand the material in you to understand your rate Score your tutoring session? classwork? All CSC providers 79% 37 74% 77% **Providers engaged** 39 81% 76% 80% with CSC support **Program variants Math Curriculum** 44 79% 85% 81% **Design Sprints** 42 79% 78% 79%

Table 3. Student tutoring survey question agreement rates

Educator survey responses provide important validation of program effectiveness from school staff perspectives. Teachers and administrators reported a Net Promoter Score of 31 with 80% satisfaction rates. Notably, 74% of educators agreed that tutoring has been valuable to their school, while only 51% perceived that students improved academically because of tutoring. The disconnect in these two data points could be an interesting follow-up study on what affects educators' perception of the value of tutoring.

Table 4. Educator tutoring survey question agreement rates

Sample	Net Promoter Score	Satisfaction rate	Students improved academically as a result of tutoring?	Tutoring has been valuable to your school?	Tutors developed effective professional relationships with students?		
All CSC providers	31	80%	51%	74%	78%		
Providers engaged with CSC support	34	82%	52%	79%	88%		
Program variants							
Math Curriculum	n < 10	n < 10	n < 10	n < 10	n < 10		
Design Sprints	54	92%	69%	85%	85%		

Caregiver survey responses showed the highest satisfaction levels among all stakeholder groups. Caregivers reported a Net Promoter Score of 62 with 88% satisfaction rates, higher than students or educators. Additionally, 64% of caregivers perceived that their children improved academically because of tutoring,

indicating that families observe meaningful benefits from program participation. While not statistically significantly different, in part due to sample size, caregivers of students who attended a school that participated in a Design Sprint indicated slightly higher satisfaction with their child's tutoring.

Table 5. Caregiver tutoring survey question agreement rates

Sample	Net Promoter Score	Satisfaction rate	Has your child improved academically as a result of tutoring?			
All CSC providers	62	88%	64%			
Providers engaged with CSC support	49	82%	58%			
Program variants						
Math Curriculum	n < 10	n < 10	n < 10			
Design Sprints	73	93%	67%			

## Overall Impact on Student Academic Growth

As described earlier, the association of CSC-supported tutoring and student academic outcomes were tested empirically by employing inverse probability of treatment weighting (IPTW) to compare growth patterns between tutored and non-tutored student groups that were balanced across key characteristics. This rigorous methodology revealed strong positive effects of CSC-supported tutoring in math and mixed results that varied significantly by provider in reading.

In math, students served by CSC-supported providers were associated with significantly higher fall-to-spring academic growth outcomes. On average, tutored students achieved 138% of their expected growth, with 65% meeting their individual growth targets. After accounting for differences in the treatment and control population using IPTW and converting differences in expected growth to instructional day equivalents, all students who received tutoring by CSC providers gained an average of 59 additional instructional days compared to similar non-tutored peers. The effects were significantly larger for students served by providers that were highly engaged with CSC support, gaining an equivalent of 90 additional instructional days in math learning. Students with fall math test scores below the national average were also associated with significantly better than expected academic growth rates.

Table 6. Summary of 2024-25 student academic growth outcomes in math

	All Students				Lower Achievers			
Sample	Average percent of expected growth met	Percent of students who met growth	Instructional days gained	Instr. day improvement 23-24 to 24- 25	Average percent of expected growth met	Percent of students who met growth	Instructional days gained all tutored students	Instr. day improvement 23-24 to 24- 25
Students tutored by all CSC Providers	138%	65%	58.9 **	+ 45.1	138%	65%	50.2 **	+ 33.5
Students tutored by providers engaged with CSC support	141%	66%	89.5 **	+ 78.0	143%	66%	60.4 **	+ 34.9

Reading outcomes were mixed with favorable results for many CSC-supported providers and unfavorable results for others. None of the IPTW findings were statistically significant. The data show the impact on academic growth associated with CSC-supported providers has a 95% confidence interval that means the true result is likely to be anywhere between -55 instructional days to +34 instructional days. While 89% of math providers had average student growth that exceeded expectations, only 62% of reading providers accomplished the same. The highly variable results in reading growth across the network of providers suggest that CSC team members should consider offering additional targeted support for specific reading providers.

Table 7. Summary of 2024-25 student academic growth outcomes in reading

	All Students				Lower Achievers			
Sample	Average percent of expected growth met	Percent of students who met growth	Instructional days gained	Instr. day improvement 23-24 to 24- 25	Average percent of expected growth met	Percent of students who met growth	Instructional days gained all tutored students	Instr. day improvement 23-24 to 24- 25
Students tutored by all CSC Providers	124%	62%	-6.1	- 5.5	133%	64%	-25.3 *	-40.1
Students tutored by providers engaged with CSC support	124%	62%	-10.8	-6.0	133%	65%	-27.7	-48.1

#### Enhanced outcomes for high-need students

Larger effects for lower achieving students reveal the HIT may provide more value for students with greater academic needs. In math, lower achievers who received HIT achieved 138% of expected growth, with 65% meeting growth targets, translating to gains of 50 additional instructional days in the IPTW analysis. Reading outcomes for lower achievers demonstrated 133% of expected growth with 64% of students meeting targets, but in the IPTW analysis, student growth rates trailed their peers by 28 instructional days. Mixed results across reading providers in the CSC network highlight the need for continued research on optimal tutoring provider support for different student populations. Data also suggest that reading gains statewide in 2024-25 were remarkable and may contribute to the challenge in differentiating effects related to tutoring from other systemwide investments in structured literacy instruction.

#### Improvement in academic growth outcomes

The 2024-25 math growth outcomes represent an improvement compared to the previous year's performance across CSC's provider network. Using IPTW to balance treatment and non-treatment groups on observed characteristics, math academic growth rates were higher than expected in 2023-24 on average and statistically significantly more so in 2024-25. Year over year, the number of additional instructional days of growth in math associated with CSC-supported tutoring improved by 78 days for the average tutored student.

The consistency of positive effects in math, combined with the enhanced outcomes for high-need student populations and significant increases in the overall scale of students served by the portfolio in 2024-25, indicates that CSC's intermediary model is associated with a strengthened math tutoring ecosystem rather than isolated improvements at individual programs. Results in reading indicate that additional support for specific providers may help improve the overall results of the network.

Table 8. 2024-25 year-over-year improvement in student math growth outcomes by program variant

	All Students			Lower Achievers		
Sample	Average percent of expected growth met	Percent of students who met growth targets	Instructional days gained all tutored students	Average percent of expected growth met	Percent of students who met growth targets	Instructional days gained all tutored students
Math Curriculum	- 22%	- 10%	- 41.1	- 17%	- 7%	- 67.3
Design Sprints	+ 22%	+ 8%	+ 20.5	+ 23%	+ 8%	+ 13.3
Communities of Practice	- 6%	- 3%	+ 17.6	- 3%	- 2%	+ 2.1

Table 9. 2024-25 year-over-year improvement in student reading growth outcomes by program variant

	All Students			Lower Achievers		
Sample	Average percent of expected growth met	Percent of students who met growth targets	Instructional days gained all tutored students	Average percent of expected growth met	Percent of students who met growth targets	Instructional days gained all tutored students
Design Sprints	+ 11%	+ 4%	- 18.4	+ 13%	+ 5%	- 19.1
Communities of Practice	- 3%	+ 0%	- 6.6	+ 3%	+ 2%	+ 13.6

#### Academic growth based on provider engagement with CSC services

Our analysis of provider engagement revealed differences in improved student outcomes based on the level of engagement with CSC's intermediary services. Students served by highly engaged providers demonstrated, on average, better academic performance compared to those served by providers with lower engagement levels. Given the smaller sample sizes of students served by low engagement providers, the differences, while consistently positive, were not statistically significant. In math specifically, students served by highly engaged providers achieved 141% of expected growth compared to 122% for all other providers. Most significantly, highly engaged providers produced gains equivalent to 92 additional instructional days in math for all tutored students compared to providers not as engaged with CSC support.



Math tutoring at DC Scholars PCS.

#### Differential effects of specific CSC services

We examined whether specific components of CSC's service portfolio were associated with improved student outcomes by comparing year-over-year performance changes for providers that participated in different support offerings last year. For this analysis, we limited the comparison to providers that received support in the 2024-25 school year that also had tutoring data available for 2023-24.

Design Sprint participation showed positive associations with math outcomes. Providers that work in schools that were engaged in CSC Design Sprints demonstrated improvements of 22 percentage points in expected growth achievement and 8 percentage points in students meeting growth targets, equivalent to 21 additional instructional days gained. For lower achieving students, Design Sprint participation was associated with benefits of 23 percentage points in improved fall-to-spring growth rates, 8 percentage points more students meeting targets, and 13 additional instructional days. Community of Practice participation showed more modest associations with math outcomes. Providers had small decreases in expected growth achievement of 6 percentage points and students meeting targets, but when balancing population characteristics using IPTW, the providers demonstrated average improvement equivalent to 18 additional days.

The math curriculum analysis revealed mixed findings. To assess the impact of the math curriculum, CSC conducted pre/post surveys of tutors that received access to curriculum support and analyzed student academic growth rates of those tutors. In the post-implementation survey, 100% of tutors indicated that they were confident they could teach difficult math content, an improvement from 88% of tutors in the pre-survey results. Also notable, on the post-implementation survey 71% of tutors indicated interest in pursuing a future career in teaching, an improvement from 57% in the pre-survey. This finding aligns with the latest research that suggests tutors who receive effective resources and support are more likely to pursue future careers in teaching. Student growth data were less positive for providers that adopted CSC's math curriculum showing decreases across multiple outcome measures, including 22 percentage points lower expected growth achievement, 10 percentage points fewer students meeting targets, and 41 fewer instructional days gained.

Table 10. Tutor survey question agreement rates for Math Curriculum providers

Sample	How interested are you in pursuing a future career in teaching?	To what extent are you confident in your ability to teach difficult academic content?
Math Curriculum pre- implementation	57%	88%
Math Curriculum post- implementation	71%	100%

While providers that adopted CSC's math curriculum were associated with better student and teacher survey results, the academic growth findings suggest that curriculum adoption alone may not be sufficient to improve outcomes without additional implementation support, or that providers adopting the curriculum may have faced other implementation challenges during the study period. We encourage CSC to continue monitoring results for impact in the 2025-26 school year as tutors grow more comfortable utilizing the math curriculum throughout the entire year. Notably, CSC's math curriculum is available online, free-of-charge, for all DC Public Schools and public charter schools to use without requirement of training or support from CSC. Reading outcomes for specific services showed mixed patterns. Design Sprint participation was associated with growth rates that were 11 percentage points higher than the prior year but negative effects on instructional days gained. Community of Practice participation in reading showed minimal difference year-over-year.

#### Interpretation of findings

The comprehensive analysis reveals several important patterns that inform understanding of CSC's intermediary model effectiveness. First, the overall positive effects of tutoring across both math and reading domains demonstrate that CSC-supported programs successfully implemented HIT at scale. The particularly strong effects for students receiving dosage in math, 59 additional instructional days, provide empirical support for dosage standards in math instruction.

Second, the differences between highly engaged and low engagement providers and schools indicate that CSC's comprehensive support model adds significant value beyond basic tutoring implementation in math. The difference in math effects of 90 additional instructional days for highly engaged providers versus -3 days for providers not engaged with CSC suggests that investment in provider and school capacity building produces meaningful returns in math outcomes. The inconsistent results for reading among providers and schools in 2024-25 suggest that enhanced targeted support in reading may provide value.

Third, the mixed findings regarding specific, isolated service components highlight the complexity of implementing effective intermediary support. While Design Sprints showed consistent positive associations with math outcomes, the negative findings for math curriculum adoption suggest that curriculum alone may be insufficient without complementary implementation support. These patterns indicate that effective intermediary support requires integrated, comprehensive approaches to technical assistance and support rather than isolated service components. Finally, the strong outcomes associated with HIT for lower achieving students across most analyses demonstrate that CSC's model successfully prioritized and served students with the greatest academic needs.



Tutoring provider teams in CSC Community of Practice.

