Maryland's Largest School District

MONTGOMERY COUNTY PUBLIC SCHOOLS

Expanding Opportunity and Unleashing Potential

Tutoring Outcomes Evaluation: 2021–2022

May 2023

Prepared by:
Kendra D. Price, Ph.D.

Shared Accountability
Applied Research and Evaluation

2021–2022 Tutoring

MCPS, FEV Tutor, and Tutor Me Education

Executive Summary

Evaluation Scope

In 2021–2022, MCPS launched a districtwide tutoring program as one of the six components of an instructional response plan. Participating students received tutoring services with MCPS employees and through external providers—FEV Tutor and Tutor Me Education. The purpose of this evaluation was to assess the effect of the tutoring programs on student academic outcomes after the first year of implementation.

Methods

The study used a quasi-experimental design to examine the effect of the program on spring 2022 achievement in reading and mathematics. To investigate effects, the analyses compared students in kindergarten (K) through Grade 8 who received tutoring services to a matched comparison group of students who did not participate in tutoring. The comparison and treatment groups were matched on demographics and baseline performance from fall 2021. Baseline performance was also accounted for in the outcome analysis. The study used student-level data to examine students' academic progress in their tutoring subject.

Results

Broadly, in year one of evaluation, the tutoring program was not found to be effective overall at improving student reading or mathematics performance.

For reading, there was no overall effect on students' Grades 3–8 reading achievement evident for any provider, and larger percentages of Grades K–2 matched comparison students met grade-level reading expectations that did tutoring participants.

No overall effects of math tutoring on students' Grades K–8 math achievement were evident for any provider.

Additionally, **few students received high dosage tutoring**, and no statistically significant effects were evident among that group of students. Of the 6,355 students who participated in ELA or mathematics tutoring with any of the three providers during the 2021–2022 school year, only 14% (916) of them received 50 or more hours or sessions of tutoring in either subject.

2021–2022 Tutoring

MCPS, FEV Tutor, and Tutor Me Education

Executive Summary

Results (Continued)

Depending on the provider, there were trivial to medium statistically significant effects of tutoring in particular grades or for particular student groups—some positive and some negative.

Results revealed small positive effects of MCPS-provided mathematics tutoring on mathematics performance for students in Grades 2 and 6 and for students receiving special education services; tutoring participants scored higher, on average, than the matched comparison students on the mathematics assessment.

In contrast, when disaggregating results and comparing participants of Tutor Me Education mathematics tutoring to matched comparison non-participants, White participants and participants in Grade 7 scored lower in mathematics than did non-participants.

MCPS-provided ELA tutoring was associated with poorer ELA performance for students in Grades 1 and 2 and among White students and students receiving FARMS. Grade 1 Tutor Me participants also saw relatively poor ELA performance.

Conclusion

Promising findings for MCPS-provided math tutoring in Grades 2 and 6 and for students receiving special education services were found, but the lack of positive effects in the overall analysis remains.

The expected outcomes of the tutoring program were not yet evident in the 2021–22 year of implementation, but these results are not surprising. Recent research underscores the importance of several factors that are likely to lead to more effective high-dosage tutoring initiatives (e.g., Guryan et al., 2023; Robinson et al., 2021; Nickow et al., 2020). These factors include: 1) high dosage; 2) tutoring being a regular part of the school day for all students; 3) professional or paraprofessional tutors; and 4) tutor consistency across tutoring sessions. The first two factors were not evident in the current tutoring program and can be focal areas for improvement.

Evaluation Scope

Background

To address the impact of the COVID-19 pandemic on students, and to assist with the safe return to in-person instruction, the American Rescue Plan Elementary and Secondary School Emergency Relief (ARP ESSER) Fund provided funding to state educational agencies and school districts. From the amount awarded, school districts were required to allocate 20 percent of funds to evidence-based interventions and initiatives designed to address learning loss for all students (U.S. Department of Education, 2021).

With ESSER funding, MCPS launched an instructional response plan with the goal of mitigating learning disruptions created by the pandemic. A key strategy to combat declines in student performance, and one of the six components of the instructional response plan, is a districtwide tutoring and intervention program with tutoring services provided by MCPS employees as well as external providers—FEV Tutor and Tutor Me Education. This year-one report provides a descriptive overview of the 2021–2022 MCPS tutoring participants and the results of the outcome analysis examining the effects of the tutoring services on students' literacy and mathematics achievement.

Purpose of Evaluation

The purpose of this evaluation was to assess the effects of tutoring on student academic outcomes in literacy and mathematics.

The evaluation utilized student-level data to examine students' academic progress in their respective tutoring subject.

Research Questions

1. What were the characteristics of tutoring participants and what percentage received high-dosage tutoring in mathematics and literacy?
2. What effect did tutoring have on the literacy and mathematics achievement of students in Grades K–8?
3. To what extent do effects vary when results are disaggregated by grade-level, race/ethnicity, and service receipt?

Program Description

Overview

The intent of the tutoring program was to provide high-dosage tutoring to identified students (McKnight, 2022). High dosage tutoring is defined as "one-on-one tutoring or tutoring in very small groups at least three times a week, or for about 50 hours over a semester" (Sawchuk, 2020, para. 4). Tutoring services were aligned to grade-level curriculum and intended for students with declines in achievement.

Beginning in fall 2021, local schools delivered in-person tutoring services with qualified MCPS teachers and staff members. To supplement tutoring provided by MCPS staff and to provide on-demand tutoring services, MCPS enlisted the support of external vendors (McKnight, 2022). The external vendors—FEV Tutor and Tutor Me Education—offered virtual on-demand tutoring, 24 hours per day; the on-demand services were available to all students. The district's first priority with the vendors was to support schools without sufficient staffing to service all students identified for tutoring.

Program Goals

The goals of the tutoring program were as follows:

- Maximize student engagement.
- Address learning recovery needs.
- Accelerate learning to achieve grade-level standards.

Program Components

- High dosage tutoring provided by MCPS staff that is designed to support grade-level curriculum outside the school day
- Tutoring provided by external vendors to 1) supplement school-based tutoring, and 2) provide on-demand tutoring or "homework help" by request.

Methods

Overview

To examine the effects of tutoring on students' Spring 2022 academic outcomes in literacy and mathematics, this evaluation employed a quasi-experimental design in which tutoring participants were matched with similar students who did not participate in tutoring. To match participants from Grades K through 8 to non-participating students, this evaluation used prior achievement, grade level, gender, race/ethnicity, and service receipt—i.e., Free and Reduced-price Meal System (FARMS), English Language Development (ELD), and Special Education—as matching variables.

Outcome Methods

Data & Measures

- Measures of Academic Progress in Mathematics (MAP-M; Grades K–8) and Reading (MAP-R; Grades 3–8): Rasch UnIT (RIT) scale score (100-350) for Fall 2021 and Spring 2022.
- MAP—Reading Fluency (MAP-RF; Grades K–2): Performance level (Exceeds, Meets, Approaches, and Below) for Fall 2021 and Spring 2022.

Sample

- Although the 2021–2022 tutoring services were available to all students, this evaluation focused on the academic outcomes of students who received tutoring in Mathematics or English Language Arts (ELA).
- Students who participated comprised MCPS students in Grades K through 8; the treatment groups were composed of students who (1) participated in the MCPS tutoring program during the 2021–2022 school year, (2) had fall 2021 and spring 2022 MAP data, and (3) participated with only one tutoring provider.
- To account for different tutoring providers, the study used three treatment groups: (1) MCPS, (2) FEV Tutor, and (3) Tutor Me Education; each treatment group had a separate matched comparison group.

Analysis

- Analysis of Covariance (ANCOVA) was conducted to test the adjusted mean differences in MAP-R and MAP-M RIT scores between tutoring participants and the matched comparison group. Hedges' *g* was used as an effect size measure for the ANCOVA results; 0.2 indicates a small effect, 0.5 indicates a medium effect, and 0.8 indicates a large effect.
    - To ease interpretation, these effects are also reported as the expected percentile-point change for an average (50th percentile) comparison student who participates in the tutoring intervention.
- Chi-square test of independence was conducted to determine the differences in percentages of tutoring participants and the comparison group meeting grade-level expectations for MAP-RF as specified for meeting Evidence of Learning. The Cox index was used as an effect size measure for the chi-square test results and is a measure comparable to the Hedges' *g* effect size; 0.2 indicates a small effect, 0.5 indicates a medium effect, and 0.8 indicates a large effect.

Results

Total Number of Participants by Tutoring Provider

Total Number of Participants - 7,949

Tutoring Provider	Number of Students
MCPS	5,235 (66%)
TutorMe	2,117 (27%)
FEV Tutor	857 (11%)
MCPS and at least one External Vendor	140
MCPS and both External Vendors (all 3 providers)	8
Both External Vendors	120

Note: The total number of participants includes students who received tutoring in any subject during the 2021–2022 school year as indicated by Performance Matters and does not include students who received evidence-based interventions. The participant totals also include students accounted for in multiple provider categories; therefore, the sum of the numbers will not equal the total number of participants and the percentages will not add to 100.

Findings

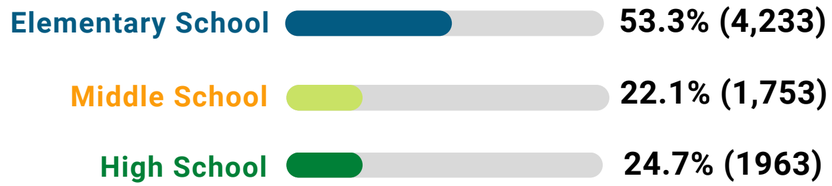
- Of 7,949 total participants, the majority (66%) participated in MCPS-provided tutoring, while 36% participated with external vendors.
- More students participated with Tutor Me Education (2,117) than with FEV Tutor (857).
- Relatively few students participated with more than one provider; 120 students participated with both external vendors and 140 students participated with both an MCPS tutor and at least one external vendor.

Results

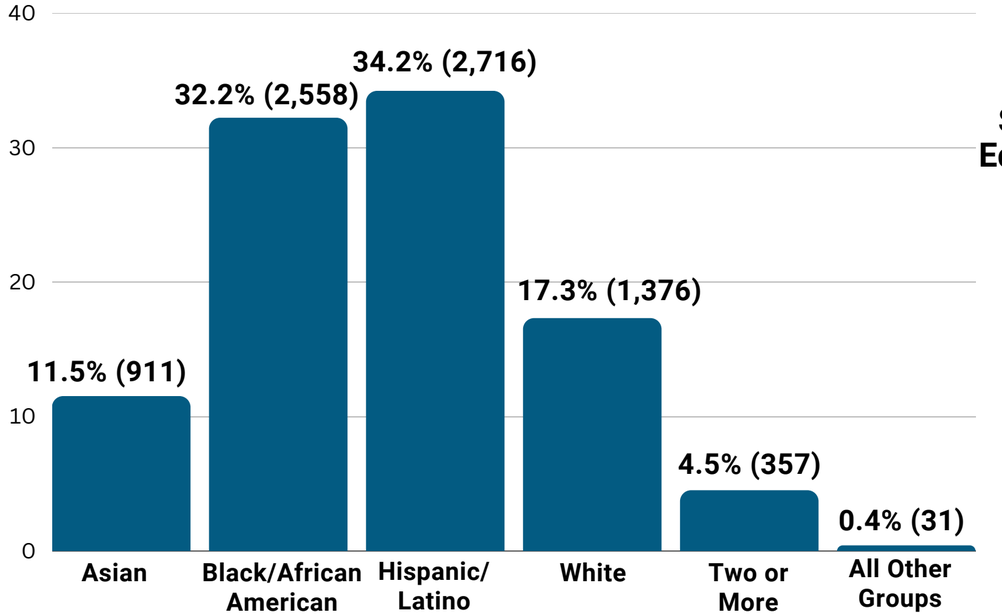
Distribution of Participants by School Level and Student Groups

Total Number of Participants - 7,949

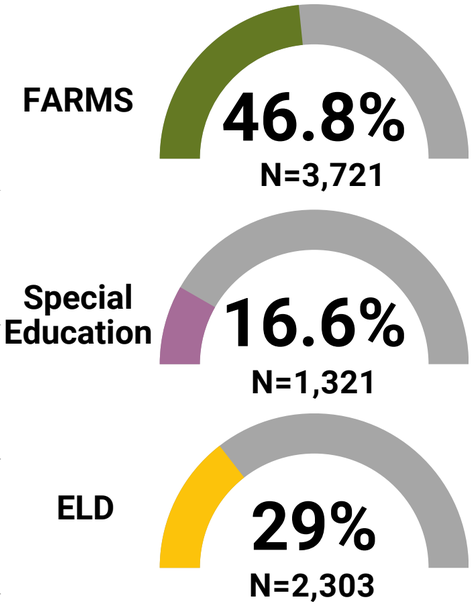
School Level



Race/Ethnicity



Services



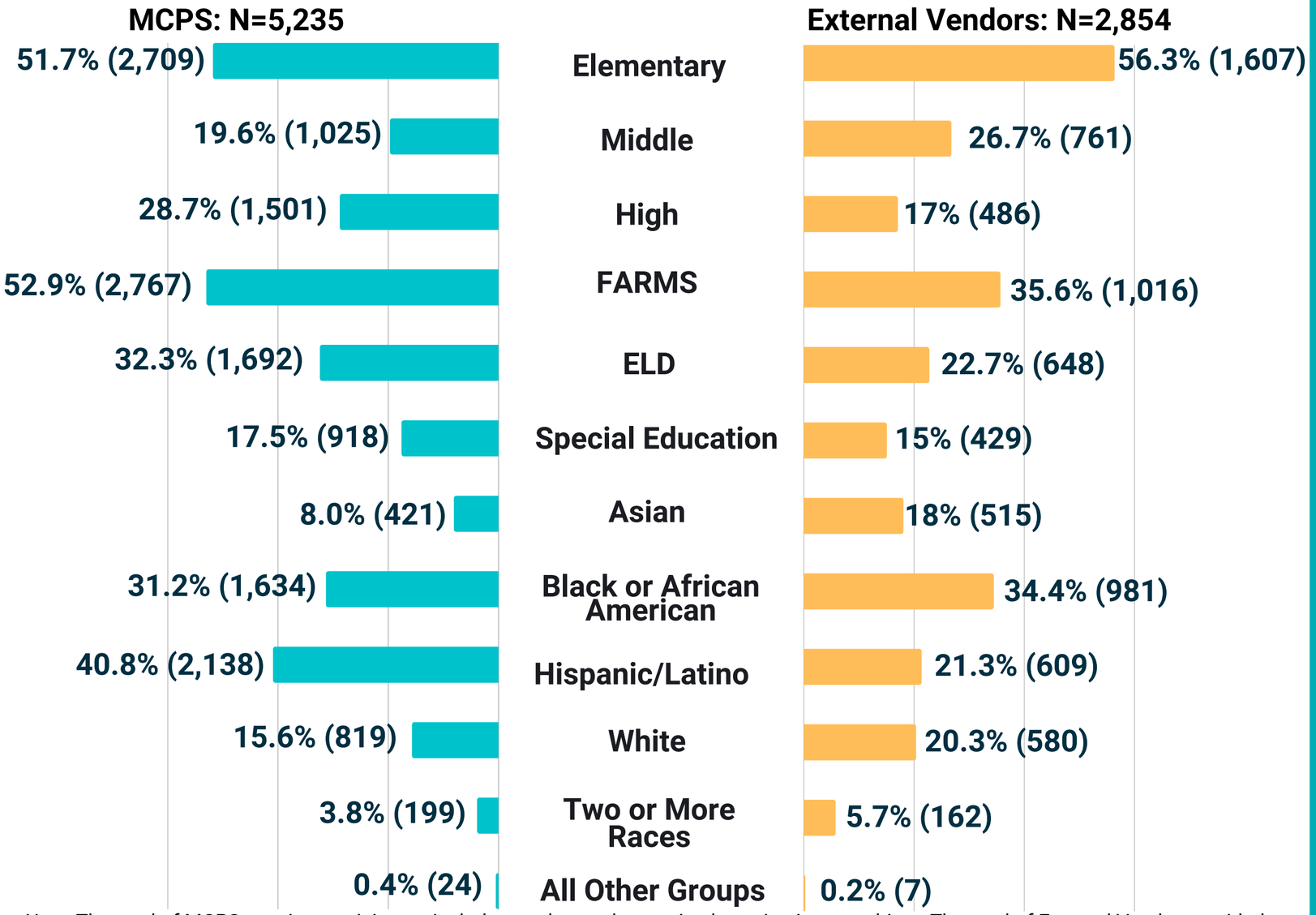
Note: Tutoring participation is based on the number of students who participated in tutoring with MCPS employees or one of the external vendors. All other groups include American Indian/Alaskan Native and Native Hawaiian/Pacific Islander students.

Findings

- Most tutoring participants were in elementary school (53%), with middle and high school representing less than 25% of participants.
- The racial/ethnic distribution of participants was 34% Hispanic/Latino, 32% Black or African American, 17% White, 12% Asian, 5% Two or more races, and less than 1% of students from all other racial/ethnic groups.
- Nearly half of participants (47%) received Free and Reduced-price Meal System (FARMS) services, 29% received English Language Development (ELD) services, and 17% received special education services.

Results

Distribution of Participants by Tutoring Provider



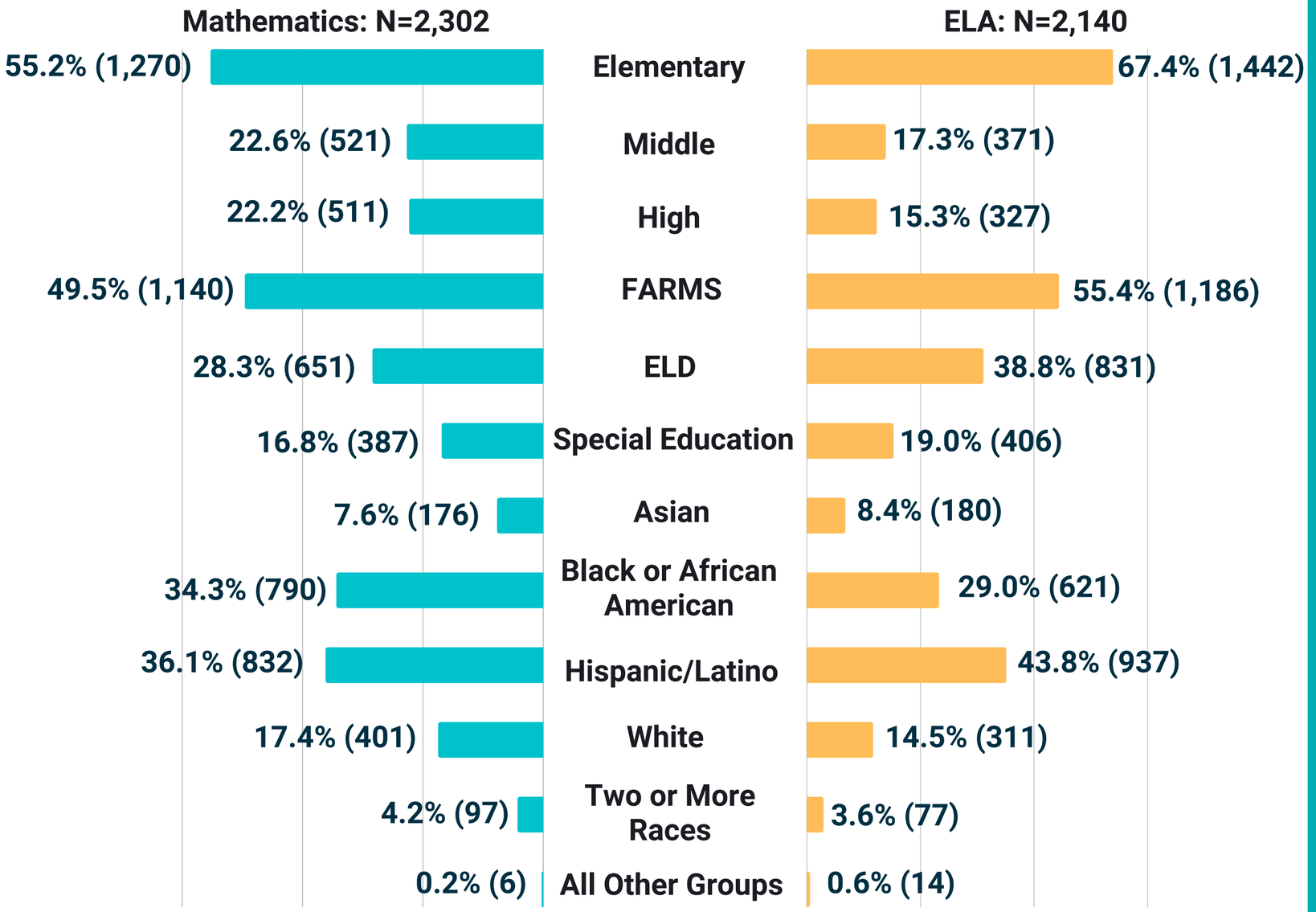
Note: The total of MCPS tutoring participants includes students who received tutoring in any subject. The total of External Vendor-provided tutoring participants includes students who received tutoring with either Tutor Me Education or FEV Tutor; students who received tutoring from both external providers are counted once. Students who received tutoring from MCPS and the external vendors are counted in both totals. All other groups include American Indian/Alaskan Native and Native Hawaiian/Pacific Islander students.

Findings

- For MCPS tutoring and collectively for the external vendors, FEV Tutor and Tutor Me Education, over half of the tutoring participants were in elementary school (52% for MCPS and 56% for the external vendors).
- MCPS tutors had more high school student participants (29%) than middle school students (20%). The external vendors had a larger percentage of middle school students (27%) than high school students (17%).
- Participants receiving FARMS services represented the largest percentage of students receiving services who participated in tutoring with MCPS or the external vendors (53% for MCPS and 36% for the external vendors).
- For MCPS and the external vendors, larger percentages of Hispanic/Latino students (41% and 21%, respectively) and Black or African American students (31% and 34%, respectively) received tutoring.

Results

Distribution of MCPS Participants by Tutoring Subject



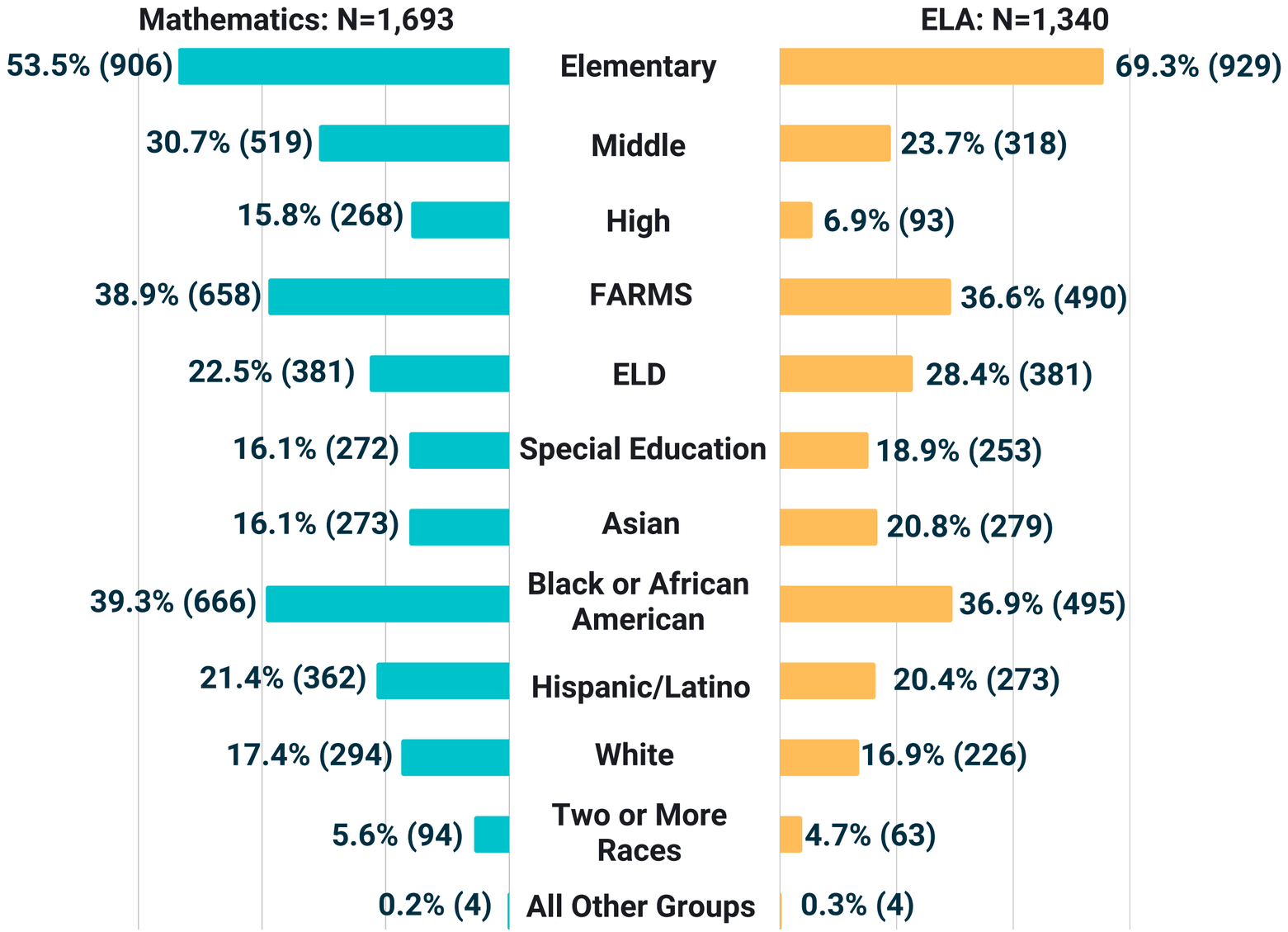
Note: Of the total number of MCPS tutoring participants, 4,238 students received tutoring in both Mathematics and ELA. All other groups include American Indian/Alaskan Native and Native Hawaiian/Pacific Islander students.

Findings

- Slightly more middle (23%) and high school (22%) students participated in mathematics tutoring through MCPS than in ELA tutoring
- More students receiving FARMS services (54%) or ELD services (39%) participated in ELA tutoring through MCPS than in mathematics tutoring.
- More Black or African American students received tutoring in mathematics (34%) than ELA (29%). More Hispanic/Latino students received tutoring in ELA (44%) than mathematics (36%).

Results

Distribution of External Vendor Participants by Tutoring Subject



Note: Of the total number of external vendor tutoring participants, 922 students received tutoring in both Mathematics and ELA. All other groups include American Indian/Alaskan Native and Native Hawaiian/Pacific Islander students.

Findings

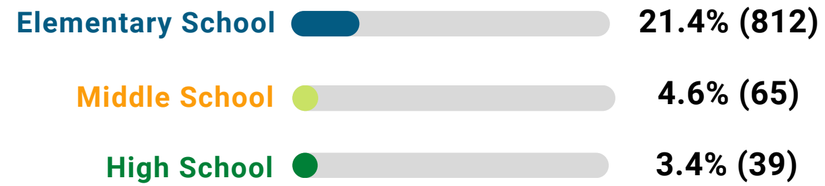
- More high school students (16%) participated in mathematics tutoring through the external vendors than those who participated in ELA tutoring (7%).
- Notably, a larger percentage of students receiving FARMS services and those who identify as Hispanic/Latino received tutoring with MCPS staff than the percentage of those who participated with the external vendors.

Results

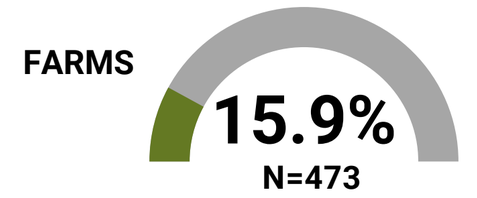
Participant Distribution of High-Dosage Tutoring (HDT) in ELA or Mathematics by School Level and Student Groups

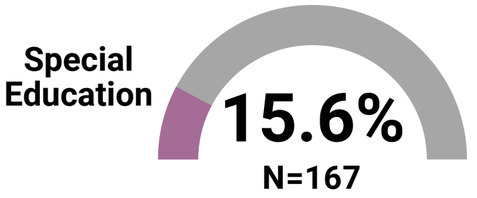
Total Number of HDT Participants - 916 (14.4%)

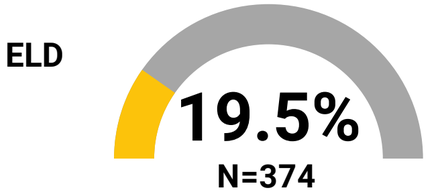
School Level



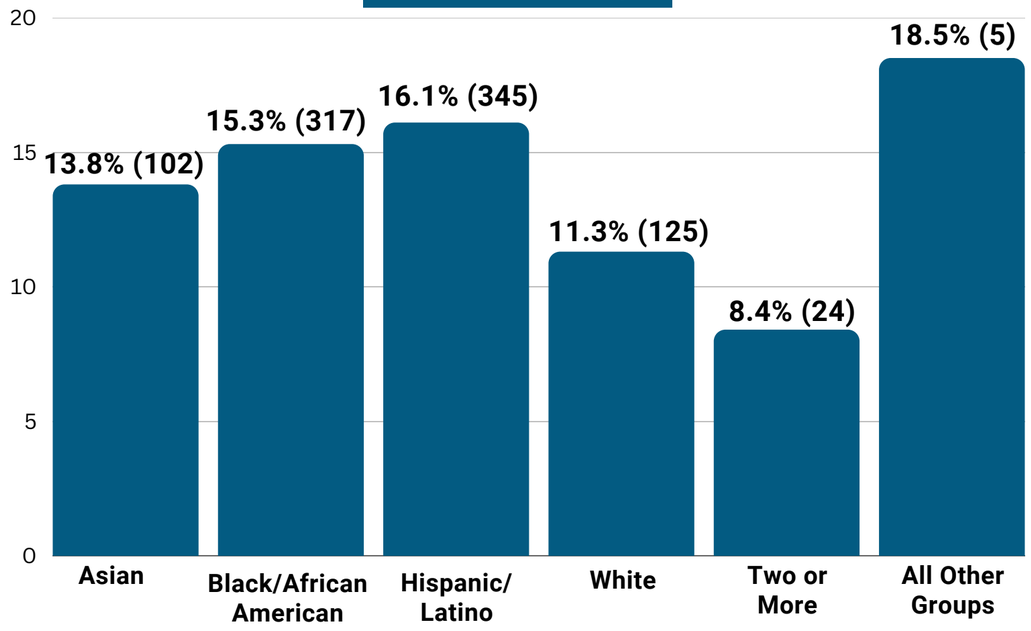
Services







Race/Ethnicity



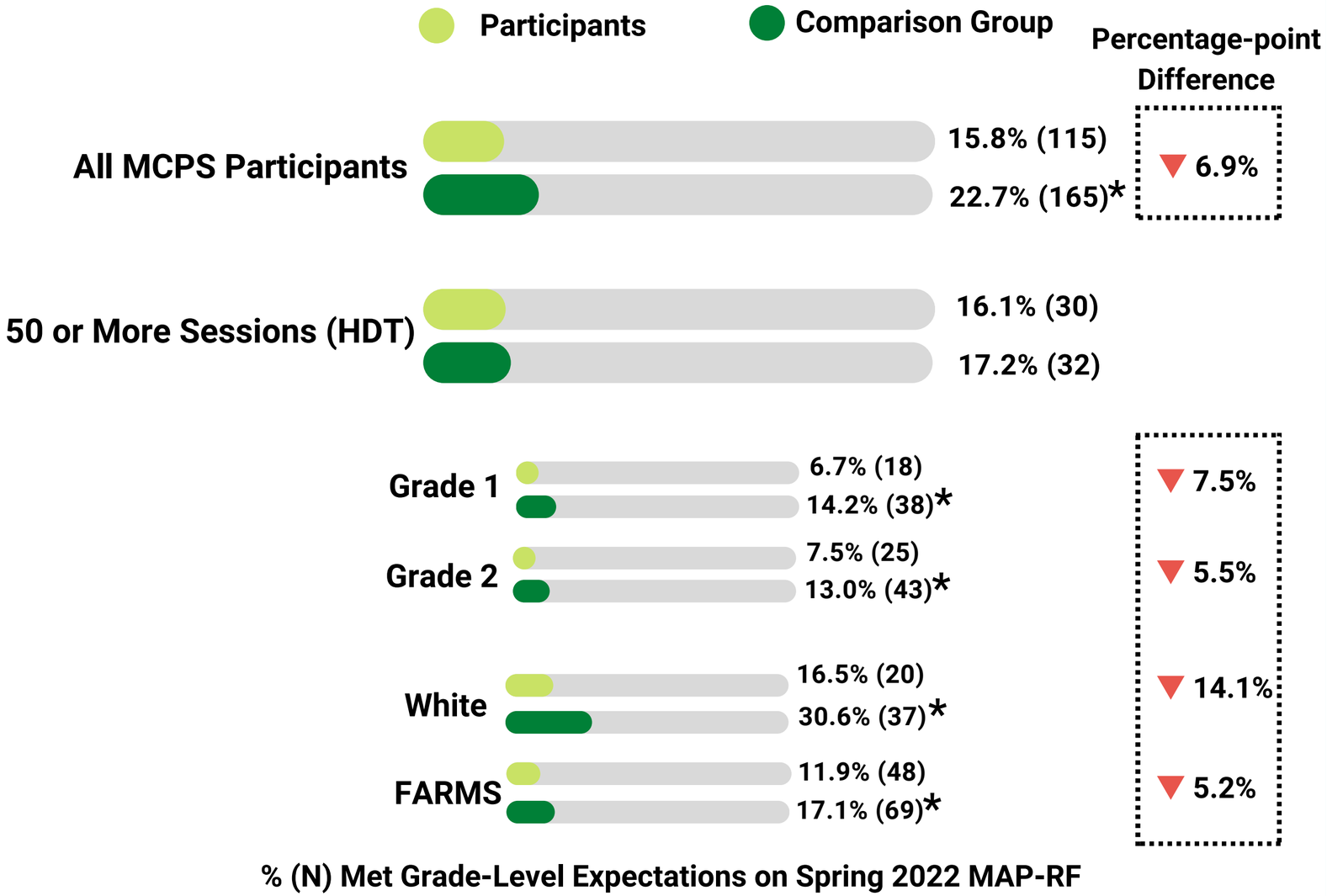
Note: Students are identified as high-dosage tutoring (HDT) participants if they participated in a total of 50 or more hours or sessions of mathematics or ELA tutoring with any tutoring provider.

Findings

- Of the 6,355 participants who received tutoring in ELA or mathematics, only 14% received 50 or more hours or sessions in one or both of the two subjects—the dosage threshold for high-dosage tutoring (HDT).
- A larger percentage of elementary-level participants received HDT in mathematics or ELA (21%) than middle and high school participants (both less than 5%).
- Of the participants receiving ELD services, 20% received HDT in mathematics or ELA, compared with 16% of students receiving FARMS services or special education services.
- Excluding All Other Groups, the highest racial/ethnic representation in the HDT group was among Black or African American and Hispanic/Latino students, representing 15% and 16%, respectively, of the population.

Results

MCPS Participants: Grades K–2 English Language Arts



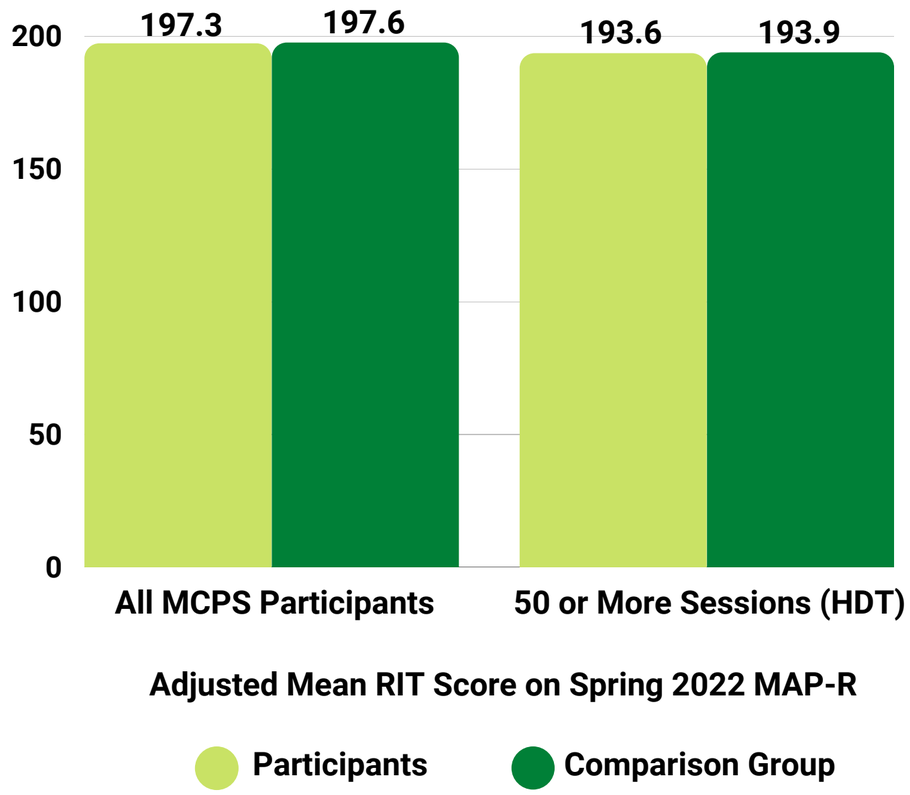
Note: The total number of students in the Two or More Races and All Other racial/ethnic groups who received ELA tutoring through MCPS did not reach the threshold for conducting a statistical analysis—N<50. Only statistically significant results are reported for student groups. * = Statistically significant difference at the $p < 0.05$ level. The Cox index was used as the effect size measure and is symbolized as *g* to indicate its comparability with Hedges' *g (see What Works Clearinghouse, 2022)*.

Findings

- A smaller percentage of K–2 MCPS tutoring participants met grade-level expectations on the Spring 2022 MAP-RF than the percentage of matched comparison students who did so.
- Similar percentages of K–2 MCPS high-dosage tutoring participants and students from the matched comparison group met grade-level expectations on the Spring 2022 MAP-RF.
- When disaggregated by grade level and student groups, the analysis revealed a significantly smaller percentage of participants in Grades 1 and 2, White students, and students receiving FARMS services meeting grade-level expectations than did matched comparison students.
- There was a 14.1 percentage-point difference in the percentages of White participants and the matched comparison students meeting MAP-RF grade-level expectations. The smallest percentage-point difference was for students receiving FARMS services (5.2 percentage points). The magnitudes of the significant effects ranged from .48 to .26 and indicate that the percentage-point differences are large enough to be practically meaningful in an educational setting.

Results

MCPS Participants: Grades 3–8 English Language Arts

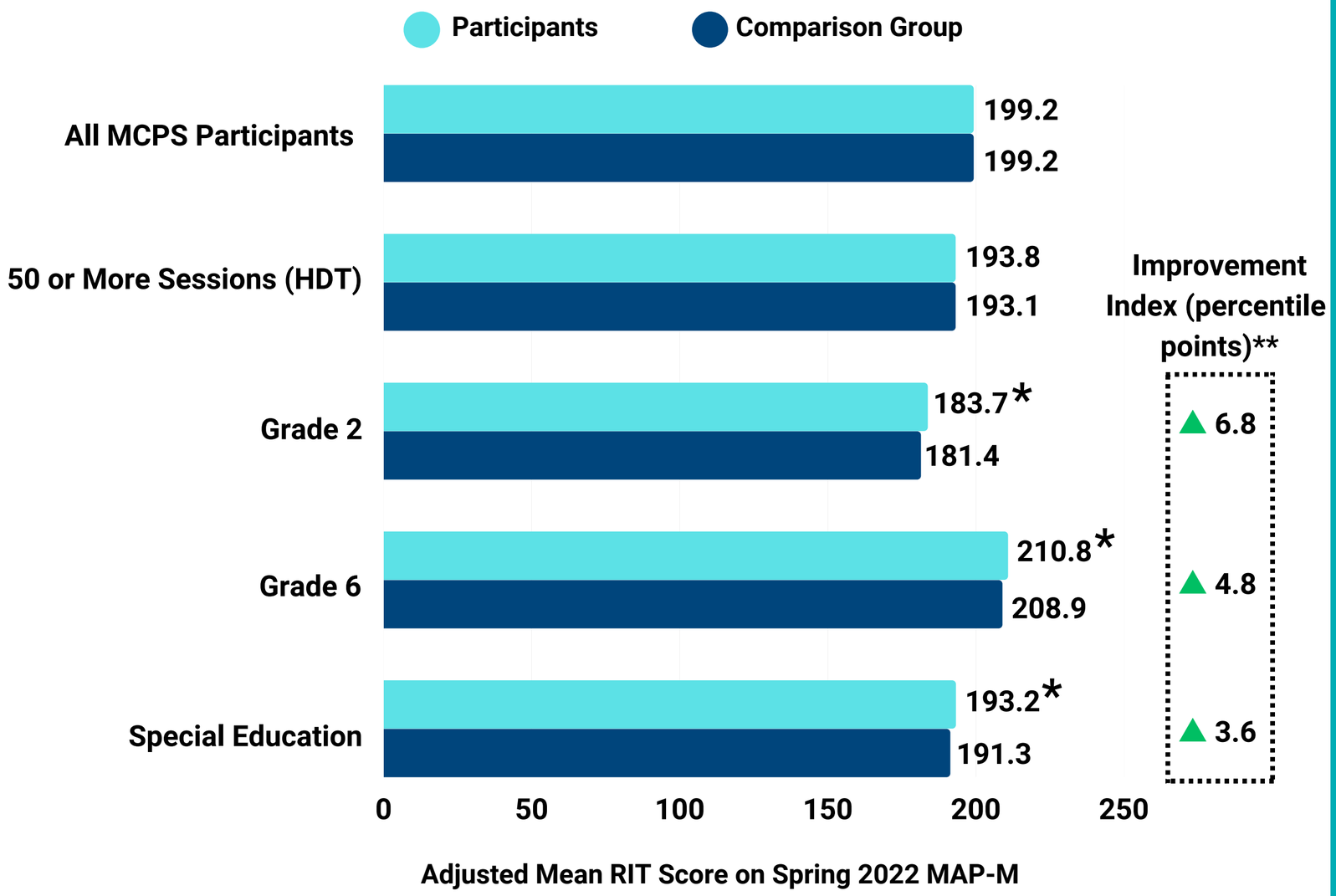


Findings

- Across all Grades 3–8 students, there were no statistically significant differences in Spring 2022 MAP-R performance between MCPS tutoring participants and matched comparison students or between students who received high-dosage tutoring in ELA and the comparison group.
- No statistically significant differences were found by grade, race/ethnicity, or service receipt in Spring 2022 MAP-R performance between MCPS tutoring participants and matched comparison students.

Results

MCPS Participants: Grades K–8 Mathematics



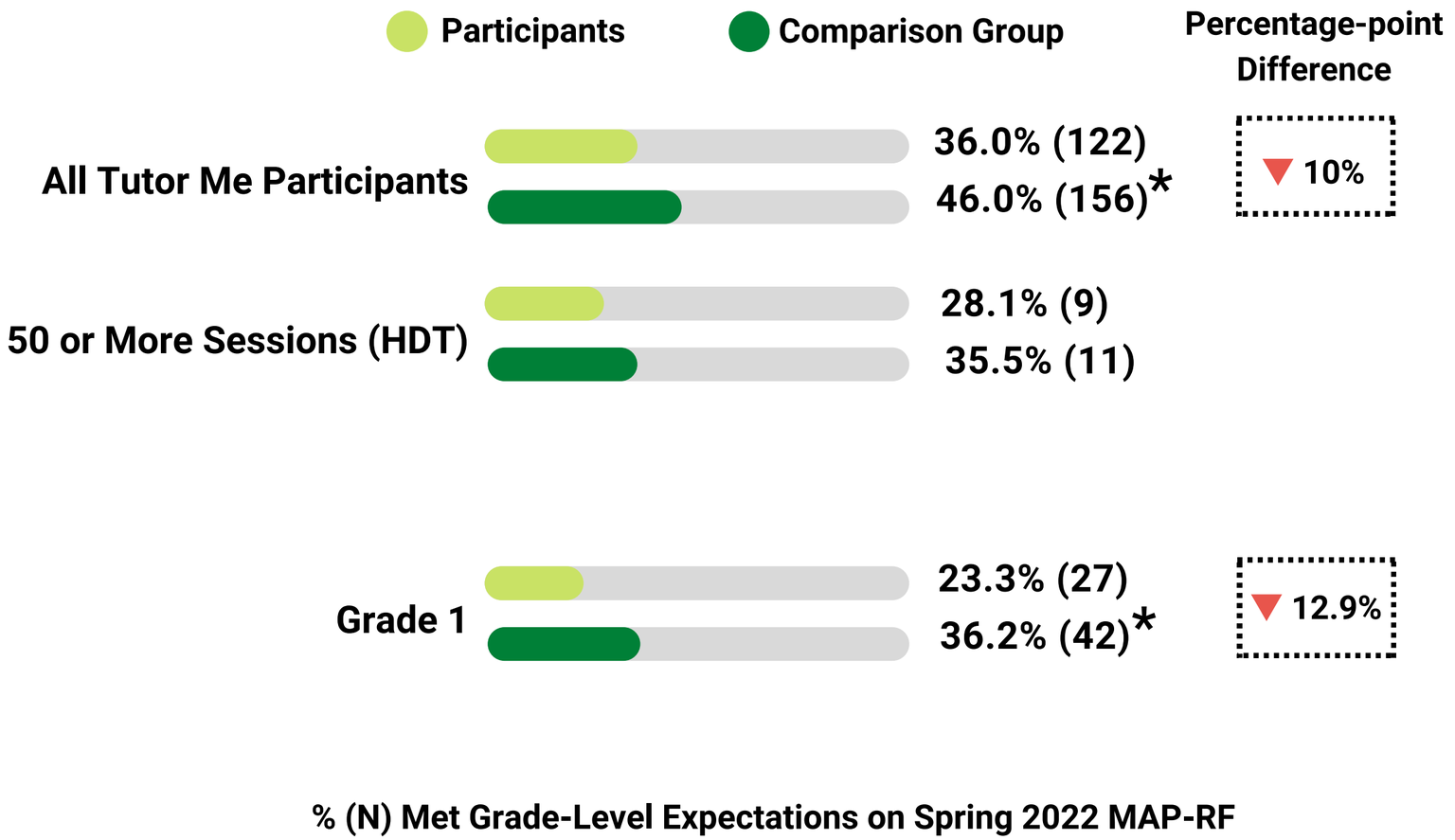
Note: * = Statistically significant difference at the $p < 0.05$ level. *g* = Hedges' *g* (measure of effect size). **The improvement indices are based on the Cohen's U_3 index formula provided in the What Works Clearinghouse Procedures and Standards Handbook (see What Works Clearinghouse, 2022).

Findings

- Overall for Grades 3–8 students, there were no statistically significant differences in the Spring 2022 MAP-M performance found between MCPS tutoring participants or HDT participants and matched comparison students.
- However, when disaggregated by grade level and student groups, the results demonstrated that, on average, Grade 2 and Grade 6 participants and participants receiving special education services scored higher than did matched comparison students on the Spring 2022 MAP-M assessment.
- The effect sizes were translated into improvement indices to determine the practical importance of the results. The computed improvement indices are the average expected changes in the percentile rank for an average (50th percentile) student who participates in tutoring; the results revealed that the magnitudes of the significant effects were equivalent to a 3.6 to 6.8 percentile-point increase in mathematics performance for an average student (*g*=.09, *g*=.12, *g*=.17). The largest effect was observed for Grade 2 students (6.8 percentile-point increase).
- Disaggregating by race/ethnicity, the results did not reveal statistically significant differences.

Results

Tutor Me Education: Grades K–2 English Language Arts



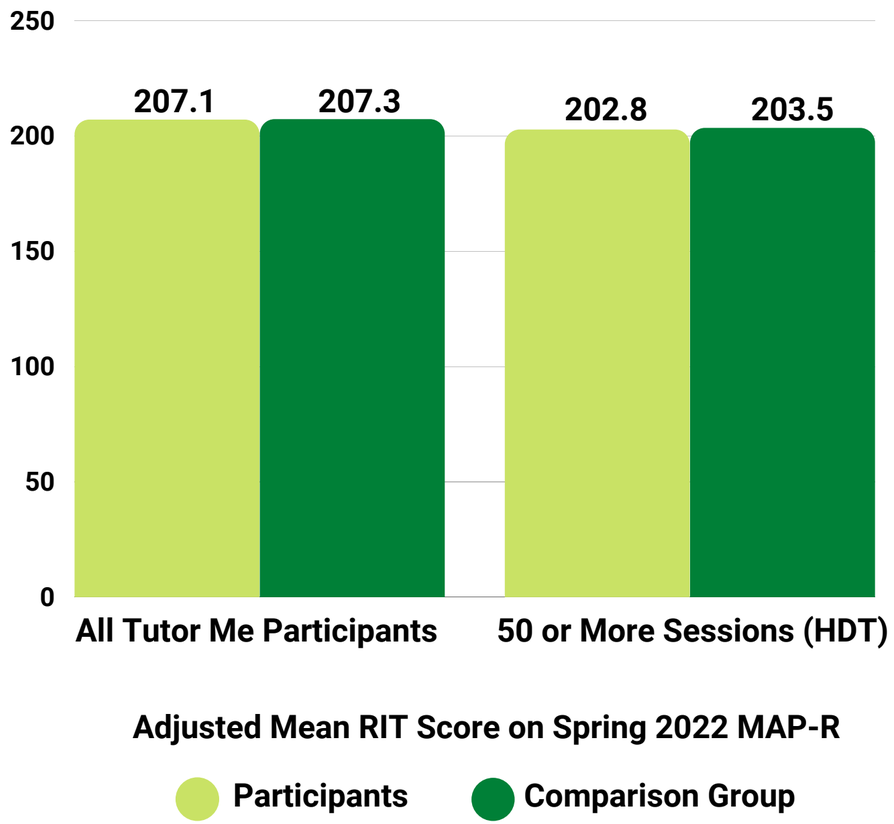
Note: Only statistically significant results are reported for the disaggregated results. * = Statistically significant difference at the $p < .05$ level. The Cox index was used as the effect size measure and is symbolized as *g* to indicate its comparability with Hedges' *g* (see What Works Clearinghouse, 2022).

Findings

- A smaller percentage of K–2 Tutor Me Education participants met grade-level expectations on the Spring 2022 MAP-RF than the percentage of matched comparison students who did so. There was a 10 percentage-point difference in the percentage of students meeting reading expectations. The magnitude of the effect (*g*=.25) indicates that the percentage-point difference was large enough to be practically meaningful for educational purposes.
- When disaggregated by grade, race/ethnicity, and service receipt, the analysis revealed that a significantly smaller percentage of Grade 1 Tutor Me Education participants met grade-level expectations in reading than did matched comparison students. For Grade 1 students, the difference was 12.9 percentage points; this difference is practically meaningful (*g*=.38).
- Disaggregated results for K–2 students in the Two or More Races and All Other racial/ethnic groups who received ELA tutoring through Tutor Me Education are not reported; the number of students from these racial/ethnic groups did not reach the threshold for conducting a statistical analysis (N<50).
- Similar percentages of K–2 Tutor Me Education high-dosage tutoring participants and students from the matched comparison group met grade-level expectations on the Spring 2022 MAP-RF.

Results

Tutor Me Education: Grades 3–8 English Language Arts

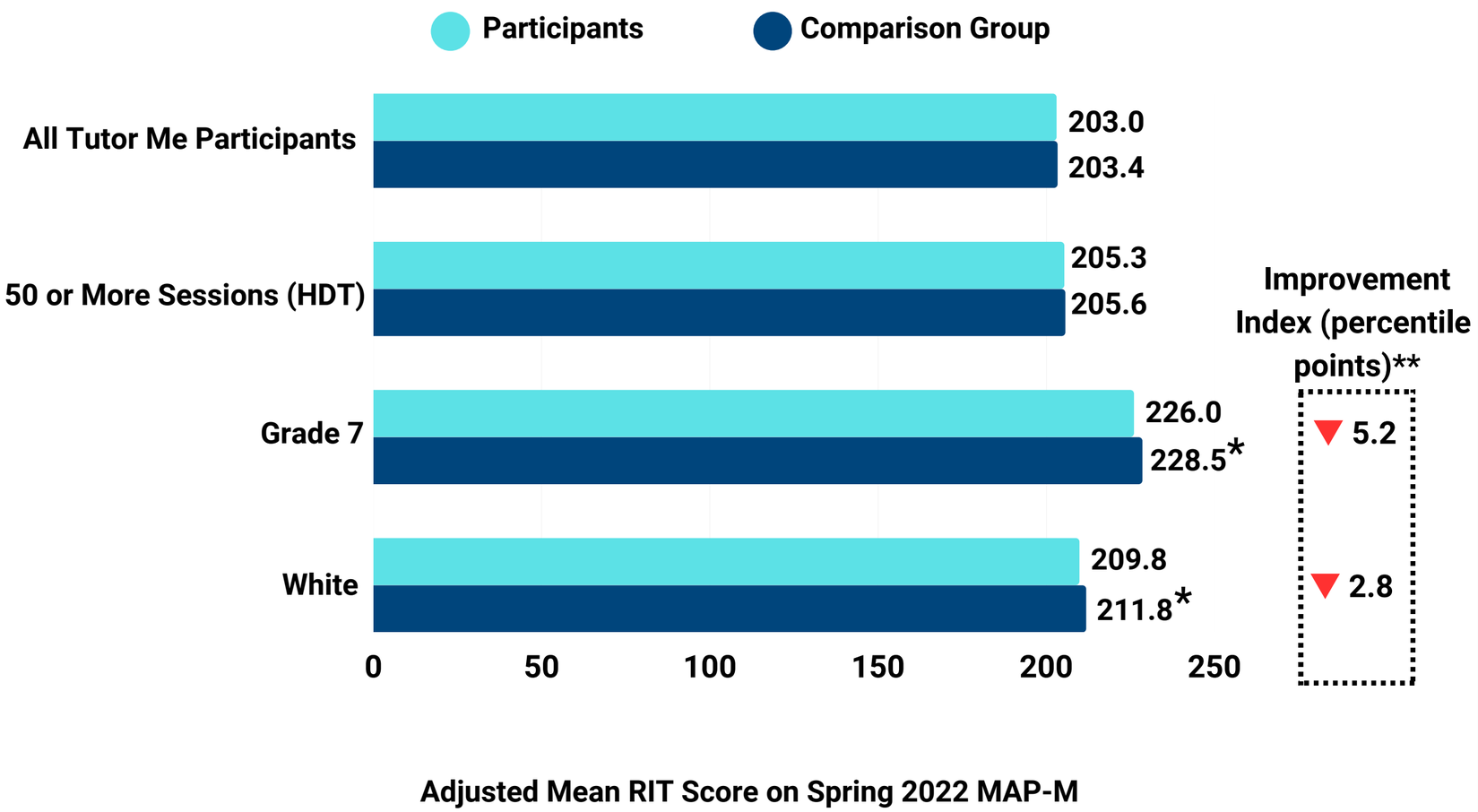


Findings

- The total number of Grade 8 students and students from the Two or More Races and All Other racial/ethnic groups who received ELA tutoring through Tutor Me Education did not reach the threshold for conducting a statistical analysis (N<50).
- Receipt of tutoring through Tutor Me Education did not have a statistically significant effect on Spring 2022 MAP-R performance among students in Grades 3–8 overall or by grade, service receipt, or race/ethnicity.

Results

Tutor Me Education: Grades K–8 Mathematics



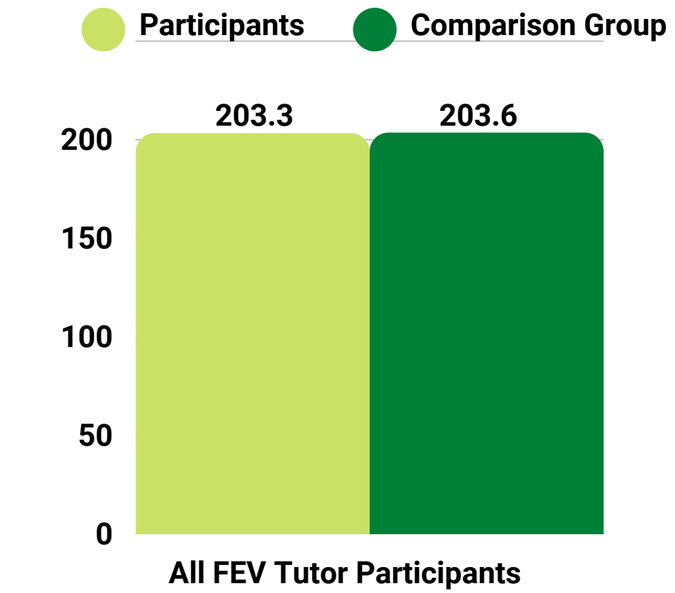
Note: * = Statistically significant difference at the p < 0.05 level. *g* = Hedges' *g* (measure of effect size). **The improvement indices are based on the Cohen's U index formula provided in the What Works Clearinghouse Procedures and Standards Handbook (see What Works Clearinghouse, 2022).

Findings

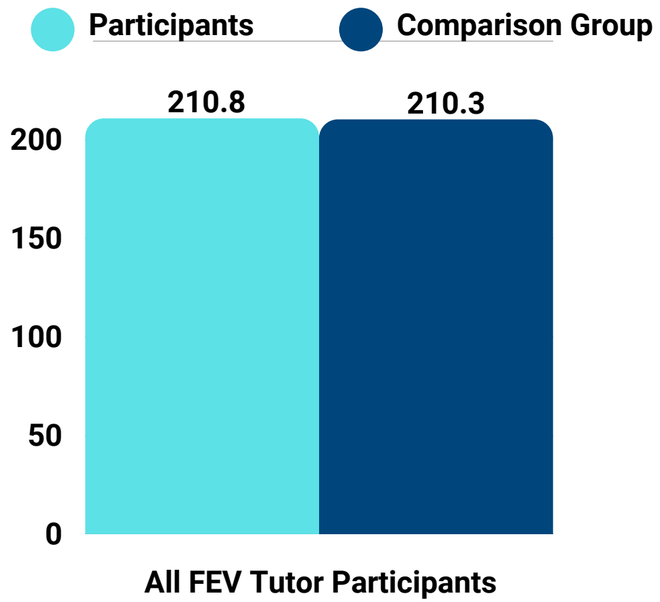
- The total number of students in All Other racial/ethnic groups who received mathematics tutoring through Tutor Me Education did not reach the threshold for conducting a statistical analysis.
- Overall for Grades 3–8 students, there were no statistically significant differences detected in Spring 2022 MAP-M performance between Tutor Me Education participants and matched comparison students.
- Results disaggregated by grade and student group revealed statistically significant differences among Grade 7 and White students, with the matched comparison students scoring higher, on average, on the Spring 2022 MAP-M.
- Translating the effect sizes into improvement indices revealed that the magnitudes of the significant effects on Grade 7 and White students equated to a 5.2 and a 2.8 percentile-point increase in mathematics performance for an average (50th percentile) student (*g*=.13 and .07, respectively).

Results

FEV Tutor: Grades 3–8 English Language Arts and Grades 3–8 Mathematics



Adjusted Mean RIT Score on Spring 2022 MAP-R



Adjusted Mean RIT Score on Spring 2022 MAP-M

Findings

- The total number of Grades K–2 FEV Tutor participants did not reach the threshold for conducting a statistical analysis (N<50). For the disaggregated analyses, the number of ELA and mathematics participants from the Two or More Races and All Other racial/ethnic groups, and Grade 8 ELA tutoring participants were also less than 50.
- The FEV Tutor analysis did not reveal a statistically significant effect on Grades 3–8 Spring 2022 MAP-M performance or Grades 3–8 MAP-R performance overall or by grade, service receipt, or race/ethnicity.

Conclusions

Summary of Key Findings

Dosage	• Of the 6,355 students who participated in ELA or mathematics tutoring with any of the three providers during the 2021–2022 school year, only 14% (916) of them received 50 or more hours or sessions of tutoring in either subject. • The remaining 86% of participants did not receive enough hours in ELA or mathematics tutoring to equate to high-dosage tutoring.
MCPS-Provided	• There was no overall effect of MCPS-provided tutoring found on students' Grades 3–8 reading achievement. • Overall for K–2 students and among students in Grades 1 and 2, White students, and students receiving FARMS, there were significantly smaller percentages of MCPS tutoring participants meeting grade-level expectations on Spring 2022 MAP-RF than did the matched comparison group. • On average, for mathematics, Grade 2 and Grade 6 tutoring participants and participants receiving special education services scored higher than did matched comparison students on the Spring 2022 MAP-M assessment. • The magnitude of the effects on mathematics achievement equated to a 3.6 to 6.8 percentile-point increase in mathematics performance for an average (50th percentile) student—with Grade 2 students experiencing the largest effect (6.8 percentile-point increase); the Grade 6 and special education effects were below 5 percentile points.
Tutor Me Education	• There was no overall effect of Tutor Me Education found on students' Grades 3–8 reading achievement. • Reading results disaggregated by grade level, race/ethnicity, and service receipt revealed significantly smaller percentages of Tutor Me Education participants meeting grade-level expectations on Spring 2022 MAP-RF than did the matched comparison group. • No overall effects of Tutor Me Education mathematics tutoring were observed for Grades K–8 mathematics achievement. • Disaggregated results revealed that, on average, White participants and participants in Grade 7 scored lower than did matched comparison students on the Spring 2022 MAP-M assessment; the differences, were equivalent to a 5.2 and a 2.8 percentile-point decrease in mathematics performance for an average student.
FEV Tutor	• Across all Grades 3–8 students and by grade, service receipt, and race/ethnicity, there were no statistically significant differences in Spring 2022 reading or mathematics performance detected between FEV Tutor participants and matched comparison students.

Conclusions

Limitations

The following table provides limitations of the evaluation that may have influenced the observed outcomes for each tutoring provider:

MCPS-Provided	The number of tutoring sessions for each student was recorded but did not include data on session duration (e.g., minutes). Without an accurate account of tutoring dosage, it is unclear whether the tutoring outcomes are based on tutoring itself or the result of an inaccurate identification of high-dosage tutoring participants.
Tutor Me Education	An indication of the tutoring subject area for each student was received but a breakdown of the hours by subject was not provided. For tutored subjects, the vendor only provided self-reported data on subject area of need; a record of the subjects covered during each tutoring session was not provided. The treatment group for the Tutor Me Education analysis may include students who did not receive HDT in ELA or mathematics or tutoring in these subjects at all.
FEV Tutor	Only two FEV Tutor participants received HDT in mathematics, while no students received 50 or more tutoring hours in ELA. The outcome analysis is based on students with fewer than 50 hours of tutoring.

Recommendations

1

Ensure targeted students receive sufficient dosage of high-quality tutoring.

To produce intended achievement gains, the district must implement a true high-dosage tutoring framework and ensure a high standard of implementation fidelity. According to available data, only 14% of ELA and mathematics tutoring participants received high-dosage tutoring, as defined by the 50 or more hours of tutoring threshold recommended in the literature (e.g., Sawchuk, 2020). To help increase tutoring frequency during the school year, the district can do the following:

1) Support local schools in early program planning to ensure sound implementation designs and consistent structures are in place—across schools—for timely delivery of services and enhanced implementation fidelity.

2) Partner with nearby colleges or universities to recruit pre-service teachers or other students in education-related majors to serve as tutors. Enhanced tutor recruitment strategies may increase tutor availability, and in turn, increase student tutoring dosage for targeted students.

3) Implement tutoring during the regular school day as opposed to after-school or before-school tutoring. In program planning, designating a specific time of the day or period for tutoring may help increase tutoring frequency for students.

Receiving sufficient dosage is necessary for effective tutoring but is not sufficient for yielding positive student outcomes. There were no overall positive effects detected in the present study—even for students who received 50 sessions or more of tutoring. This suggests that tutoring quality may have been a contributor. To support tutoring quality, MCPS can:

- work to align the tutoring program with evidence-based best practices from the literature;
- ensure the program is implemented as intended; and
- support tutor effectiveness.

Recent research suggests the importance of several factors that tend to lead to more impactful tutoring initiatives (e.g., Guryan et al., 2023; Kraft & Goldstein, 2020; Robinson et al., 2021; Nickow et al., 2020). In addition to higher dosage (i.e., more days per week), these factors include: 1) in-school as opposed to after-school tutoring; 2) teachers or paraprofessionals as tutors as opposed to nonprofessionals (e.g., parents or volunteers); and 3) tutor consistency across tutoring sessions. MCPS used teachers and paraprofessionals as tutors, but higher dosage and in-school tutoring were not evident and information regarding tutor consistency was not captured in the data system. Recruiting additional paraprofessionals, as recommended above, can help the district service students at a higher dosage during the school year, allow more in-school tutoring, and provide more opportunities for tutor consistency and tutor-student relationship building. To support the quality of the tutoring program, MCPS can also work to recruit and train tutors and provide ongoing monitoring and support of tutor activities. Furthermore, given the lack of positive findings for FEV Tutor or Tutor Me in this evaluation and the lack of RCT evidence supporting these for-profit providers, the district may also wish to consider partnering with different external vendors—ones that have stronger evidence of their effectiveness.

Recommendations cont.

2 Ensure data systems capture essential data elements.

It is essential for the data collection system to capture information necessary to assess if the program is achieving its goals and expected outcomes. As the district continues to implement improved systems and processes for collecting and storing tutoring data, there is a need to ensure essential data points are collected in a consistent and standardized way across tutoring providers (see National Student Support Accelerator, 2021). The greatest focus should be on gathering **tutoring dosage data with attendance documented in hours or minutes by subject.** One limitation of the present evaluation was the inability to accurately identify the number of tutoring hours received by each student by subject. MCPS provided attendance as session totals without a clear indication of the number of minutes for each session. Tutor Me Education provided a total number of tutoring hours but did not specify the number of hours per tutoring subject.

In addition to tutoring dosage, to understand the effectiveness and impact of supports to students, it is also critical to capture tutoring subject for each session. There are other desirable data points that, although not critical for an evaluation, may be beneficial to capture more information on program implementation and to help determine if documented features of an effective tutoring program are present; these data points include—

- tutoring group size (i.e., the number of participants for each tutoring session);
- tutoring time of the day (i.e., before school, during school, after school);
- tutor identifying information to determine tutor consistency (e.g., employee ID);
- tutor ratings of student engagement to help evaluate the quality of the tutoring session; and
- documentation of learning objectives or session topics to help better align outcome measures to program inputs.

Detailed session reports must also be a requirement for all external vendors. Tutor Me Education could not provide specific tutoring session information for participants; tutoring subject and tutoring dosage for each subject were unknown and the present evaluation is based on subjects participants listed as areas of need rather than their actual tutoring subject.

An improved documentation of services will be instrumental to an assessment of implementation fidelity. In year one of evaluation, MCPS tutoring, for instance, was not found to be effective overall at improving Grades 3–8 reading performance or Grades K–8 mathematics performance and had a negative effect on K–2 reading achievement. When positive effects of MCPS-provided tutoring were observed by grade level or student groups, the largest effect on MAP-M performance was equivalent to a 6.8 percentile-point increase in mathematics performance for an average student. Evaluating program implementation may help identify contextual factors or program characteristics affecting the ability to yield intended outcomes or observe greater effects on student achievement.

References

Guryan, J., Ludwig, J., Bhatt, M. P., Cook, P. J., Davis, J. M., Dodge, K., & Stoddard, G. (2023). Not too late: Improving academic outcomes among adolescents. *American Economic Review, 113*(3), 738-765.

Kraft, M.A., and Goldstein, M. (2020, May 21). Getting tutoring right to reduce COVID-19 learning loss. Brookings. https://www.brookings.edu/blog/brown-center-chalkboard/2020/05/21/getting-tutoring-right-to-reduce-covid-19-learning-loss/

Kortecamp, K., & Peters, M. L. (2023). The Impact of a High-Dosage Tutoring Program on Reading Achievement of Beginning Readers: A Multi-Level Analysis. Journal of Education for Students Placed at Risk (JESPAR). https://doi-org.proxy1.library.jhu.edu/10.1080/10824669.2023.2179056

McKnight, M. B. (2022, March 8). Mitigation of Learning Disruption [Memorandum]. Office of the Superintendent of Schools. https://go.boarddocs.com/mabe/mcpsmd/Board.nsf/files/CC5KN55223C7/$file/Mitigation%20Learn%20Disruption%20220308.pdf

National Student Support Accelerator. (2021). Toolkit for Tutoring Programs. Retrieved from National Student Support Accelerator: https://doi.org/10.26300/5n7h-mh59

Nickow, A., Oreopoulos, P., & Quan, V. (2020). The impressive effects of tutoring on prek-12 learning: A systematic review and meta-analysis of the experimental evidence (NBER Working Paper No. 27476). National Bureau of Economic Research. https://www.nber.org/papers/w27476

Robinson, C. D., Kraft, M. A., Loeb, S., & Schueler, B. E. (2021). Accelerating Student Learning with High-Dosage Tutoring. EdResearch for Recovery Design Principles Series. EdResearch for Recovery Project.

Sawchuk, S. (2020, August 19). High-dosage tutoring is effective, but expensive. Ideas for making it work. Education Week. https://www.edweek.org/leadership/high-dosage-tutoring-is-effective-but-expensive-ideas-for-making-it-work/2020/08

References cont.

U.S. Department of Education (2021). U.S. Department of Education Fact Sheet: American Rescue Plan Act of 2021 Elementary and Secondary School Emergency Relief Fund (ARP ESSER). Retrieved from https://oese.ed.gov/files/2021/03/FINAL_ARP-ESSER-FACT-SHEET.pdf

What Works Clearinghouse (2022). What Works Clearinghouse procedures and standards handbook, version 5.0. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance (NCEE). Retrieved from https://ies.ed.gov/ncee/wwc/Docs/referenceresources/Final_WWC-HandbookVer5_0-0-508.pdf