



Monthly Board KPIs: March 2022

Prepared by the Department of Research & Performance Management

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Key Findings

- Median achievement percentiles in both reading and math were lower in winter 2022 than winter 2020 for students at all grade levels, except for Kindergarten students in math. Median achievement percentiles for that group remained the same.
- The median achievement percentiles for all grade levels in both reading and math scored below the national median percentile (50th percentile).
- In reading, the median achievement percentiles for MSCS students in grades 1 and 2 was notable at the 14th and 19th percentiles, respectively. The median achievement percentiles for students in grades K and 3 was the 27th and 28th percentiles, respectively.
- In math, MSCS students in grades 2 and 3 have lower median achievement percentiles (29th and 25th percentiles, respectively) than students in grades K and 1 (49th and 42nd percentiles, respectively).
- In reading, the majority of MSCS K-3 students scored in the bottom quartile (≤ 25 th percentile). Almost half the students in grades K (49%) and 3 (48%) scored in the bottom quartile, as did 63% of grade 1 students and 55% of grade 2 students.
- In math, a higher percentage of students scored in the bottom quartile in winter 2022 for all grade levels compared to winter 2020. Percentages across grade levels ranged from 28% to 51% of students scoring in the bottom quartile.
- Despite low achievement percentiles, median growth percentiles show that, generally, students are progressing in reading and math at the same rate this year as in 2019-20. Additionally, many median growth percentiles are near the national median percentile (50th percentile). The most marked exceptions are the median growth percentiles for MSCS students in grades K-1 in reading, which are the 31st percentile and 17th percentile, respectively.
- Median Lexile scores from winter 2022 show that MSCS students in all grades 2-5 scored below the mid-year national average for each grade level.
- A median Lexile score of 25L for grade 2 indicates that almost half of these students tested at the beginning reader level.

Introduction

The Key Performance Indicators (KPIs) for March focus on academic progress of MSCS students enrolled in Kindergarten through third grade and Lexile scores for students in all grades. Data for these KPIs are from the Illuminate FastBridge suite of assessments that are administered to all students in grades K-5. Students in grades K-1 take the earlyReading and earlyMath assessments, while students in grades 2-5 complete aReading and aMath.

Measures of academic progress reported for K-3 students include median achievement percentiles, percentage of students scoring in the bottom quartile, and median growth percentile. Additionally, analyses of Lexile scores are presented for students in grades 2-5. Each metric is discussed in more detail in the sections below. Generally, analyses were conducted on student scores from the winter assessment window, although growth measures analyze student progress from fall to winter.

To examine trends in the data, results from the 2021-22 analyses were compared to results from two years ago, the 2019-20 school year. Data from the Illuminate FastBridge assessments from the



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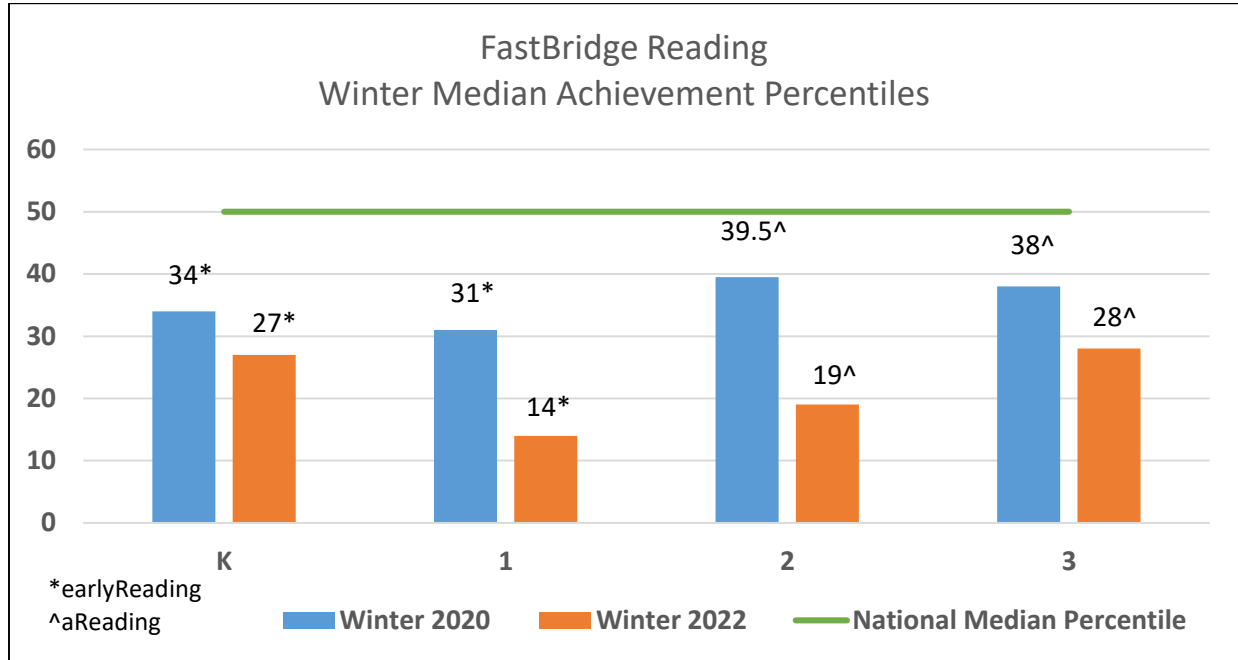
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2020-21 school year were not included in the analyses due to several pandemic related factors making comparisons not possible.

Achievement Percentiles

Median Achievement Percentiles

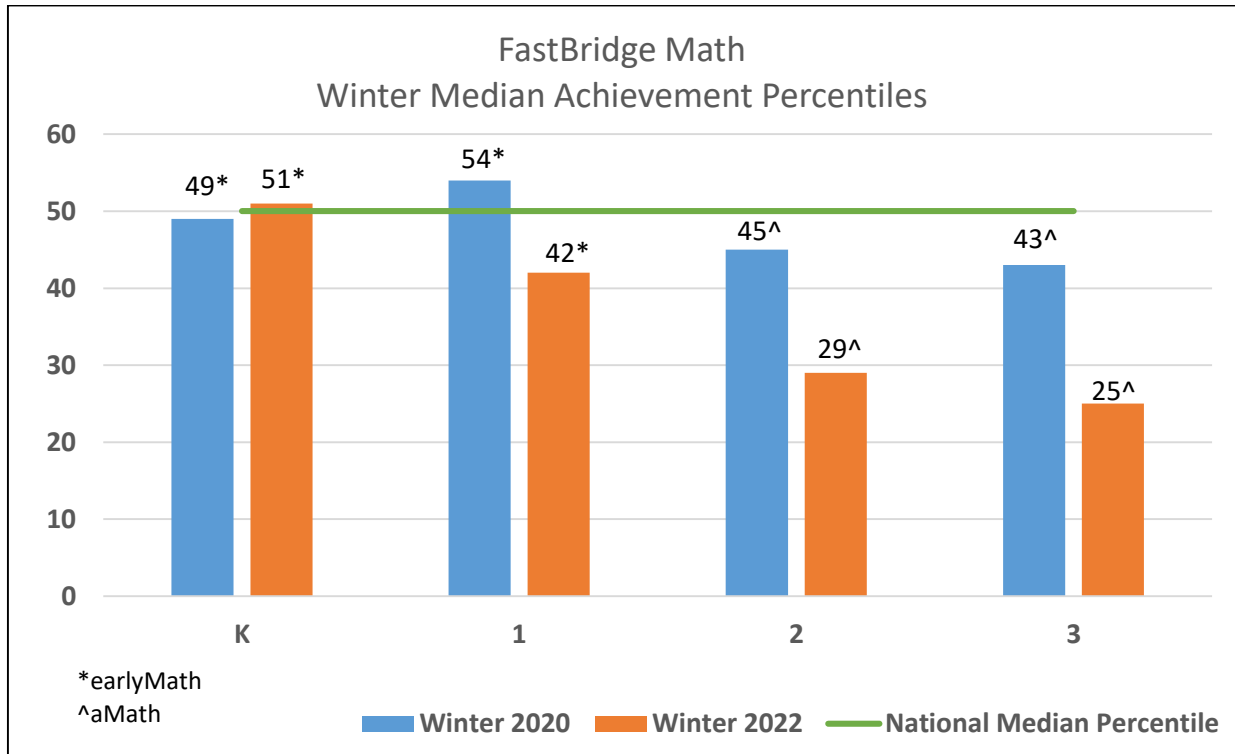
The first set of analyses examined the median achievement percentiles for student scores from the winter assessment in 2020 and 2022 by grade level. Median achievement percentiles provide the cut point at which half the MSCS students scored above for each grade level. A median achievement percentile of 50 indicates that, as a group, the MSCS students are scoring on par with the national average. The graph below displays the reading median achievement percentiles. For all grade levels, students scored lower than the national average (50th percentile) and scored lower in 2022 compared to 2020. The most notable declines were in grades 1 and 2 which dropped by 17 and 20.5 percentile points, respectively. The declines across all grade levels could reflect how COVID disruptions and changes to learning and instruction impacted academic progress in reading.



The next graph shows the median achievement percentiles for math. Again, student scores declined for all grade levels from 2020 to 2022, with the exception of Kindergarten where students scored at the 49th percentile both years. For students in grades 1, 2, and 3, their median math achievement scores dropped by 12, 16, and 18 percentile points, respectively.



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Percentage of Students in Bottom Quartile

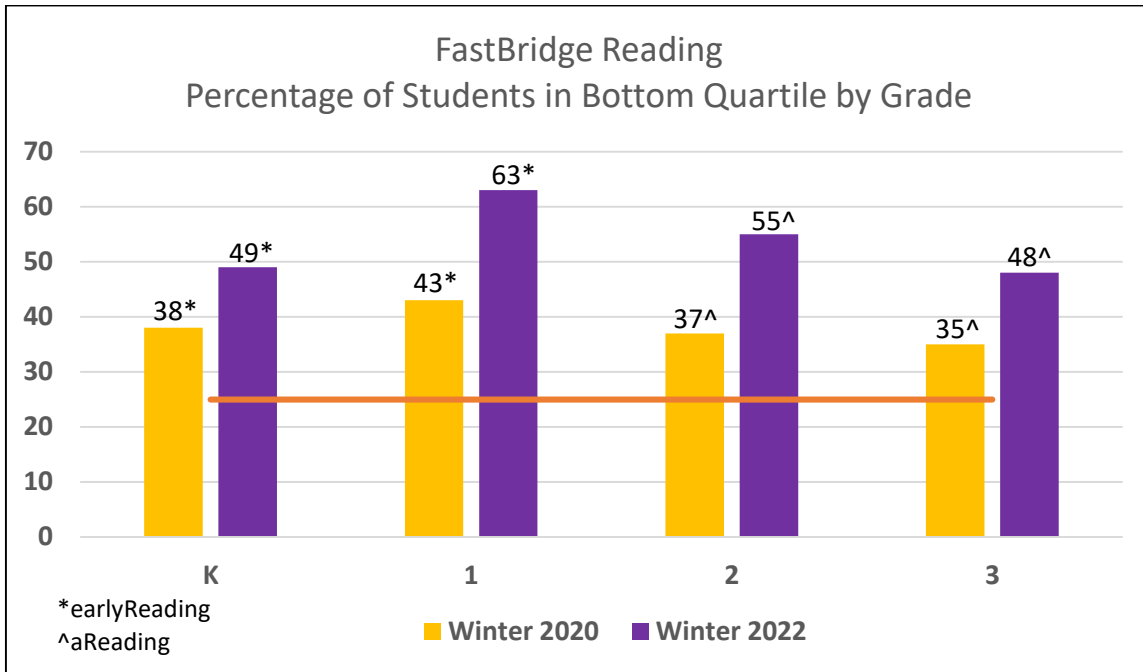
The next analysis compared the percentage of students who scored in the bottom quartile (at or below the 25th percentile) in winter 2020 and winter 2022. Ideally, if MSCS students matched the national comparison group, there would only be 25% of the students in the bottom quartile. Fewer students in the bottom quartile would mean that MSCS students are performing better than the national comparison group, whereas more students in the bottom quartile would mean that MSCS students are performing lower than the national comparison group.

The chart below shows the percentage of students in the bottom quartile by grade level for reading. For reference, the orange line marks 25% of students. To match the national comparison sample, no group of students represented by the gold or purple bars would exceed this line. However, the percentage of MSCS students in the bottom quartile is greater than 25%. Further, the percentage of students in the bottom quartile increased from winter 2020 to winter 2022 for all grade levels. The most notable increases are in grades 1 and 2, which increased by 20 and 18 percentile points, respectively. The change in percentages of students in the bottom quartile for the two time periods is consistent with the decreases in median achievement percentiles presented above. Also notable is that almost half the students in grades K (49%) and 3 (48%) are in the bottom quartile, and 63% of grade 1 students and 55% percent of grade 2 students scored in the bottom quartile.

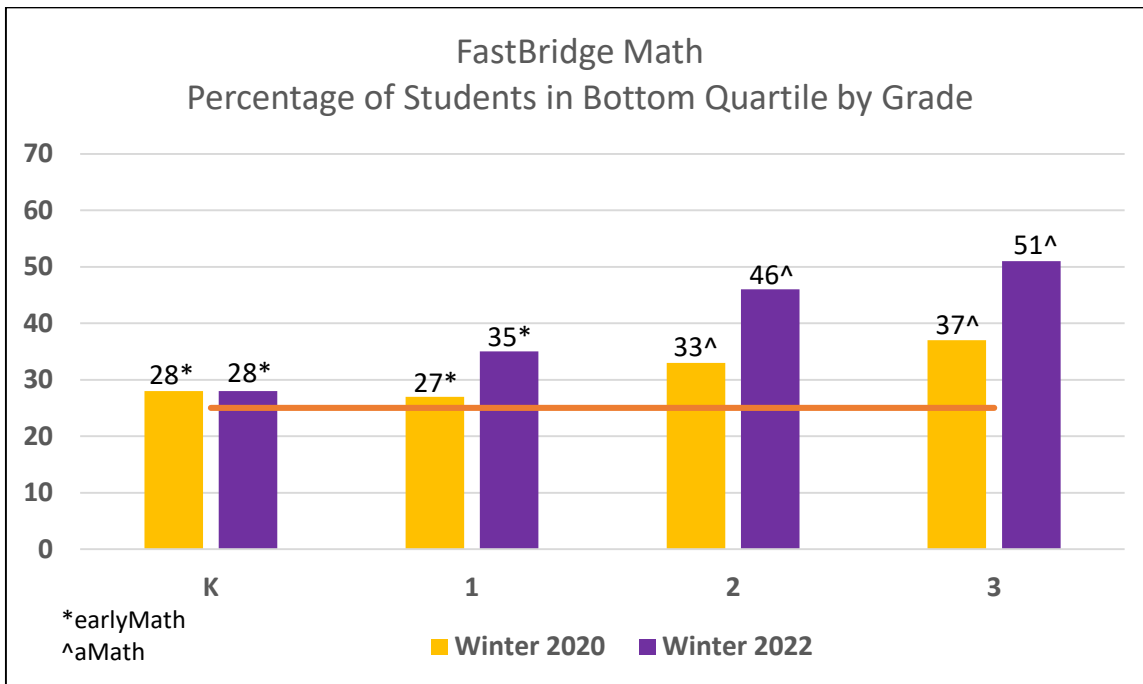


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The percentage of students in the bottom quartile in math are presented in the graph below. As with reading, the percentage of students in the bottom quartile exceeds 25% of the students (orange line) and percentages increased from winter 2020 to winter 2022 for all grade levels. The two largest increases were in grades 2 and 3, which increased by 13 and 14 percentage points, respectively. Additionally, approximately half the students in each of those grades scored in the bottom quartile this year (46% of grade 2 and 51% of grade 3).





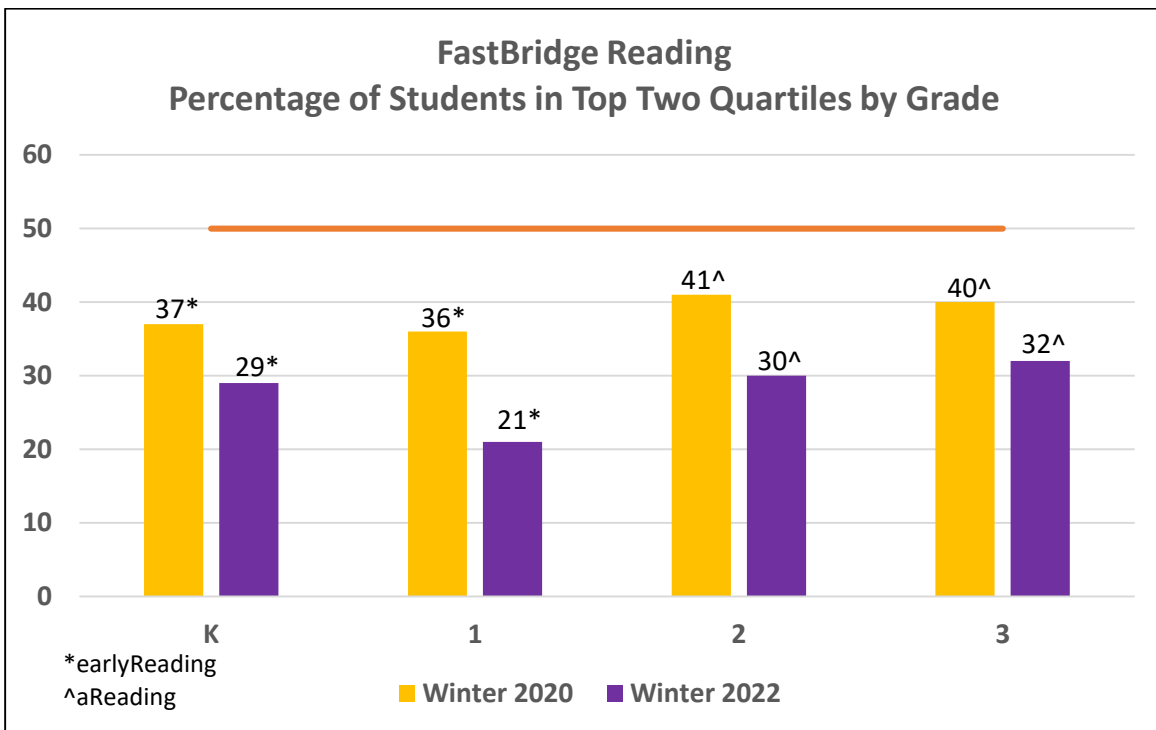
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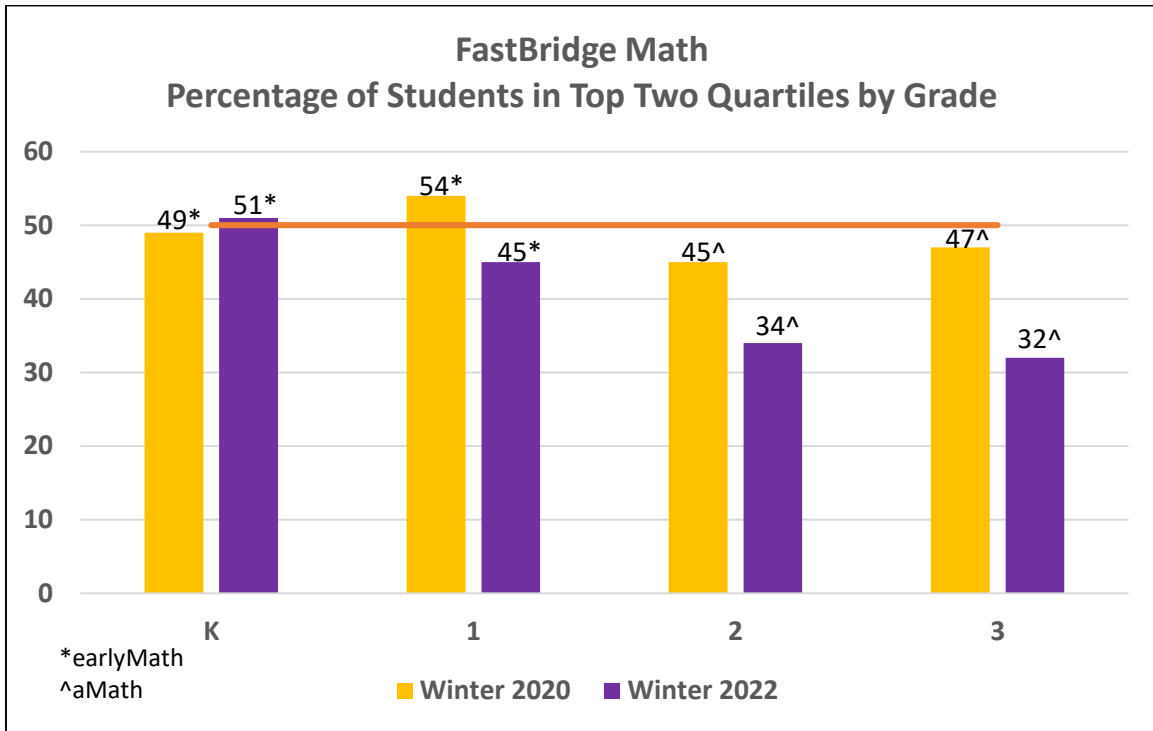
Percentage of Students above the 50th Percentile

The next analysis compared the percentage of students who scored above the 50th achievement percentile in winter 2020 and winter 2022. Ideally, if MSCS students matched the national comparison group, there would be at least 50% of the students at or above the 50th percentile.

The chart below shows the percentage of students above the 50th percentile by grade level for reading. For reference, the orange line marks the national average at 50. Similar to other achievement percentile trends, the percentage of students meeting the national average declined when comparing pre-pandemic results in winter 2020 to the most recent assessment in winter 2022. For most early grades, about 30% of students were at or above the 50th percentile. In grade 1, only 21% of students met this benchmark.



In math, students in K-1 are performing near the national average as a group, as about half of students were at or above the 50th achievement percentile on the winter 2022 FastBridge assessment. Of note, a higher percentage of kindergarten students met this benchmark in 2022 compared to pre-pandemic in 2020. The percentage of students in grades 2 and 3 above the 50th percentile showed the most decline of all early grades, perhaps because they had more exposure to learning loss during the pandemic compared to younger students.



Growth Percentiles

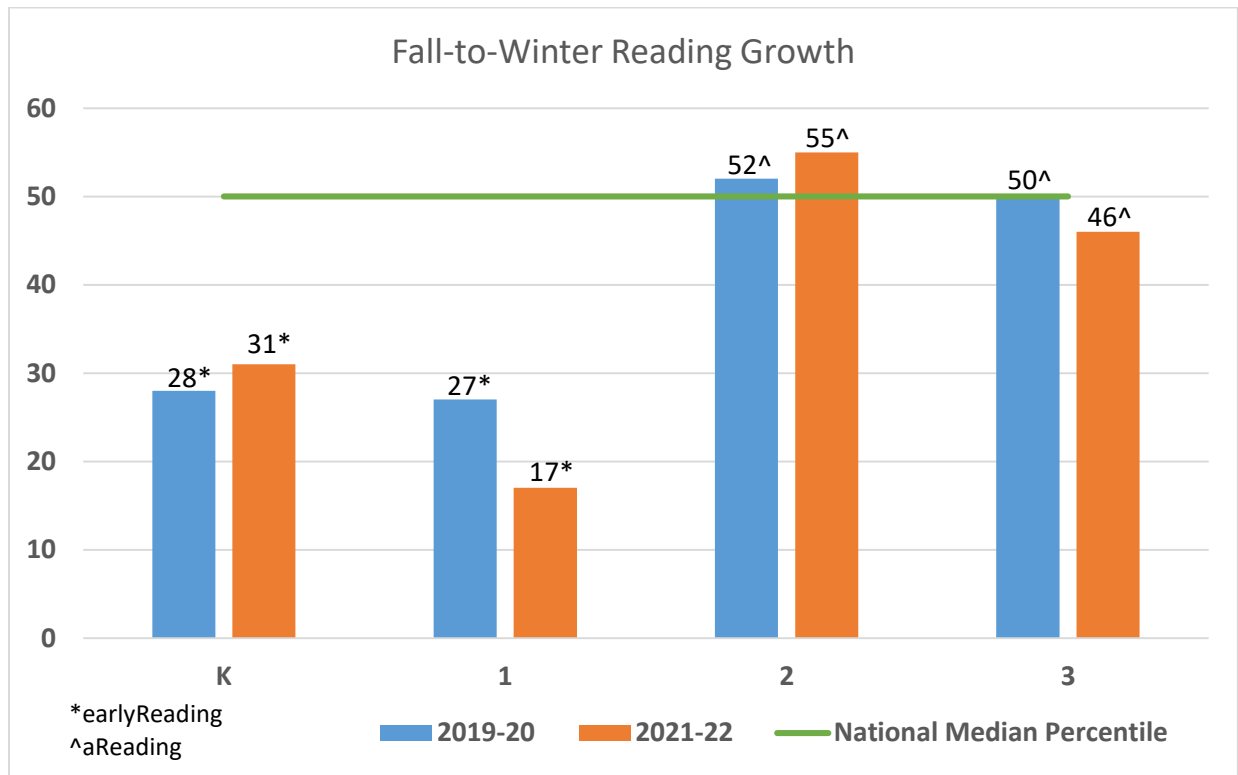
The next set of analyses compared student growth from fall to winter. FastBridge provides a growth percentile for each student who was assessed in both fall and winter. By examining the median growth percentiles, it is possible to determine how the growth of MSCS students compares to national growth. The national median growth percentile is the 50th percentile. Median percentiles below the 50th percentile indicate that MSCS students, as a group, are growing at a slower rate than the national average. Median percentiles above the 50th percentile indicate that MSCS students are growing at a faster pace.

The graph below displays the median fall-to-winter growth percentiles for students by grade level in reading. Compared to 2019-20, students in grades K and 2 had a higher median growth percentile for 2021-22 (31st percentile and 55th percentile, respectively), however students in grades 1 and 3 had lower median growth percentiles in 2021-22, with grade 1 declining by 10 percentile points to a median growth percentile of 17. Students in grades K and 1 scored below the 50th percentile for reading growth, meaning that as a group these two grade levels were making progress at a slower pace than the national average. Students in grades 2 and 3 are making reading progress close to the national growth average, with grade 2 student performing slightly better at the 55th percentile for the 2021-22 school year.



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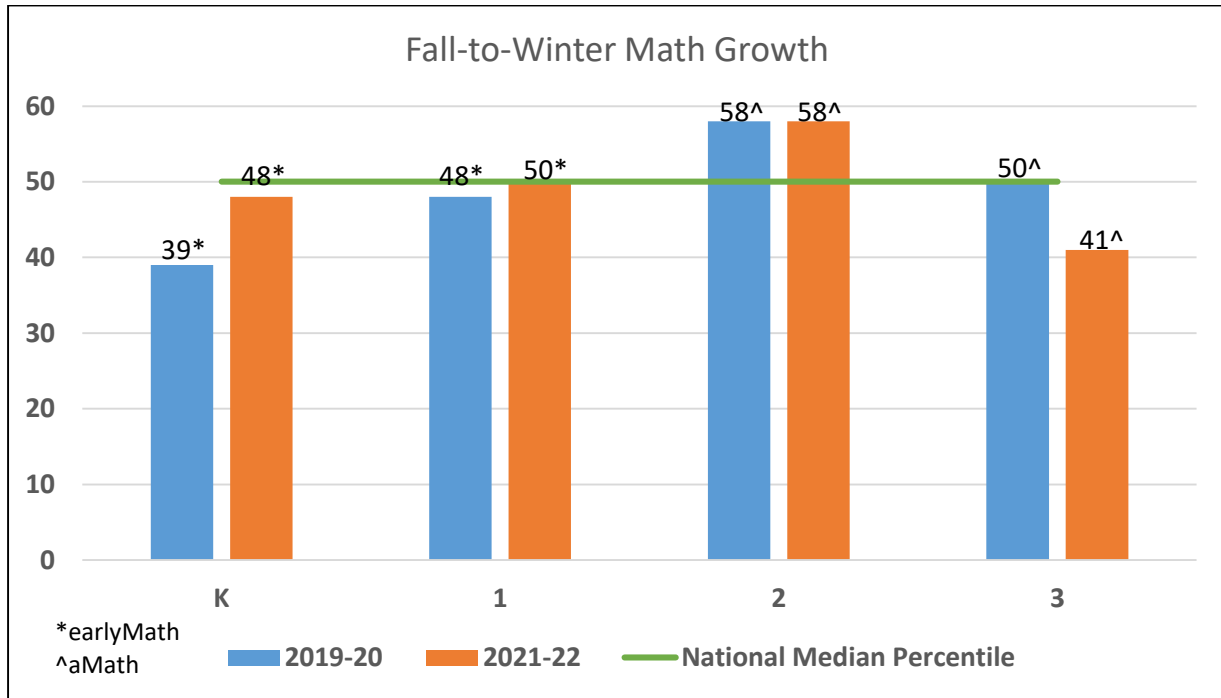
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In math (graph below), MSCS students demonstrated more progress from fall-to-winter compared to reading. This year (2021-22) students are showing faster or comparable gains versus the 2019-2020 school year in all grade levels except for grade 3. Third-grade students scored 9 percentile points lower than in 2019-20. Additionally, students in all grade levels, except grade 3, are close to or exceeding the national average progress rate in math this year.



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Lexile Scores

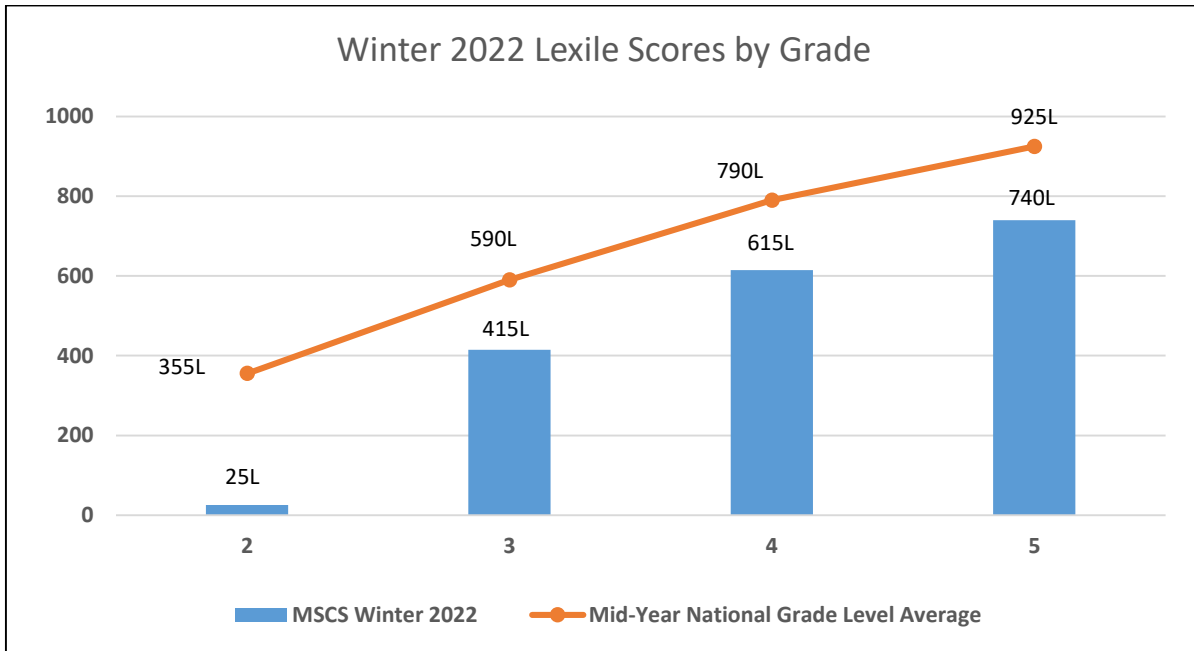
The final graph depicts MSCS students' median Lexile scores by grade level. Lexile scores are calculated by FastBridge for students who completed the aReading assessment (grades 2-5). They are not provided for students assessed with earlyReading. Lexile scores identify the level of text complexity students can be expected to comprehend and master when reading on their own.

MSCS median Lexile scores are represented by the blue bars in the graph below. The orange line represents mid-year national average Lexile scores for each grade level, which were compiled by the Lexile Framework (<https://lexile.com/>). Because of changes in how FastBridge calculates Lexile scores, year-over-year comparisons are not possible with this metric. MSCS students at all grade levels scored below the national average for mid-year Lexile scores. The gap between the MSCS median score for grade 2 and the national average is particularly notable. A median score of 25L indicates that almost half of the MSCS grade 2 students are scoring as Beginning Readers on the Lexile measure with a score below 0. This is consistent with the median reading achievement percentile for grade 2 at the 19th percentile and 55% of grade 2 MSCS students scoring in the bottom quartile for the winter assessment window (both reported above).



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District Strategies and Updates

The data show that many MSCS students are still struggling with the academic challenges and disruptions caused by the COVID pandemic. Many of the ESSER strategies the District has implemented this year are designed to address the academic needs of elementary students. These strategies include reducing the student-to-adult ratio for K-2 students with the addition of a specialized educational assistant (SEA) in each K-2 classroom. SEAs' work focuses on supporting small group instruction and interventions. In addition, the District is emphasizing more time for academics through extended learning opportunities, such as fall/spring break academies and Summer Learning Academy, and through high dosage/low ratio academic tutoring. MSCS also continues to provide curricular and PD resources for teachers to improve learning outcomes through Foundational Literacy Laureates (FLLs), instructional practice walkthroughs for regular feedback, and reading prescriptions for grades 3-10 to ensure they meet the cognitive demands of all grade-level standards.