April 2022   *Author: Shelby G. Roberts, Ph.D.*

ESSER Reduced Class Sizes Program Outcome Goals

- Outcome 1: Increase student mastery
- Outcome 2: Decrease K–2 teacher vacancies
- Outcome 3: Improved culture and climate

Key Findings

- 88% of all SEAs hired in 2021–22 remain with the District, but only 77% are still in K–2 classrooms working as SEAs.
- Outcome 1: Increase student mastery
  - On the winter iReady assessment, there was a 0.5-point increase in median ELA percentile achievement rank for K–2 students compared to winter 2019–20, while math remained at 27 between the two testing windows.
  - The growth rate for second graders in both math and ELA and for K–1 students in math was on par with the national average.
  - On the winter FastBridge assessment, the median percentile rank was 13–20 points lower for ELA this year compared to winter 2019–20. For math only second graders showed a sharp decline, 15-points; K–1 students were behind the pre-pandemic baseline by only 3-points.
  - On both ELA and math, there were racial and socioeconomic disparities in median achievement with students of Asian descent outperforming the national average and Latinx/Hispanic students scoring well below other groups, similar to the fall metrics.
- Outcome 2: Decrease K–2 teacher vacancies
  - Fifty-four (54) employees who were hired as SEAs have transitioned into classroom teaching roles as of April 2022.
- Outcome 3: Improved culture and climate
  - Overall, the reduction in behavior incidents has decreased by over 41%, far exceeding the goal to reduce incidents by 5%.
  - For almost all measures, the rates in reduction are similar for students in the various priority groups, through Black students continue to have the highest suspension rates.
  - Progressive discipline is used more now compared to 2018–19.

ESSER Program Overview

Memphis-Shelby County Schools (MSCS) received Elementary and Secondary School Emergency Relief (ESSER) funds which aim to address the ongoing impacts that the Covid-19 pandemic has on K–12 education. A portion of those funds was allocated to help reduce class sizes in K–2 classrooms, so that the adult to student ratio would average 13:1. Specialized Educational Assistants (SEAs) were hired for each K–2 core content classroom beginning in the fall of 2021.

Implementation and Retention

As of mid-April 2022, MSCS has hired 808 Specialized Educational Assistants (SEAs) during the 2021–22 school year. Of those, there are currently 622 SEAs (77.0%) working in our K–2 classrooms as a Specialized Educational Assistant. Thirty-seven (37) previous SEAs now hold another non-teaching position at MSCS, while 95 are no longer with MSCS. Fifty-four (54) SEAs have transitioned into teaching roles with MSCS. Below is a breakdown of the grade levels they are now teaching. Appendix A contains the positions that former SEAs now hold within the District.

SEA Retention
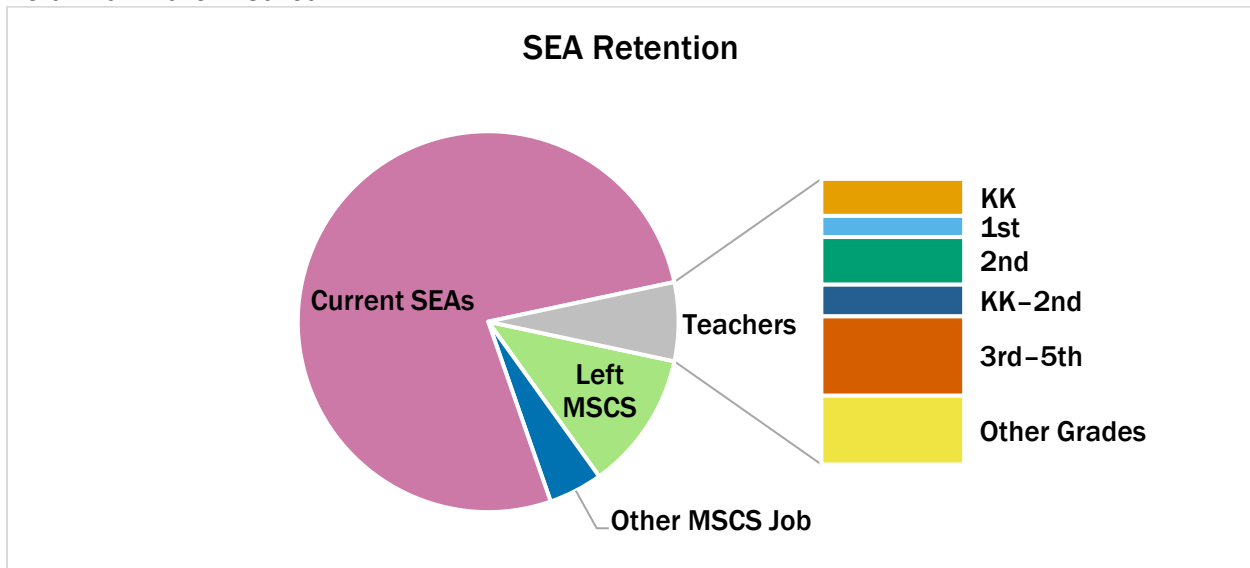
The Early Literacy Department offered monthly professional development opportunities for SEAs by grade level (Kindergarten, first, and second). Additionally, the Early Literacy Department purchased literacy kits for all SEAs to support their small group instruction. The kits were delivered to all schools by the end of January 2022. An accompanying professional development session was provided by the Early Literacy Team. Though optional 33% of the SEAs opted to attend the live, virtual session (n = 72) or view the online recording (n = 135).

Outcome 1: Increase Student Mastery

The first outcome goal for the program is to improve student mastery of grade-level content. The program seeks to increase the number of students who are "on-track" or "mastered" by 10% on the TCAP exam during 3rd grade. The first cohort of students in the reduced class size program will complete 3rd grade in 2022–23. In the meantime, to provide meaningful benchmarks of the program's success, iReady and Fastbridge Illuminate assessments will be used to measure student academic success. Sample sizes for each assessment by priority group are reported in Appendix A.

Median Achievement Percentiles

Median percentiles measure the national percentile cut point at which half the students scored above and half below. A median percentile of 50 would indicate that, as a group, MSCS students are achieving on par with the national average. The graphs that follow show

the median percentile ranges of MSCS students' iReady scores. More graphs and tables representing the i-Ready data are in Appendix B and FastBridge data are in Appendix C.

iReady Winter Assessment

iReady was first implemented District-wide in 2019–20. The fall and winter assessment windows were completed before school closures caused by the pandemic, so those are used as the pre-pandemic baseline data for comparisons. The window for the winter iReady assessment in 2021–22 was January 3–13th. Over 17,500 students took the math (*n* = 17,758) and ELA (*n* = 18,086) assessments in winter.

Median Achievement Percentile

English Language Arts

On the winter ELA assessment, MSCS students had a median national percentile rank of 29.5. This represents a half-point increase over the fall ranking. In 2019–20 there was a 3-point decline over the same period. Although MSCS students are still behind where they were in 2019–20 (pre-pandemic), their growth rate this year was larger between the fall and winter assessments.
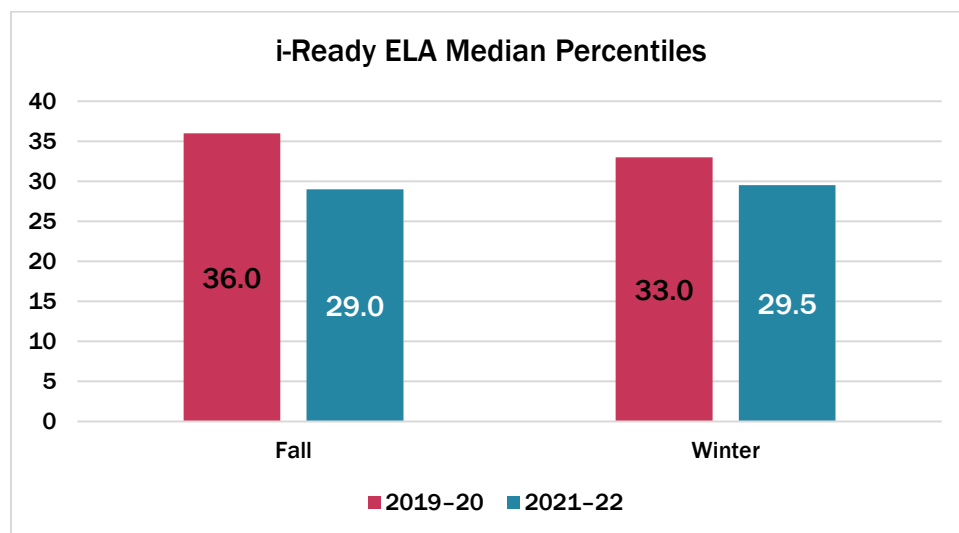
When the median percentile is examined by priority group, some disparities emerge. For Direct Certified (DC) students, i.e., those who are economically disadvantaged, their median percentile rank was 25 compared to their more affluent peers who had a median percentile rank of 38. For racial groups, Asian students scored well above the national average (median percentile of 59), while White students were just below the national average (median percentile of 49). Latinx/Hispanic students fared the worst with a median percentile of 19, indicating that half of Latinx/Hispanic MSCS students had an achievement percentile in the bottom 19% of all U.S. K–2 students, though it is important to note that 71.8%[1] of this population are English Learners. Black students had a median percentile in the bottom third compared to the national average (median percentile of 29).

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[1] Around 70% of MSCS Latinx/Hispanic population are English Language (EL) learners.

Mathematics

In math, students scored just behind their ELA median percentiles. Only half of MSCS students scored above the 27th national percentile rank, meaning that half of MSCS students are in the bottom 27% of all K–2 students across the U.S. in math. This remained unchanged from the fall assessment. Depicted in the graph below, a slight decline is evident from the pre-pandemic assessments, and the gap widened for the winter assessment.

i-Ready Math Median Percentiles
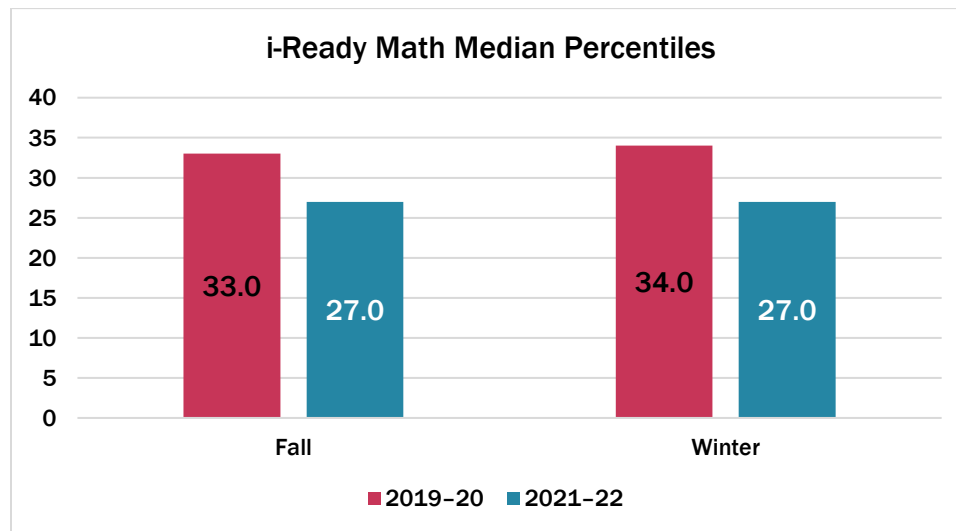
Just like with ELA, differences in median percentile are evident when looking at priority groups. Direct Certified students had a median percentile rank of 22 while non-DC students had a median percentile rank 13 points higher, a wider gap than the 9 points in fall. The racial/ethnic breakdown is depicted Appendix B and the trends seen in the ELA rankings are mimicked in math as well. Latinx/Hispanic students showed the lowest median percentile rank, 21 (up from 18 in the fall), followed closely by those categorized as "race other or missing".[2] Black students had a median percentile rank of 26, indicating that just under 50% of Black MSCS students are in the bottom 25% of U.S. students in math. White students scored on par with the national average (median percentile of 53), while Asian students scored well above average (median percentile of 63.5).

Percentage of Students On Grade Level

Students' raw scores are categorized into two placement ranks, 1) overall placement, which is an "on-grade level interpretation" of their score, and 2) relative placement rank, how students scored relative to the assessment window. Relative placement rank is broken into five categories: 1) mid- or above grade level, 2) early on grade level, or 3) one, 4) two, or 5) three or more grade levels below. These were then reduced to a dichotomous classification of either "below grade level" or "on or above grade level". The following sections depict if

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[2] Students who identify as Native American, Alaskan, Hawaiian or Pacific Islander or who did not list a race were grouped together into the "other" racial category. Masking their data would be required if shown separately due to the small number of students who identify with those racial grouping for this grade range.

students are at least on grade level on the winter assessment. Additional tables and graphs for these data are in Appendix B.

English Language Arts

In ELA, 18,086 K–2 students had a relative placement rank for the winter assessment window. Of these, 32.9% were on grade level while the most of students were one or two grade levels below (51.4% and 15.7% respectively). Compared to the fall, more students were on or above grade level.

i-Ready Relative Placement Rank on Winter Assessment				
	ELA		Math	
	n	%	n	%
On or Above Grade Level				
Mid or Above Grade Level	2,882	15.9%	1980	11.1%
Early On Grade Level	3066	17.0%	1842	10.4%
Below Grade Level				
1 Grade Below	9,292	51.4%	9,292	62.6%
2 Grades Below	2,846	15.7%	2,846	15.8%
3+ Grades Below	0	0.0%	0	0.0%

Mathematics

In math 17,758 students took the iReady winter diagnostic and received their relative placement rank. Only 21.5% of K–2 MSCS students who took the assessment were "on or above grade level." This is an increase from the fall which was 6.5%. Appendix B shows the breakdown of students' movement in categories from fall to winter.

FastBridge Illuminate

FastBridge was first used as a formative assessment in the District during the 2019–20 school year. Like iReady, the fall and winter assessment windows were completed before the pandemic, so those will be used as the pre-pandemic baseline data for comparisons. The window for the winter FastBridge screening assessment in 2021–22 was January 3rd – 26th.[3] FastBridge EarlyReading assesses Kindergarten and first-grade students across four domains of reading through a teacher-delivered test, while math focuses on early numeracy. Second-grade students take a different computer-delivered test, aMath and aReading. Since the tests are disparate, the data will be reported for each grade separately and are marked with an asterisk (*) for grades K–1 and a caret (^) for grade 2. More graphs and tables representing the following data can be found in Appendix C.

Median Achievement Percentiles

Reading

In winter Kindergarteners and first graders were tested on concepts of print, onset sounds, and letter names and sounds, while second graders tested on language, informational reading skills, and reading literature.

[3] This is reflective of the additional one-week extension in the winter testing window for Fastbridge.

Early Reading

MSCS K–1 students had a median achievement percentile rank of 21, indicating that half of MSCS students fell in the bottom 21% of students across the U.S. This was a decrease of 9 points from fall. The growth metrics for this group were slightly better, however. K–1 students had a median growth score of 23, but controlling for their fall score it jumps to a median score of 36. This means that our students are around the 25th percentile on growth compared to all U.S. students, but compared to students who scored similarly on the fall assessment their median growth score is in the 36th percentile nationally.

Fast Bridge Reading Achievement: Winter

Fast Bridge Reading Growth: Winter
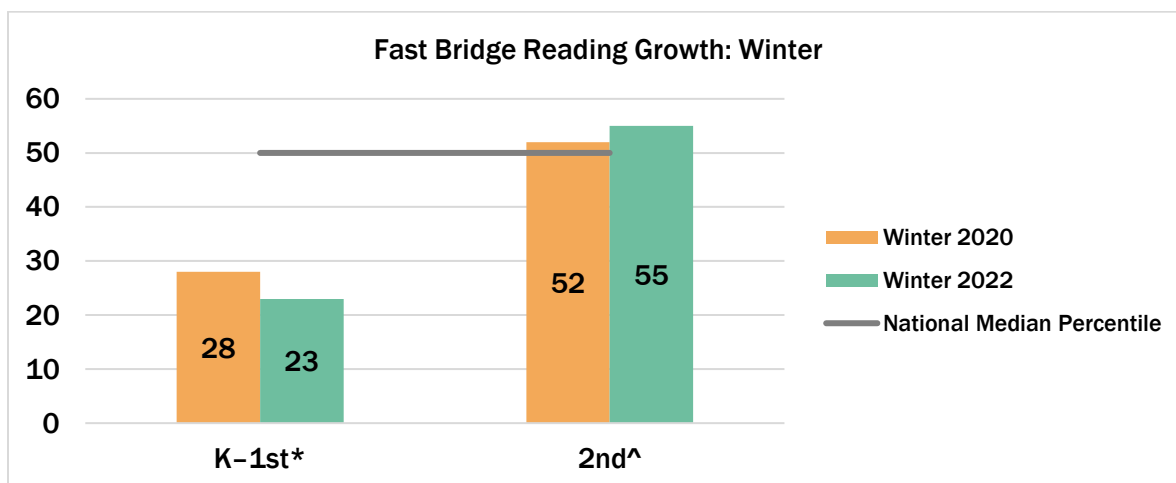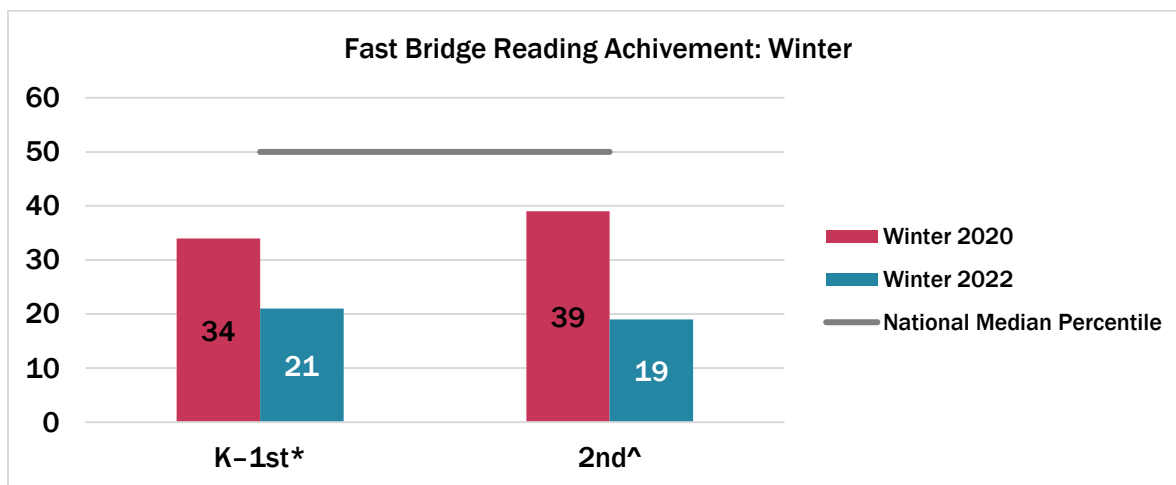
aReading

The graph above shows that second-grade students in 2021–22 had a median achievement percentile in winter of 19. This indicates that at least half of MSCS students fell in the bottom 20% of all U.S. second graders. This is a sharp decline from where second-grade students were pre-pandemic in 2019–20 (median percentile rank of 39).

The growth for second graders was more promising. MSCS grew at a median rate of 54, indicating that over half of MSCS students grew at a faster rate than the national average. When controlling for their fall score the median growth rate decreased slightly to 44.

Mathematics

Early Math

Entering Kindergarteners and first graders did relatively well on the winter FastBridge Early Math assessment. Overall, their national median percentile was 47. In 2019–20, mid-way through the year K–1 students scored slightly above average in math, median percentile rank of 51, so while MSCS students were just below the national average this year, it is a 4-percentile point decline compared to the baseline year.

Growth scores for MSCS's youngest students was on par with the national average. The median growth rate percentile was 48 and after controlling for fall scores it remained 48 for this population.

Fast Bridge Math Achivement: Winter

Fast Bridge Math Growth: Winter
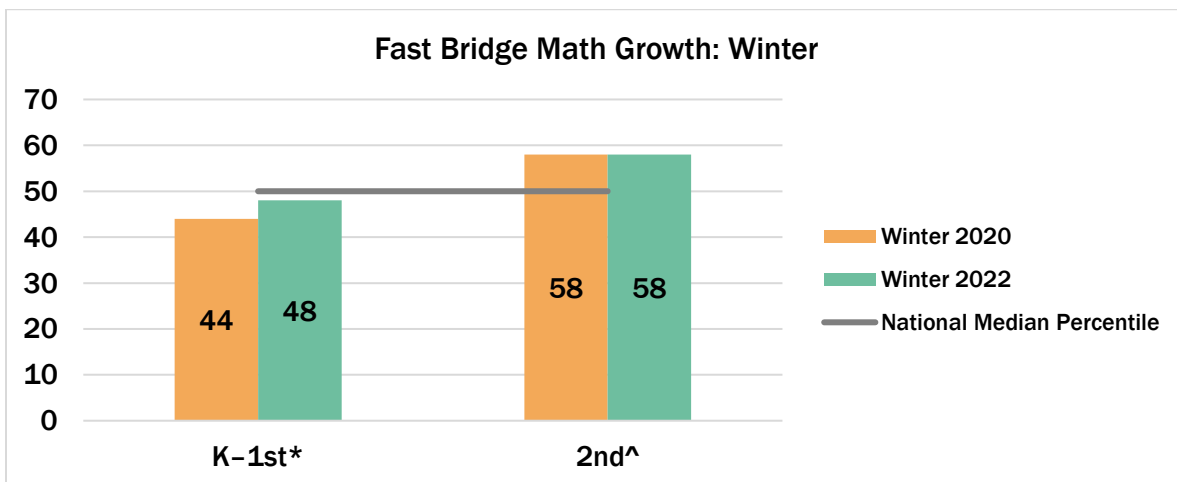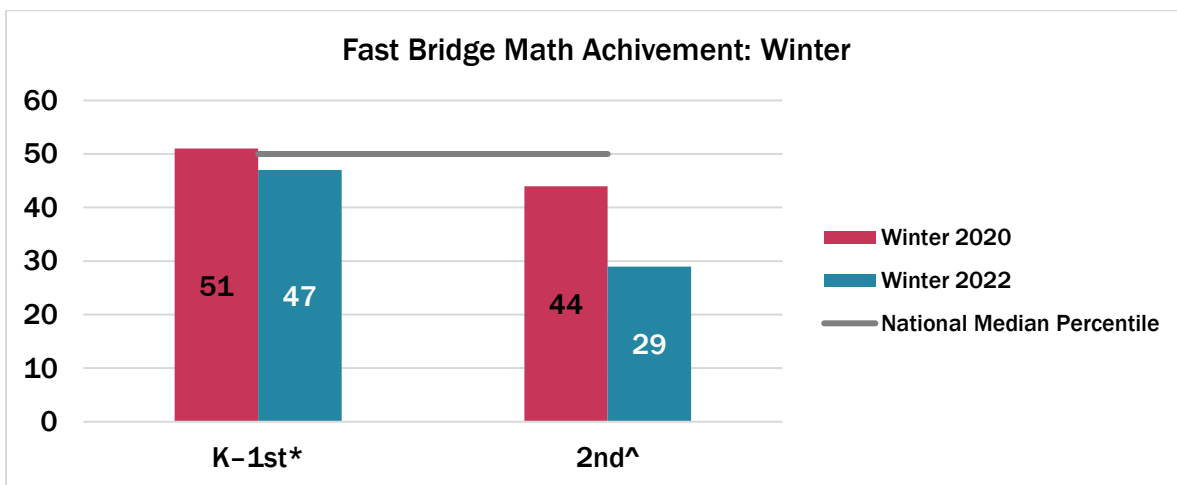
aMath

MSCS second-grade students did not perform as well as their younger peers on the FastBridge aMath assessment. This group's schooling was impacted more by pandemic related closures and their achievement data emphasizes this. In winter, half of MSCS

students were in the bottom tertile of all U.S. students, median percentile of 29. It represented a 15 percentile-point decline compared to 2019–20.

Priority Groups

The median achievement percentile score on FastBridge for priority groups is represented in the table below. Across both grade bands and content areas, students from more affluent backgrounds outscored their economically disadvantaged peers. When examining the percentile scores by race/ethnic background Asian and White students outperformed all other groups of students. On most measures, students with a Latinx/Hispanic background performed lower than their peers, on average 70% of these students are classified as English Learners. Additional graphs for Fast Bridge data are presented in Appendix C.

Median Placement Rank by Priority Group: Winter				
	ELA		Math	
	K–1st	2nd	K–1st	2nd
Overall	21	19	47	29
Race/Ethnicity				
Black	21	18	47	25
Latinx/Hispanic[1]	14	10	36	27
White	38	63	66	66.5
Asian	53	74	78	72
Multiracial	34	35.5	63.5	44
Other Race or Missing	23	53	39	55
Socioeconomic Status				
Direct Certified	16	12	41	22
Non-DC	31	37	57	44
English Language Status				
English Learner	11	7	31	21.5
Non-EL	23	23	49	30

Outcome 3: Improved Culture and Climate

Student Discipline

The 2018–19 discipline data is reported for the full year. In 2019–20 the first three quarters have complete data. Quarter four did not have any discipline data due to school closures because of the pandemic. The 2020–21 data is not used as a baseline since all students were remote for most of the academic year. The target discipline rate[4] for 2021–22 is a 5% reduction from the same point in 2018–19.

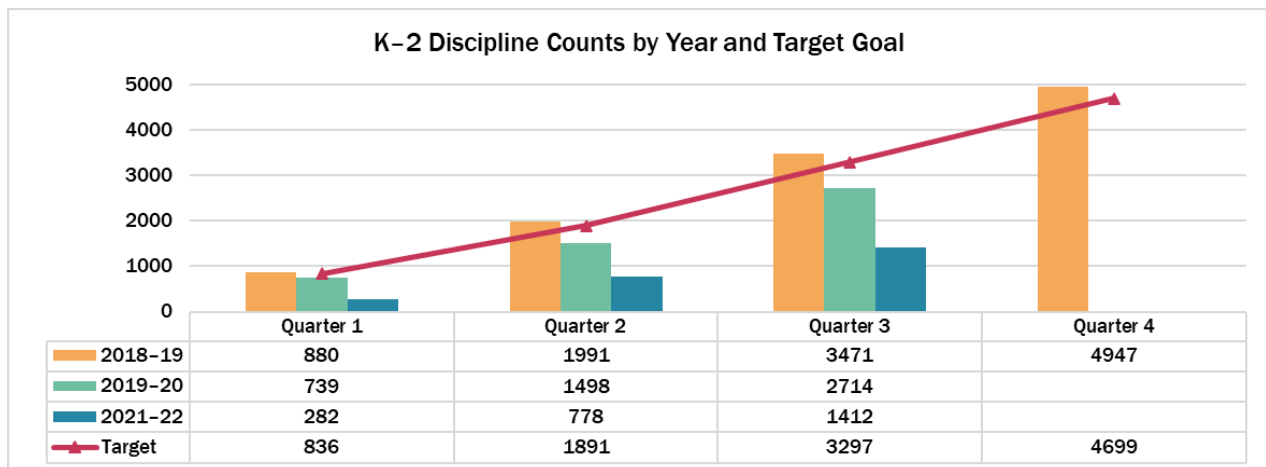[4] Number of incidents categorized as progressive discipline, ISS, or OSS.

In-school and out-of-school suspensions (ISS & OSS) are exclusionary discipline actions where students are removed from their classroom and thus miss valuable learning opportunities. Through adding an additional adult in the classroom, the hope is that teachers will be better able to manage student discipline in the classroom which would, in turn, reduce the number of behavioral incidents recorded. The following are various measures to track if that goal is being met. Additional graphs and tables are depicted in Appendix D.

Overall Discipline Counts

Continuing the trend seen in Q1 and Q2, Q3 of 2021–22 showed a sharp reduction in the number of incident rates compared to 2018–19 and 2019–20[5] for K–2 students at MSCS-managed schools. This is a sharp reduction compared to both 2018–19 (n = 3,471) and 2019–20 (n = 2,714) at the same point in time. The graph below shows the targeted 5% reduction rate represented by the red line. It is obvious that the blue bar, representing 2021–22 counts, is far below the targeted goal.

K–2 Discipline Counts by Year and Target Goal

|	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2018–19	880	1991	3471	4947
2019–20	739	1498	2714	
2021–22	282	778	1412	
Target	836	1891	3297	4699

ISS/OSS Counts

The number of students who received a disciplinary infraction resulting in ISS or OSS was drastically lower this year compared to 2018–19.[6] This represents a 67.0% decrease in ISS or OSS discipline actions.

[5] 2019–20 is not reported for Q4 due to the school closures caused by the pandemic.
[6] It is important to note that there was a stark decrease in disciplinary actions for this age group between 2018–19 and 2019–20 in just the first three quarters. However, because the year-over-year decrease cannot be calculated using 2019–20 data, the 2018–19 data was selected as the baseline.

ISS/OSS Counts: Quarter 3
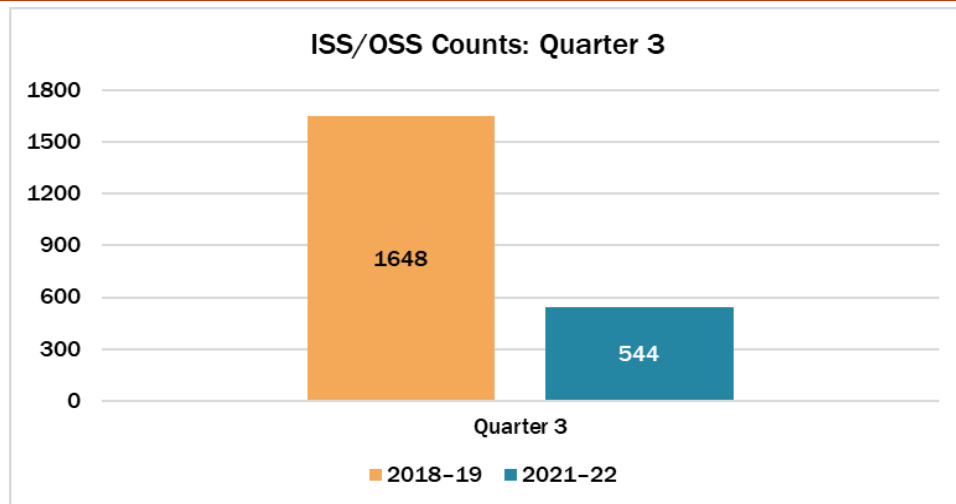
Since student racial groups are not even in MSCS, providing counts alone would not give a true picture of the equity in discipline data. This section shows the percentage of discipline incidents in relation to the number of active students in each racial/ethnic group.[7] The graph below shows the historic and current suspension rate by active students based on racial/ethnic background.[8] Across the board, suspension rates are much lower this year. In 2018–19 Black students, multiracial students, and students of other races or missing a race category had the highest rates, but in 2021–22 Quarter 3 White, Black, and multiracial students had the highest rates.

ISS/OSS Suspension Rates by Race: Quarter 3

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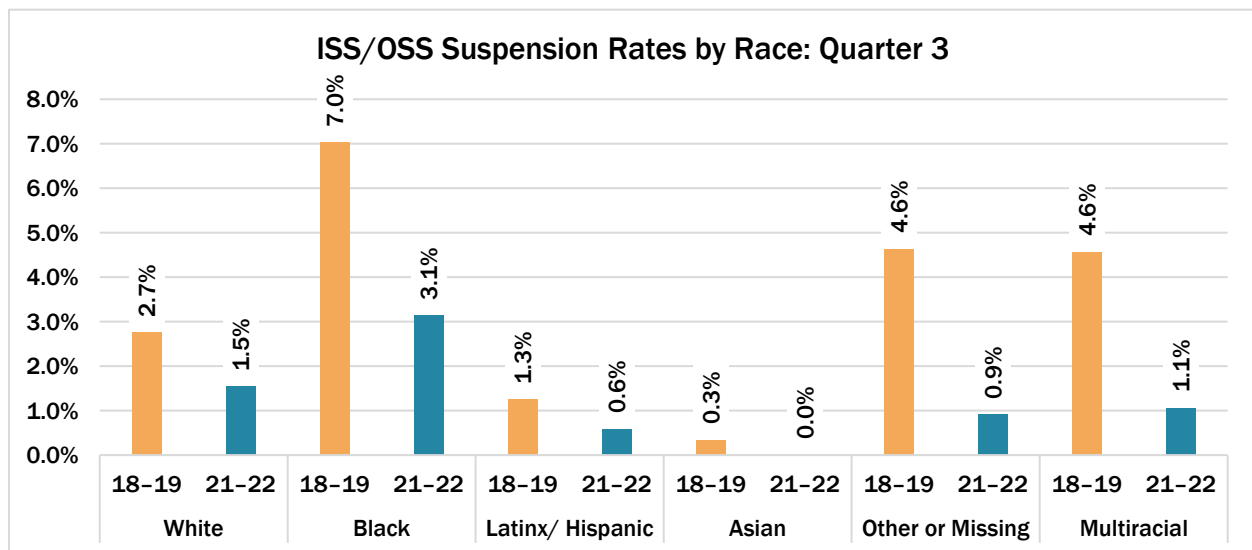
[7] For 2018–19 active students are those who were active on the last day of school. For 2021–22 active students are those who were active on the last day of quarter 3.
[8] Suspension rates factor in ISS, OSS, remand, and expulsion.

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Progressive Discipline to ISS/OSS

Students can receive a discipline actions that is categorized as a suspension, ISS or OSS[8], or they can receive progressive discipline which is a gradual, sequential, and strategic responses (i.e. interventions, restorative practices) implemented to deter negative student behavior and reduce exclusionary consequences. Incidents coded as progressive discipline could be things like disruptive behavior, rules violations, or even fighting. The hope is that students are more frequently given progressive discipline actions since those are non-exclusionary. The graphs and tables below show the percentage of discipline actions that resulted in ISS or OSS. The hope is that these would trend downward because of the additional SEAs in the classroom.

Percentage of Discipline Actions Resulting in ISS/OSS: Quarter 3
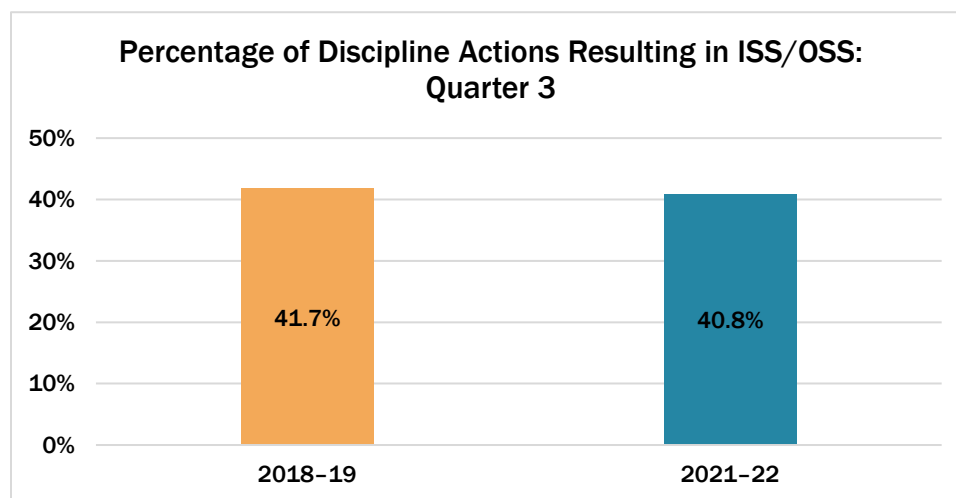
This year by Quarter 3 the percentage of all discipline actions that resulted in ISS or OSS was 40.8% a decrease of 0.9 percentage points from 2018–19.

Next Steps

The next report on the K–2 reduced class size ESSER program will be available the end of the year final report. It will consist of SEA, teacher, and principal survey responses and feedback about the program. Additionally, the next outcomes-based report will also be and end of year report and will provide updates to the measures used in the first two reports. Baseline assessment data is not available for 2019–20 due to the school closures in the spring of 2020, so not comparisons will be made to baseline in the final report. In addition to the measures reported here it will also include Panorama and Insight data on school climate and culture, and metrics on teacher and SEA vacancies.

Conclusion

The findings in this report on the outcomes associated with the K–2 reduced class size ESSER program provide a status update to see how impactful having an additional adult in every early elementary classroom can be. The academic achievement results show that our students are still showing a pandemic-effect but are growing at a promising rate. These results bolster the need for the SEA's role in the classroom.

The behavior measures associated with "Outcome 3: Improve Climate and Culture" show a promising picture. For quarter three, the decrease in disciplinary actions far exceeds the goal of 5%. The hope is that SEAs in the classroom will continue to show positive impacts on our students through supporting classroom management and student discipline.

APPENDIX A. Retention & Sample Size Data

Table 1: Specialized Educational Assistants Retention

SEA Retention		
	n	%
Current SEA	622	77.0%
Left MSCS	95	11.8%
Other MSCS Job	37	4.6%
Moved into Teaching Roles with MSCS		6.7%
Kindergarten	7	
1st Grade	4	
2nd Grade	9	
KK–2nd	6	
3rd–5th Grades	15	
Other Grades	13	

Current MSCS non-teaching roles that former SEAs now hold[9]:
- Educational Assistant - Early Childhood
- Educational Assistant - Special ED
- Childcare Center Educator
- RTI2-B-Support Specialist
- Behavioral Specialist
- Talent Acquisition Recruiter
- Associate - Digital Device Support
- Family Engagement Specialist
- Bilingual Cultural Mentor
- Educational Assistant - Elementary
- Professional Learning Clerk
- Specialist Family Engagement Pre-K
- Clerical Assistant
- Educational Assistant

Return to the SEA section in the document.

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[9] Classroom teachers are not included in this list as they are represented in the SEA Retention table.

Table 2: Student Sample Size by Assessment Type and Priority Groups

| Sample Size by Assessment and Priority Group						
	i-Ready		FastBridge K–1*		FastBridge 2nd Grade^	
	ELA	Math	ELA	Math	ELA	Math
Total	18,086	17,758	12,410	11,645	6,318	6,268
Racial/Ethnic Group						
Black	12,706	12,455	12,410	8,131	4,401	4,360
Latinx/ Hispanic	3,123	3,052	2,207	2,204	1,118	1,112
White	1,468	1,468	1,115	1,112	433	430
Asain	175	174	142	143	51	51
Multiracial	568	562	197	196	302	302
Other/ Missing	46	47	45	46	13	13
Direct Certified Status						
Direct Certify	10,832	10,607	7,402	7,384	3,823	3,790
Non-DC	7,254	7,151	5,008	5,009	2,495	2,478
English Language Status						
English Learners	2,661	2,598	1,880	1,881	879	874
Non-EL	15,425	15,160	10,530	10,512	5,439	5,394

Return to the assessment section in the document.

APPENDIX B. iReady Winter Diagnostics

Figure 1: ELA Median Percentile Ranks by Priority Group
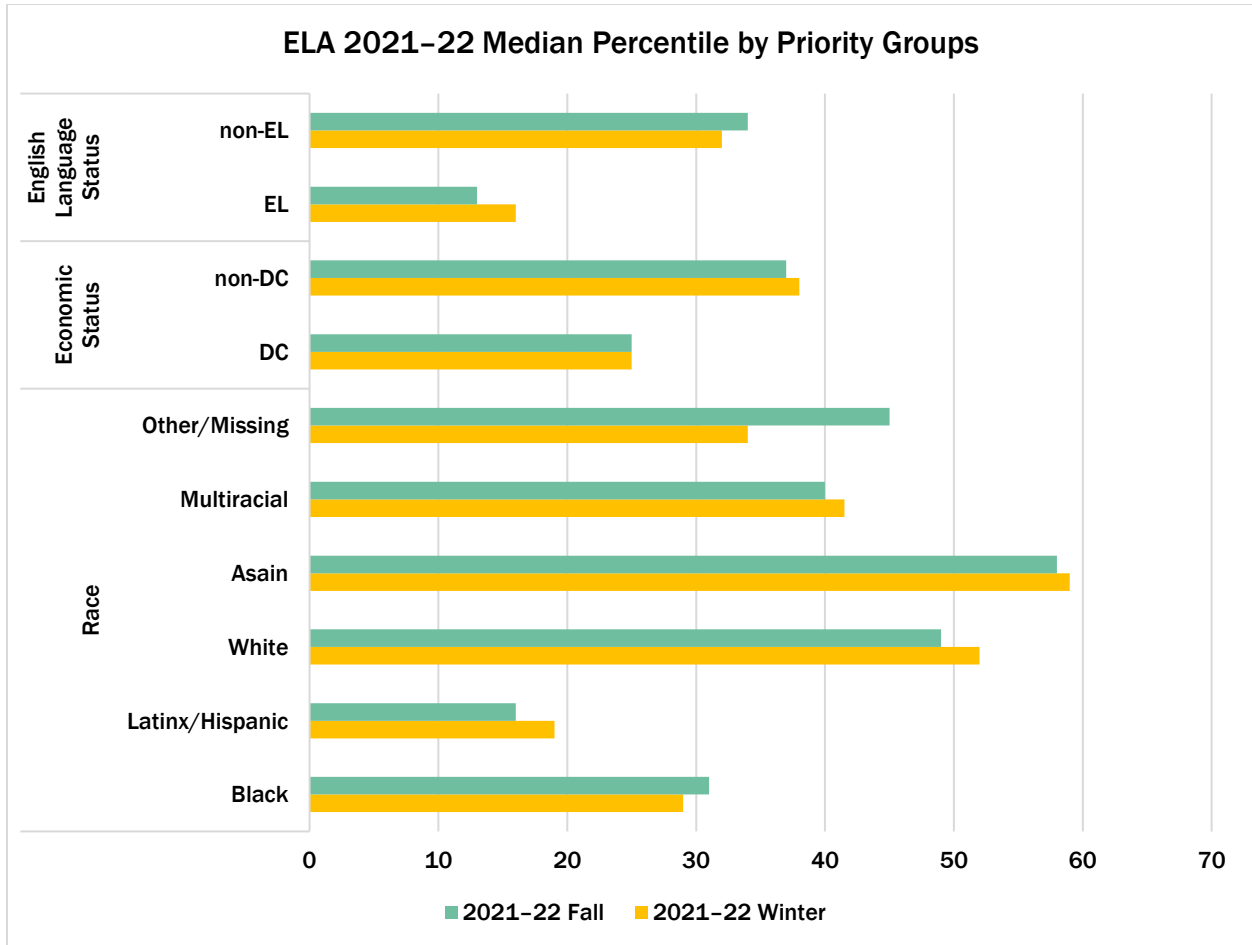
ELA 2021–22 Median Percentile by Priority Groups

Figure 2: Math Median Percentile Ranks by Priority Group

ELA 2021–22 Median Percentile by Priority Groups

(Bar chart showing median percentiles by priority group)

English Language Status
- non-EL: 29 (Fall), 29 (Winter)
- EL: 17 (Fall), 18 (Winter)

Economic Status
- non-DC: 33 (Fall), 35 (Winter)
- DC: 23 (Fall), 22 (Winter)

Race
- Other/Missing: 10 (Fall), 32 (Winter)
- Multiracial: 36 (Fall), 39 (Winter)
- Asain: 66 (Fall), 63.5 (Winter)
- White: 50 (Fall), 53 (Winter)
- Latinx/Hispanic: 18.5 (Fall), 21 (Winter)
- Black: 27 (Fall), 26 (Winter)

■ 2021–22 Fall   ■ 2021–22 Winter

Figure 3: Change in i-Ready Median Percentiles from Fall to Winter

K–2 iReady Median Percentiles

- ELA 2019–20: Fall 36.0, Winter 33.0
- Math 2019–20: Fall 33.0, Winter 34.0
- ELA 2021–22: Fall 29.00, Winter 29.50
- Math 2021–22: Fall 27.0, Winter 27.0

— ELA 2019–20   — ELA 2021–22   — Math 2019–20   — Math 2021–22
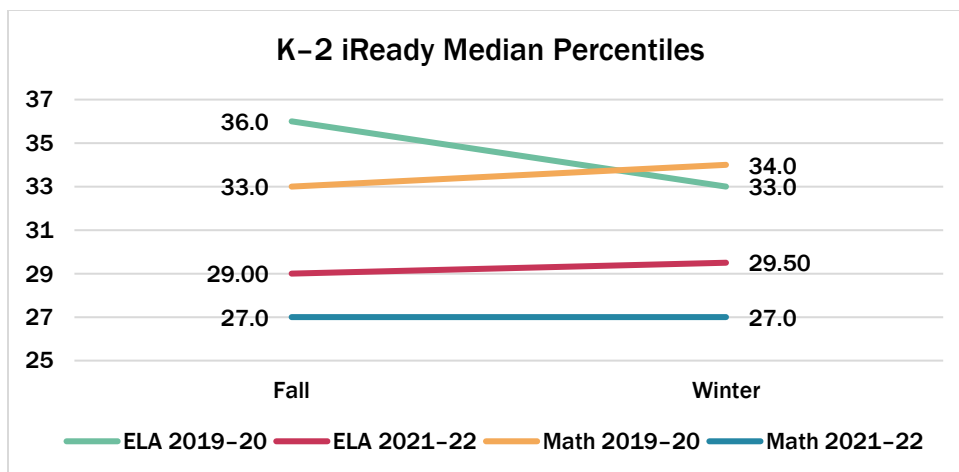
[Return to the iReady median percentile section in the document.](#)

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Figure 4. i-Ready Change in Relative Placement between Fall and Winter

i-Ready ELA Change in Relative Placement

- Moved Up: 38%
- Moved Down: 3%
- Stayed the Same: 59%

i-Ready Math Change in Relative Placement

- Moved Up: 36%
- Moved Down: 3%
- Stayed the Same: 61%
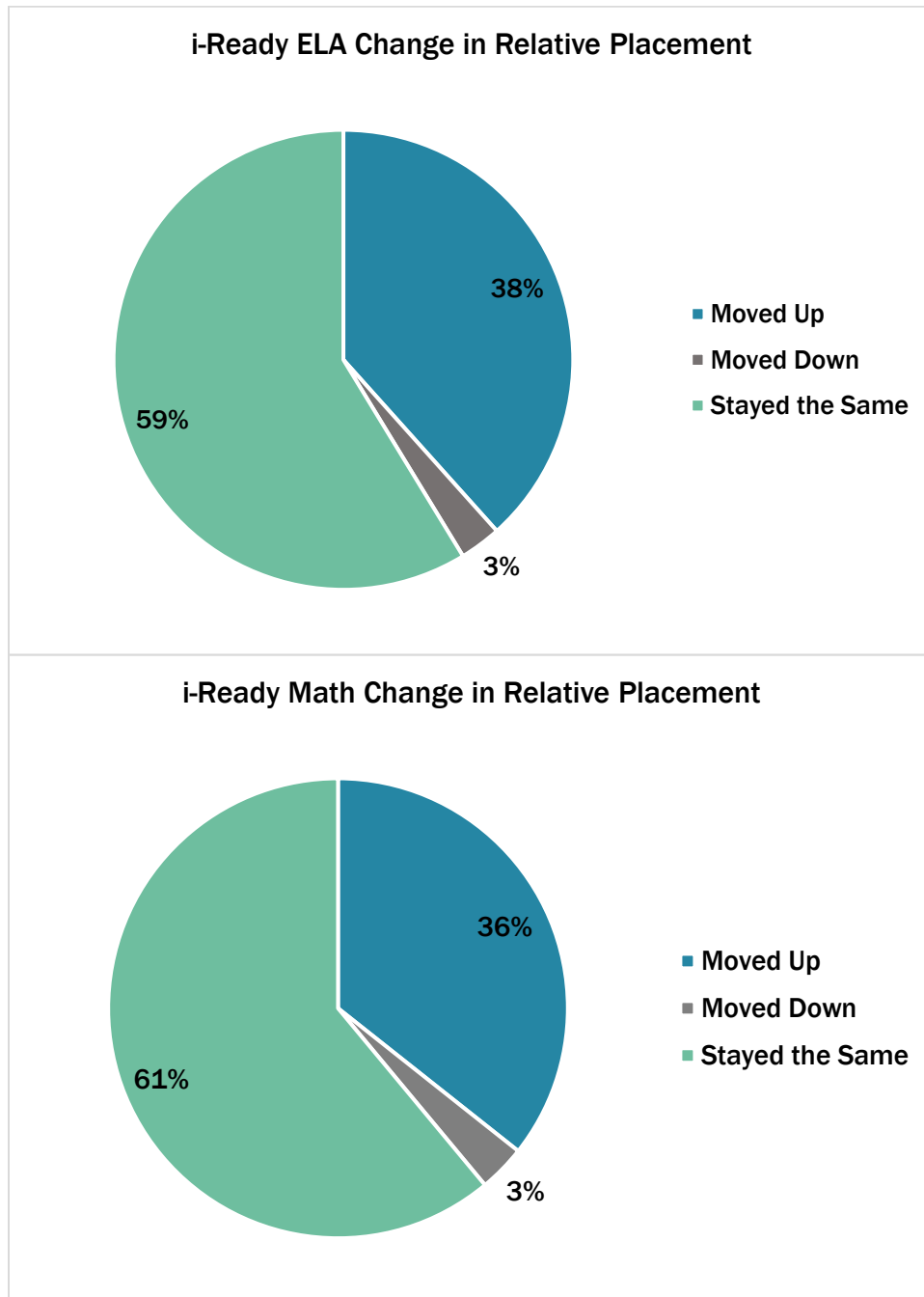
Return to the iReady on-grade level section in the document.

Appendix C. FastBridge Winter Diagnostics

Figure 5, A-D. Fast Bridge Risk Levels[10]

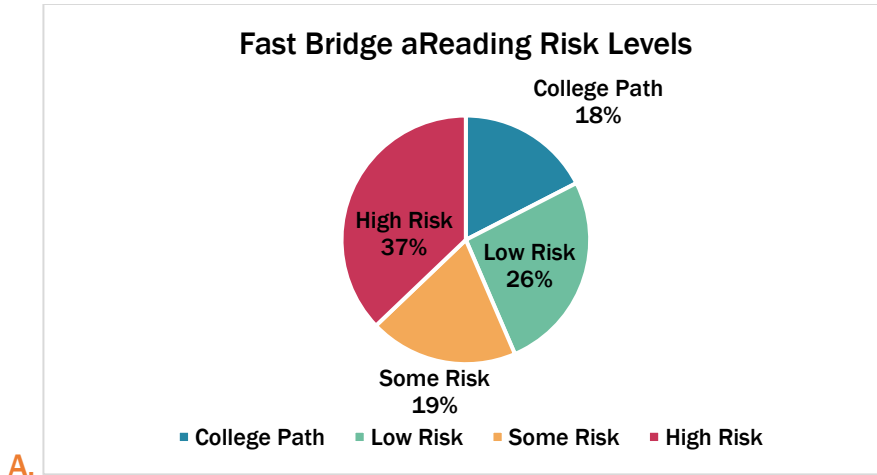**Fast Bridge aReading Risk Levels**

College Path 18%
Low Risk 26%
Some Risk 19%
High Risk 37%

Legend: College Path, Low Risk, Some Risk, High Risk

A.

Fast Bridge EarlyReading Risk Levels

Low Risk 47%
Some Risk 22%
High Risk 31%

Legend: Low Risk, Some Risk, High Risk

B.

Fast Bridge aMath Risk Levels

College Path 19%
Low Risk 36%
Some Risk 20%
High Risk 25%

Legend: College Path, Low Risk, Some Risk, High Risk

C.

Fast Bridge EarlyMath Risk Levels

High Risk 15%
Some Risk 15%
Low Risk 70%

Legend: Low Risk, Some Risk, High Risk

D.

[Return to the FastBridge section in the document.](#)

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[10] K–1 students do not have the college path risk level category.

APPENDIX D. Behavioral Data

Table 3: Suspension Counts by Racial/Ethnic Background for Quarter 3

ISS/OSS Counts Over Time by Race		
	Quarter 3	
	2018–19	2021–22
White	57	29
Black	1341	483
Latinx/ Hispanic	53	23
Asian	1	0
Other and Missing	7	3
Multiracial	26	6

Return to the student discipline section in the document.