THE SCHOOL DISTRICT OF PHILADELPHIA

Within-Year Math Assessment Participation and Performance for Students in Grades 3-12: A comparison of Fall 2020 and Fall 2021

In fall 2020, all students in grades K-12 in the School District of Philadelphia attended school virtually due to the Covid-19 pandemic. Despite being virtual, students in grades K-5 took the within-year aimswebPlus Math assessment and students in grades 6-12 took the within-year Star Math assessment. In fall 2021, students returned to school in person, and grades 3-12 took the within-year Star Math Computer-Adaptive assessment (students in grades K-2 took an alternative Star Math Curriculum-Based Measure assessment).

There are differences between the aimswebPlus and Star assessments: Star includes an additional performance group, and the process of categorizing students into performance groups differs between aimswebPlus and Star. In addition, the performance group cut points for Star Math changed between fall 2020 and fall 2021. This report compares student participation and performance in fall 2020 and fall 2021 given this context. Key findings include:

- Participation in the within-year math assessments increased by five percentage points from fall 2020 to fall 2021 even as the number of students enrolled in SDP declined between years.

Molly Schlesinger, Ph.D.
Senior Research Associate

Roland Reyes,
Senior Statistician

Office of Research and Evaluation

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- Nearly all student groups saw declines in the percentage of students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021. This outcome was expected due to a) the shift from aimswebPlus in 2020-21 to Star in 2021-22 for students in grades 3-5, b) the shift in Star *At or Above Benchmark* categorization from the 40th percentile in 2020-21 to the 70th percentile in 2021-22 for students in grades 6-12, and c) national declines in student math performance from 2019-20 to 2021-22.
- White students saw a larger decline in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021 than students in other race/ethnicity groups.
- Students with an Individualized Education Plan (IEP), economically disadvantaged students, and English Learners saw smaller declines in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021 than their non-IEP, non-economically disadvantaged, and non-EL counterparts.

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Acknowledgements

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Figures

Introduction

Each year, students in grades 3-12 in the School District of Philadelphia (SDP) take within-year math assessments at multiple times during the school year. Unlike end-of-year standardized assessments that provide a summative description of student performance, within-year assessments administered multiple times in a school year provide real-time information about students' knowledge of math skills that teachers and school administrators use to inform instructional decisions and monitor student progress.

After each within-year testing administration, student performance is categorized according to scoring thresholds that are specific to each grade and time point. If a student's performance on the assessment meets or exceeds the highest threshold,[1] they are considered to be performing "at grade level" or "in the Tier 1/At or Above Benchmark performance group."[2]

When we look across all students, the percentage of students scoring in the Tier 1/At or Above Benchmark performance group is an indication of the extent to which SDP students have mastered the math skills aligned with their grade level expectations. It is used as a "leading indicator" of student performance on the Board of Education's Goals related to math.[3] This report examines student participation in, and Tier 1/At or Above Benchmark performance on, math assessments in the fall of 2020 and the fall of 2021.

These time periods are of particular interest for two main reasons. First, in the fall of 2020, all SDP students were engaging in digital learning due to the COVID-19 pandemic. In the fall of 2021, students had returned to in-person learning. By comparing data from these two time periods, we examine if there are differences in the percentage of students that participated in the assessments and were in Tier 1/At or Above Benchmark when learning was entirely digital, and a year later, when students returned to their school buildings.

Second, there was a major change in SDP's assessment program between fall 2020 and fall 2021. In fall 2020, two different assessments were used, one for students in grades K-5 (aimswebPlus) and another for students in grades 6-12 (Star). In fall 2021, SDP transitioned so that Star is now used for all students in grades K-12. Comparing participation and performance from fall 2020 and fall 2021 helps us begin to understand any implications of this change.

[1] Students score in Tier 1/At or Above Benchmark if they performed between the 70th to 99th percentiles on Star Math. Students score in On Watch if they performed between the 25th to 69th percentiles on Star Math.
[2] Tier 1 and Tier 1/At or Above Benchmark are used interchangeably throughout this report.
[3] For more information about the Goals and Guardrails, visit www.philasd.org/schoolboard/goals-and-guardrails/, www.philasd.org/era/goals-and-guardrails/, or www.philasd.org/goalsandguardrails/

Research Questions

The following research questions drove the analyses and findings presented in this report:

1. What percentage of SDP students in grades 3-12 participated in the within-year math assessments in fall 2020 and fall 2021? Did changes in participation rates across years differ by student characteristics and Learning Network?
2. What percentage of SDP students in grades 3-12 performed in the Tier 1/At Above Benchmark performance group on the within-year math assessments in fall 2020 and fall 2021? Did changes in performance across years differ by student characteristics and Learning Network?

Please note that this report compares student participation and performance from 2020-21 and 2021-22, and does not reflect individual student level growth. When it comes to performance, we are only focusing on the percentage of students with scores in each performance group during each time period.

Assessment Data Used for this Analysis

Two different within-year assessments are relevant to this report: Star and aimswebPlus. In the 2020-21 school year, both types of assessments were used in SDP: students in grades K-5 were administered aimswebPlus and students in grades 6-12 were administered Star. This changed the following year, as all students in grades K-12 were administered only the Star assessments.[4] This report only focuses on students in grades 3-12 who took the Star Math computer adaptive tests in fall 2021. Because of the specific sample for fall 2021, this report only includes results from students in grades 3-12 in fall 2020 as well, who took either the aimswebPlus or Star assessments.

Star

SDP uses Star Assessments, a suite of tests developed by Renaissance Learning, to assess students' reading and math skills. SDP began using the Star assessments District-wide in 2019-20 to measure, monitor, and track student skill development in grades 6-12 aligned to PA and Common Core standards. Starting in the 2021-22 school year, SDP expanded Star to grades K-12 so that the same within-year assessment would be used across all grade levels.

Star Assessments are administered to students in grades K-12 four times per year. Star tests used by the District and presented in this report are computer adaptive tests, or CATs. Star CATs adjust the difficulty of items administered to the student depending on how well the student performed on previous items within a given testing session. These tests are designed to broadly assess students' skills across a number of literacy or math domains.

[4] Students receiving special education services, or students with an IEP, in grades 6-8 had the option to take aimswebPlus in fall 2020 if their IEP team selected aimswebPlus as their within-year assessment instead of Star. In fall 2020, 562 6th graders, 593 7th graders, and 537 8th graders with an IEP took aimswebPlus. In comparison, in fall 2020, 1,233 6th graders, 1,261 7th graders, and 1,343 8th graders with an IEP took Star as expected for their grade level.

Only students in grades 3-12 take the Star Math CAT, while students in K-2 take the Star Math Curriculum Based Measures (or CBMs); only students in grades 3-12 are included in this report.

The domains that make up the Star Math assessment include **Number and Operations, Algebra, Geometry and Measurements, and Data Analysis, Statistics, and Probability**. Scores on Star Math (CAT) estimate students' proficiency in specific domains based on overall proficiency, which is different than directly testing students' proficiency on each specific skill.

aimswebPlus

SDP used aimswebPlus, a universal screening, benchmarking, and progress-monitoring tool developed by Pearson, to assess math proficiency for the 2020-21 school year.

The aimswebPlus tool consists of multiple subtests that each measure a specific skill. Most subtests are timed (about 1-minute each), and scores are based on the number of cues identified correctly within the allotted time. Subtest scores are combined into a "composite score" that provides teachers with a holistic measure of student performance.

SDP teachers administered a designated set of aimswebPlus subtests to students three times during the 2020-21 school year: fall, winter, and spring. Based on these subtests, students received a composite score for each testing period. These composite scores allow teachers, school leaders, and District staff to track student performance and growth over time.

The subtests that made up the aimswebPlus math composites for each grade level were as follows:

- The kindergarten aimswebPlus math subtests included **Number Naming Fluency (NNF), Quantity Total Fluency (QTF),** and **Concepts and Applications (CA)**
- The first grade aimswebPlus math subtests included **Concepts and Applications (CA), Number Comparison Fluency – Pairs (NCF),** and **Math Facts Fluency – 1 Digit (MFF-1D)**
- The second through fifth grade aimswebPlus math subtests included **Concepts and Applications (CA), Number Comparison Fluency – Triads (NCF-T),** and **Mental Computation Fluency (MCF)**

Critically, aimswebPlus was administered remotely during the 2020-21 school year because students were primarily at home due to the COVID-19 pandemic. Students in grades 3-5 took aimswebPlus assessments using TestNav (an online test administration portal), and took the assessments on their own without a teacher supervising or guiding administration.

Key Data Points

In this report, we compare student participation and performance on the within-year assessments used in fall 2020 and fall 2021. Comparing performance across two different tests is challenging, so we use the performance group of Tier 1/At or Above Benchmark to help make the comparison.

Participation

Student participation is calculated as the percentage of eligible students who completed the within-year assessment in the given time frame. For this report, we are concerned with eligible students who took the assessment in the assessment window in fall 2020 and/or fall 2021.

Overall, the goal is 100% participation on the within-year assessments in order to capture the performance of all students in SDP schools. However, not all students who are eligible take the required assessments during the testing window. Some common reasons include that students did not attend during the testing window or did not attend school on the day or days that teachers were attempting to administer tests. Additionally, there is a small population of students with Individualized Education Plans (IEPs) who are waived from participating in within-year assessments due to a disability that makes testing challenging for students. Students in grades K-2 were not administered the Star Math Computer Adaptive assessment in fall 2021, and therefore are not considered eligible, even if they took the aimswebPlus math assessment in fall 2020.

Performance Groups

After students take the aimswebPlus and Star assessments, they are placed into performance groups depending on how they perform on the tests. For each test, Tier 1/At or Above Benchmark indicates that a student is performing at grade level and is on track to meet spring performance goals (see Table 1 for Tier cutoffs during the 2020-21 and 2021-22 school years).

There are three things to note in Table 1. First, aimswebPlus and Star use different metrics to define performance groups: aimswebPlus uses the raw score (number correct score) to determine tier placement, where the raw score is aligned to the likelihood of scoring in the 40th percentile of performance in the spring; Star uses percentile rank to assign performance groups. Second, Star categorizes students using four groups while aimswebPlus uses three, with the *On Watch* performance group unique to Star. The *On Watch* performance group identifies students who are not *At Benchmark* but are not in need of *Strategic Intervention* either. Third, the *At or Above Benchmark* percentile rank cutoff increased from the 40th percentile in 2020-21 to the 70th percentile in 2021-22, making it more challenging to score in *At Benchmark* in 2021-22.

Table 1. Performance groups for Math

Performance Groups	2020-21		2021-22
	Grades 3-5 (AimswebPlus)	Grades 6-12 (Star CAT)	Grades 3-12 (Star CAT)
Tier 1/At or Above Benchmark	Tier 1	≥ 40th Percentile	≥ 70th Percentile
On Watch	–	25th - 39th Percentile	25th - 69th Percentile
Tier 2/Strategic Intervention	Tier 2	10th – 24th Percentile	10th – 24th Percentile
Tier 3/Intensive Intervention	Tier 3	< 10th Percentile	< 10th Percentile

Note: CAT = computer adaptive test.

Limitations of Assessment Data

The transition from aimswebPlus to Star Assessments presents a major limitation when looking at year-to-year comparisons in student performance. Specifically, the change in tests between years is a confounding factor in grades 3-5 student performance data. This is partly because each test assesses students using a different mix of content areas and skills, and the tests use different modes of administration.[5] For example, when assessing third grade math performance in 2020-21, the aimswebPlus composite score is comprised of performance on the Concepts and Applications, Number Comparison Fluency – Pairs, and Math Facts Fluency – 1 Digit measures. In the 2021-22 school year, third grade math performance on Star is assessed using a mixture of skills drawn from five mathematics domains (Number and Operations, Algebra, Geometry and Measurements, and Data Analysis, Statistics, and Probability). While there is some overlap in the content assessed by each test, there are enough differences in content to somewhat undermine the comparability of scores. Additionally, scores on the tests have not been statistically linked, which would allow us to predict the score a student is likely to receive on one test based on their performance on the other. Moreover, aimswebPlus is a fixed-form assessment, in which each student sees questions of similar difficulty during an administration window. In comparison, the data from Star Math included in this report is from the Star Computer Adaptive Test. On an adaptive test, when students answer questions correctly they receive more challenging questions, and when they answer questions incorrectly they receive less difficult questions. Despite these limitations, the similarities between the content and skills measured still allow us to draw some insights from the student performance and participation data between fall 2020 and fall 2021.

[5] For more details see: Dorans, N. J., Pommerich, M. & Holland, P. W. (Eds.). (2007). *Linking and aligning scales and scores.* Springer; Kolen, M. J., & Brennan, R. L. (2014). *Test equating, scaling, and linking* (3rd ed.). Springer; Ryan, J., & Brockmann, F. (2009). *A practitioner's introduction to equating with primers on classical test theory and item response theory.* Council of Chief State School Officers. https://ccsso.org/resource-library/practitioners-introduction-equating

Student Sample

The analyses described in this report use data for all grades 3-12 students who were eligible to take the within-year math assessments in the fall of 2020 and/or the fall of 2021. While some students are included in the data for both years, students only needed to have data for at least one time point to be included in this report.

There were little to no differences in the demographic characteristics of the samples of students eligible to complete the within-year math assessments in fall 2020 and fall 2021.

Compared to 2020-21, in 2021-22, about 1,800 fewer students were enrolled in grades 3-12 and therefore eligible to take the within-year district reading assessments (Table 2). When looking at the percentage of eligible students by grade band, there were small to no differences across the two school years.

Table 2. The breakdown by grade level of students eligible to take the within-year math assessments was similar in 2020-21 and 2021-22

Grade Level	2020-21		2021-22	
	Percent of Students	Number of Students	Percent of Students	Number of Students
3rd	10%	9,482	10%	9,064
4th	10%	9,160	10%	9,115
5th	10%	9,064	10%	8,942
6th	10%	9,136	10%	8,480
7th	10%	9,253	10%	8,499
8th	10%	9,295	10%	8,732
9th	11%	9,814	12%	10,581
10th	11%	9,557	10%	9,151
11th	9%	8,223	9%	8,386
12th	9%	7,978	9%	7,874
Total	100%	90,962	100%	88,776

Note: Data can change over time due to changes in enrollment or updates to student demographic data. Students in grades K-2 were not required to take the Star Math CAT assessments in 2021-22, taking the Curriculum-Based Metrics (CBM) instead. Therefore, only students in grades 3-12 are included.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

There were also few differences between years when looking at race/ethnicity and gender breakouts (Table 3). For example, in both years, 10% of the eligible student population were Asian, 14% were White, and 49% were female. Regarding Special Education Status, Socio-Economic Status, and EL Status, there were also little to no differences.

Table 3. The demographic characteristics of students eligible to take the within-year math assessments were similar in 2020-21 and 2021-22

Student Characteristic	2020-21		2021-22	
	Percent of Students	Number of Students	Percent of Students	Number of Students
Total	100%	90,962	100%	88,776
Race/Ethnicity				
Asian	10%	8,721	10%	8,852
Black/African American	49%	44,972	48%	42,663
Hispanic/Latinx	22%	19,827	23%	20,610
Multi-Racial/Other	5%	4,628	4%	4,268
White	14%	12,814	14%	12,431
Gender				
Female	49%	44,128	49%	43,171
Male	51%	46,787	51%	45,597
Non-Binary	0%	47	0%	56
Special Education Status				
Students with IEPs	18%	16,613	18%	16,142
Students without IEPs	82%	74,349	82%	72,682
Socio-Economic Status				
Economically Disadvantaged	69%	62,313	69%	61,637
Not Economically Disadvantaged	31%	28,649	31%	27,158
English Learner Status				
Current English Learner	13%	11,623	15%	13,127
Former English Learner	5%	4,363	4%	3,481
Not an English Learner – screened	6%	69,948	7%	65,947
Not an English Learner – not screened	77%	5,028	74%	6,270

Note: Data can change over time due to changes in enrollment or updates to student demographic data. Students in grades K-2 were not required to take the Star Math CAT assessments in 2021-22, taking the Curriculum-Based Metrics (CBM) instead. Therefore, only students in grades 3-12 are included. *Non-Binary* is a category that was added to the student information system on December 13, 2021, and at that time students were able to select a non-binary gender option; additionally, 47 students who had math assessment data in fall 2020 had their gender category retroactivity updated to match their fall 2020 math data. The Multi-Racial/Other group includes students who are American Indian/Alaskan Native and Native Hawaiian/Pacific Islander, or if their race or ethnicity is unknown. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner. The *Has IEP* category indicates the student has an IEP and receives special education services.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

Findings

What percentage of SDP students in grades 3-12 participated in the within-year math assessments in fall 2020 and fall 2021? Did changes in participation rates across years differ by student characteristics and Learning Network?

A higher percentage of students took the within-year math assessments in fall 2021 than in fall 2020.

About 90,000 students were enrolled in grades 3-12 and therefore eligible to take the within-year math assessments in both fall 2020 and fall 2021 (Table 4). A higher percentage of students who were eligible took the within-year math assessments in fall 2021 compared to fall 2020.

Although the goal for participation rates is 100%, not all students who are eligible take the required within-year assessments in the testing window, most often due to student attendance and other test administration challenges at the school level.

Table 4. Participation in the fall 2020 and fall 2021 within-year math assessments

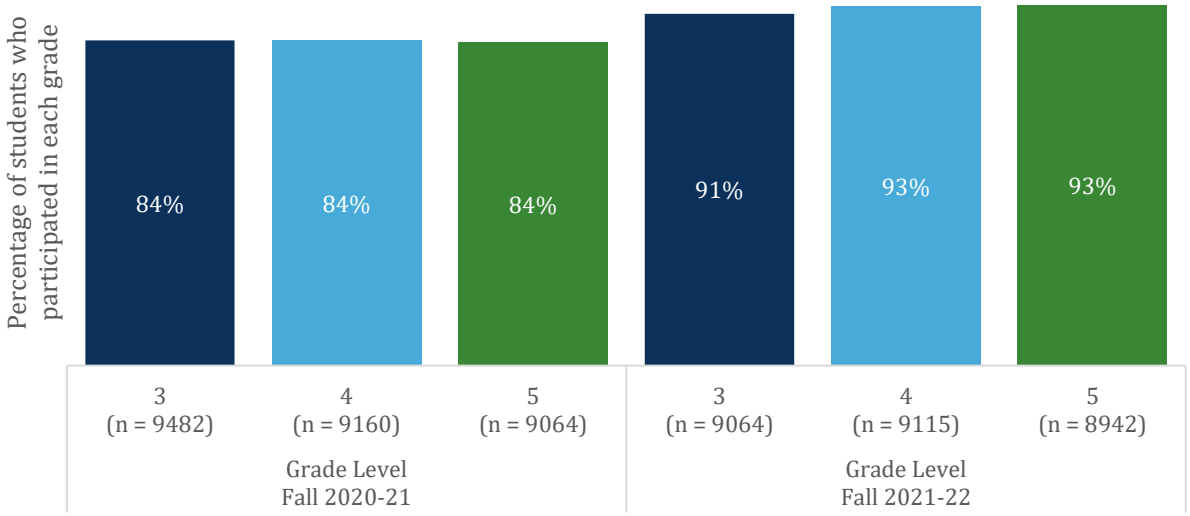
School Year	Number of K-12 students eligible to be tested	Number of K-12 students who took the within-year math assessment in fall window	Percentage of K-12 students who took the within-year math assessment in fall window
2020-21	90,962	72,578	79.8%
2021-22	88,824	75,845	85.4%

Note: Students in grades K-2 were not required to take the Star Math CAT assessments in 2021-22, taking the Curriculum-Based Metrics (CBM) instead. Therefore, only students in grades 3-12 are included.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

Across all grades, higher percentages of students took the within-year math assessments in fall 2021 than 2020.

Overall, participation rates increased more for students in fourth and fifth grades from fall 2020 to fall 2021 than students in third grade. The percentage of fourth and fifth graders who took the within-year math assessments increased by nine points from fall 2020 to fall 2021 (Figure 1). The percentage of third graders who took the within-year math assessments increased by seven points from fall 2020 to fall 2021.

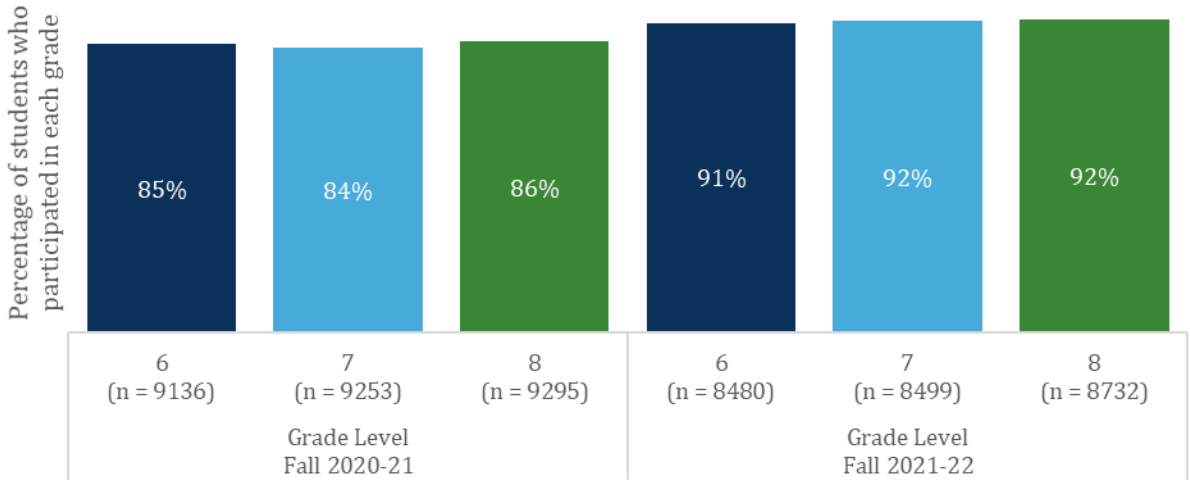
Figure 1. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by grade level



Note: See Appendix A, Table A1 for numbers of eligible students who participated by grade. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

The percentage of sixth and eighth graders who took the within-year math assessments increased by six points from fall 2020 to fall 2021, while the percentage of seventh graders increased by eight points (Figure 2).

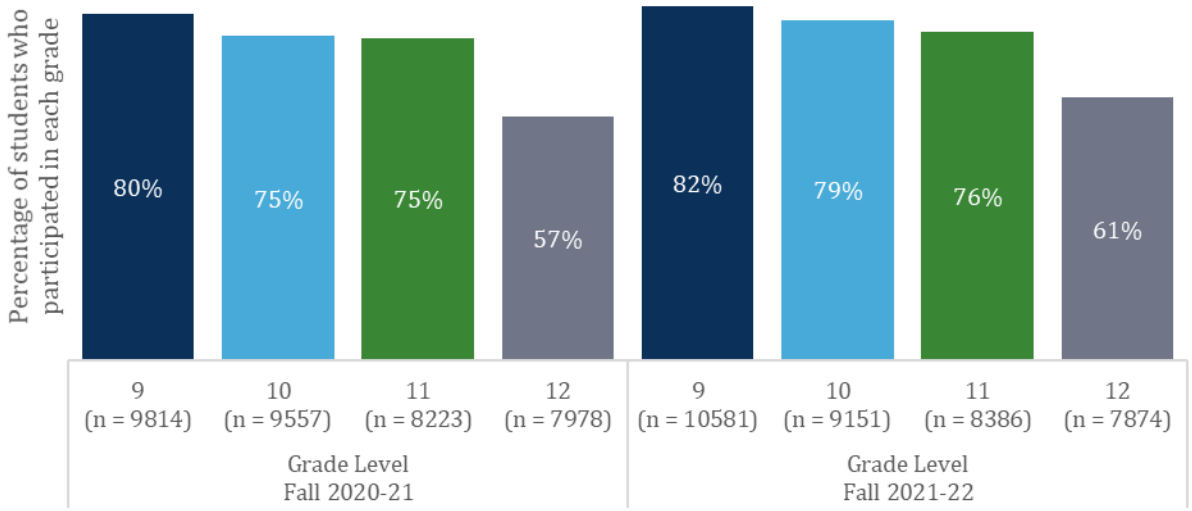
Figure 2. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by grade level



Note: See Appendix A, Table A1 for numbers of eligible students who participated by grade.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

The percentage of ninth through twelfth graders who took the within-year math assessments increased by one to four points from fall 2020 to fall 2021.

Figure 3. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by grade level

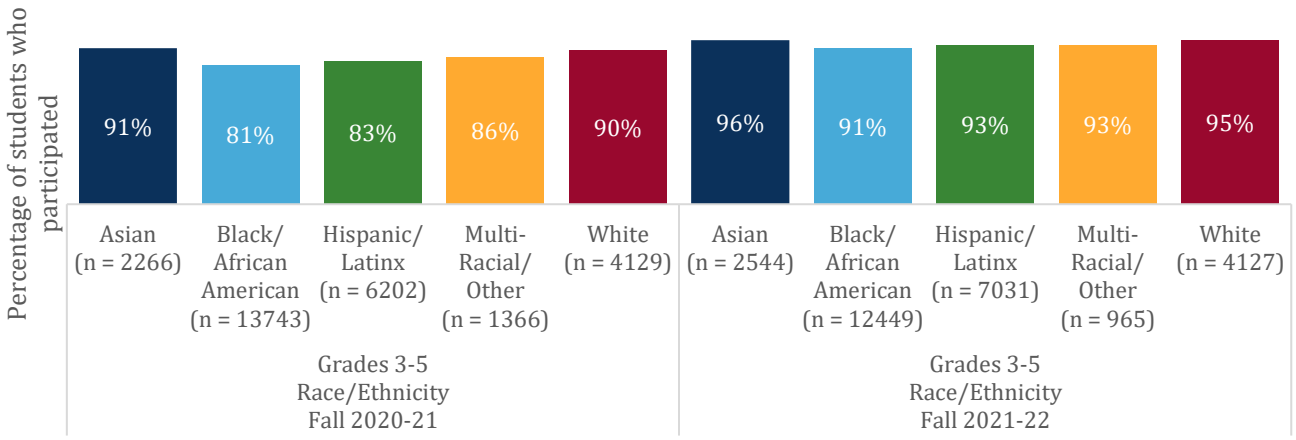


Note: See Appendix A, Table A1 for numbers of eligible students who participated by grade.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

Across all race/ethnicities, higher percentages of students took the within-year math assessments in fall 2021 than fall 2020, and this pattern was most pronounced in grades 3-5 and 6-8.

Overall, participation rates increased more for Black/African American students and Hispanic/Latinx students from fall 2020 to fall 2021 than Asian students, Multi-Racial/Other students, and White students. The percentage of grade 3-5 Black/African American students and Hispanic/Latinx students who took the within-year math assessments increased 10 points from fall 2020 to fall 2021 (Figure 4). In comparison, the percentage of Asian students, Multi-Racial/Other students, and White students who took the within-year math assessments increased by five to seven points from fall 2020 to fall 2021.

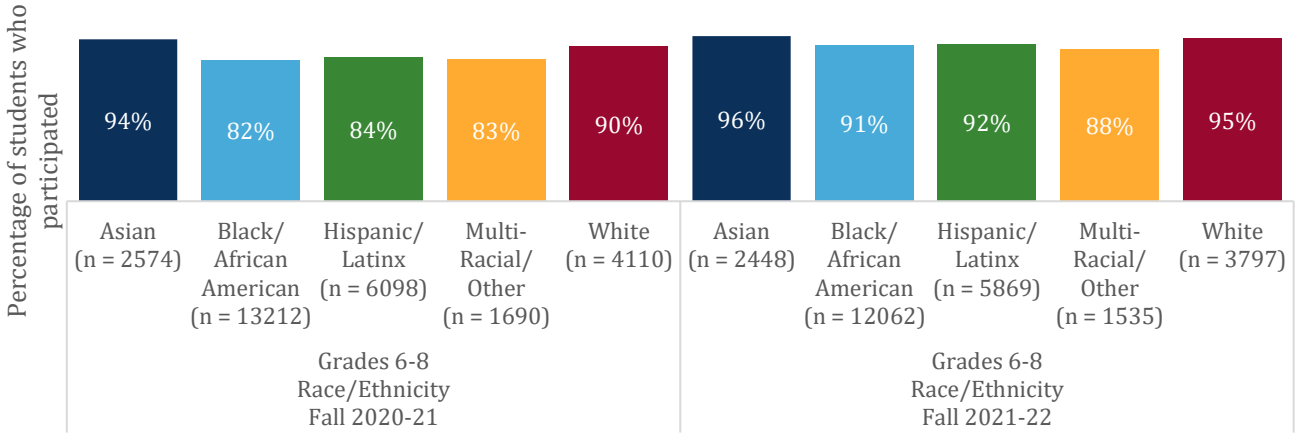
Figure 4. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by student race/ethnicity



Note: See Appendix A, Table A2 for numbers of eligible students who participated by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 6-8 Black/African American students and Hispanic/Latinx students who took the within-year math assessments increased eight to nine points from fall 2020 to fall 2021 (Figure 5). In comparison, the percentage of Multi-Racial/Other students and White students who took the within-year math assessments increased by five to six points from fall 2020 to fall 2021.

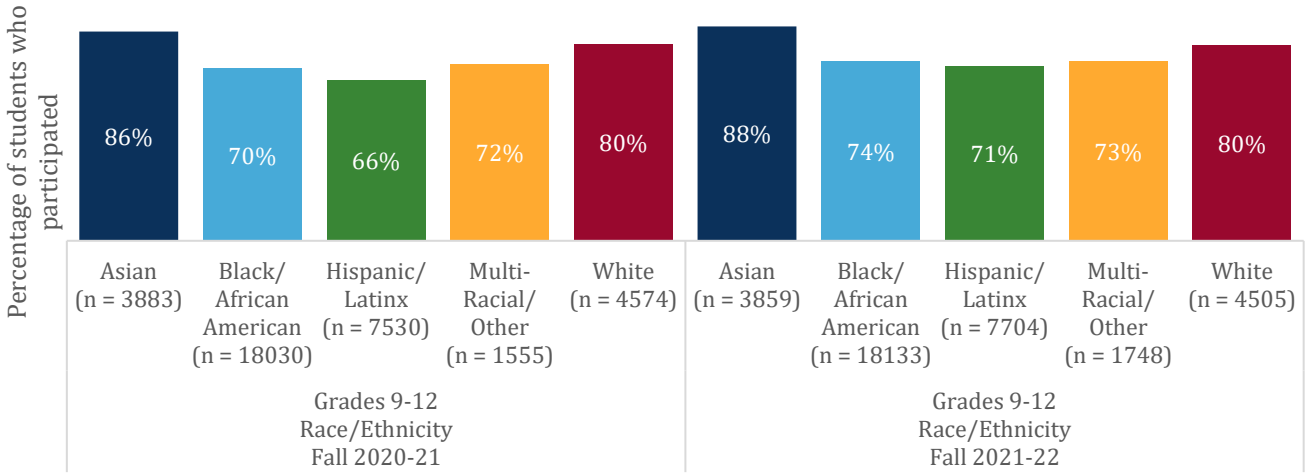
Figure 5. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by student race/ethnicity



Note: See Appendix A, Table A2 for numbers of students eligible by student group.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 9-12 Black/African American students and Hispanic/Latinx students who took the within-year math assessments increased by four to five points from fall 2020 to fall 2021 (Figure 6). In comparison, the percentage of students in all other racial/ethnic groups who took the within-year math assessments increased by zero to two points from fall 2020 to fall 2021.

Figure 6. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by student race/ethnicity

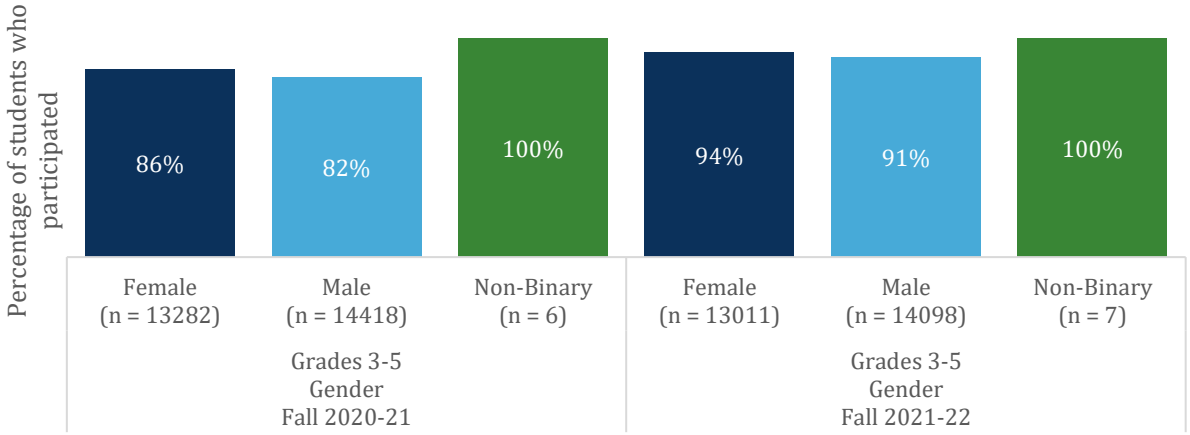


Note: See Appendix A, Table A2 for numbers of eligible students who participated by student group.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Higher percentages of female and male students took the within-year math assessments in fall 2021 compared to the prior year, with a less notable increase in high school grades.

The percentage of grade 3-5 female students who took the within-year math assessments increased by eight points from fall 2020 to fall 2021, and the percentage of male students increased nine points (Figure 7).

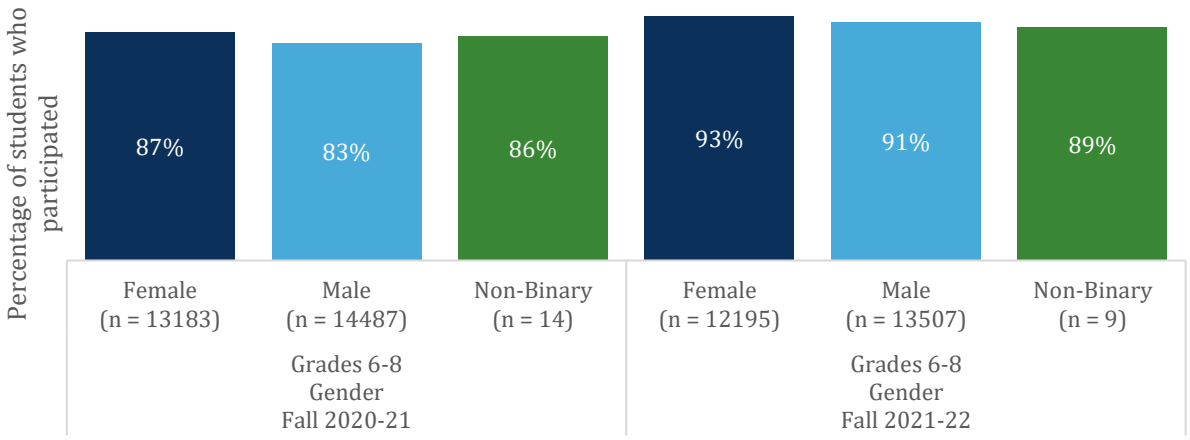
Figure 7. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by gender



Note: See Appendix A, Table A3 for numbers of eligible students who participated by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution. Beginning December 12, 2021, students could self-identify as non-binary in the District Student Information System (SIS); the sample size of non-binary students reflected in this analysis is small and may be lower than the population of students who identify as non-binary in the District because updating gender in the SIS is voluntary.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 6-8 female students who took the within-year math assessments increased by six points from fall 2020 to fall 2021, and the percentage of male students who took the within-year math assessments increased eight points (Figure 8).

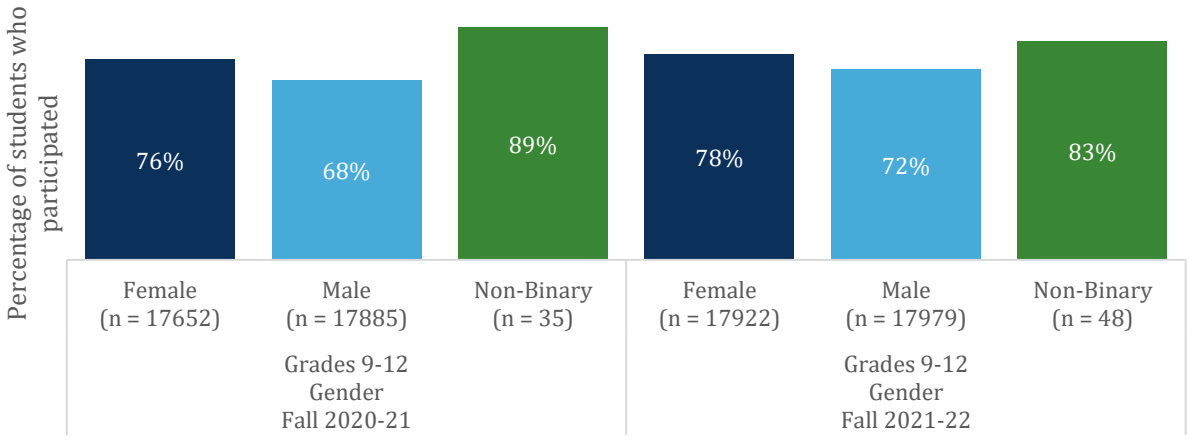
Figure 8. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by gender



Note: See Appendix A, Table A3 for numbers of eligible students who participated by student group. Beginning December 12, 2021, students could self-identify as non-binary in the District Student Information System (SIS); the sample size of non-binary students reflected in this analysis is small and may be lower than the population of students who identify as non-binary in the District because updating gender in the SIS is voluntary.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 9-12 female students who took the within-year math assessments increased by two points from fall 2020 to fall 2021, and the percentage of male students who took the within-year math assessments increased four points (Figure 9).

Figure 9. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by gender

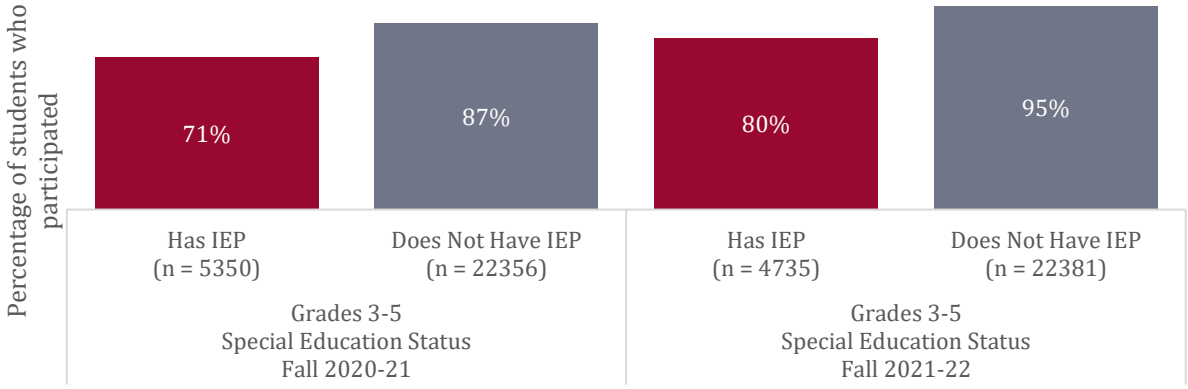


Note: See Appendix A, Table A3 for numbers of eligible students who participated by student group. Beginning December 12, 2021, students could self-identify as non-binary in the District Student Information System (SIS); the sample size of non-binary students reflected in this analysis is small and may be lower than the population of students who identify as non-binary in the District because updating gender in the SIS is voluntary.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Higher percentages of students with an individualized education plan (IEP) took the within-year math assessments in fall 2021 compared to fall 2020, and the largest increases were found for grades 6-8.

The percentage of grade 3-5 students with an IEP who took the within-year math assessments increased by nine points from fall 2020 to fall 2021 (Figure 10).

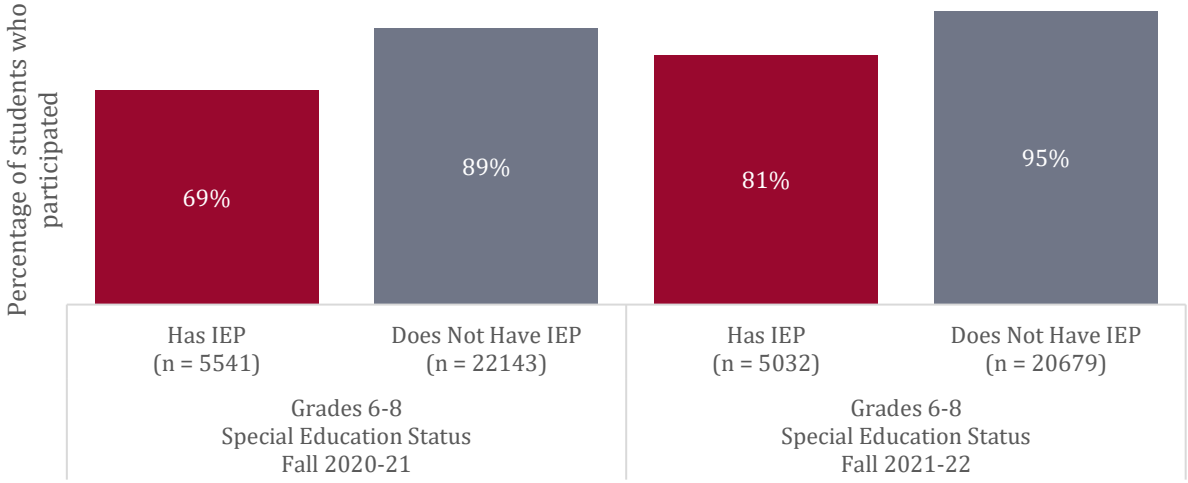
Figure 10. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by special education status



Note: See Appendix A, Table A4 for numbers of eligible students who participated by student group. The *Has IEP* category indicates the student has an IEP and receives special education services. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 6-8 students with an IEP who took the within-year math assessments increased by 12 points from fall 2020 to fall 2021 (Figure 11).

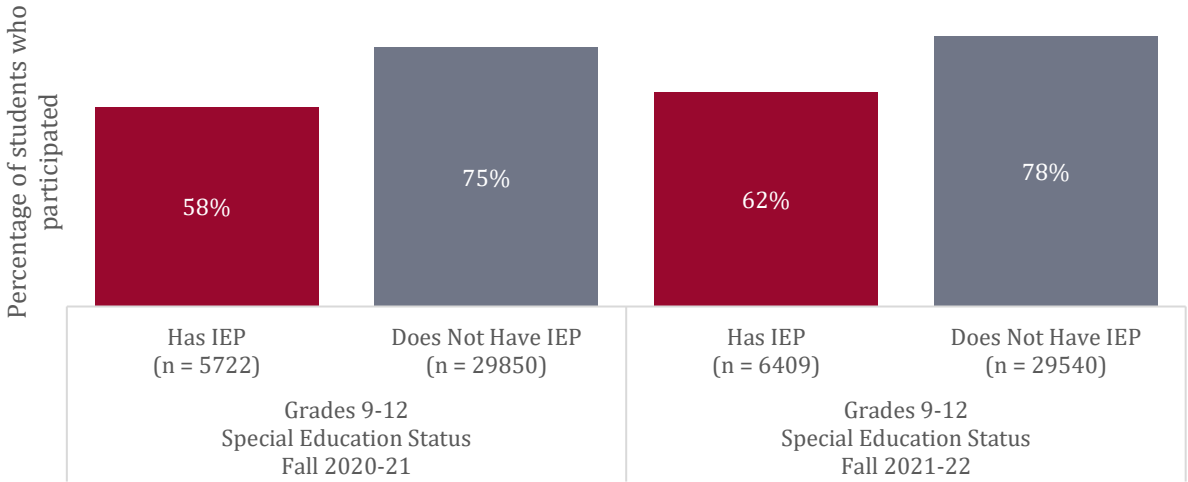
Figure 11. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by special education status



Note: See Appendix A, Table A4 for numbers of eligible students who participated by student group. The *Has IEP* category indicates the student has an IEP and receives special education services. Students with an IEP in grades 6-8 had the option to take aimswebPlus in fall 2020-21 instead of Star, if their IEP team chose aimswebPlus as their within year assessment instead of Star.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 9-12 students with an IEP who took the within-year math assessments increased by four points from fall 2020 to fall 2021 (Figure 12).

Figure 12. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by special education status

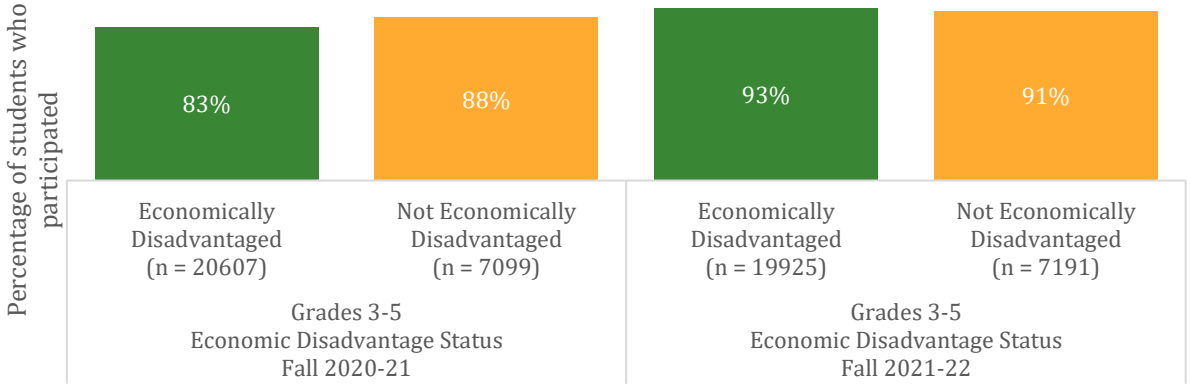


Note: See Appendix A, Table A4 for numbers of eligible students who participated by student group. The *Has IEP* category indicates the student has an IEP and receives special education services.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Higher percentages of economically disadvantaged students took the within-year math assessments in fall 2021 than in fall 2020, with a more notable increase for students in grades 3-5 and 6-8.

The percentage of grade 3-5 economically disadvantaged students who took the within-year math assessments increased by 10 points from fall 2020 to fall 2021 (Figure 13). In comparison, the percentage of non-economically disadvantaged students who took the within-year math assessments increased by three points from fall 2020 to fall 2021.

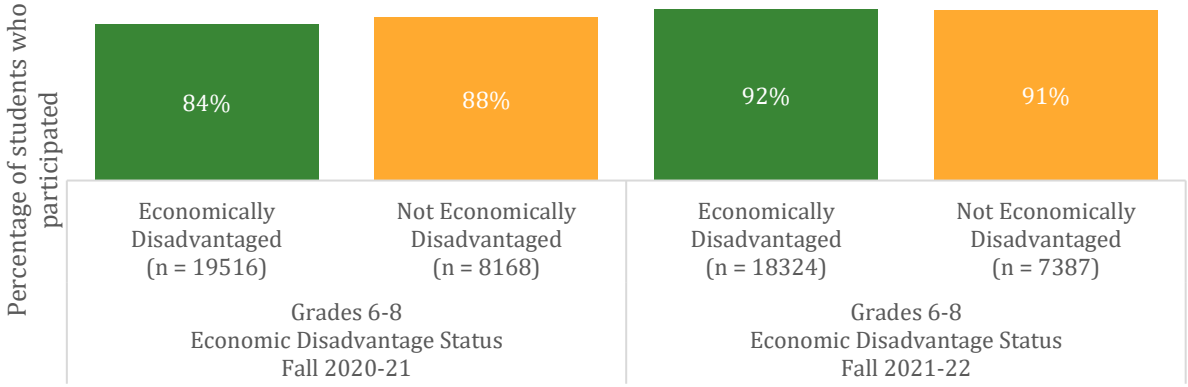
Figure 13. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by economically disadvantaged status



Note: See Appendix A, Table A5 for numbers of eligible students who participated by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 6-8 economically disadvantaged students who took the within-year math assessments increased by eight points from fall 2020 to fall 2021 (Figure 14). In comparison, the percentage of non-economically disadvantaged students who took the within-year math assessments increased by three points from fall 2020 to fall 2021.

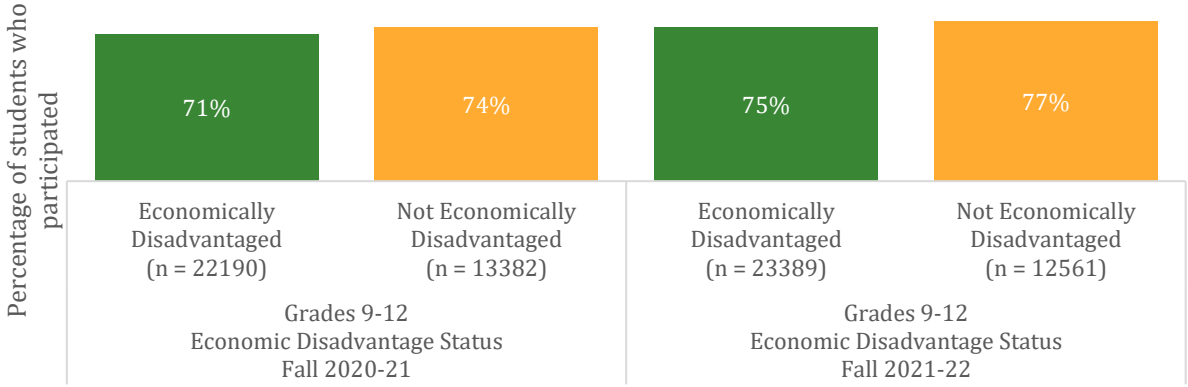
Figure 14. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by economically disadvantaged status



Note: See Appendix A, Table A5 for numbers of eligible students who participated by student group.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 9-12 economically disadvantaged students and non-economically disadvantaged students who took the within-year math assessments increased by three to four points from fall 2020 to fall 2021 (Figure 15).

Figure 15. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by economically disadvantaged status

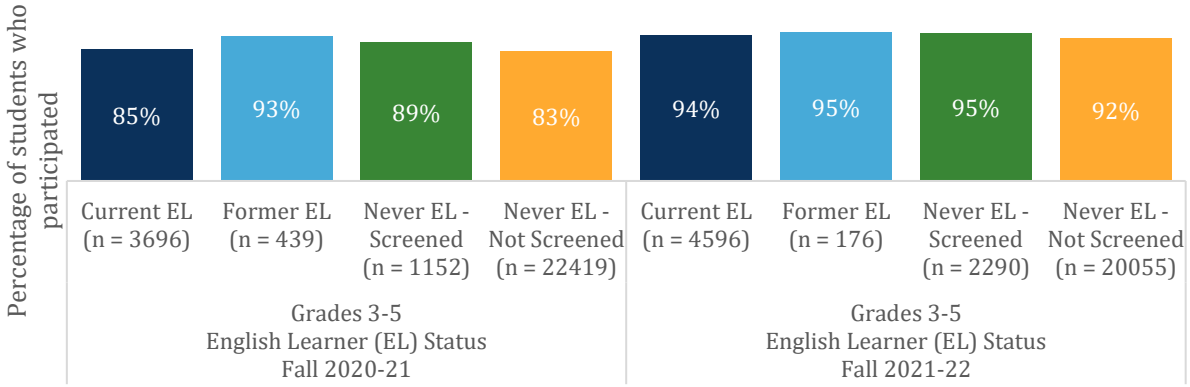


Note: See Appendix A, Table A5 for numbers of eligible students who participated by student group.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

There was an increase in the percentage of current English Learners (ELs) who took the within-year math assessments in fall 2021 compared to fall 2020, and the increase was notably higher for grades 3-5 and 9-12.

The percentage of grade 3-5 current English Learners (ELs) who took the within-year math assessments increased by nine points from fall 2020 to fall 2021 (Figure 16). This is the same increase as never ELs (not screened) and a much higher increase than former ELs (2%).

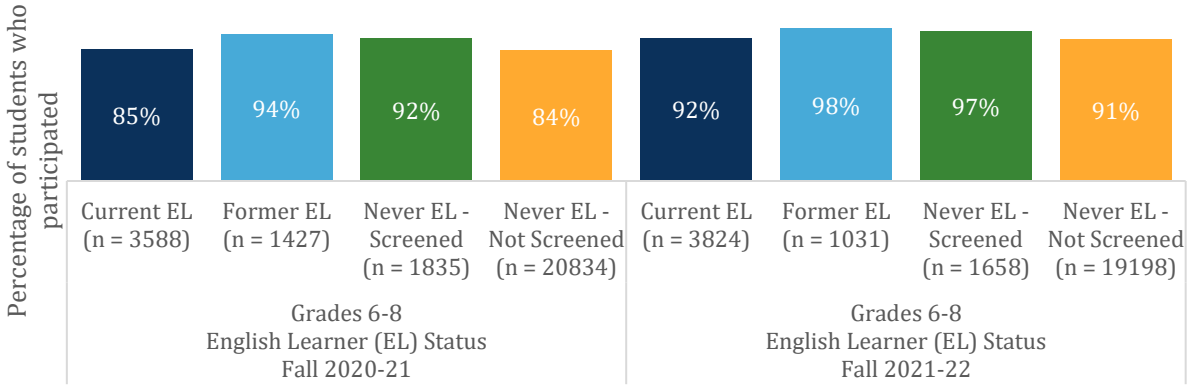
Figure 16. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by English Learner (EL) status



Note: See Appendix A, Table A6 for numbers of eligible students who participated by student group. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 6-8 current English Learners (ELs) who took the within-year math assessments increased by seven points from fall 2020 to fall 2021 (Figure 17). This is the same increase as never ELs (not screened) and a higher increase than former ELs (4%).

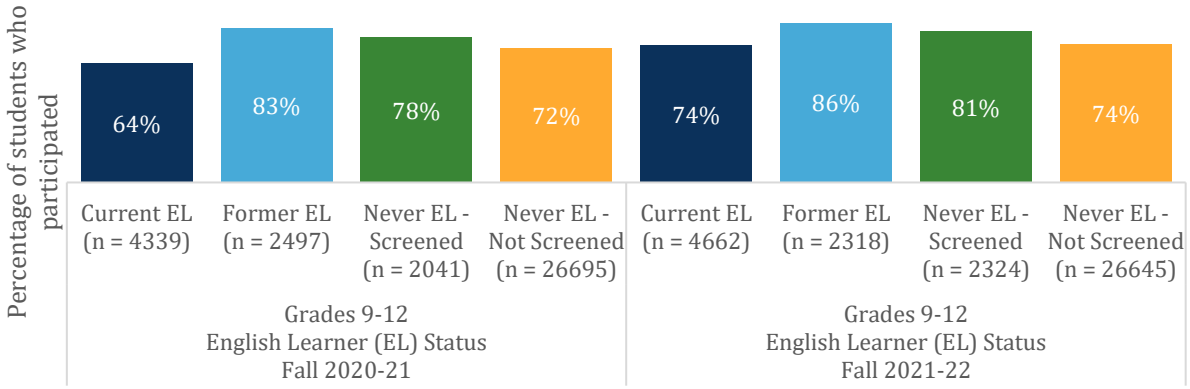
Figure 17. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by English Learner (EL) status



Note: See Appendix A, Table A6 for numbers of eligible students who participated by student group. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 9-12 current English Learners (ELs) who took the within-year math assessments increased by 10 points from fall 2020 to fall 2021 (Figure 18). This is a larger increase than former ELs (3%) as well as never ELs.

Figure 18. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by English Learner (EL) status



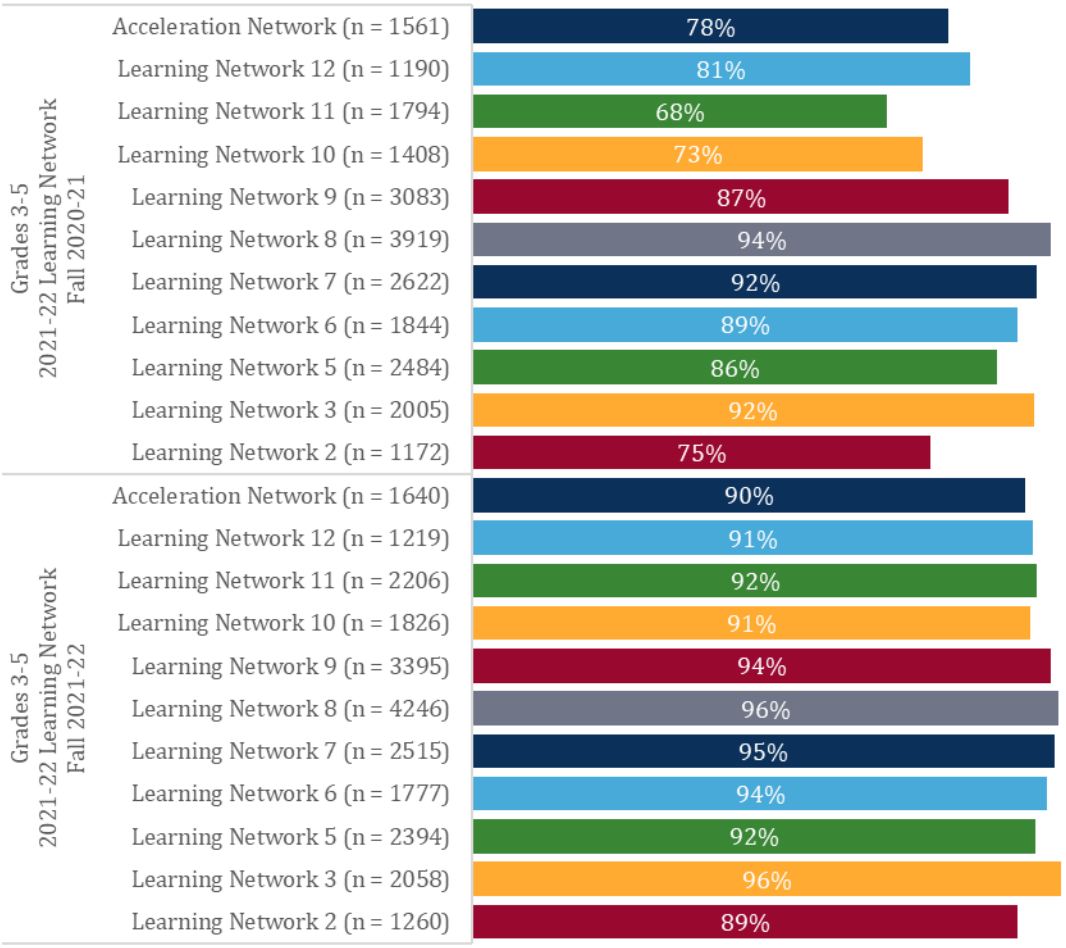
Note: See Appendix A, Table A6 for numbers of eligible students who participated by student group. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

There was an increase in the percentage of students participating in the within-year math assessments from fall 2020 to fall 2021 across nearly all Learning Networks, with a particularly notable increase for Learning Networks 10 and 11 in grades 3-5.

In grades 3-5, participation rates increased more for students in Learning Networks 10 and 11 than in other Learning Networks.

The percentage of grade 3-5 students in Learning Networks 10 and 11 who took the within-year math assessments increased by 18 and 24 points respectively from fall 2020 to fall 2021 (Figure 19).

Figure 19. Percentage of students in grades 3-5 who participated in the fall 2020 and fall 2021 within-year math assessments by 2021-22 Learning Network

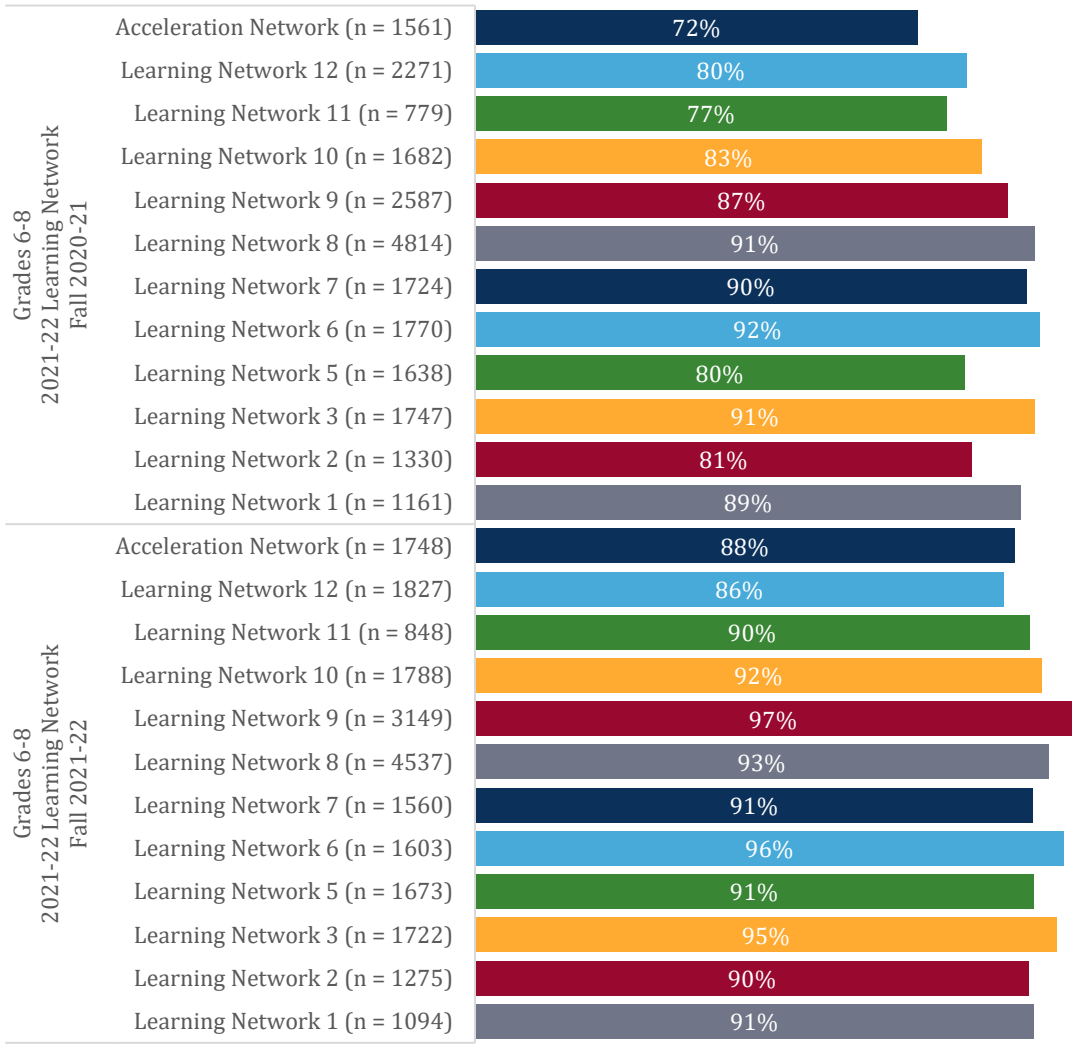


Note: See Appendix A, Table A7 for numbers of eligible students who participated by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

In grades 6-8, participation rates increased more for students in Learning Network 11 and the Acceleration Network than in other Learning Networks.

The percentage of grade 6-8 students in Networks 11 and Acceleration who took the within-year math assessments increased by 13 and 16 points respectively from fall 2020 to fall 2021 (Figure 20).

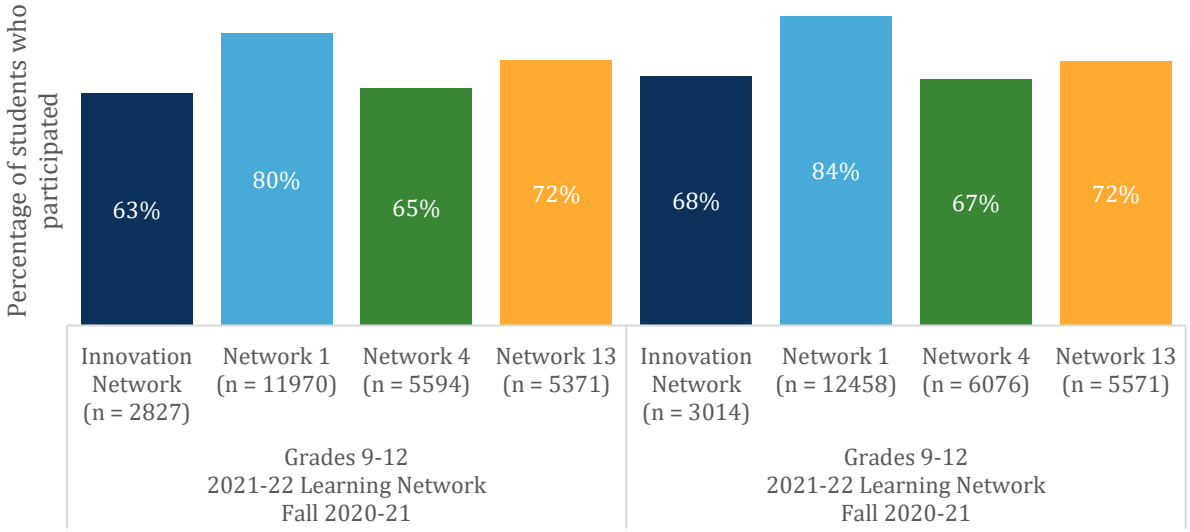
Figure 20. Percentage of students in grades 6-8 who participated in the fall 2020 and fall 2021 within-year math assessments by 2021-22 Learning Network



Note: See Appendix A, Table A7 for numbers of eligible students who participated by student group.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

The percentage of grade 9-12 students in Networks 1 and Innovation took the within-year math assessments increased by four to five points from fall 2020 to fall 2021 (Figure 21).

Figure 21. Percentage of students in grades 9-12 who participated in the fall 2020 and fall 2021 within-year math assessments by 2021-22 Learning Network



Note: See Appendix A, Table A7 for numbers of eligible students who participated by student group.
Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

What percentage of SDP students in grades 3-12 performed in the Tier 1/At Above Benchmark performance group on the within-year math assessments in fall 2020 and fall 2021? Did changes in performance across years differ by student characteristics and Learning Network?

In 2020-21, students in grades 3-5 took the aimswebPlus math assessment and could have scored in the following performance groups: *Tier 1* (At Benchmark), *Tier 2* (Strategic Intervention), and *Tier 3* (Intensive Intervention). However, in 2020-21 students in grades 6-8 and 9-12 took the Star Math assessment and could have scored in the following performance groups: *At or Above Grade Level*, *On Watch*, *Strategic Intervention*, and *Intensive Intervention*. In 2021-22, all students district-wide took the Star Math assessment regardless of grade level. This means that in 2021-22, students in grades 3-5 could score in the *On Watch* performance group, unlike during the 2020-21 year.[6]

Additionally, aimswebPlus and Star differ in how students are placed into categories or performance groups. Star uses percentile rank to assign performance groups. For example, students who score in the 40th percentile or higher are assigned to the *At or Above Grade Level* performance group (see Table 1 in the Key Data Points section), and this applies for every testing window. In

[6] The *At or Above Grade Level* performance group on Star is a more conservative measurement of students' likelihood to perform in the *Proficient or Advanced* categories on the ELA PSSA than *Tier 1* on aimswebPlus.

comparison, aimswebPlus uses the raw score (number correct score) to determine tier placement, where the raw score is aligned to the likelihood of scoring in the 40th percentile of performance in the spring, which means that even if a student has the same percentile in each testing window, they may end up in a different tier because of their raw score. Overall, aimswebPlus groups and Star performance groups are not entirely equivalent, especially in the calculations used to determine student performance groups.

Moreover, the required percentile for scoring *At or Above Grade Level* was raised from the 40th percentile in 2020-21 to the 70th percentile in 2021-22. This important change is noted in the figures in this section. Students who scored between the 40th and 69th percentiles in 2020-21 performed *At or Above Grade Level* in 2020-21, but if they scored between the 40th and 69th percentiles in 2021-22 they performed in the *On Watch* performance group. This switch to the 70th percentile provides a more strongly predictive indicator of scoring Proficient or Advanced on state assessments. However, this switch impacted the percentages of SDP students who performed *At or Above Grade Level* between 2020-21 and 2021-22.

In this report, aimswebPlus *Tier 1* and Star *At or Above Benchmark* performance groups will be used interchangeably for the sake of simplicity when relevant. Additionally, *Tier 2* and *Strategic Intervention* will be used interchangeably, and *Tier 3* and *Intensive Intervention* will be used interchangeably as well. It is important to keep in mind that the performance groups are not entirely equivalent, especially as the Star *On Watch* performance group does not have an aimswebPlus equivalent.

The percentage of students in all grade levels who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments declined from fall 2020 to fall 2021, and the largest decline was seen by students in grades 9-12.

The percentage of grade 3-12 students who scored at Tier 1/At or Above Benchmark on the within-year math assessments declined by 27 points from fall 2020 to fall 2021 (Table 5). Throughout this section and the following sections, keep in mind when comparing math performance between the two years that the required percentile for scoring *At or Above Grade Level* was raised from the 40th percentile in 2020-21 to the 70th percentile in 2021-22; this change made it more difficult to score *At or Above Grade Level* in fall 2021 than fall 2020.

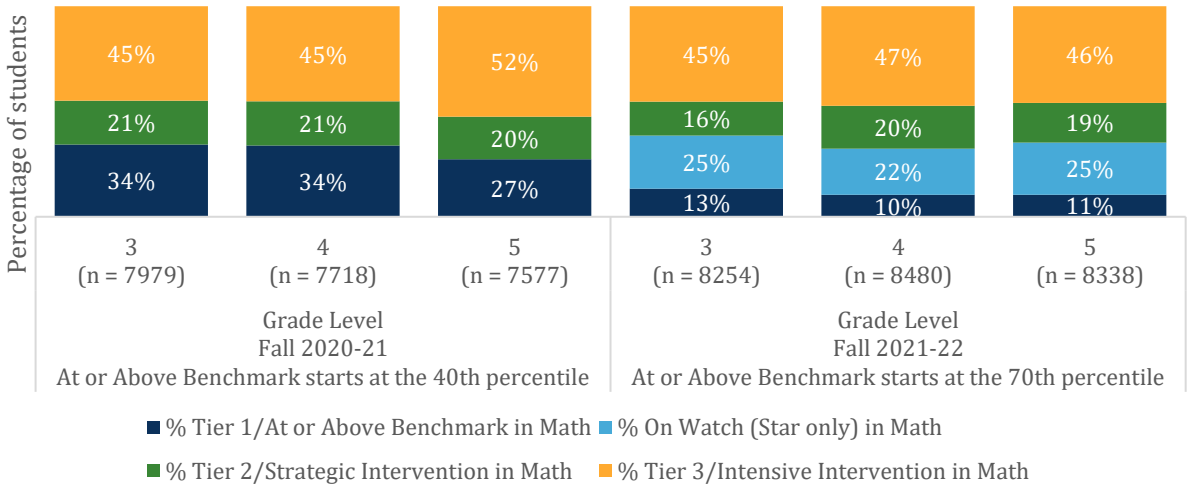
Table 5. Performance on the fall 2020 and fall 2021 within-year math assessments

School Year	Grade Level	Number of students with math assessment scores	Percent of students who scored in Tier 1/At or Above Benchmark	Percent of students who scored in On Watch	Percent of students who scored in Tier 2/Strategic Intervention	Percent of students who scored in Tier 3/Intensive Intervention
2020-21	**3-12**	72,300	41.1%	8.3%	18.5%	32.1%
	3-5	23,274	31.9%	--	20.6%	47.5%
	6-8	23,542	37.7%	13.6%	20.0%	28.8%
	9-12	25,762	52.6%	11.1%	15.2%	21.1%
2021-22	**3-12**	75,588	14.3%	30.2%	19.1%	36.3%
	3-5	25,072	11.4%	24.0%	18.4%	46.2%
	6-8	23,646	11.1%	30.9%	21.2%	36.8%
	9-12	27,119	19.9%	35.4%	18.0%	26.7%

Note: Students in grades K-2 were not required to take the Star Math CAT assessments in 2021-22, taking the Curriculum-Based Metrics (CBM) instead. Therefore, only students in grades 3-12 are included. In 2020-21, the *At or Above Benchmark* performance group was defined as performing at or above the 40th percentile. In 2021-22, the *At or Above Benchmark* was defined as performing at or above the 70th percentile. The *On Watch* performance group is exclusive to Star, and therefore students in grades 3-5 did not have the option to score in the *On Watch* performance group in 2020-22.
Source: Qlik Academic Screeners App – Details, Data Accessed February 9, 2022

The percentage of third through fifth graders who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 16 to 24 points from fall 2020 to fall 2021 (dark blue section of stacked bars in Figure 22).

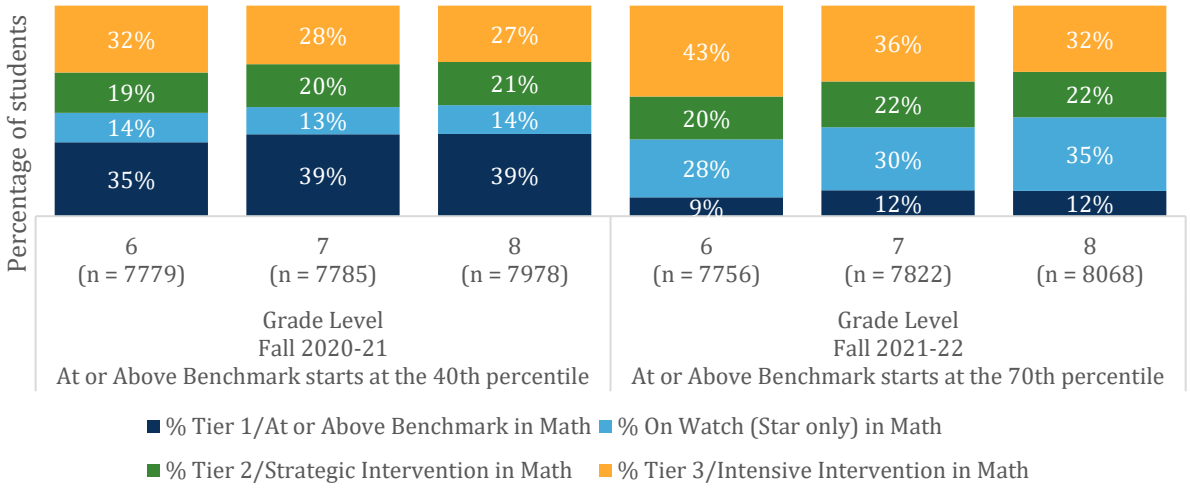
Figure 22. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by grade level



Note: See Appendix B, Table B1 for numbers of students in each performance group by student group. See Appendix C, Table C1 for average percentile rank by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of sixth through eighth graders who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 26 to 27 points from fall 2020 to fall 2021 (dark blue section of stacked bars in Figure 23).

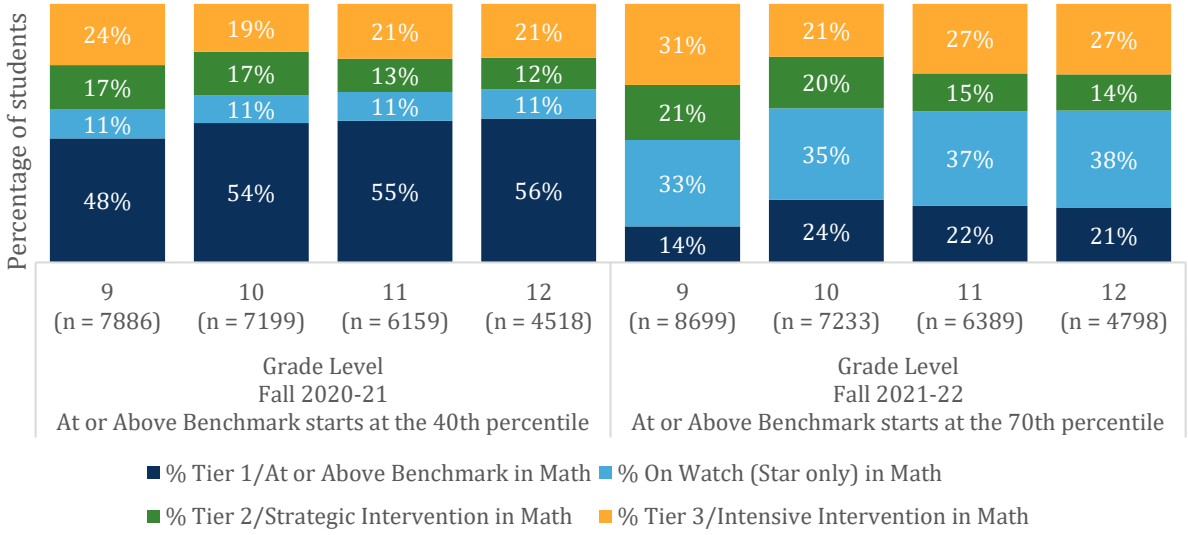
Figure 23. Percentage of students in grades 6-8 in each fall 2020 and fall 2021 within-year math assessments performance group by grade level



Note: See Appendix B, Table B1 for numbers of students in each performance group by student group. See Appendix C, Table C1 for average percentile rank by student group.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of ninth through twelfth graders who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 30 to 35 points from fall 2020 to fall 2021 (dark blue section of stacked bars in Figure 24).

Figure 24. Percentage of students in grades 9-12 in each fall 2020 and fall 2021 within-year math assessments performance group by grade level



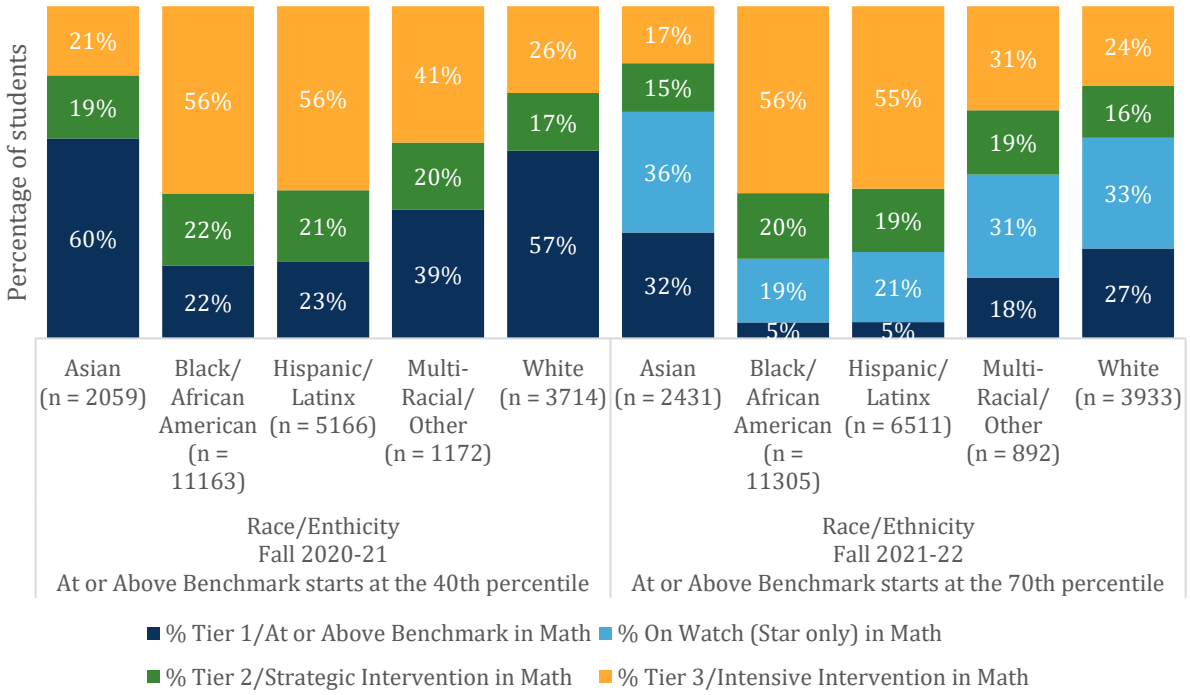
Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B1 for numbers of students in each performance group by student group. See Appendix C, Table C1 for average percentile rank by student group.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

From fall 2020 to fall 2021, the percentage of White students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments declined more than the percentage of students in other racial/ethnic groups.

The percentage of grade 3-5 Asian and White students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 28 to 30 points from fall 2020 to fall 2021 (dark blue section of stacked bars in Figure 25). In comparison, the percentage of grade 3-5 Black/African American, Hispanic/Latinx, and Multi-Racial/Other students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 17 to 21 points from fall 2020 to fall 2021.

Overall, compared to White students and Asian students, there was a smaller decline in the percentage of Black/African American students, Hispanic/Latinx students, and Multi-Racial/Other who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021.

Figure 25. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by student race/ethnicity

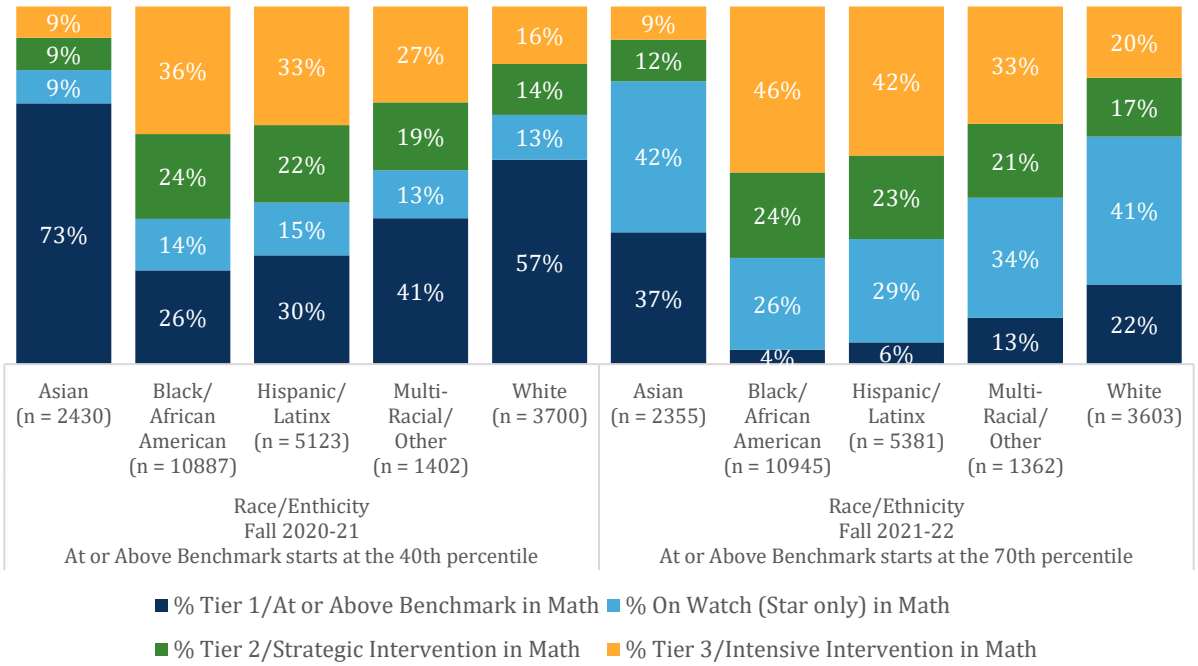


Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B2 for numbers of students in each performance group by student group. See Appendix C, Table C2 for average percentile rank by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 6-8 Asian and White students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 35 to 36 points from fall 2020 to fall 2021 (Figure 26). In comparison, the percentage of Black/African American, Hispanic/Latinx, and Multi-Racial/Other students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 22 to 28 points from fall 2020 to fall 2021.

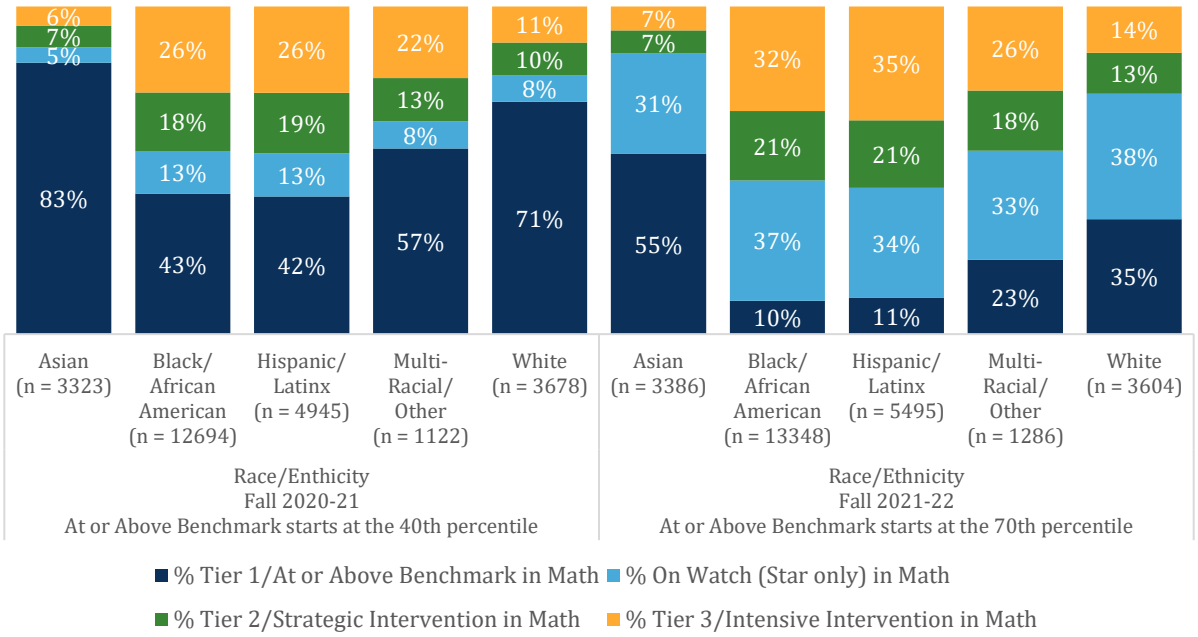
Figure 26. Percentage of students in grades 6-8 in each fall 2020 and fall 2021 within-year math assessments performance group by student race/ethnicity



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B2 for numbers of students in each performance group by student group. See Appendix C, Table C2 for average percentile rank by student group.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 9-12 White students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 36 points from fall 2020 to fall 2021 (Figure 27). In comparison, the percentage of Black/African American, Hispanic/Latinx, Multi-Racial/Other, and Asian students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 28 to 34 points from fall 2020 to fall 2021.

Figure 27. Percentage of students in grades 9-12 in each fall 2020 and fall 2021 within-year math assessments performance group by student race/ethnicity



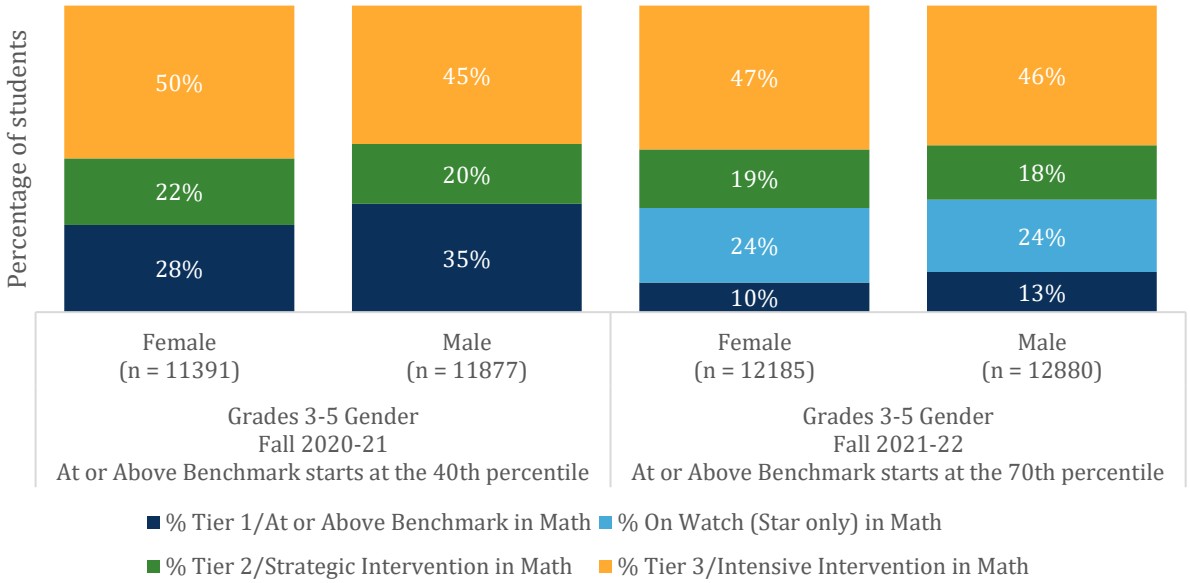
Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B2 for numbers of students in each performance group by student group. See Appendix C, Table C2 for average percentile rank by student group.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of female and male students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments saw similar declines from fall 2020 to fall 2021.

Overall, a similar percentage of female and male students saw a decline in the percentage of students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021.

Between the two years, the percentage of grade 3-5 male students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 22 points, and the percentage of female students who scored in the Tier 1/At or Above Benchmark performance group decreased by 18 points (Figure 28).

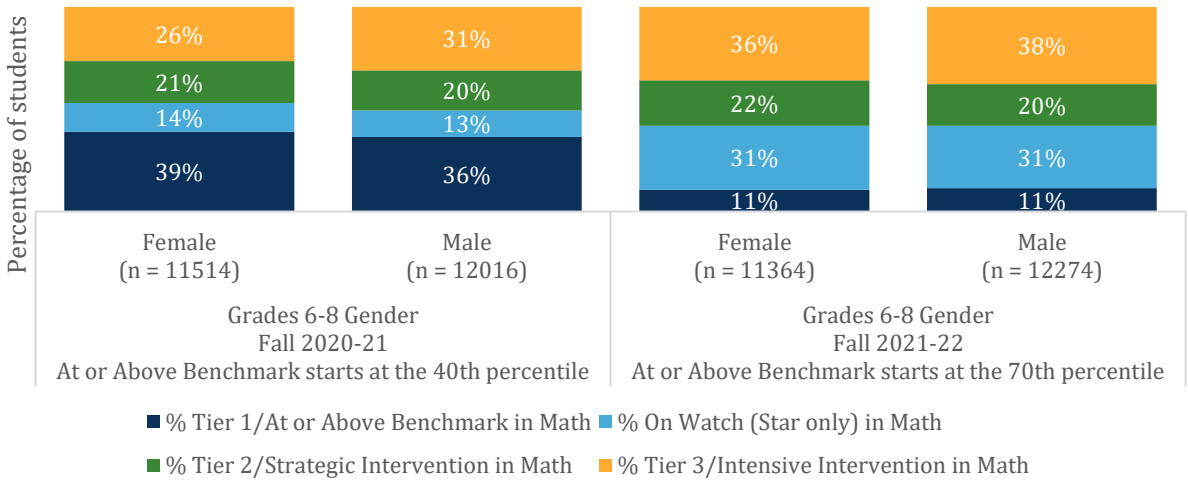
Figure 28. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by gender



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B3 for numbers of students in each performance group by student group. See Appendix C, Table C3 for average percentile rank by student group. Non-binary students are not included in the figure due to small group sizes. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

From fall 2020 to fall 2021, the percentage of grade 6-8 male students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 25 points, and the percentage of female students who scored in the Tier 1/At or Above Benchmark performance group decreased by 28 points (Figure 29).

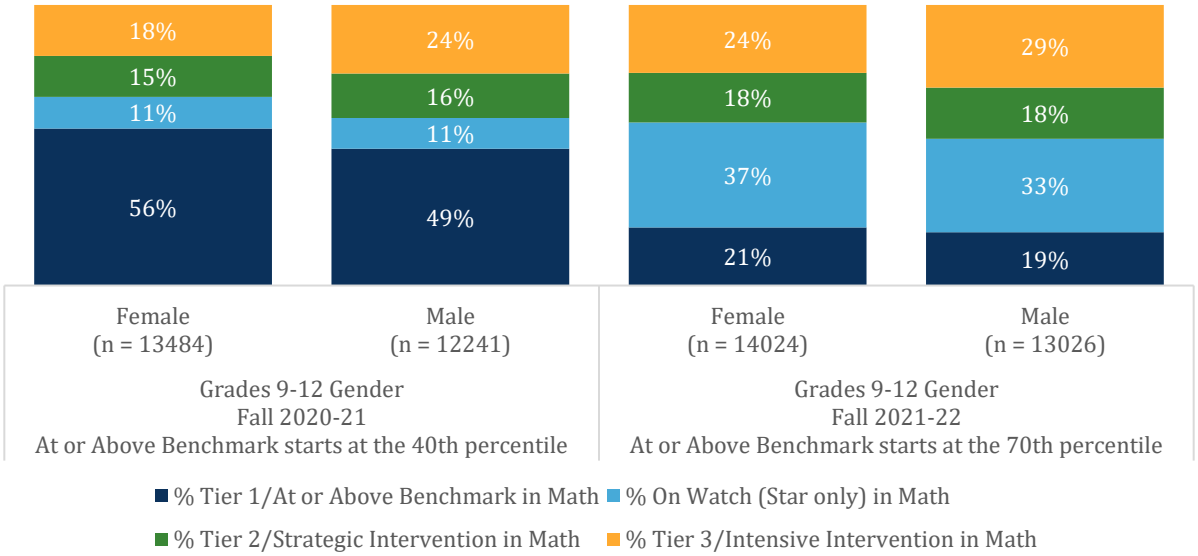
Figure 29. Percentage of students in grades 6-8 in each fall 2020 and fall 2021 within-year math assessments performance group by gender



Note: See Appendix B, Table B3 for numbers of students in each performance group by student group. See Appendix C, Table C3 for average percentile rank by student group. Non-binary students are not included in the figure due to small group sizes.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

From fall 2020 to fall 2021, the percentage of grade 9-12 male students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 30 points, and the percentage of female students who scored in the Tier 1/At or Above Benchmark performance group decreased by 35 points (Figure 30).

Figure 30. Percentage of students in grades 9-12 in each fall 2020 and fall 2021 within-year math assessments performance group by gender



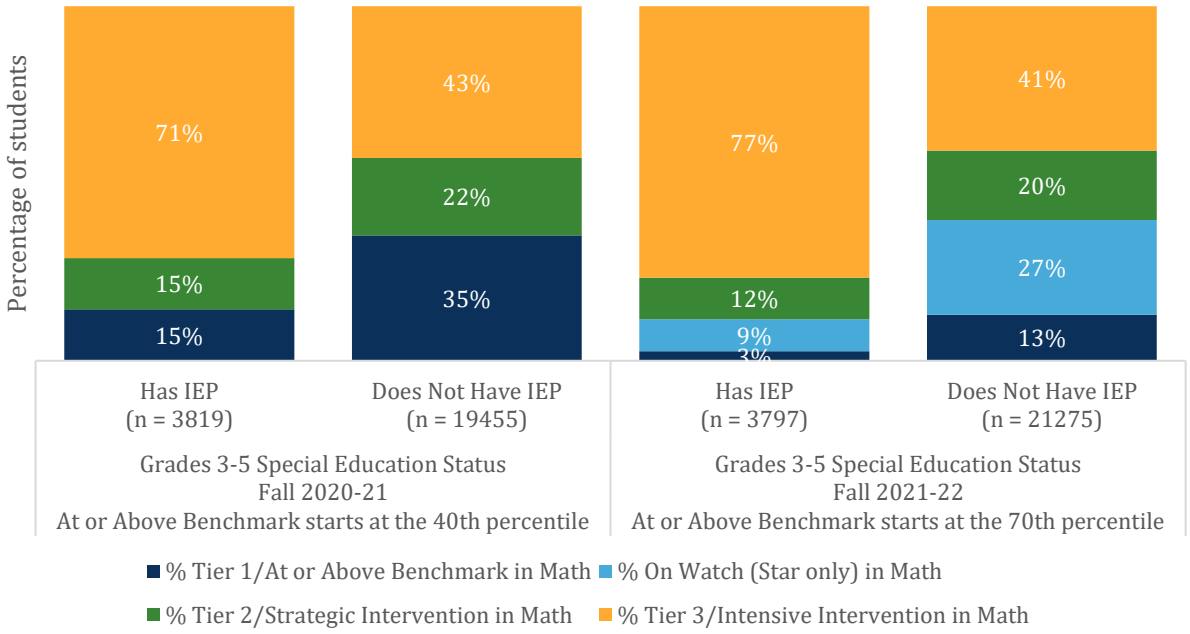
Note: See Appendix B, Table B3 for numbers of students in each performance group by student group. See Appendix C, Table C3 for average percentile rank by student group. Non-binary students are not included in the figure due to small group sizes.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of students with an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments declined less from fall 2020 to fall 2021 than the percentage of students without IEPs.

Overall, students with an IEP saw a smaller decline in the percentage of students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021 than students without an IEP.

The percentage of grade 3-5 students with an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 12 points from fall 2020 to fall 2021 (Figure 31). In comparison, the percentage of students without an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 22 points from fall 2020 to fall 2021.

Figure 31. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by special education status

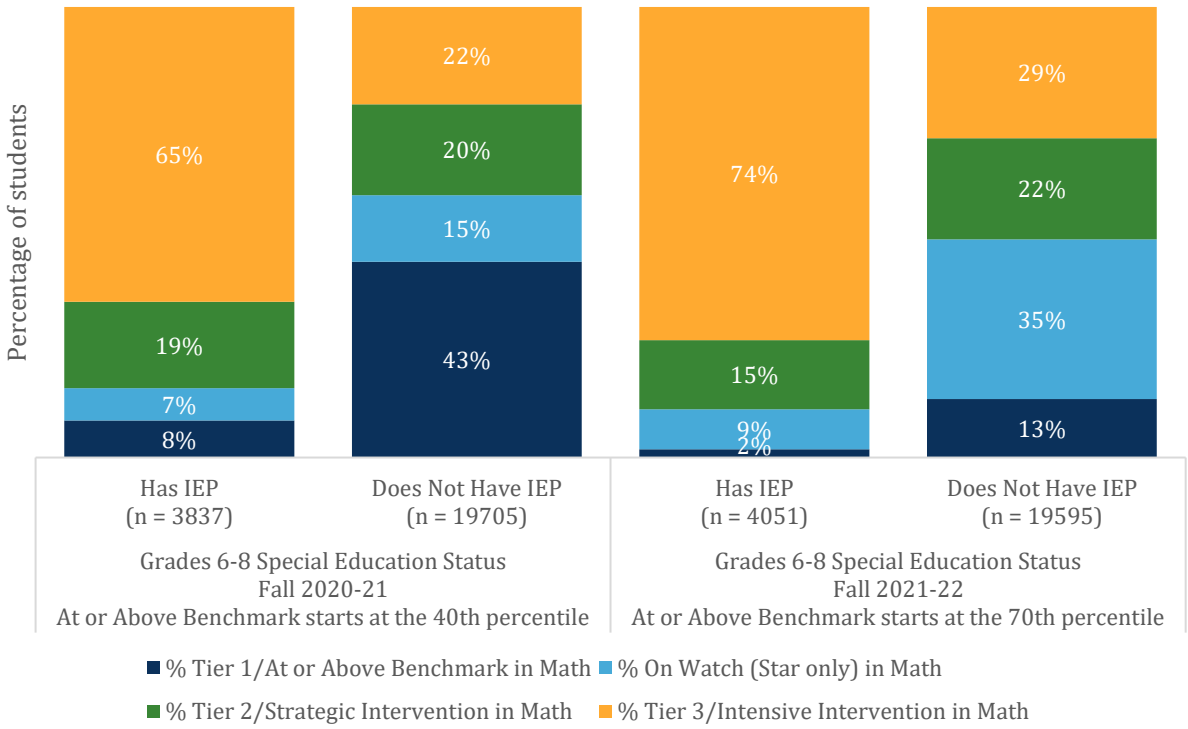


Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B4 for numbers of students in each performance group by student group. See Appendix C, Table C4 for average percentile rank by student group. The *Has IEP* category indicates the student has an IEP and receives special education services. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 6-8 students with an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by six points from fall 2020 to fall 2021 (Figure 32). In comparison, the percentage of students without an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 30 points from fall 2020 to fall 2021.

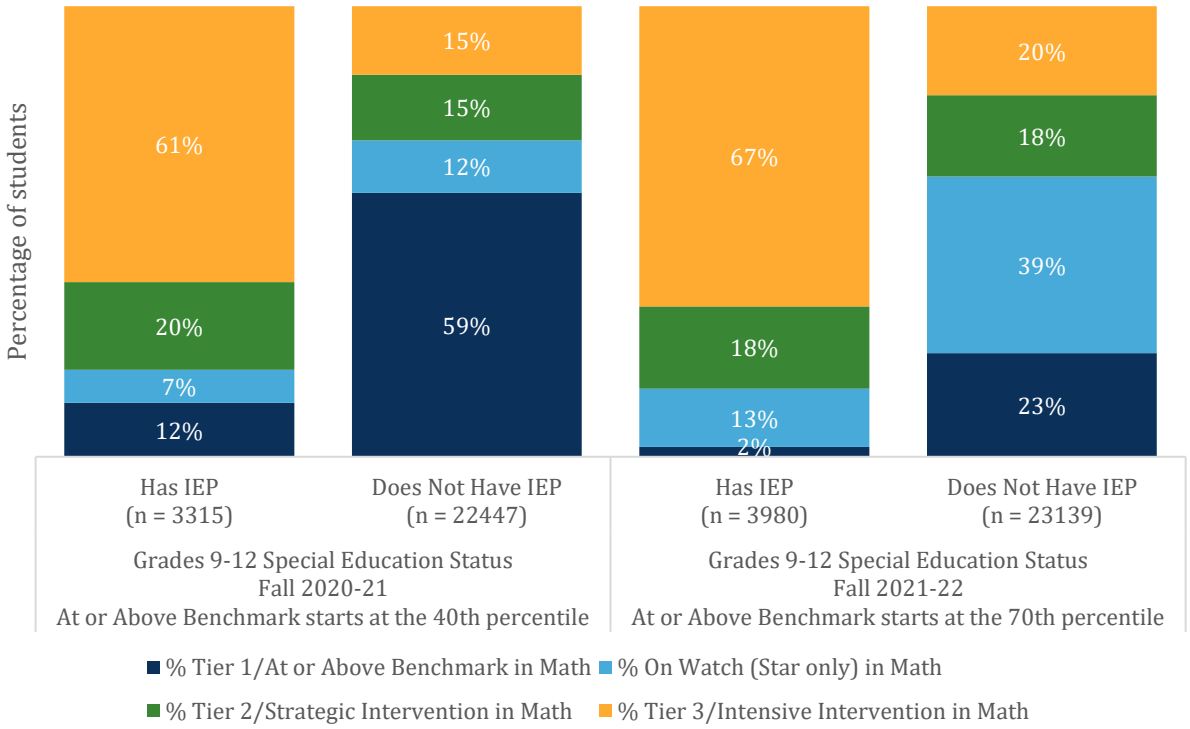
Figure 32. Percentage of students in grades 6-8 in each fall 20201 and fall 2021 within-year math assessments performance group by special education status



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B4 for numbers of students in each performance group by student group. See Appendix C, Table C4 for average percentile rank by student group. The *Has IEP* category indicates the student has an IEP and receives special education services.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 9-12 students with an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 10 points from fall 2020 to fall 2021 (Figure 33). In comparison, the percentage of students without an IEP who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 36 percentage points from fall 2020 to fall 2021.

Figure 33. Percentage of students in grades 9-12 in each fall 20201 and fall 2021 within-year math assessments performance group by special education status



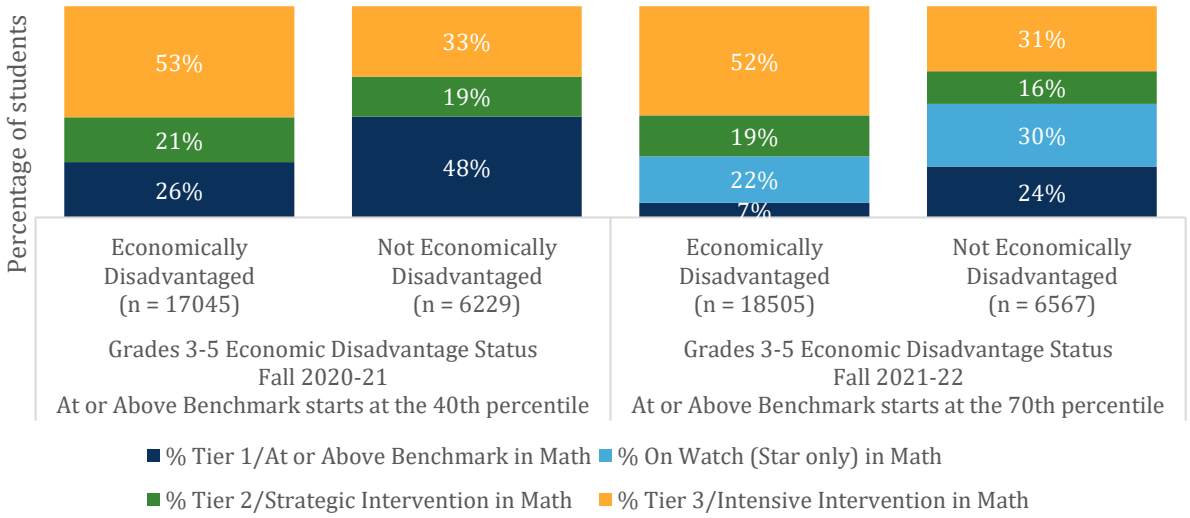
Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B4 for numbers of students in each performance group by student group. See Appendix C, Table C4 for average percentile rank by student group. The *Has IEP* category indicates the student has an IEP and receives special education services.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments saw smaller declines from fall 2020 to fall 2021 than non-economically disadvantaged students.

Overall, there was a smaller decline in the percentage of students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021 for economically disadvantaged students compared to non-economically disadvantaged students.

The percentage of grade 3-5 economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 19 points from fall 2020 to fall 2021 (Figure 34). In comparison, the percentage of non-economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 24 points from fall 2020 to fall 2021.

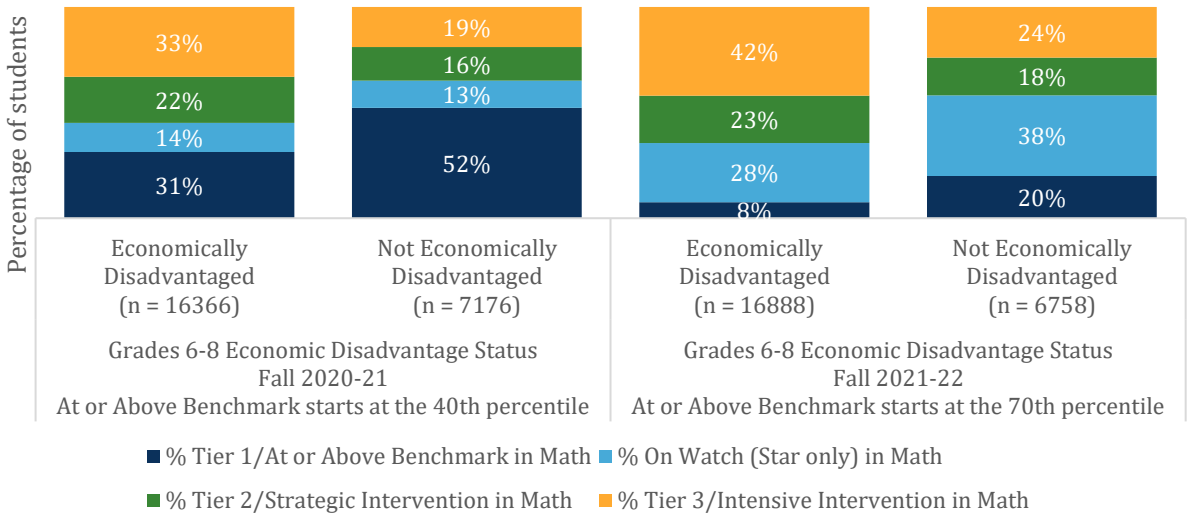
Figure 34. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by economically disadvantaged status



Note: See Appendix B, Table B5 for numbers of students in each performance group by student group. See Appendix C, Table C5 for average percentile rank by student group. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 6-8 economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 23 points from fall 2020 to fall 2021 (Figure 35). In comparison, the percentage of non-economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 32 points from fall 2020 to fall 2021.

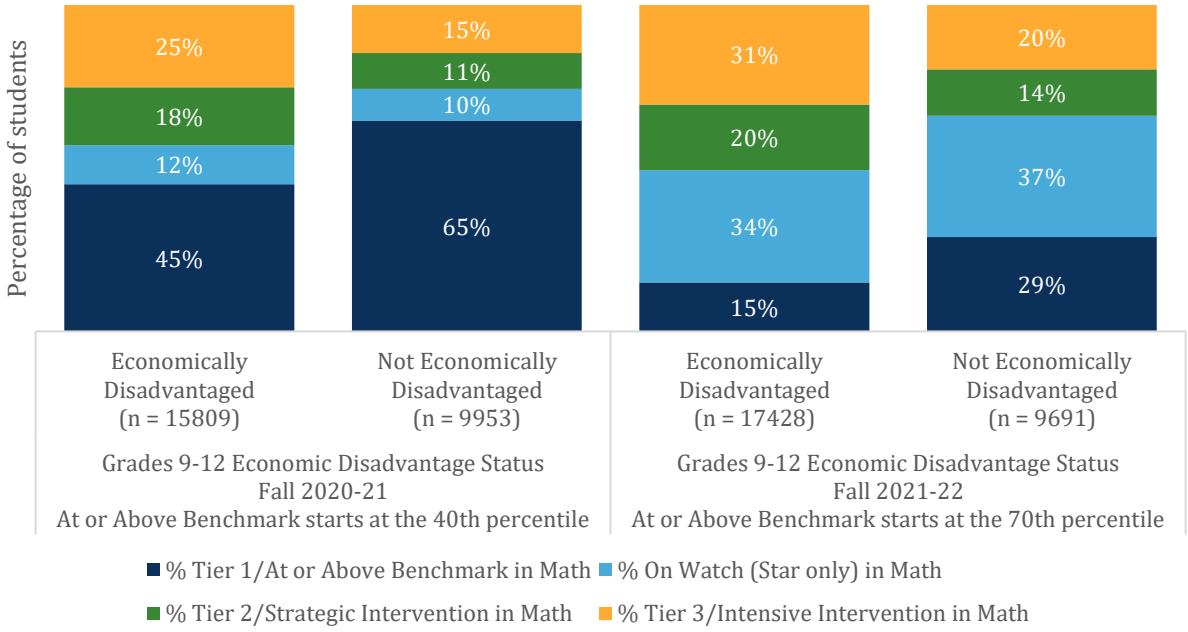
Figure 35. Percentage of students in grades 6-8 in each fall 2020 and fall 2021 within-year math assessments performance group by economically disadvantaged status



Note: See Appendix B, Table B5 for numbers of students in each performance group by student group. See Appendix C, Table C5 for average percentile rank by student group.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 9-12 economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 30 points from fall 2020 to fall 2021 (Figure 36). In comparison, the percentage of non-economically disadvantaged students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 36 points from fall 2020 to fall 2021.

Figure 36. Percentage of students in grades 9-12 in each fall 2020 and fall 2021 within-year math assessments performance group by economically disadvantaged status



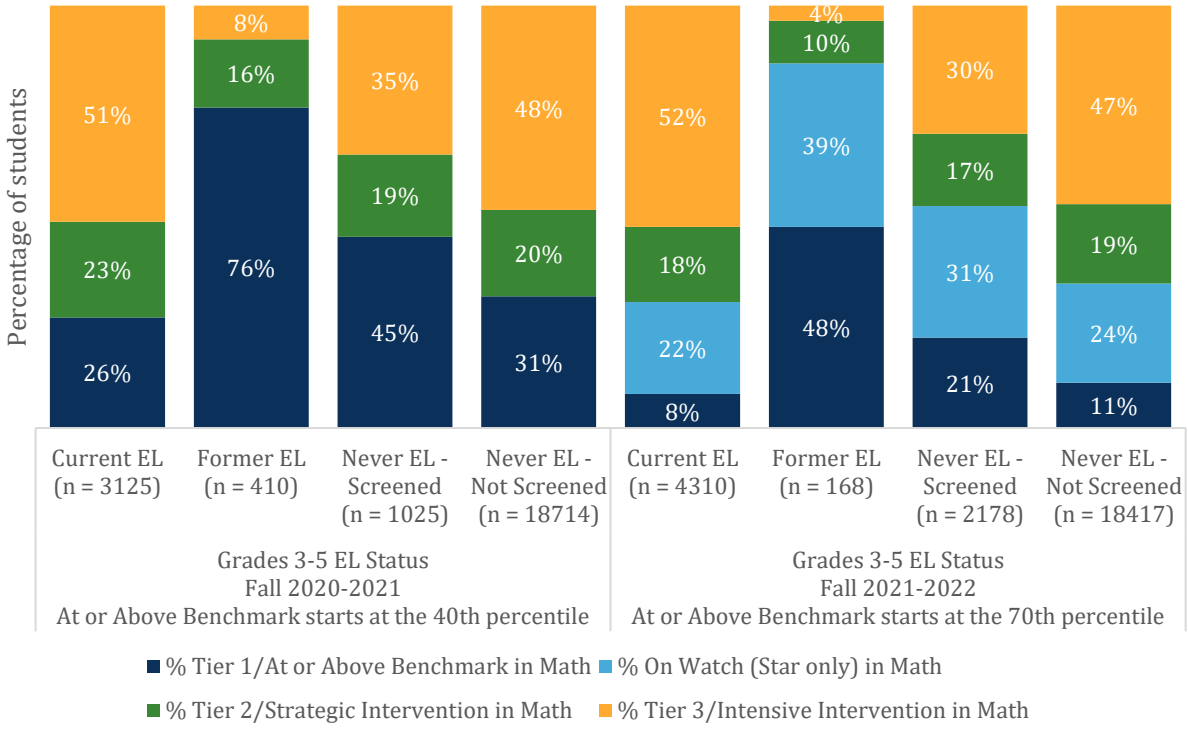
Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B5 for numbers of students in each performance group by student group. See Appendix C, Table C5 for average percentile rank by student group.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of ELs who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments saw smaller declines from fall 2020 to fall 2021 than Former ELs or non-ELs.

Overall, Current ELs and Never ELs (not screened) saw similar declines in the percentage of students who scored at Tier 1/At or Above Benchmark from fall 2020 to fall 2021, in comparison to Former ELs who saw larger declines than any other group.

The percentage of grade 3-5 Current ELs who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 18 points from fall 2020 to fall 2021 (Figure 37). In comparison, the percentage of Former ELs who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 28 points from fall 2020 to fall 2021.

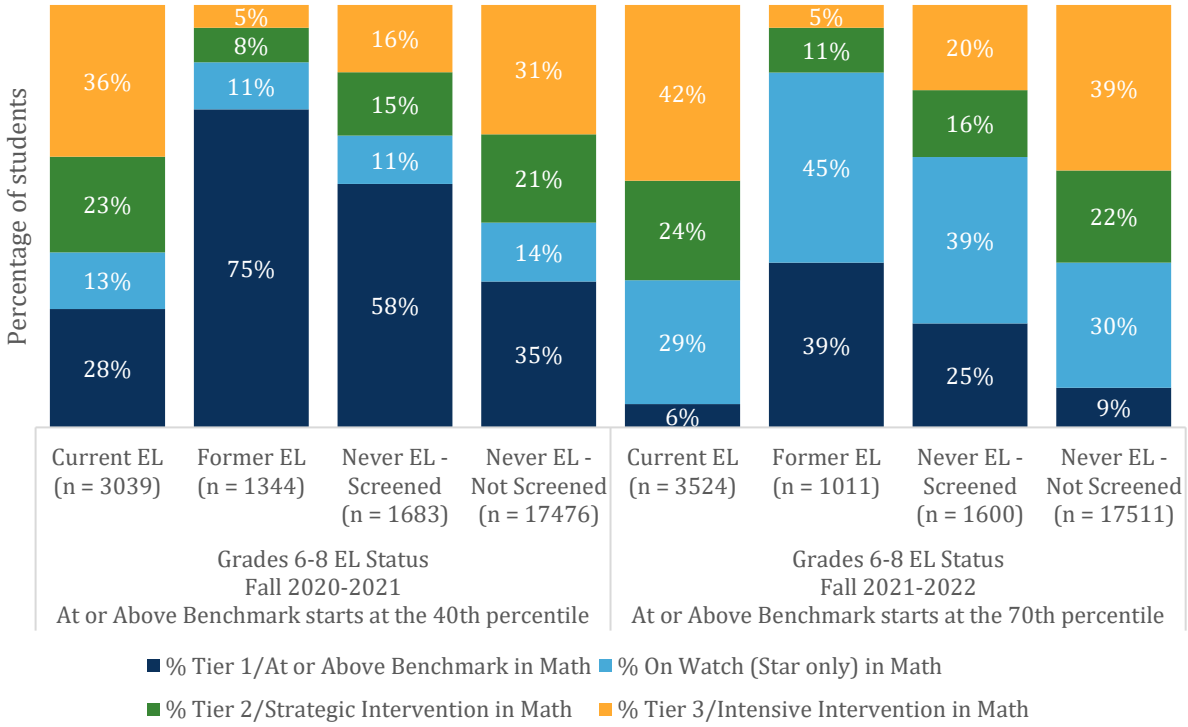
Figure 37. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by English Learner (EL) status



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B6 for numbers of students in each performance group by student group. See Appendix C, Table C6 for average percentile rank by student group. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 6-8 Current English Learners (ELs) who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 22 points from fall 2020 to fall 2021 (Figure 38). In comparison, the percentage of Former ELs who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 36 points from fall 2020 to fall 2021.

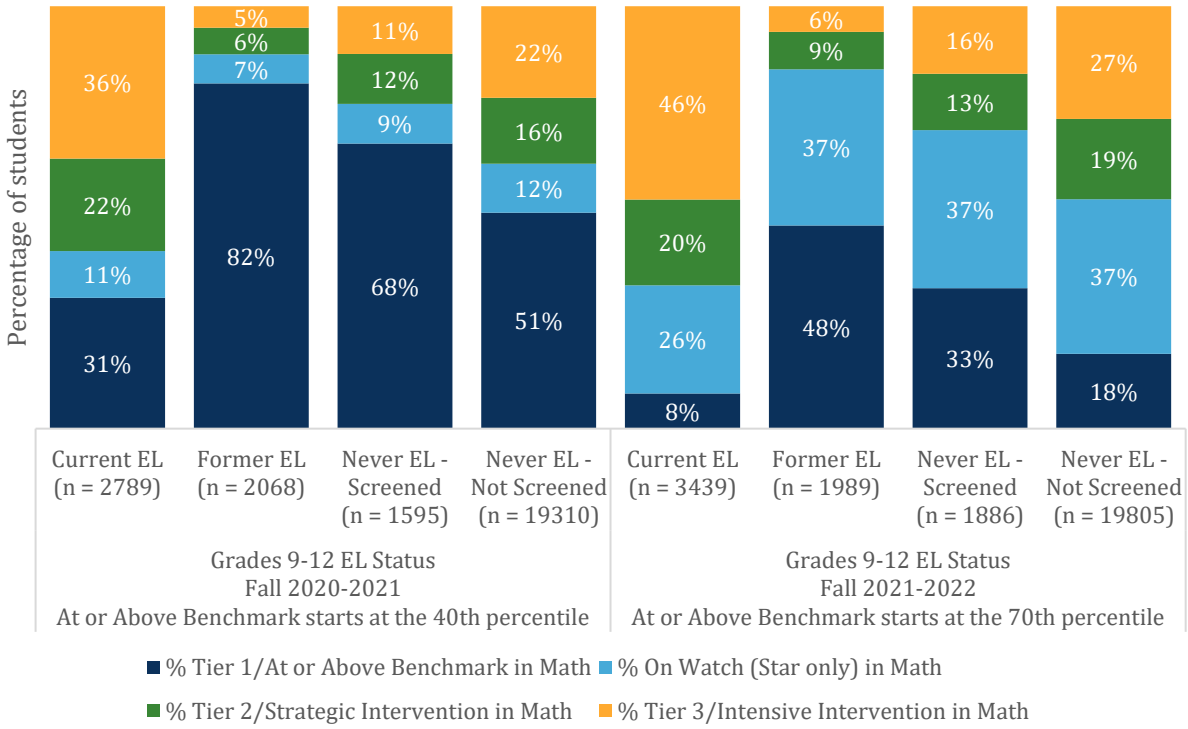
Figure 38. Percentage of students in grades 6-8 in each fall 2020 and fall 2021 within-year math assessments performance group by English Learner (EL) status



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B6 for numbers of students in each performance group by student group. See Appendix C, Table C6 for average percentile rank by student group. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 9-12 Current ELs who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 23 points from fall 2020 to fall 2021 (Figure 39). In comparison, the percentage of Former ELs who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 34 percentage points from fall 2020 to fall 2021.

Figure 39. Percentage of students in grades 9-12 in each fall 2020 and fall 2021 within-year math assessments performance group by English Learner (EL) status



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B6 for numbers of students in each performance group by student group. See Appendix C, Table C6 for average percentile rank by student group. *Never EL - Screened* indicates that a student spoke another language in addition to English when they were registered in the District, and after an initial screening, the student was determined to have high enough proficiency in English that they were not an English Learner.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

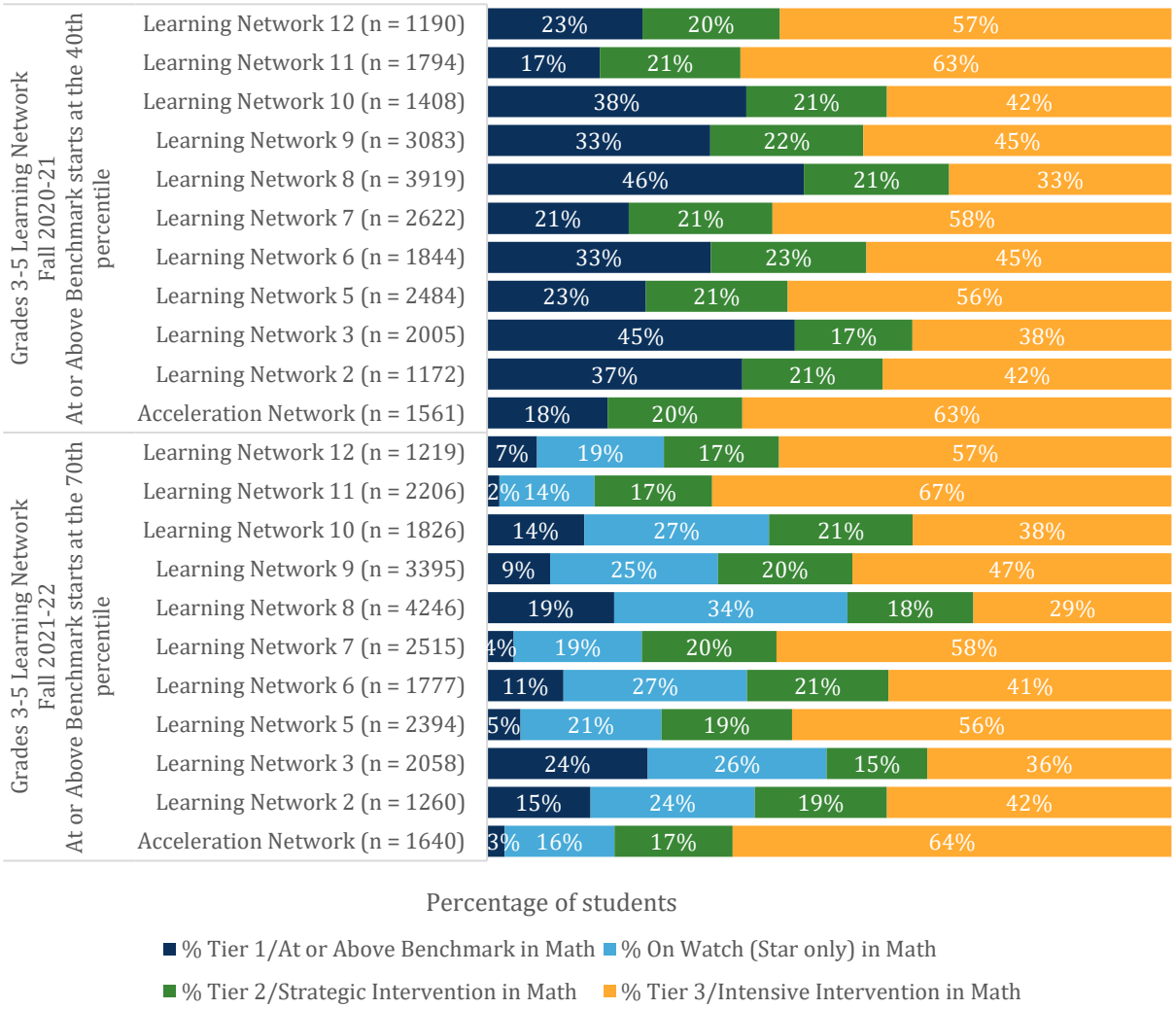
The percentage of students enrolled in Learning Network 8 who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments saw larger declines from fall 2020 to fall 2021 than students enrolled in other Learning Networks.

Overall, students who were enrolled in Learning Network 8 saw the largest decline in the percentage of students who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments from fall 2020 to fall 2021, and students who were enrolled in the Acceleration Network and Learning Networks 11 and 12 saw the smallest decline from fall 2020 to fall 2021.

The percentage of grade 3-5 students who were enrolled in Learning Network 8 who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 28 points from fall 2020 to fall 2021 (Figure 40). In comparison, the percentage of students who were enrolled in the Acceleration Network and Learning Networks 11 and 12 who scored in the

Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 15 points from fall 2020 to fall 2021.

Figure 40. Percentage of students in grades 3-5 in each fall 2020 and fall 2021 within-year math assessments performance group by 2021-22 Learning Network

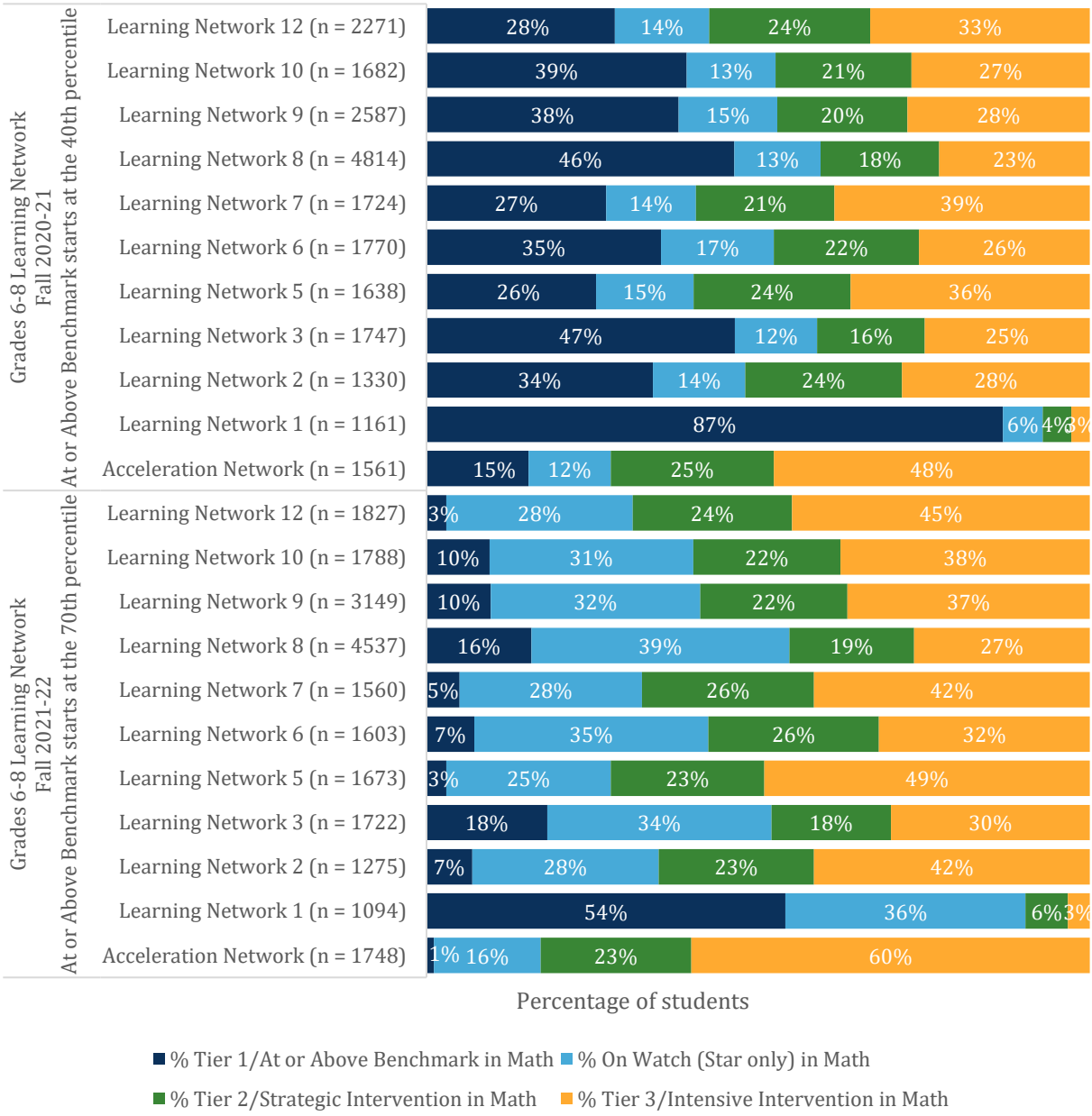


Note: See Appendix B, Table B7 for numbers of students in each performance group by student group. See Appendix C, Table C7 for average percentile rank by student group. Learning Networks are only included in the figure if more than 300 students are enrolled in the Learning Network in the grade levels of interest. Students in grades 3-5 took aimswebPlus in fall 2020-21, and Star in 2021-22. Although these tests cover similar content, they are not identical in terms of administration time or domains assessed, and similarities between the assessments should be interpreted with caution.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 6-8 students who were enrolled in Learning Networks 1 and 8 who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 30 to 33 points from fall 2020 to fall 2021 (Figure 41). In comparison, the percentage of students who were enrolled in the Acceleration Network and Learning Network 11 who scored

in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 14 to 16 points from fall 2020 to fall 2021.

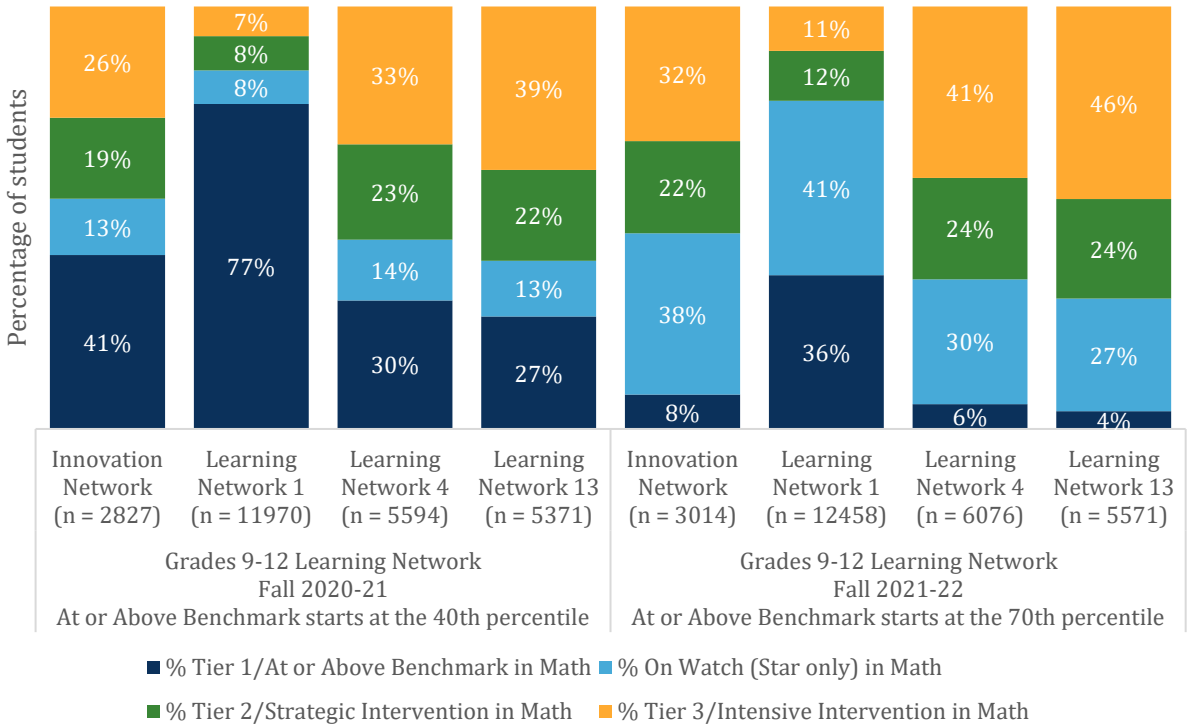
Figure 41. Percentage of students in grades 6-8 in each fall 2020 and fall 2021 within-year math assessments performance group by 2021-22 Learning Network



Note: See Appendix B, Table B7 for numbers of students in each performance group by student group. See Appendix C, Table C7 for average percentile rank by student group. Learning Networks are only included in the figure if more than 300 students are enrolled in the Learning Network in the grade levels of interest.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

The percentage of grade 9-12 students who were enrolled in Learning Network 1 who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 33 points from fall 2020 to fall 2021 (Figure 42). In comparison, the percentage of students who were enrolled in Learning Network 13 who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments decreased by 23 points from fall 2020 to fall 2021.

Figure 42. Percentage of students in grades 9-12 in each fall 2020 and fall 2021 within-year math assessments performance group by 2021-22 Learning Network



Note: In 2020-21, the At or Above Benchmark performance group was defined as performing at or above the 40th percentile. In 2021-22, the At or Above Benchmark was defined as performing at or above the 70th percentile. See Appendix B, Table B7 for numbers of students in each performance group by student group. See Appendix C, Table C7 for average percentile rank by student group. Learning Networks are only included in the figure if more than 300 students are enrolled in the Learning Network in the grade levels of interest.
Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Conclusions

Compared to fall 2020, the fall 2021 school year looked different for students in SDP. Primarily, students were engaged in in-person learning in fall 2021 as much as possible, as opposed to fall 2020 when instruction was entirely virtual. By necessity, assessments had to be administered differently to virtual students than to in-person students.

A second change from fall 2020 to fall 2021 was a district-wide renewed emphasis on math instruction and assessment. In fall 2020, the emphasis on math (in addition to English/Language

Arts, which has been an articulated priority for many years) was likely an adjustment for teachers. By fall 2021, students, teachers, and non-instructional staff were much more familiar with the emphasis on math instruction and evaluation.

A third difference that likely affected students in grades 3-5 was the transition to using Star as the within-year math assessment during the 2021-22 school year. For this report, this change is important because while the previous within-year assessment (aimswebPlus) results were used to place students in three levels or performance groups based on their performance, the new assessment (Star) results are used to place students in four levels or performance groups. The decreases seen in this report in students in the *At or Above Benchmark* performance group are in part due to this change.

A fourth difference between fall 2020 and fall 2021 is that although students in grades 6-12 took Star in both fall 2020 and fall 2021, the percentiles for the *At or Above Benchmark* cutoff changed from the 40th percentile in fall 2020 to the 70th percentile in fall 2021. This switch, by definition, made it more difficult for students to score in the *At or Above Benchmark* performance group on Star in fall 2021, and the decreases seen in this report in students in the *At or Above Benchmark* performance group are in part due to this change. For this reason, we observed declines in the percentages of grade 3-12 students scoring in the *At or Above Benchmark* performance group from fall 2020 to fall 2021 across all grade levels and student groups.

Despite the shifts between fall 2020 and fall 2021, the declines in the percentages of students scoring in the *At or Above Benchmark* performance group were not consistent between student groups. In particular, the percentage of students with an IEP, economically disadvantaged students, and English Learners (ELs) who scored in the Tier 1/At or Above Benchmark performance group on the within-year math assessments saw smaller declines from fall 2020 to fall 2021 than their without-IEP, non-economically disadvantaged, and non-EL counterparts. For these demographic groups in particular (students with IEPs, economically disadvantaged students, and ELs), one might have predicted to have much larger declines than their counterparts who may not face the same daily challenges in school. It may also be the case that we are observing a statistical "floor effect," which occurs when a large percentage of respondents score near the lower limit of the testing scale. When the starting score is near the lower limit, then it not possible for the decline to be as large as if the starting score had been at middle or higher end of the testing scale.[7] We will continue to explore the data and trends over time as more years of data are available.

[7] Similarly, a "ceiling effect" occurs when respondents score near the higher limit of the test scale, which makes it impossible for growth to be as high as if their starting score was closer to the middle or low end of the testing scale.

Appendix A

Table A1. Participation in the fall 2020 and fall 2021 within-year math assessments by grade level

Grade Spans	School Year	Grade Levels	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	3	9,482	7,979	84%
		4	9,160	7,718	84%
		5	9,064	7,577	84%
	2021-22	3	9,064	8,255	91%
		4	9,115	8,483	93%
		5	8,942	8,336	93%
Grades 6-8	2020-21	6	9,136	7,779	85%
		7	9,253	7,785	84%
		8	9,295	7,978	86%
	2021-22	6	8,480	7,755	92%
		7	8,499	7,823	92%
		8	8,732	8,068	92%
Grades 9-12	2020-21	9	9,814	7,886	80%
		10	9,557	7,199	75%
		11	8,223	6,159	75%
		12	7,978	4,518	57%
	2021-22	9	10,581	8,697	82%
		10	9,151	7,237	79%
		11	8,386	6,392	76%
		12	7,874	4,799	61%

Source: Qlik Academic Screeners App – Participation Details, Data Accessed December 21, 2021

Table A2. Participation in the fall 2020 and fall 2021 within-year math assessments by student race/ethnicity

Grade Spans	School Year	Race/Ethnicity	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	Asian	2,266	2,059	91%
		Black/African American	13,743	11,163	81%
		Hispanic/ Latinx	6,202	5,166	83%
		Multi-Racial/ Other	1,366	1,172	86%
		White	4,129	3,714	90%
	2021-22	Asian	2,544	2,431	96%
		Black/African American	12,449	11,305	91%
		Hispanic/ Latinx	7,031	6,511	93%
		Multi-Racial/ Other	965	892	93%
		White	4,127	3,933	95%
Grades 6-8	2020-21	Asian	2,574	2,430	94%
		Black/African American	13,212	10,887	82%
		Hispanic/ Latinx	6,098	5,123	84%
		Multi-Racial/ Other	1,690	1,402	83%
		White	4,110	3,700	90%
	2021-22	Asian	2,448	2,355	96%
		Black/African American	12,062	10,945	91%
		Hispanic/ Latinx	5,869	5,381	92%
		Multi-Racial/ Other	1,535	1,362	88%
		White	3,797	3,603	95%
Grades 9-12	2020-21	Asian	3,883	3,323	86%
		Black/African American	18,030	12,694	70%
		Hispanic/ Latinx	7,530	4,945	66%
		Multi-Racial/ Other	1,555	1,122	72%
		White	4,574	3,678	80%
	2021-22	Asian	3,859	3,386	88%
		Black/African American	18,133	13,348	74%
		Hispanic/ Latinx	7,704	5,495	71%
		Multi-Racial/ Other	1,748	1,286	73%
		White	4,505	3,604	80%

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table A3. Participation in the fall 2020 and fall 2021 within-year math assessments by gender

Grade Spans	School Year	Gender	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	Female	13,282	11,391	86%
		Male	14,418	11,877	82%
		Non-Binary	6	6	100%
	2021-22	Female	13,011	12,185	94%
		Male	14,098	12,880	91%
		Non-Binary	7	7	100%
Grades 6-8	2020-21	Female	13,183	11,514	87%
		Male	14,487	12,016	83%
		Non-Binary	14	12	86%
	2021-22	Female	12,195	11,364	93%
		Male	13,507	12,274	91%
		Non-Binary	9	8	89%
Grades 9-12	2020-21	Female	17,652	13,492	76%
		Male	17,885	12,239	68%
		Non-Binary	35	31	89%
	2021-22	Female	17,922	14,051	78%
		Male	17,979	13,028	72%
		Non-Binary	48	40	83%

Note: Beginning December 12, 2021, students could self-identify as non-binary in the District Student Information Systems (SIS); the sample size of non-binary students reflected in this analysis is low and may be lower than the population of students who are non-binary in the District because updating gender in the SIS is voluntary.

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table A4. Participation in the fall 2020 and fall 2021 within-year math assessments by special education status

Grade Spans	School Year	Special Education Status	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	Has IEP	5,350	3,819	71%
		Does Not Have IEP	22,356	19,455	87%
	2021-22	Has IEP	4,735	3,797	80%
		Does Not Have IEP	22,381	21,275	95%
Grades 6-8	2020-21	Has IEP	5,541	3,837	69%
		Does Not Have IEP	22,143	19,705	89%
	2021-22	Has IEP	5,032	4,051	81%
		Does Not Have IEP	20,679	19,595	95%
Grades 9-12	2020-21	Has IEP	5,722	3,315	58%
		Does Not Have IEP	29,850	22,447	75%
	2021-22	Has IEP	6,409	3,980	62%
		Does Not Have IEP	29,540	23,139	78%

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table A5. Participation in the fall 2020 and fall 2021 within-year math assessments by economically disadvantaged status

Grade Spans	School Year	Economic Disadvantage Status	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	Economically Disadvantaged	20,607	17,045	83%
		Not Economically Disadvantaged	7,099	6,229	88%
	2021-22	Economically Disadvantaged	19,925	18,505	93%
		Not Economically Disadvantaged	7,191	6,567	91%
Grades 6-8	2020-21	Economically Disadvantaged	19,516	16,366	84%
		Not Economically Disadvantaged	8,168	7,176	88%
	2021-22	Economically Disadvantaged	18,324	16,888	92%
		Not Economically Disadvantaged	7,387	6,758	91%
Grades 9-12	2020-21	Economically Disadvantaged	22,190	15,809	71%
		Not Economically Disadvantaged	13,382	9,953	74%
	2021-22	Economically Disadvantaged	23,389	17,428	75%
		Not Economically Disadvantaged	12,561	9,691	77%

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table A6. Participation in the fall 2020 and fall 2021 within-year math assessments by English Learner (EL) status

Grade Spans	School Year	English Learner (EL) Status	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	Current EL	3,696	3,125	85%
		Former EL	439	410	93%
		Never EL - Screened	1,152	1,025	89%
		Never EL - Not Screened	22,419	18,714	84%
	2021-22	Current EL	4,596	4,310	94%
		Former EL	176	168	95%
		Never EL - Screened	2,290	2,178	95%
		Never EL - Not Screened	20,055	18,417	92%
Grades 6-8	2020-21	Current EL	3,588	3,039	85%
		Former EL	1,427	1,344	94%
		Never EL - Screened	1,835	1,683	92%
		Never EL - Not Screened	20,834	17,476	84%
	2021-22	Current EL	3,824	3,524	92%
		Former EL	1,031	1,011	98%
		Never EL - Screened	1,658	1,600	97%
		Never EL - Not Screened	19,198	17,511	91%
Grades 9-12	2020-21	Current EL	4,339	2,789	64%
		Former EL	2,497	2,068	83%
		Never EL - Screened	2,041	1,595	78%
		Never EL - Not Screened	26,695	19,310	72%
	2021-22	Current EL	4,662	3,439	74%
		Former EL	2,318	1,989	86%
		Never EL - Screened	2,324	1,886	81%
		Never EL - Not Screened	26,645	19,805	74%

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table A7. Participation in the fall 2020 and fall 2021 within-year math assessments by 2021-22 Learning Network

Grade Spans	School Year	2021-22 Learning Network	Number of students eligible	Number of students participated	Percentage of students participated
Grades 3-5	2020-21	Acceleration	2,009	1,561	78%
		Network 1	243	187	77%
		Network 2	1,570	1,172	75%
		Network 3	2,191	2,005	92%
		Network 5	2,903	2,484	86%
		Network 6	2,075	1,844	89%
		Network 7	2,848	2,622	92%
		Network 8	4,160	3,919	94%
		Network 9	3,526	3,083	87%
		Network 10	1,917	1,408	73%
		Network 11	2,654	1,794	68%
		Network 12	1,468	1,190	81%
	2021-22	Acceleration	1,821	1,640	90%
		Network 1	241	219	91%
		Network 2	1,418	1,260	89%
		Network 3	2,145	2,058	96%
		Network 5	2,605	2,394	92%
		Network 6	1,895	1,777	94%
		Network 7	2,652	2,515	95%
		Network 8	4,446	4,246	96%
		Network 9	3,600	3,395	94%
		Network 10	2,008	1,826	91%
		Network 11	2,397	2,206	92%
		Network 12	1,334	1,219	91%

Grade Spans	School Year	2021-22 Learning Network	Number of students eligible	Number of students participated	Percentage of students participated
Grades 6-8	2020-21	Acceleration	2,161	1,561	72%
		Innovation	640	478	75%
		Network 1	1,304	1,161	89%
		Network 2	1,641	1,330	81%
		Network 3	1,915	1,747	91%
		Network 5	2,053	1,638	80%
		Network 6	1,921	1,770	92%
		Network 7	1,917	1,724	90%
		Network 8	5,277	4,814	91%
		Network 9	2,976	2,587	87%
		Network 10	2,034	1,682	83%
		Network 11	1,012	779	77%
		Network 12	2,833	2,271	80%
	2021-22	Acceleration	1,987	1,748	88%
		Innovation	992	822	83%
		Network 1	1,201	1,094	91%
		Network 2	1,411	1,275	90%
		Network 3	1,815	1,722	95%
		Network 5	1,837	1,673	91%
		Network 6	1,669	1,603	96%
		Network 7	1,714	1,560	91%
		Network 8	4,854	4,537	94%
		Network 9	3,239	3,149	97%
		Network 10	1,934	1,788	92%
		Network 11	938	848	91%
		Network 12	2,120	1,827	86%
Grades 9-12	2020-21	Innovation	4,468	2,827	63%
		Network 1	15,025	11,970	80%
		Network 4	8,648	5,594	65%
		Network 13	7,431	5,371	72%
	2021-22	Innovation	4,424	3,014	68%
		Network 1	14,762	12,458	84%
		Network 4	9,051	6,076	67%
		Network 13	7,713	5,571	72%

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Appendix B

Table B1. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by grade level

Grade Spans	School Year	Grade Level	# with math assessment scores	# scored Tier 1/At or Above Benchmark	# scored On Watch (Star only)	# scored Tier 2/ Strategic Intervention	# scored Tier 3/ Intensive Intervention
Grades 3-5	2020-21	3	7,979	2,746	n/a	1,648	3,585
		4	7,718	2,608	n/a	1,621	3,489
		5	7,577	2,077	n/a	1,530	3,970
	2021-22	3	8,254	1,106	2,075	1,326	3,741
		4	8,480	878	1,868	1,721	4,007
		5	8,338	878	2,064	1,563	3,819
Grades 6-8	2020-21	6	7,779	2,728	1,089	1,493	2,469
		7	7,785	3,027	1,015	1,578	2,165
		8	7,978	3,117	1,090	1,633	2,138
	2021-22	6	7,756	693	2,141	1,577	3,340
		7	7,822	959	2,335	1,703	2,813
		8	8,068	968	2,824	1,733	2,541
Grades 9-12	2020-21	9	7,886	3,734	877	1,337	1,850
		10	7,199	3,828	763	1,204	1,313
		11	6,159	3,341	676	788	1,289
		12	4,518	2,497	502	548	937
	2021-22	9	8,699	1,206	2,868	1,828	2,688
		10	7,233	1,733	2,538	1,425	1,468
		11	6,389	1,394	2,309	922	1,706
		12	4,798	1,020	1,794	664	1,307

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Table B2. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by student race/ethnicity

Grade Spans	School Year	Race/Ethnicity	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 3-5	2020-21	Asian	2,059	1240	n/a	391	428
		Black/African American	11,163	2449	n/a	2422	6,292
		Hispanic/Latinx	5,166	1196	n/a	1104	2,866
		Multi-Racial/ Other	1,172	448	n/a	235	489
		White	3,714	2098	n/a	647	969
	2021-22	Asian	2,431	775	884	354	418
		Black/African American	11,305	544	2168	2226	6,367
		Hispanic/Latinx	6,511	316	1370	1238	3,561
		Multi-Racial/ Other	891	160	276	177	278
		White	3,933	1067	1309	615	942
Grades 6-8	2020-21	Asian	2,430	1772	226	221	211
		Black/African American	10,887	2849	1566	2583	3,889
		Hispanic/Latinx	5,123	1558	757	1107	1,701
		Multi-Racial/ Other	1,402	578	184	266	374
		White	3,700	2115	461	527	597
	2021-22	Asian	2,355	869	993	273	220
		Black/African American	10,945	442	2818	2609	5,076
		Hispanic/Latinx	5,381	328	1547	1252	2,235
		Multi-Racial/ Other	1,362	177	455	285	445
		White	3,603	804	1487	594	718
Grades 9-12	2020-21	Asian	3,323	2751	157	223	192
		Black/African American	12,694	5435	1645	2275	3,322
		Hispanic/Latinx	4,945	1971	620	866	1,234
		Multi-Racial/ Other	1,122	638	91	144	248
		White	3,678	2605	305	369	393
	2021-22	Asian	3,386	1863	1041	235	246
		Black/African American	13,348	1357	4893	2839	4,258
		Hispanic/Latinx	5,495	583	1765	1084	1,823
		Multi-Racial/ Other	1,286	293	428	232	333
		White	3,604	1257	1382	449	509

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Table B3. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by gender

Grade Spans	School Year	Gender	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 3-5	2020-21	Female	11,391	3,237	n/a	2,485	5,669
		Male	11,877	4,189	n/a	2,314	5,374
		Non-Binary	6	5	n/a	0	1
	2021-22	Female	12,185	1,175	2,962	2,326	5,706
		Male	12,880	1,683	3,042	2,284	5,861
		Non-Binary	7	4	3	0	0
Grades 6-8	2020-21	Female	11,514	4,489	1,623	2,358	3,044
		Male	12,016	4,375	1,569	2,345	3,727
		Non-Binary	12	8	2	1	1
	2021-22	Female	11,364	1,215	3,552	2,518	4,070
		Male	12,274	1,402	3,744	2,495	4,623
		Non-Binary	8	3	4	0	1
Grades 9-12	2020-21	Female	13,492	7,480	1,497	1,949	2,431
		Male	12,239	5,900	1,317	1,925	2,954
		Non-Binary	31	20	4	3	4
	2021-22	Female	14,051	2,887	5,221	2,472	3,378
		Male	13,028	2,452	4,272	2,362	3,786
		Non-Binary	40	14	16	5	5

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Table B4. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by special education status

Grade Spans	School Year	Special Education Status	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 3-5	2020-21	Has IEP	3,819	552	n/a	555	2,712
		Does Not Have IEP	19,455	6,879	n/a	4,244	8,332
	2021-22	Has IEP	3,797	101	341	447	2,906
		Does Not Have IEP	21,275	2,761	5,666	4,163	8,661
Grades 6-8	2020-21	Has IEP	3,837	316	277	736	2,508
		Does Not Have IEP	19,705	8,556	2,917	3,968	4,264
	2021-22	Has IEP	4,051	72	360	622	2,993
		Does Not Have IEP	19,595	2,548	6,940	4,391	5,701
Grades 9-12	2020-21	Has IEP	3,315	394	239	639	2,010
		Does Not Have IEP	22,447	13,006	2,579	3,238	3,379
	2021-22	Has IEP	3,980	88	512	729	2,646
		Does Not Have IEP	23,139	5,265	8,997	4,110	4,523

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Table B5. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by economically disadvantaged status

Grade Spans	School Year	Economic Disadvantage Status	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 3-5	2020-21	Economically Disadvantaged	17,045	4,457	n/a	3,618	8,970
		Not Economically Disadvantaged	6,229	2,974	n/a	1,181	2,074
	2021-22	Economically Disadvantaged	18,505	1,282	4,060	3,595	9,547
		Not Economically Disadvantaged	6,567	1,580	1,947	1,015	2,020
Grades 6-8	2020-21	Economically Disadvantaged	16,366	5,118	2,278	3,557	5,413
		Not Economically Disadvantaged	7,176	3,754	916	1,147	1,359
	2021-22	Economically Disadvantaged	16,888	1,268	4,731	3,803	7,075
		Not Economically Disadvantaged	6,758	1,352	2,569	1,210	1,619
Grades 9-12	2020-21	Economically Disadvantaged	15,809	7,065	1,865	2,795	3,947
		Not Economically Disadvantaged	9,953	6,335	953	1,082	1,442
	2021-22	Economically Disadvantaged	17,428	2,605	5,978	3,490	5,298
		Not Economically Disadvantaged	9,691	2,748	3,531	1,349	1,871

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Table B6. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by English Learner (EL) status

Grade Spans	School Year	English Learner (EL) Status	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 3-5	2020-21	Current EL	3,125	818	n/a	707	1,600
		Former EL	410	311	n/a	66	33
		Never EL - Screened	1,025	464	n/a	199	362
		Never EL - Not Screened	18,714	5838	n/a	3827	9,049
	2021-22	Current EL	4,310	346	928	764	2,246
		Former EL	168	80	65	17	6
		Never EL - Screened	2,178	467	678	373	660
		Never EL - Not Screened	18,417	1969	4336	3456	8,656
Grades 6-8	2020-21	Current EL	3,039	852	408	687	1,092
		Former EL	1,344	1013	149	110	72
		Never EL - Screened	1,683	970	192	253	268
		Never EL - Not Screened	17,476	6037	2445	3654	5,340
	2021-22	Current EL	3,524	193	1026	827	1,459
		Former EL	1,011	394	455	107	55
		Never EL - Screened	1,600	394	630	253	323
		Never EL - Not Screened	17,511	1639	5189	3826	6,857
Grades 9-12	2020-21	Current EL	2,789	789	282	559	919
		Former EL	2,068	1687	142	129	106
		Never EL - Screened	1,595	1073	149	188	180
		Never EL - Not Screened	19,310	9851	2245	3001	4,184
	2021-22	Current EL	3,439	266	817	649	1,458
		Former EL	1,989	956	736	175	122
		Never EL - Screened	1,886	627	706	251	302
		Never EL - Not Screened	19,805	3504	7250	3764	5,287

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Table B7. Number of students in fall 2020 and fall 2021 within-year math assessments performance group by 2021-22 Learning Network

Grade Spans	School Year	2021-22 Learning Network	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 3-5	2020-21	Acceleration	1,561	275	n/a	307	979
		Network 1	187	174	n/a	10	3
		Network 2	1,172	437	n/a	240	495
		Network 3	2,005	902	n/a	344	759
		Network 5	2,484	576	n/a	514	1394
		Network 6	1,844	603	n/a	418	823
		Network 7	2,622	543	n/a	550	1529
		Network 8	3,919	1815	n/a	832	1272
		Network 9	3,083	1006	n/a	689	1388
		Network 10	1,408	534	n/a	288	586
		Network 11	1,794	296	n/a	367	1131
		Network 12	1,190	270	n/a	239	681
	2021-22	Acceleration	1,640	42	263	283	1052
		Network 1	219	141	60	7	11
		Network 2	1,260	190	303	243	524
		Network 3	2,058	483	538	302	735
		Network 5	2,394	117	493	456	1328
		Network 6	1,777	199	476	367	735
		Network 7	2,515	97	471	496	1451
		Network 8	4,246	790	1446	780	1230
		Network 9	3,395	313	833	666	1583
		Network 10	1,826	259	491	382	694
		Network 11	2,206	39	304	376	1487
		Network 12	1,219	89	226	205	699

Grade Spans	School Year	2021-22 Learning Network	# with math scores	# scored Tier 1/At or Above Bench.	# scored On Watch (Star only)	# scored Tier 2/ Strategic	# scored Tier 3/ Intensive
Grades 6-8	2020-21	Acceleration	1,561	240	193	384	744
		Innovation	478	193	92	73	120
		Network 1	1,161	1008	70	50	33
		Network 2	1,330	454	185	314	377
		Network 3	1,747	813	216	283	435
		Network 5	1,638	419	240	388	591
		Network 6	1,770	626	301	387	456
		Network 7	1,724	467	233	361	663
		Network 8	4,814	2232	627	864	1091
		Network 9	2,587	984	385	507	711
		Network 10	1,682	659	226	344	453
		Network 11	779	131	104	197	347
		Network 12	2,271	646	322	552	751
	2021-22	Acceleration	1,748	19	282	397	1050
		Innovation	822	109	320	172	221
		Network 1	1,094	592	396	70	36
		Network 2	1,275	88	358	298	531
		Network 3	1,722	314	582	310	516
		Network 5	1,673	50	414	387	822
		Network 6	1,603	116	566	412	509
		Network 7	1,560	78	429	404	649
		Network 8	4,537	718	1766	852	1201
		Network 9	3,149	304	995	698	1152
		Network 10	1,788	169	543	393	683
		Network 11	848	9	135	182	522
		Network 12	1,827	54	514	438	821
Grades 9-12	2020-21	Innovation	2,827	1160	374	542	751
		Network 1	11,970	9181	958	968	863
		Network 4	5,594	1667	793	1241	1893
		Network 13	5,371	1392	693	1126	2160
	2021-22	Innovation	3,014	244	1151	657	962
		Network 1	12,458	4527	5137	1471	1323
		Network 4	6,076	353	1764	1432	2527
		Network 13	5,571	229	1457	1279	2606

Note: Cells with n/a indicate that no students were eligible to score in the *On Watch* performance group in the grade band in 2020-21.

Source: Qlik Academic Screeners App – Details, Data Accessed February 8, 2022

Appendix C

Table C1. Average percentile rank in fall 2020 and fall 2021 by grade level

Grade Spans	Grade Level	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	3	33.9	27.4
	4	36.6	26.2
	5	34.9	27.0
Grades 6-8	6	37.2	30.0
	7	41.6	34.0
	8	41.5	36.5
Grades 9-12	9	45.1	34.7
	10	50.1	44.9
	11	51.5	43.4
	12	52.4	45.2

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table C2. Average percentile rank in fall 2020 and fall 2021 by student race/ethnicity

Grade Spans	Race/Ethnicity	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	Asian	51.8	46.3
	Black/African American	28.1	20.9
	Hispanic/Latinx	23.7	15.4
	Multi-Racial/Other	38.7	33.7
	White	42.6	32.2
Grades 6-8	Asian	58.4	54.5
	Black/African American	28.8	38.2
	Hispanic/Latinx	28.0	37.7
	Multi-Racial/Other	40.5	44.9
	White	47.5	48.7
Grades 9-12	Asian	67.8	59.8
	Black/African American	34.1	41.4
	Hispanic/Latinx	32.8	40.6
	Multi-Racial/Other	44.7	47.2
	White	55.0	52.6

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table C3. Average percentile rank in fall 2020 and fall 2021 by gender

Grade Spans	Gender	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	Female	38.0	28.2
	Male	32.1	25.4
	Non-Binary	n/a	n/a
Grades 6-8	Female	39.4	44.3
	Male	41.1	45.3
	Non-Binary	82.0	69.3
Grades 9-12	Female	47.5	48.7
	Male	51.1	50.6
	Non-Binary	53.0	51.6

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table C4. Average percentile rank in fall 2020 and fall 2021 by special education status

Grade Spans	Special Education Status	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	Has IEP	19.6	11.1
	Does Not Have IEP	36.7	28.3
Grades 6-8	Has IEP	14.1	11.1
	Does Not Have IEP	42.8	35.7
Grades 9-12	Has IEP	16.9	13.1
	Does Not Have IEP	51.5	43.5

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table C5. Average percentile rank in fall 2020 and fall 2021 by economically disadvantaged status

Grade Spans	Economic Disadvantage Status	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	Economically Disadvantaged	33.7	26.0
	Not Economically Disadvantaged	38.6	28.7
Grades 6-8	Economically Disadvantaged	38.2	32.6
	Not Economically Disadvantaged	44.8	35.9
Grades 9-12	Economically Disadvantaged	47.0	40.7
	Not Economically Disadvantaged	53.9	42.7

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table C6. Average percentile rank in fall 2020 and fall 2021 by English Learner (EL) status

Grade Spans	English Learner (EL) Status	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	Current EL	27.7	20.8
	Former EL	65.9	62.5
	Never EL - Screened	43.1	36.3
	Never EL - Not Screened	32.6	23.9
Grades 6-8	Current EL	26.0	22.3
	Former EL	61.2	57.5
	Never EL - Screened	48.2	42.0
	Never EL - Not Screened	31.8	25.6
Grades 9-12	Current EL	28.3	22.9
	Former EL	67.1	61.4
	Never EL - Screened	56.4	49.2
	Never EL - Not Screened	42.6	35.8

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022

Table C7. Average percentile rank in fall 2020 and fall 2021 by 2021-22 Learning Network

Grade Spans	2021-22 Learning Network	Average Percentile Rank	
		2020-21	2021-22
Grades 3-5	Acceleration	23.0	13.1
	Network 1	83.6	72.1
	Network 2	37.3	28.2
	Network 3	42.4	35.6
	Network 5	26.6	17.6
	Network 6	33.5	25.8
	Network 7	25.1	16.0
	Network 8	42.8	35.3
	Network 9	33.5	23.1
	Network 10	37.5	29.0
	Network 11	22.5	11.7
	Network 12	26.9	18.4
Grades 6-8	Acceleration	18.0	12.7
	Innovation	35.3	33.2
	Network 1	72.3	65.2
	Network 2	31.3	23.1
	Network 3	40.3	35.0
	Network 5	25.5	18.1
	Network 6	32.0	26.3
	Network 7	25.5	21.5
	Network 8	39.7	34.6
	Network 9	34.3	26.8
	Network 10	35.1	26.4
	Network 11	19.6	12.6
	Network 12	26.9	19.7
Grades 9-12	Innovation	35.0	28.5
	Network 1	61.8	53.4
	Network 4	28.4	23.0
	Network 13	24.9	20.3

Source: Qlik Academic Screeners App – Participation Details, Data Accessed February 8, 2022