



THE SCHOOL DISTRICT OF
PHILADELPHIA

Analysis of Non-Participants in Spring 2020-21 Assessment Window for aimswebPlus and Star

Key Findings

- 20% of eligible students did not participate in either aimswebPlus test and 30% of eligible students did not participate in either Star test in the spring 2020-21 window.
- Forty-one percent of the students who did not take the reading tests and 45% of the students who did not take the math tests in spring 2020-21 were also not tested in fall 2020-21.
- The number of students who were not tested in spring 2020-21 varied by assessment, which were administered by K-5 and 6-12 grade bands. It ranged from 715 Kindergarten students who were not tested for aimswebPlus Reading to 5,617 twelfth-grade students who were not tested for Star Math.
- Students who were not tested in spring 2020-21 were more likely to be in higher grade levels. For example, only 8% of spring non-tested students for Star Math were in grade 6 but 21% were in grade 12.
- While there were some disproportionalities, students who were not tested in spring 2020-21 were from all student demographic groups.

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Why Study Non-Participation in the Spring 2020-21 Assessment Window?

The School District of Philadelphia implemented a universal K-12 interim assessments program beginning in the 2020-21 school year. All schools across the District administered aimswebPlus for grades K-5 and Star for grades 6-12; reading and math tests were administered for both assessments.¹ AimswebPlus Reading and Math tests were administered in three testing windows and Star Reading and Star Math tests were given in four testing windows. Table 1 shows the date ranges for the testing windows of both assessments. Due to Covid-19 mitigation efforts in Philadelphia, most of the interim tests were administered virtually during the 2020-21 school year.²

Table 1. 2020-21 Testing Windows and participation rates for reading and math assessments

	Testing Window	Number of Eligible Students	Reading Assessment Participation Rate	Math Assessment Participation Rate
aimswebPlus				
<i>Fall</i>	9/7/2020 - 10/23/2020	59,256	82.1%	79.7%
<i>Winter</i>	12/1/2020 - 1/29/2021	59,409	82.8%	81.8%
<i>Spring</i>	4/14/2021 - 6/11/2021	59,434	77.6%	76.3%
Star				
<i>Fall</i>	9/14/2020 - 10/23/2020	66,509	78.4%	75.4%
<i>Winter 1</i>	12/14/2020 - 1/29/2020	66,438	74.4%	71.9%
<i>Winter 2</i>	3/8/2021 - 3/19/2021	66,356	69.1%	66.1%
<i>Spring</i>	5/3/2021 - 6/11/2021	66,225	61.8%	59.3%

Source: Qlik aimsweb/Star (renamed to Academic Screeners) application, v.2.3.0, “Participation Details” sheet, accessed September 27, 2021.

¹ In the report, special education students are included only in the grade range the assessment is required for all students. Spanish language tests are included only for Math and not Reading. Star Spanish results are not included for high school grades because Star Spanish is not yet nationally normed and a National Percentile Rank (NPR), cannot be assigned to these scores. Tier performance is assigned according to NPR.

² All students began the 2020-21 school year fully virtual and some students transitioned into a hybrid model in March 2021 through the end of the year. For more information about the Advancing Education Safely Plan in 2020-21 school year, including information about the phased return to hybrid education starting March 2021, see: <https://www.philasd.org/coronavirus/schoolstart2020-2/>. Students whose families chose the hybrid option attended school in-person 2 days a week, special education students could attend school in-person 4 days a week, all other instruction was virtual.

As data from each testing cycle became available, the Office of Research and Evaluation produced analyses focusing on student participation and performance, both overall for the District and for demographic groups.³ One finding from the end-of-year analyses that were completed after the final testing window in spring 2020-21 was that the percentage of eligible students who participated in the assessments was lower in the spring compared to the fall, especially for Star tests, that were required for grades 6-12. This report focuses on the students who were not tested in the spring window of 2020-21 school year to understand the details of the fall-to-spring attrition in test participants.

The overall goals of this analysis were: (1) to examine whether there are patterns of non-participation during the spring assessment window that can provide additional information when interpreting 2020-21 performance and (2) to discover whether there are ways to support increased participation in the 2021-22 testing windows.

The specific research questions that guided this report are as follows:

1. What were the overall patterns in student participation and performance outcomes from fall to spring testing windows of 2020-21 school year? How were these patterns for students who were tested in the fall but *not* tested in the spring of 2020-21?
2. Are there any discernable patterns among spring non-tested students in terms of grade level and demographic characteristics such as race/ethnicity, EL status, and economic disadvantage?

³ For aimswebPlus, see: <https://www.philasd.org/research/category/assessments/aimswebplus/>; for Star see: <https://www.philasd.org/research/category/assessments/star/>.

Findings

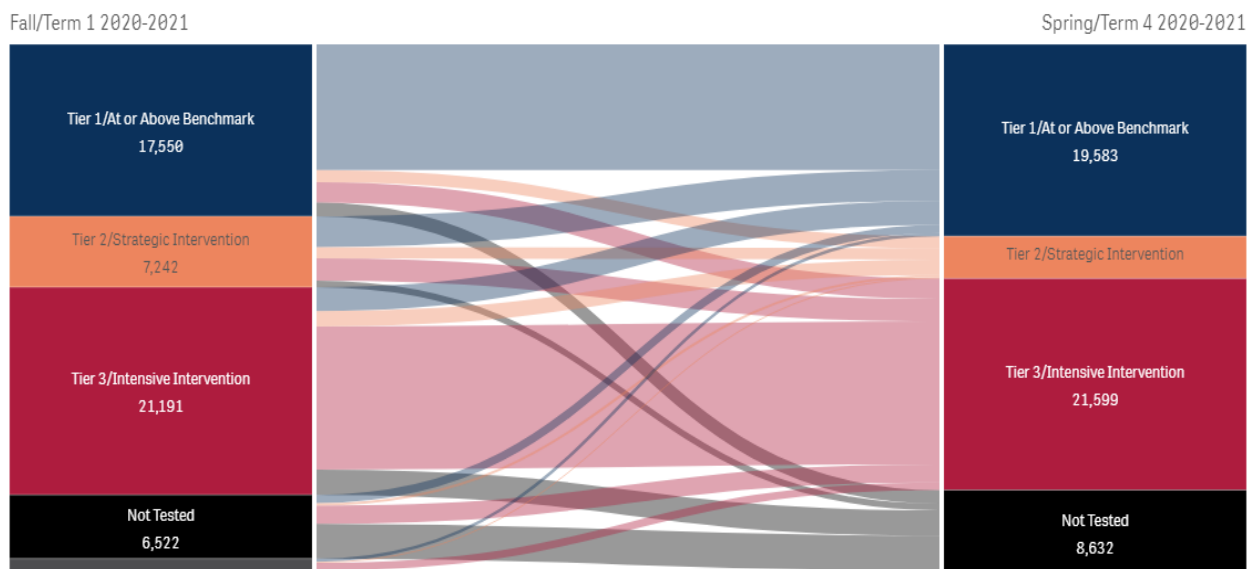
Overall Patterns in Participation and Performance Tier Changes between Fall and Spring 2020-21 Assessment Windows

The flow charts in this section show participation and performance tier transitions between the fall and spring testing windows of 2020-21 school year for aimswebPlus Reading, aimswebPlus Math, Star Reading, and Star Math respectively (Figures 1-4). A first overall look at the flow charts shows that, for all assessments, a large share of students who were “At or Above Benchmark,” “Strategic Intervention,” and “Not Tested” in fall of 2020-21 school year were at the same category at the end of the year, in the spring testing window.

A sizable portion of the students who were not tested in spring 2020-21 also were not tested in fall 2020-21.

Of the students who were not tested in aimswebPlus Reading in the fall, 54.7% were not tested in the spring again and of the students who were not tested in the spring, 41.3% were not tested in the fall either. If the students who were not tested in the fall were later tested in the spring, they were more likely to score in the Intensive Intervention tier (Figure 1). At or Above Benchmark and Intensive Intervention tiers remained largely composed of the same students. Most students transitioned out of a fall placement in Strategic Intervention tier in aimswebPlus Reading, either by improving into At or Above Benchmark or performing worse into the Intensive Intervention tier (Figure1).

Figure 1. Tier performance and participation in aimswebPlus Reading for grades K-5, fall and spring 2020-21
Assessment Performance, Fall/Term 1 2020-2021 to Spring/Term 4 2020-2021
 aimsweb, Gr. K-5, 2020-2021 through Spring



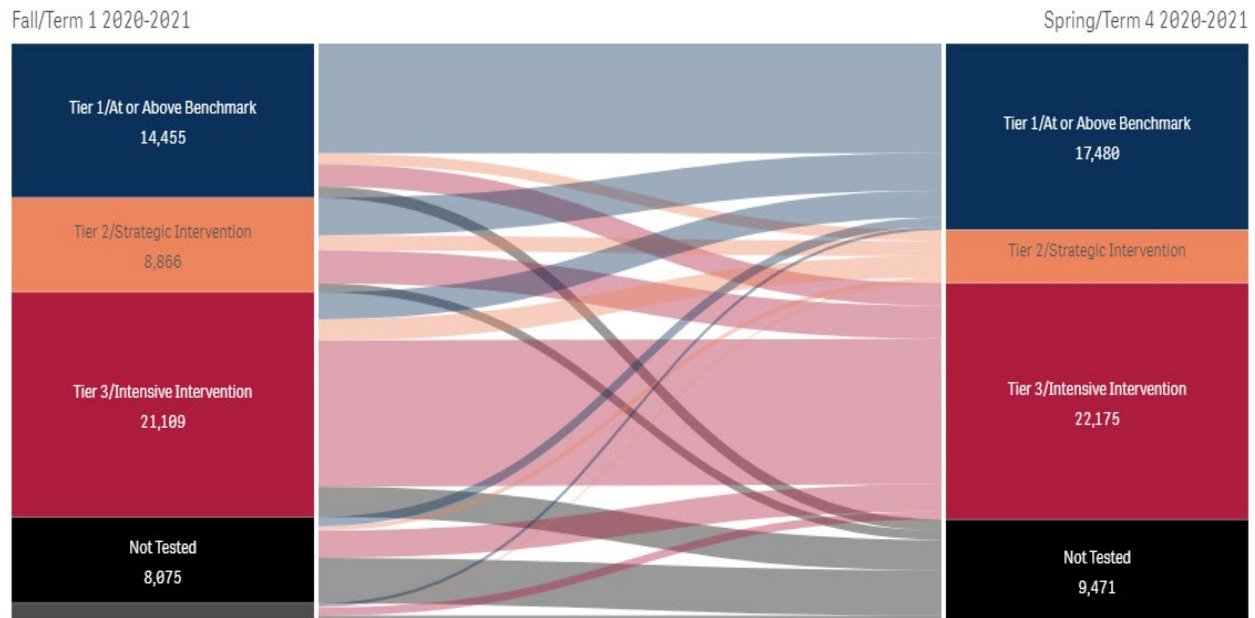
Source: Qlik aimsweb/Star (renamed to Academic Screeners) application, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

Notes: For details on number and percent of students in each outcome pairs, see Table A.1.

The category at the bottom of the Fall/Term 1 2020-2021 column is “Not enrolled,” including students who were not enrolled during the fall window but became eligible to be tested in the spring after their enrollment.

AimswebPlus Math performance patterns between fall and spring of 2020-21 are similar to the overall patterns for all four tests noted above and those for aimswebPlus Reading. Students were more likely to stay in the performance tier they placed in the fall if they were in the At or Above Benchmark or Intensive Intervention tiers in the fall (Figure 2). Students who were not tested in spring were likely not tested in the fall or were among the students who performed at the Intensive Intervention tier in the fall. Of the 9,471 students who were not tested in the spring, 45% were not tested in the fall either.

Figure 2. Tier performance and participation in aimswebPlus Math for grades K-5, fall and spring 2020-21
Assessment Performance, Fall/Term 1 2020-2021 to Spring/Term 4 2020-2021
 aimsweb, Gr. K-5, 2020-2021 through Spring



Source: Qlik aimsweb/Star (renamed to Academic Screeners) application, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

Notes: For details on number and percent of students in each outcome pairs, see Table A.2.

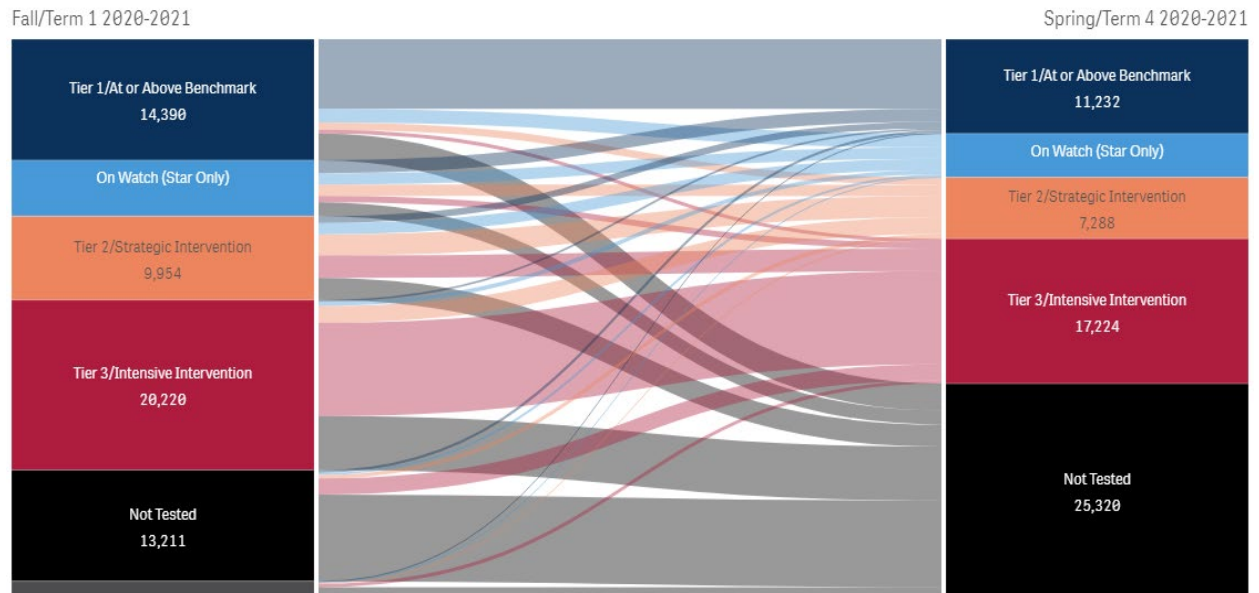
The category at the bottom of the Fall/Term 1 2020-2021 column is “Not enrolled,” including students who were not enrolled during the fall window but became eligible to be tested in the spring after their enrollment.

The most prominent fall to spring pattern in Star Reading performance for students in grades 6-12 was the increase in the number of students who were not tested (Figure 3). Of the sample of 66,263 students, 20% were not tested in the fall whereas the corresponding rate was 38% for the spring. Students who were not tested in the fall constituted 41% of the students who were not tested in the spring. Of the students who were not tested in the spring, 25% were in Intensive Intervention, 13% were in At or Above Benchmark and 10% were in the Strategic Intervention tiers in the fall. Most of the students who scored in the At or Above Benchmark and Intensive Intervention tiers in the fall remained in the same tiers in the spring; the second most likely outcome for both groups was being not tested in the spring rather than testing and placing at a different tier.

Figure 3. Tier performance and participation in Star Reading for grades 6-12, fall and spring 2020-21

Assessment Performance, Fall/Term 1 2020-2021 to Spring/Term 4 2020-2021

Star, Gr. 6-12, 2020-2021 through Term 4



Source: Qlik aimsweb/Star (renamed to Academic Screeners) application, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

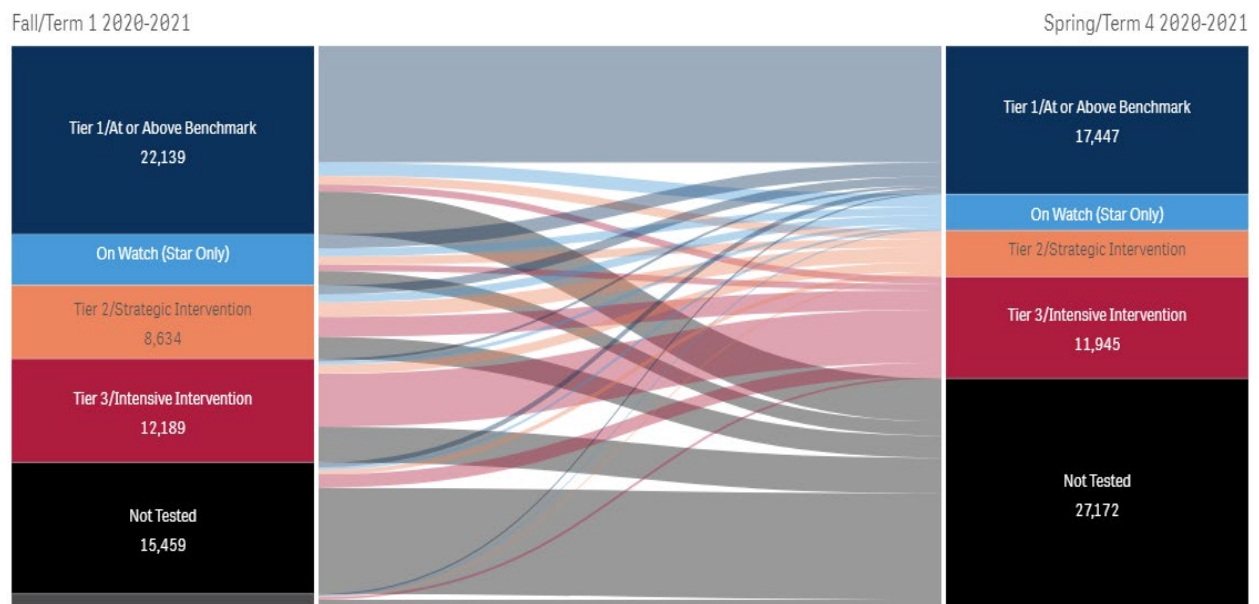
Notes: For details on number and percent of students in each outcome pairs, see Table A.3.

The category at the bottom of the Fall/Term 1 2020-2021 column is “Not enrolled,” including students who were not enrolled during the fall window but became eligible to be tested in the spring after their enrollment.

Figure 4. Tier performance and participation in Star Math for grades 6-12, fall and spring 2020-21

Assessment Performance, Fall/Term 1 2020-2021 to Spring/Term 4 2020-2021

Star, Gr. 6-12, 2020-2021 through Term 4



Source: Qlik aimsweb/Star (renamed to Academic Screeners) application, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

Notes: For details on number and percent of students in each outcome pairs, see Table A.4.

The category at the bottom of the Fall/Term 1 2020-2021 column is “Not enrolled,” including students who were not enrolled during the fall window but became eligible to be tested in the spring after their enrollment.

Star Math fall-to-spring participation patterns are similar to Star Reading. Of the students who were not tested in the spring, 46% were not tested in the fall either (Figure 4, above). Eighty-one percent of students who were not tested in the fall were again not tested in the spring. Among the fall test-takers, more than 20% in each tier were not tested in the spring (34% of Intensive Intervention, 30% of Strategic Intervention, 28% of On Watch, and 23% of At or Above Benchmark tier students were not tested in spring.)

What were the Characteristics of Students who were Tested in the Fall of 2020-21 but Not Tested in the Spring of 2020-21?

The following section of the report focuses on the students who were not tested in spring 2020-21. The group of students who were not tested in spring 2020-21 was selected and these students’ fall 2020-21 participation and performance tier placement were analyzed.⁴ First, we conducted the analysis of fall 2020-21 participation and performance tier placement for these students based on their grade level; K-5 for aimswebPlus Reading and Math and 6-12 for Star Reading and Math. Then, we repeated the analysis based on their demographic characteristics; economic disadvantage status, English learner status, and race/ethnicity.

Number of students who were not tested in spring 2020-21 varied by assessment, which were administered by K-5 and 6-12 grade bands.

Consistent with the participation rates reported in Table 1, the number and ratio of students who were not tested in spring 2020-21 diverge based on the assessment type, which varies by grade band. The non-participation rate for aimswebPlus assessments (grades K-5) is below 20% while the non-participation rate for Star assessments was around 40% (Table 2). For both assessments, the number of students who were not tested was higher for math than reading.

Table 2. Students who were not tested in the spring compared to the whole sample of test takers by assessment

Assessment	Number of Students in Sample	Number of Students Who Were Not Tested in Spring	Percentage of All Students Who were Not Tested in Spring
aimswebPlus Reading	54,130	8,632	16%
aimswebPlus Math	54,130	9,471	18%
Star Reading	66,263	25,320	38%
Star Math	66,263	27,172	41%

Note: The number of students in the sample differs from the number of eligible students reported in Table 1 above primarily because the sample includes K-5 students for aimswebPlus and excludes 6-8 Special education students who take aimswebPlus assessments.

⁴ It is possible that students who were eligible to be tested in spring 2020-21 but were not tested were not enrolled in a District school during the fall testing window. These students are indicated as “Not Enrolled” in the figures below. As discussed above, some students did not participate in the interim assessments either in fall or spring; these students are indicated as “Not Tested” in the figures in this section. The remaining students who were not tested in spring were indeed eligible and tested in the fall and they fall into one of three (aimswebPlus) or four (Star) performance tiers based on their fall performance.

Students who were not tested in spring 2020-21 were more likely to be in higher grade levels

The total number of students who were not tested in spring 2020-21 shows variations across grade levels (Table 3). Despite a few exceptions, such as second grade math and eleventh grade reading and math, the number of non-tested students in spring 2020-21 increased by grade level. The lowest total number of non-tested students in the spring was the 715 students in Kindergarten for aimswebPlus Reading. The highest total number of non-tested students in the spring was 5,617 twelfth-grade students who did not participate in Star Math. For each test and associated grade bands the tests are administered to, higher grades constitute a higher percentage of the spring non-tested students (Table 3).

Table 3. Number of students who were not tested in spring 2020-21, by grade level and assessment

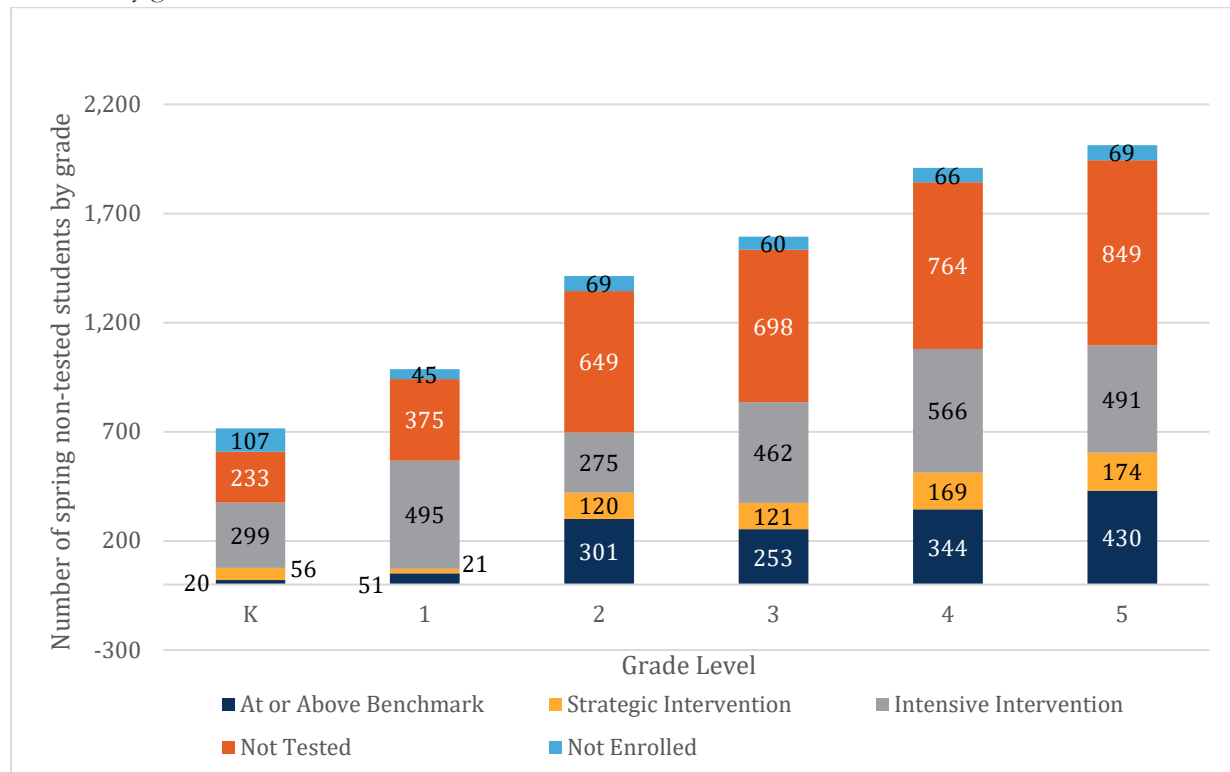
Grade Level	Reading		Math	
	<i>Number of Spring Non-Tested Students</i>	<i>% of All Spring Non-Tested</i>	<i>Number of Spring Non-Tested Students</i>	<i>% of All Spring Non-Tested</i>
	aimswebPlus			
K	715	11%	1,016	8%
1	987	16%	1,520	11%
2	1,414	15%	1,445	16%
3	1,594	18%	1,694	18%
4	1,909	20%	1,894	22%
5	2,013	20%	1,902	23%
	Star			
6	2,164	9%	2,209	8%
7	2,567	10%	2,629	10%
8	2,689	11%	2,625	10%
9	4,208	17%	4,267	16%
10	4,597	18%	5,133	19%
11	4,437	18%	4,692	17%
12	4,658	18%	5,617	21%

Next, we analyze the breakdown of the totals reported in Table 3 across participation and performance tiers in fall 2020-21. Each bar in Figures 5-8 correspond to a grade level and the height of the bars correspond to the totals reported in Table 3. For example, the rightmost column in Figure 5 shows, for the 2,013 students who were not tested in the spring, the fall aimswebPlus Reading participation and tier performance: not enrolled in the fall, not tested in the fall, tested and placed in Intensive Intervention tier, tested and placed in Strategic Intervention tier, tested and placed in At or Above Benchmark tier.

aimswebPlus Reading

More than 30% of the students who were not tested in spring 2020-21 were also not tested in the fall of that school year for each K-5 grade level (Figure 5). When we looked at the tier performance level of students who were tested in the fall but not in the spring, we found some variation by grade. For Kindergarten and first grade, the largest percentage of spring non-tested students were students who had performed at the Intensive Intervention tier in the fall. In addition, some students in grades 2-5 who scored in the At or Above Benchmark tier in the fall were not tested in the spring.

Figure 5. Fall aimswebPlus Reading assessment performance levels for students who were not tested in spring 2020-21, by grade level



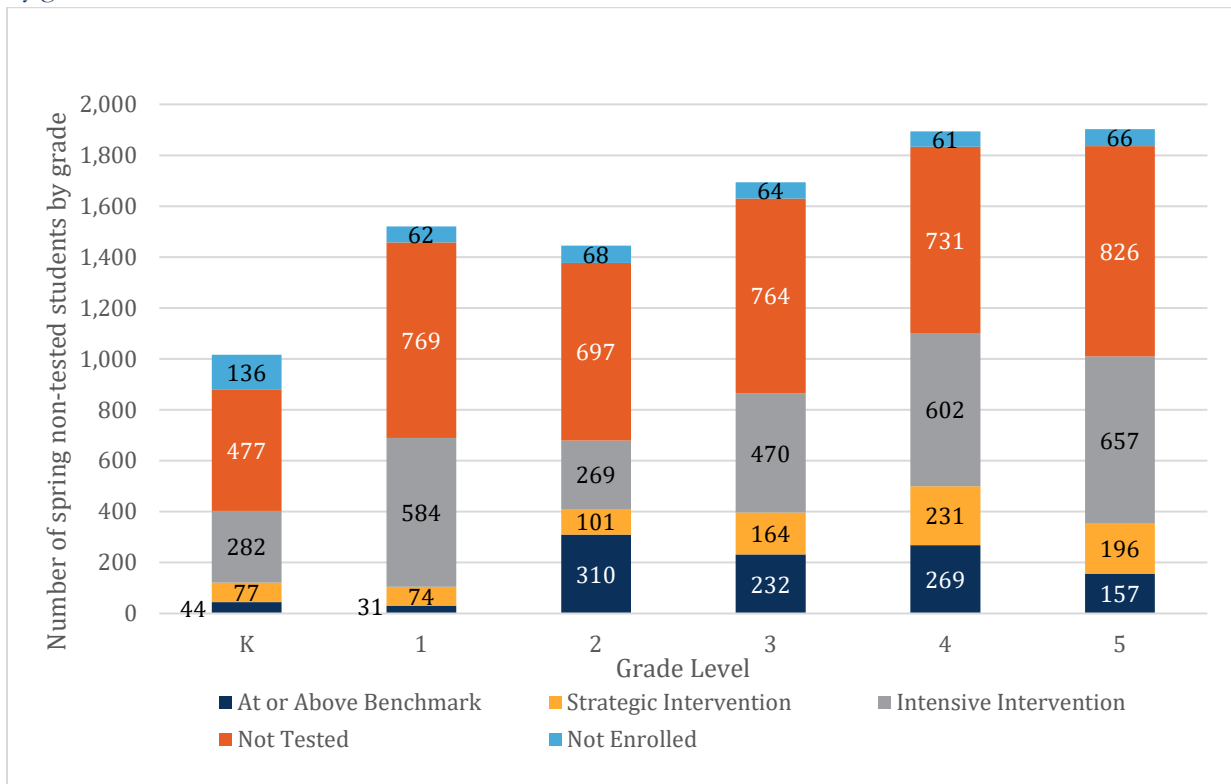
Source: Adapted from data pulled from Qlik aimsweb/Star app, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

How to read this figure: Each bar represents the total number of students who were not tested for aimswebPlus Reading in spring 2020-21, by fall 2020-21 participation and tier performance. The total number of spring non-tested students for aimswebPlus Reading is shown in K-5 rows of Table 3, column 2. For example, 715 Kindergarten students were not tested in the spring; out of these, 107 were not enrolled, 233 were not tested, 299 were in Intensive Intervention tier, 56 were in Strategic Intervention tier, and 20 were in At or Above Benchmark tier in the fall.

aimswebPlus Math

The distribution of students who were not tested for aimswebPlus Math in spring 2020-21 across fall participation and performance tiers follow patterns similar to aimswebPlus Reading (Figure 6), especially for grades 2-5. For Kindergarten and first grade, a higher number of students who were not tested in the spring were not tested in the fall than other possibilities. For grades 4 and 5, the number of spring non-tested students who placed in the Intensive Intervention tier in the fall is also high, close to but not higher than the fall non-tested.

Figure 6. Fall aimswebPlus Math assessment outcomes for students who were not tested in spring 2020-21, by grade level



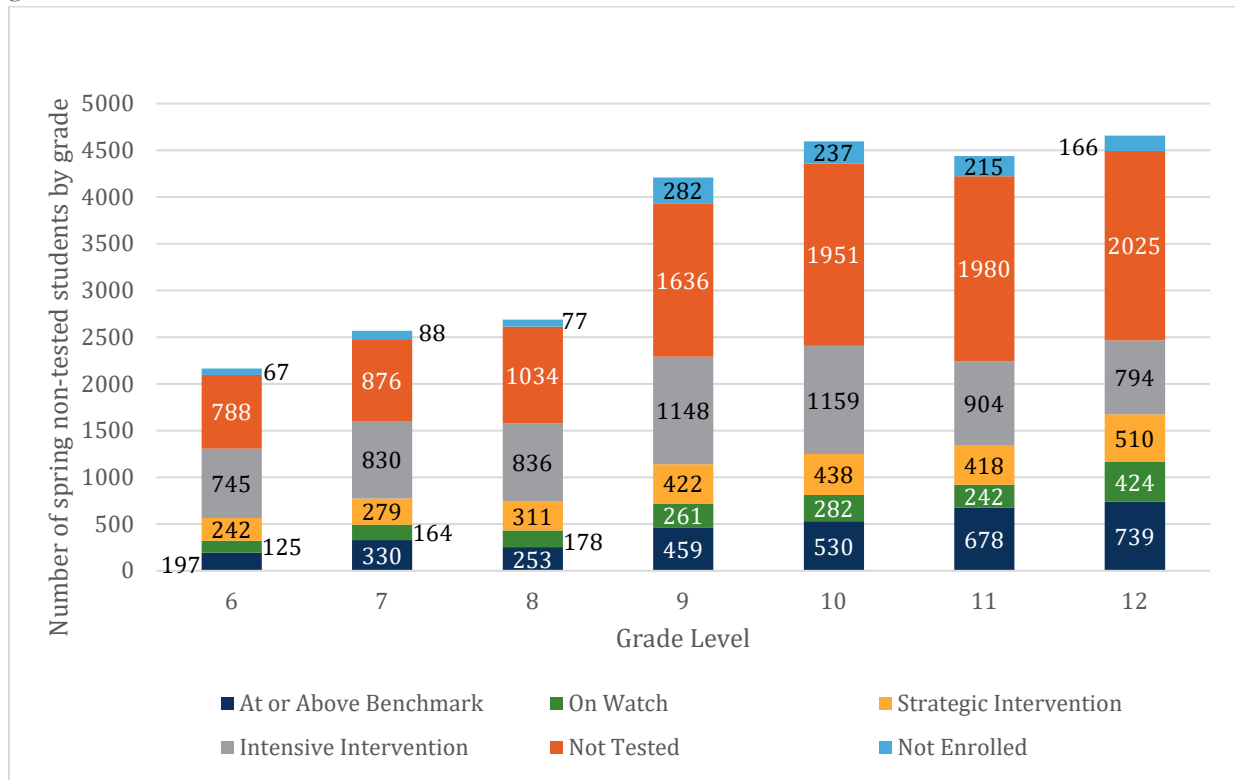
Source: Adapted from data pulled from Qlik aimsweb/Star app, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

How to read this figure: Each bar represents the total number of students who were not tested for aimswebPlus Math in spring 2020-21, by fall 2020-21 participation and tier performance. The total number of spring non-tested students for aimswebPlus Math is shown in K-5 rows of Table 3, column 4. For example, 1,016 Kindergarten students were not tested in the spring; out of these 136 were not enrolled, 477 were not tested, 282 were in Intensive Intervention tier, 77 were in Strategic Intervention tier, and 44 were in At or Above Benchmark tier in the fall.

Star Reading

The distribution of students who were not tested for Star Reading in spring 2020-21 across fall participation and performance tiers also varies by grade level. For grades 6-8, around 70% of students who were not tested in spring 2020-21 were either not tested or scored in the Intensive Intervention tier; the percentage of all students who scored in any of the other three performance tiers in the fall is below 30% (Figure 7). For grades 9, 10, and 11 increasingly higher percentage of students were also not tested in the fall (39%, 42%, and 45% respectively) and increasingly lower percentage of students had scored in the Intensive Intervention tier in the fall (27%, 25%, and 20% respectively). Interestingly, among eleventh- and twelfth-grade students who were not tested in the spring, more than 20% were in the On Watch and At or Above Benchmark tiers based on fall performance.

Figure 7. Fall Star Reading assessment outcomes for students who were not tested in spring 2020-21, by grade level



Source: Adapted from data pulled from Qlik aimsweb/Star app, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

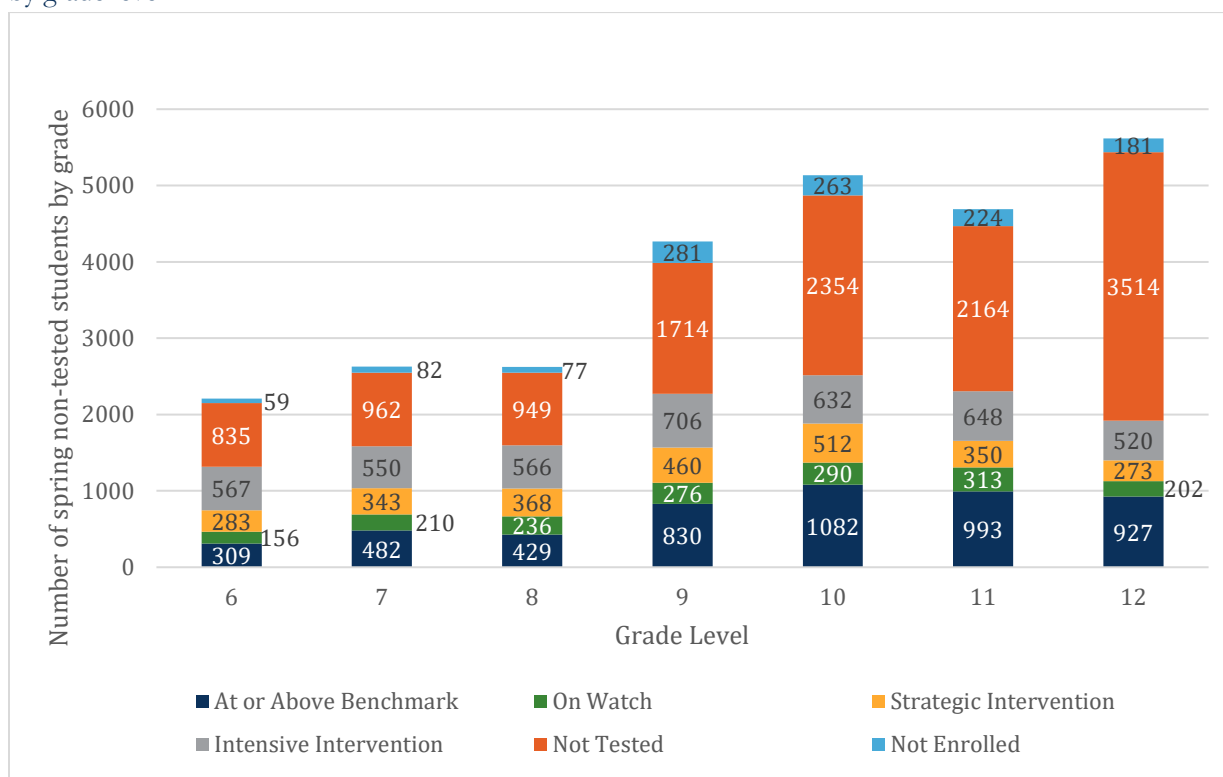
How to read this figure: Each bar represents the total number of students who were not tested for Star Reading in spring 2020-21, by fall 2020-21 participation and tier performance. The total number of spring non-tested students for Star Reading is shown in 6-12 rows of Table 3, column 2. For example, 2,164 sixth-grade students were not tested in the spring; out of these 67 were not enrolled, 788 were not tested, 745 were in Intensive Intervention tier, 242 were in Strategic Intervention tier, 125 were in the On Watch tier and 197 were in At or Above Benchmark tier in the fall.

Star Math

The distribution of students who were not tested for Star Math in spring 2020-21 across fall performance tiers varies more dramatically when comparing sixth and twelfth grade. While 2,209 sixth-graders were not tested in spring 2020-21, the corresponding number is 5,617 for twelfth grade.

As in Star Reading, patterns of distribution of students who were not tested in spring 2020-21 across fall participation and performance tiers varies by grade levels. Among students who did not take Star Math in the spring, the percentage of students who were not tested in the fall window was below 40% for grades 6-8, 40% for ninth grade, around 45% for grades 10 and 11, and above 60% for twelfth grade. The percentage of students who scored in the Intensive Intervention tier in the fall among the students who did not get tested in the spring gets lower for higher grade levels. On the other hand, around 20% of spring non-tested students at grades 9-11 were high performers that scored in the At and Above Benchmark tier in the fall (Figure 8).

Figure 8. Fall Star Math assessment performance levels for students who were not tested in spring 2020-21, by grade level



Source: Adapted from data pulled from Qlik aimsweb/Star app, v.2.3.0, modified “Performance Flow Chart” sheet, accessed August, 11, 2021.

How to read this figure: Each bar represents the total number of students who were not tested for Star Math in spring 2020-21, by fall 2020-21 participation and tier performance. The total number of spring non-tested students for Star Reading is shown in 6-12 rows of Table 3, column 4. For example, 2,209 sixth-grade students were not tested in the spring; out of these 59 were not enrolled, 835 were not tested, 567 were in Intensive Intervention tier, 283 were in Strategic Intervention tier, 156 were in the On Watch tier and 309 were in At or Above Benchmark tier in the fall.

While there were some disproportionalities, students who were not tested in spring 2020-21 were from all of the District’s student demographic groups

The distribution of students who were not tested in spring 2020-21 across categories of economic disadvantage, English learner status, and race/ethnicity shows similar patterns for aimswebPlus and Star for both reading and math -except for significant differences between aimswebPlus and Star across categories of economic disadvantage status (Table 4). Students who were not tested for aimswebPlus (grades K-5) for reading or math in spring 2020-21 were 85% economically disadvantaged and 15% non-economically disadvantaged. The respective ratios for students who were not tested for Star for reading or math (grades 6-12) was 69% and 31%. Although the total number of non-tested students is lower for aimswebPlus than Star, a larger share of the non-tested students were economically disadvantaged for aimswebPlus than Star.

The distribution of Star tests across economic disadvantage categories represented the overall District demographics. For aimswebPlus, economically disadvantaged students were overrepresented among the students who were not tested in spring 2020-21 (Table 4). That is, the percentage of economically disadvantaged students who did not take aimswebPlus tests in the spring was higher than the share of economically disadvantaged students in the District. This disproportionality is not observed for students who were not tested for Star Reading or Math in the spring.

While not as large as the disproportionality in non-participation in aimswebPlus tests, the distribution of non-tested students across racial/ethnic categories shows some disproportionality as well. Black/African American were overrepresented because although the share of Black/African American students across the District is 48%, they constitute 55-59% of the spring non-tested students for the four assessments (Table 4). To the contrary, white and Asian students were underrepresented among the students who were not tested in the spring. White students are 15% of the District but constitute about 10% of the spring non-tested students; Asian students are 10% of the District but constitute about 5% of the spring non-tested students.

Among the English Learner categories,⁵ students who were never screened for English proficiency (English speakers) were overrepresented among the spring non-tested students. These students constitute 75.5% of the District students but 79-86% of the spring non-tested students across the four assessments (Table 4).

The figures below (Figures 9-12) show the distribution of the students who were not tested in the spring of 2020-21 school year according to their fall participation and performance tiers and demographic group. As reported in Table 4, the total number of students represented by each horizontal chart varies by category and these totals are presented in parentheses for each category. The bars are the same width because they represent the total (100%) and show the share of each fall participation and performance tier for each category.

⁵ Current EL refers to students who are in the EL program based on their ACCESS scores. Former EL refers to students who used to be in the EL program but improved proficiency and exited the program. Students who were never in the EL program have either never been screened because they were English speakers (Never EL -Not Screened) or who were screened and found to be proficient (Never EL- Screened).

Table 4. Number and percent of demographic groups among students who were not tested in spring 2020-21, by subgroup

Demographic Group	Category	aimswEBPlus Reading		aimswEBPlus Math		Star Reading		Star Math	
		Number of Students	% of Spring non-Tested	Number of Students	% of Spring non-Tested	Number of Students	% of Spring non-Tested	Number of Students	% of Spring non-Tested
Economic Disadvantage	Economically Disadvantaged	7,266	84%	8,014	85%	17,490	69%	18,838	69%
	Not Economically Disadvantaged	1,366	16%	1,457	15%	7,830	31%	8,334	31%
EL Status	Current EL	880	10%	1,103	12%	3,036	12%	3,276	12%
	Former EL	37	0%	25	0%	962	4%	1,109	4%
	Never EL - Not Screened	7,429	86%	7,982	84%	20,164	80%	21,494	79%
	Never EL - Screened	286	3%	361	4%	1,158	5%	1,293	5%
Race/Ethnicity	American Indian/Alaskan Native	11	0%	14	0%	57	0%	52	0%
	Asian	411	5%	485	5%	1,313	5%	1,546	6%
	Black/African American	5,114	59%	5,331	56%	14,166	56%	14,881	55%
	Hispanic/Latinx	1,861	22%	2,378	25%	6,096	24%	6,616	24%
	Multi Racial/ Other	356	4%	369	4%	1,129	4%	1,238	5%
	Native Hawaiian/Pacific Islander	10	0%	14	0%	26	0%	26	0%
	White	869	10%	880	9%	2,533	10%	2,813	10%

Note: The District student economic disadvantaged student ratio is 68.3%. District racial/ethnic distribution is as follows: Black/African American 48%, Hispanic/Latinx 23%, White 15%, Asian 10%, Multiracial/Other 5%, others <1%. District level EL Status distribution is: Current EL 13.5%, Former EL 3.7%, Never EL-Not Screened 75.5%, Never EL-Screened 7.1%.

How to Read This Table: For each test, the first column shows, by the demographic group and category, the number of students who were not tested in Spring 2020-21 and the second column shows what percent of that particular group falls into each category. For example, of the 8,632 students who did not take aimswEBPlus Reading in the Spring, 7,266 were Economically Disadvantaged, which corresponds to 84% of all spring non-tested students for aimswEBPlus Reading. Similarly, 5,114 of those 8,632 students were Black/African American, which corresponds to 59% of all spring non-tested students for aimswEBPlus Reading.

aimswebPlus Reading

Among students who were not tested in spring 2020-21, the percentage of those who were not tested in the fall was the same for students who were economically disadvantaged and who were not (41%) (Figure 9). Among those who were not tested in spring 2020-21, a larger share of economically disadvantaged students scored in Intensive Intervention (32%) and a larger share of non-economically disadvantaged students scored in At or Above Benchmark tier in the fall (23%).

The largest share of students with English learner status who were not tested in the spring scored in Intensive Intervention in aimswebPlus Reading in the fall (39%) (Figure 9). The second largest share among these students were those who were not tested in the fall either (31%). Patterns differ for students who were not English learners and were never screened -- the largest share among these students were not tested (43%). While a large share of the non-English learner (Never Screened) students who were not tested in the Spring scored in Intensive Intervention in the fall (29%), the share of those who scored in At or Above Benchmark tier in the fall (17%) was higher than the corresponding share among English learner students (8%).

The ratio of spring non-testers who were not tested in the fall either is similar across racial/ethnic groups, ranging from 36 to 43% for the groups that have more than 20 students in the sample (Figure 9). However, if they took aimswebPlus Reading in the fall, a larger share of Black/African American or Hispanic/Latinx students scored in Intensive Intervention tier (31% and 35% respectively) compared to white or Asian students (23% and 22% respectively). The percentage of white or Asian students who scored At or Above Benchmark in the fall and not get tested in the spring is higher than the corresponding ratio for Black/African American or Hispanic/Latinx students (above 24% vs. below 15%).

AimswebPlus Math

Patterns for aimswebPlus Math are similar to the patterns for aimswebPlus Reading for economically disadvantaged students (Figure 10). Compared to aimswebPlus Reading results, a larger share of non-economically disadvantaged students who did not take aimswebPlus Math in the spring were not tested in the fall (46%) and a smaller share scored in the At or Above Benchmark tier in the fall (18%).

Among spring non-tested students, share of students who were English learners and who were not (never screened) and did not take aimswebPlus Math in the fall is similar, around 45% (Figure 10). If they were tested, the tier distribution of the two groups were within 5% of each other.

Among Asian and white students who were not tested in spring 2020-21, the most common fall outcome was also not having taken aimswebPlus Math (50% and 44% respectively) (Figure 10). The second most common fall outcome for these students were having scored in At or Above Benchmark tier (20% and 22% respectively). Not having taken aimswebPlus Math in the fall is also the most common fall outcome for Black/African American and Hispanic Latinx students (44% and 47% respectively); however, the second most common fall outcome for them was having scored in Intensive Intervention tier (34% and 28% respectively).

Figure 9. Fall aimswebPlus Reading assessment outcomes for students in grades K-5 who were not tested in spring 2020-21, by demographic student group

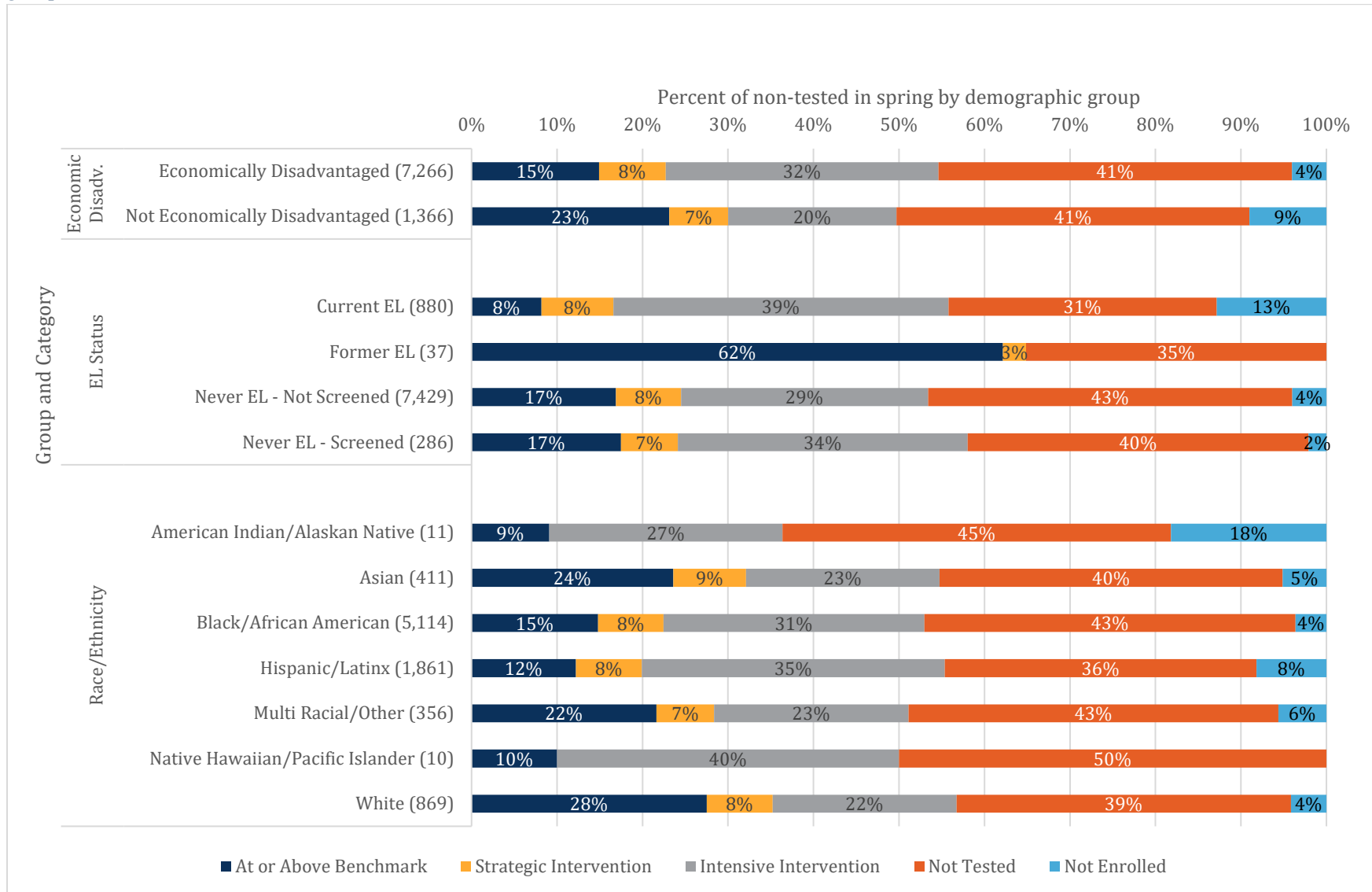
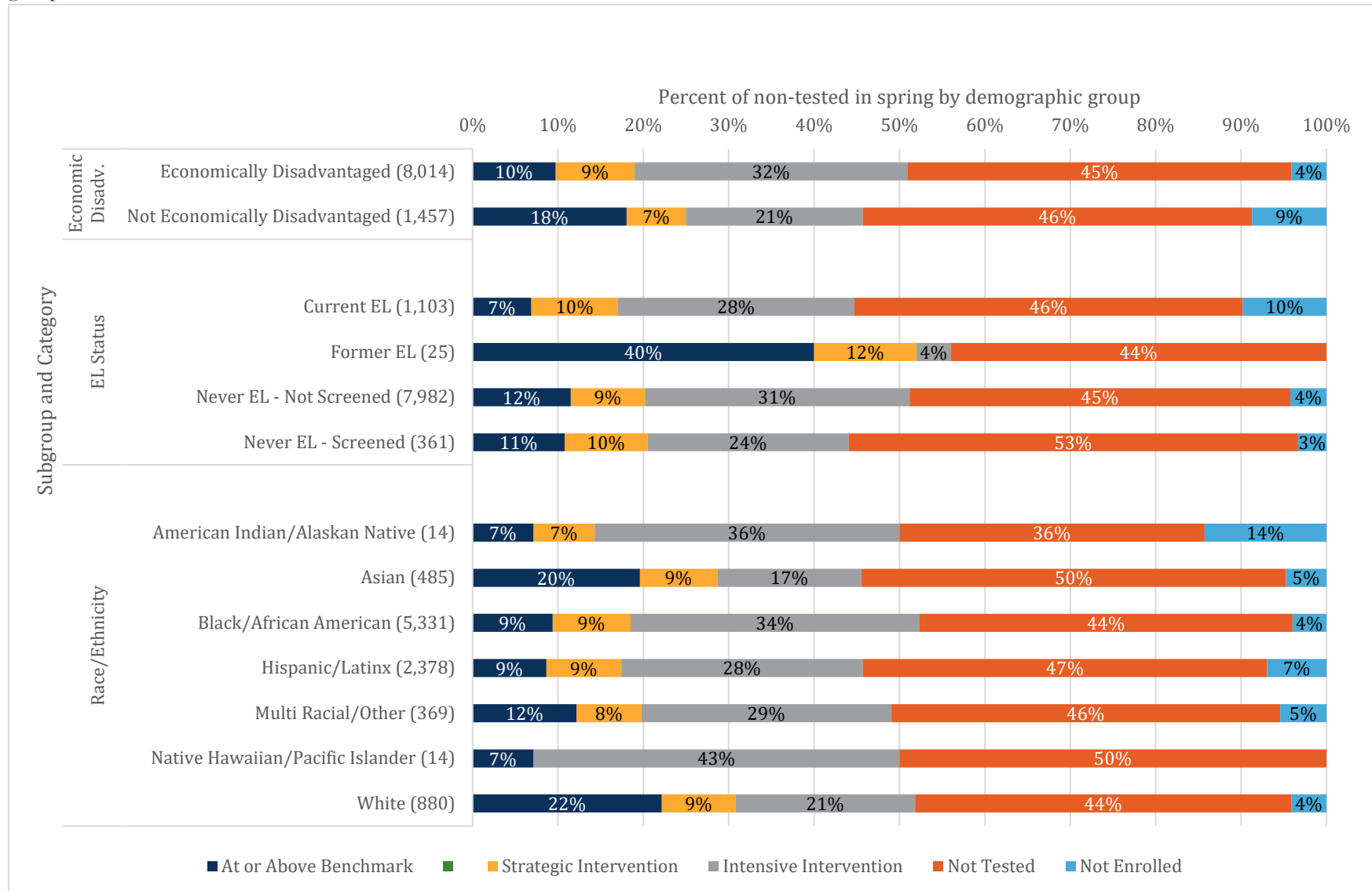


Figure 10. Fall aimswebPlus Math assessment outcomes for students in grades K-5 who were not tested in spring 2020-21, by demographic student group



Star Reading

Fall 2020-21 Star Reading performance patterns for students who did not take this assessment in the spring by economic disadvantage status was similar to aimswebPlus Reading and Math. The share of students who were not tested either in the fall or the spring testing windows of 2020-21 were similar (40% and 42%) for students who were economically disadvantaged and who were not (Figure 11). Among those who were not tested in spring 2020-21, a larger share of economically disadvantaged students scored in Intensive Intervention (32%) and a larger share of non-economically disadvantaged students scored in At or Above Benchmark tier in the fall (23%).

The distribution of English learner students who did not take Star Reading in spring 2020-21 according to their fall performance shows differences from younger English learners whose required test was aimswebPlus Reading. Those who got tested in the fall and scored in Intensive intervention tier was a similar ratio (38%) but a higher percentage, almost half of spring non-tested English learners also did not take Star Reading in the fall (Figure 11). There is more variation in the fall participation and tier performance of non-English learner students who were never screened: 13% were in At or Above Benchmark, 11% were in Strategic intervention and only 24% were in Intensive Intervention.

The share of students who were not tested in fall 2020-21 among those who did not take Star Reading in the spring shows some variation across racial/ethnic groups. For Asian and white students, the share is in the 26 to 30% range but for Black/African American, Hispanic/Latinx, and Multiracial students, this share is above 40% (Figure 11). Among the spring non-tested students of each racial/ethnic group, a higher percentage of Asian or white students (around 30%) were in At or Above Benchmark than Black/African American or Hispanic/Latinx students (around 10%). The share of students of these four subgroups who scored in Intensive Intervention tier in the fall is in the 20-28% range.

Star Math

Nearly half of both economically disadvantaged or non-economically disadvantaged students who were not tested in spring 2020-21 were also not tested for Star Math in the fall (Figure 12). The distribution of students of different economic disadvantage status across fall performance tier varies only within a 10% range, a higher percentage of non-economically disadvantaged scoring in At or Above Benchmark and a higher percentage of economically disadvantaged students scoring in Intensive intervention tier.

Most of the students who did not take Star Math in spring 2020-21 were never screened non-English learners (Table 4). Among these students 46% were not tested in the fall, 18% scored in At or Above Benchmark tier, and 16% scored in Intensive Intervention tier (Figure 12). Among spring non-tested English learner students 53% did not get tested in the fall, 19% scored in Intensive Intervention tier, and 10% scored in At or Above Benchmark tier.

The share of students who did not take Star Math in the fall among students who were not tested in the spring for each racial/ethnic group show similar patterns to Star Reading: 35-38% of Asian or white students were not tested in either window as opposed to 47-50% of Black/African American

or Hispanic/Latinx students (Figure 12). A smaller share of non-spring tested Asian or white students were in the Intensive Intervention tier in the fall (7% and 12% respectively) compared to Black/African American and Hispanic/Latinx students (17% and 16% respectively). The pattern is reversed for At or Above Benchmark tier; 46% of Asian and 33% of white students who were not tested in the spring scored in this tier in the fall, compared to 15% of Black/African American and 14% of Hispanic/Latinx students.

Figure 11. Fall Star Reading assessment performance for students who were not tested in spring 2020-21, by demographic grouping

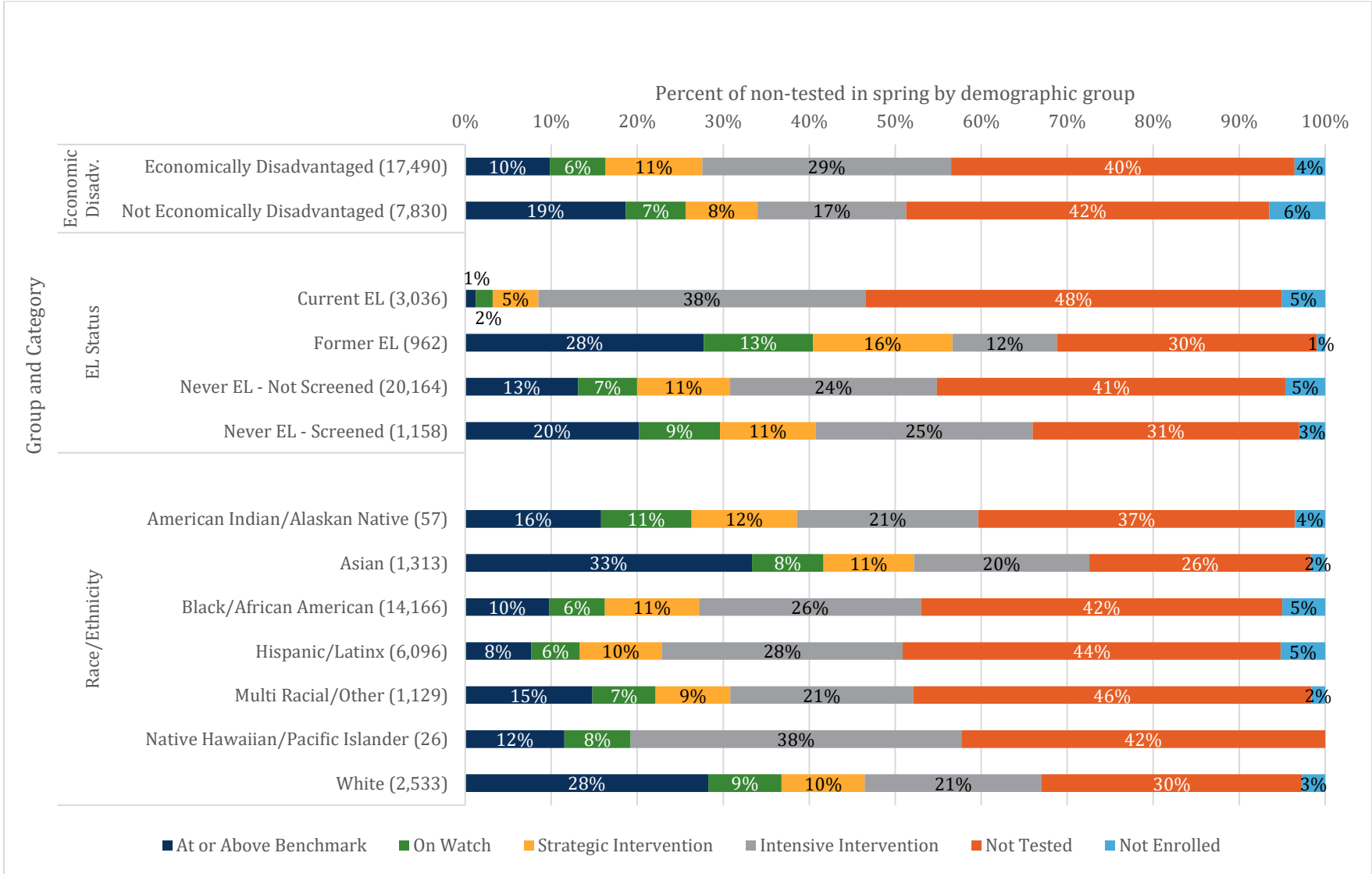
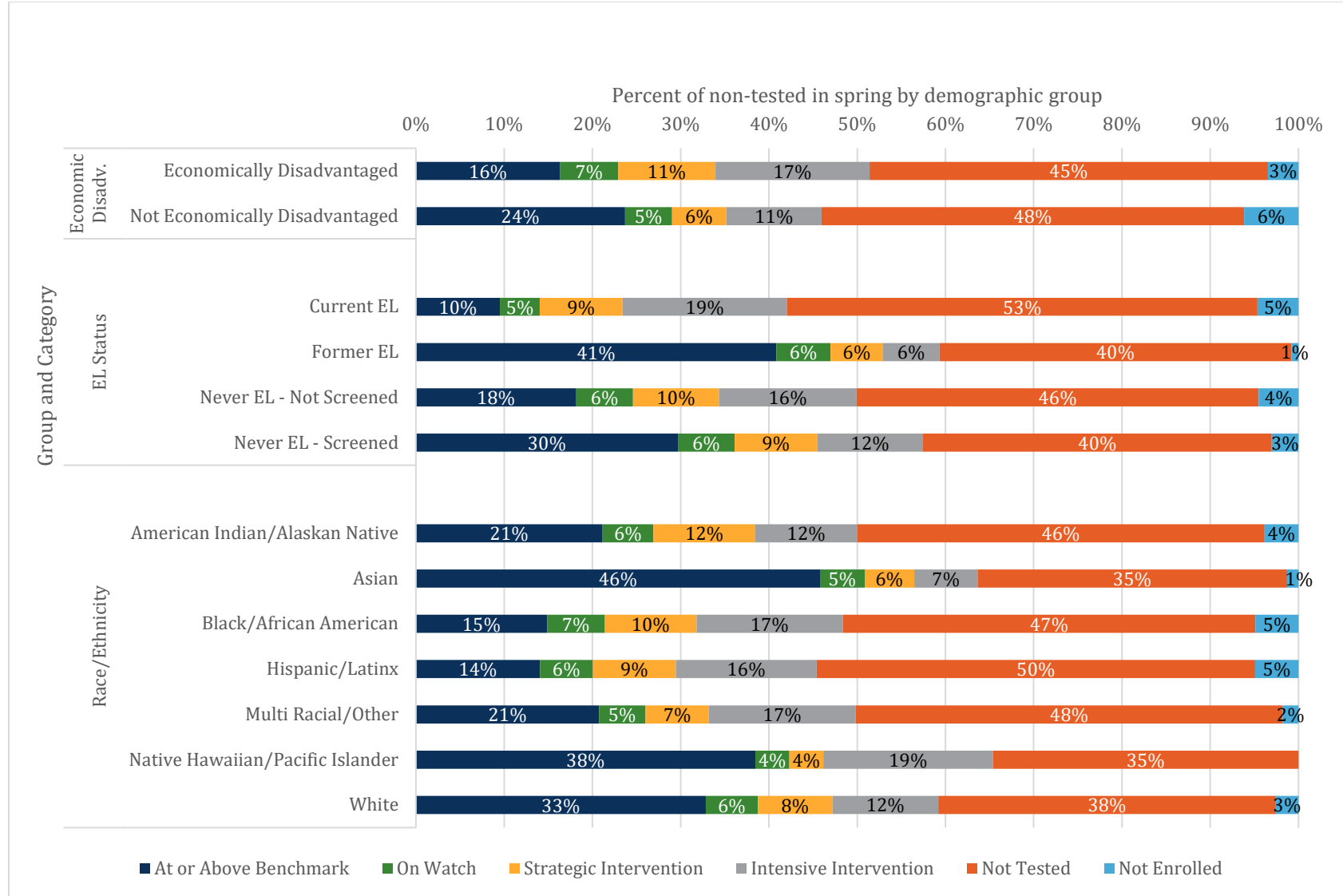


Figure 12. Fall Star Math assessment performance for students who were not tested in spring 2020-21, by demographic grouping



Conclusions

This report looks at the attrition in test taking between fall and spring testing windows of the universal assessment program SDP implemented during the 2020-21 school year, which was largely virtual. It takes a deeper dive into the observed decline in participation rates (Table 1) and inquires whether the spring assessment missed certain student groups disproportionately.

The two major findings from the report are that a large share of the students who were not tested in the spring were also not tested in the fall and the share of both the spring non-tested students among all test takers and the share of students who were not tested in the fall among spring non-tested students is higher for higher grade levels.

Based on the subgroup analysis, there is some variation in the fall test participation and tier performance of students who were not tested in the spring; however, these patterns are largely in line with the overall subgroup performance on the assessments.

The main takeaways from this analysis going forward are:

- An intentional effort to identify and test the students who were not tested in the first assessment of the school year in the following testing windows is necessary.
- Middle and high school grades may need additional support to increase participation rates in the interim assessments across the District.
- Assessment performance data in multiple testing windows throughout the year are necessary for measuring student growth. Participation attrition from fall to spring is not limited to students who perform below benchmark, students at all tiers need to be targeted to make sure we can measure growth for all students.

Appendix A

Table A.1. AimswebPlus Reading Participation and Tier Performance in Fall and Spring of 2020-21 School Year

Fall/Term 1 2020-2021	Spring/Term 4 2020-2021	# of students	% of students
Tier 1/At or Above Benchmark	Tier 1/At or Above Benchmark	12,841	23.7%
Tier 1/At or Above Benchmark	Tier 2/Strategic Intervention	1,227	2.3%
Tier 1/At or Above Benchmark	Tier 3/Intensive Intervention	2,083	3.8%
Tier 1/At or Above Benchmark	<i>Not Tested</i>	1,399	2.6%
Tier 2/Strategic Intervention	Tier 1/At or Above Benchmark	3,135	5.8%
Tier 2/Strategic Intervention	Tier 2/Strategic Intervention	1,159	2.1%
Tier 2/Strategic Intervention	Tier 3/Intensive Intervention	2,287	4.2%
Tier 2/Strategic Intervention	<i>Not Tested</i>	661	1.2%
Tier 3/Intensive Intervention	Tier 1/At or Above Benchmark	2,437	4.5%
Tier 3/Intensive Intervention	Tier 2/Strategic Intervention	1,567	2.9%
Tier 3/Intensive Intervention	Tier 3/Intensive Intervention	14,599	27.0%
Tier 3/Intensive Intervention	<i>Not Tested</i>	2,588	4.8%
Not Tested	Tier 1/At or Above Benchmark	847	1.6%
Not Tested	Tier 2/Strategic Intervention	259	0.5%
Not Tested	Tier 3/Intensive Intervention	1,848	3.4%
Not Tested	<i>Not Tested</i>	3,568	6.6%
Not Enrolled	Tier 1/At or Above Benchmark	323	0.6%
Not Enrolled	Tier 2/Strategic Intervention	104	0.2%
Not Enrolled	Tier 3/Intensive Intervention	782	1.4%
Not Enrolled	<i>Not Tested</i>	416	0.8%

Table A.2. AimswebPlus Math Participation and Tier Performance in Fall and Spring of 2020-21 School Year

Fall/Term 1 2020-2021	Spring/Term 4 2020-2021	# of students	% of students
Tier 1/At or Above Benchmark	Tier 1/At or Above Benchmark	10,287	19.0%
Tier 1/At or Above Benchmark	Tier 2/Strategic Intervention	1,029	1.9%
Tier 1/At or Above Benchmark	Tier 3/Intensive Intervention	2,096	3.9%
Tier 1/At or Above Benchmark	<i>Not Tested</i>	1,043	1.9%
Tier 2/Strategic Intervention	Tier 1/At or Above Benchmark	3,518	6.5%
Tier 2/Strategic Intervention	Tier 2/Strategic Intervention	1,429	2.6%
Tier 2/Strategic Intervention	Tier 3/Intensive Intervention	3,076	5.7%
Tier 2/Strategic Intervention	<i>Not Tested</i>	843	1.6%
Tier 3/Intensive Intervention	Tier 1/At or Above Benchmark	2,524	4.7%
Tier 3/Intensive Intervention	Tier 2/Strategic Intervention	2,028	3.7%
Tier 3/Intensive Intervention	Tier 3/Intensive Intervention	13,693	25.3%
Tier 3/Intensive Intervention	<i>Not Tested</i>	2,864	5.3%
Not Tested	Tier 1/At or Above Benchmark	860	1.6%
Not Tested	Tier 2/Strategic Intervention	403	0.7%
Not Tested	Tier 3/Intensive Intervention	2,548	4.7%
Not Tested	<i>Not Tested</i>	4,264	7.9%
Not Enrolled	Tier 1/At or Above Benchmark	291	0.5%
Not Enrolled	Tier 2/Strategic Intervention	115	0.2%
Not Enrolled	Tier 3/Intensive Intervention	762	1.4%
Not Enrolled	<i>Not Tested</i>	457	0.8%

Table A.3. Star Reading Participation and Tier Performance in Fall and Spring of 2020-21 School Year

Fall/Term 1 2020-2021	Spring/Term 4 2020-2021	# of students	% of students
Tier 1/At or Above Benchmark	Tier 1/At or Above Benchmark	8,266	12.5%
Tier 1/At or Above Benchmark	On Watch (Star Only)	1,632	2.5%
Tier 1/At or Above Benchmark	Tier 2/Strategic Intervention	876	1.3%
Tier 1/At or Above Benchmark	Tier 3/Intensive Intervention	430	0.6%
Tier 1/At or Above Benchmark	<i>Not Tested</i>	3,186	4.8%
On Watch (Star Only)	Tier 1/At or Above Benchmark	1,541	2.3%
On Watch (Star Only)	On Watch (Star Only)	1,354	2.0%
On Watch (Star Only)	Tier 2/Strategic Intervention	1,346	2.0%
On Watch (Star Only)	Tier 3/Intensive Intervention	734	1.1%
On Watch (Star Only)	<i>Not Tested</i>	1,676	2.5%
Tier 2/Strategic Intervention	Tier 1/At or Above Benchmark	793	1.2%
Tier 2/Strategic Intervention	On Watch (Star Only)	1,351	2.0%
Tier 2/Strategic Intervention	Tier 2/Strategic Intervention	2,540	3.8%
Tier 2/Strategic Intervention	Tier 3/Intensive Intervention	2,650	4.0%
Tier 2/Strategic Intervention	<i>Not Tested</i>	2,620	4.0%
Tier 3/Intensive Intervention	Tier 1/At or Above Benchmark	223	0.3%
Tier 3/Intensive Intervention	On Watch (Star Only)	506	0.8%
Tier 3/Intensive Intervention	Tier 2/Strategic Intervention	1,985	3.0%
Tier 3/Intensive Intervention	Tier 3/Intensive Intervention	11,090	16.7%
Tier 3/Intensive Intervention	<i>Not Tested</i>	6,416	9.7%
Not Tested	Tier 1/At or Above Benchmark	317	0.5%
Not Tested	On Watch (Star Only)	274	0.4%
Not Tested	Tier 2/Strategic Intervention	416	0.6%
Not Tested	Tier 3/Intensive Intervention	1,914	2.9%
Not Tested	<i>Not Tested</i>	10,290	15.5%
Not Enrolled	Tier 1/At or Above Benchmark	92	0.1%
Not Enrolled	On Watch (Star Only)	82	0.1%
Not Enrolled	Tier 2/Strategic Intervention	125	0.2%
Not Enrolled	Tier 3/Intensive Intervention	406	0.6%
Not Enrolled	<i>Not Tested</i>	1,132	1.7%

Table A.4. Star Math Participation and Tier Performance in Fall and Spring of 2020-21 School Year

Fall/Term 1 2020-2021	Spring/Term 4 2020-2021	# of students	% of students
Tier 1/At or Above Benchmark	Tier 1/At or Above Benchmark	13,714	20.7%
Tier 1/At or Above Benchmark	On Watch (Star Only)	1,532	2.3%
Tier 1/At or Above Benchmark	Tier 2/Strategic Intervention	1,040	1.6%
Tier 1/At or Above Benchmark	Tier 3/Intensive Intervention	801	1.2%
Tier 1/At or Above Benchmark	Not Tested	5,052	7.6%
On Watch (Star Only)	Tier 1/At or Above Benchmark	1,633	2.5%
On Watch (Star Only)	On Watch (Star Only)	959	1.4%
On Watch (Star Only)	Tier 2/Strategic Intervention	992	1.5%
On Watch (Star Only)	Tier 3/Intensive Intervention	738	1.1%
On Watch (Star Only)	Not Tested	1,683	2.5%
Tier 2/Strategic Intervention	Tier 1/At or Above Benchmark	1,053	1.6%
Tier 2/Strategic Intervention	On Watch (Star Only)	955	1.4%
Tier 2/Strategic Intervention	Tier 2/Strategic Intervention	1,708	2.6%
Tier 2/Strategic Intervention	Tier 3/Intensive Intervention	2,329	3.5%
Tier 2/Strategic Intervention	Not Tested	2,589	3.9%
Tier 3/Intensive Intervention	Tier 1/At or Above Benchmark	287	0.4%
Tier 3/Intensive Intervention	On Watch (Star Only)	401	0.6%
Tier 3/Intensive Intervention	Tier 2/Strategic Intervention	1,096	1.7%
Tier 3/Intensive Intervention	Tier 3/Intensive Intervention	6,216	9.4%
Tier 3/Intensive Intervention	Not Tested	4,189	6.3%
Not Tested	Tier 1/At or Above Benchmark	580	0.9%
Not Tested	On Watch (Star Only)	301	0.5%
Not Tested	Tier 2/Strategic Intervention	493	0.7%
Not Tested	Tier 3/Intensive Intervention	1,593	2.4%
Not Tested	Not Tested	12,492	18.9%
Not Enrolled	Tier 1/At or Above Benchmark	180	0.3%
Not Enrolled	On Watch (Star Only)	87	0.1%
Not Enrolled	Tier 2/Strategic Intervention	135	0.2%
Not Enrolled	Tier 3/Intensive Intervention	268	0.4%
Not Enrolled	Not Tested	1,167	1.8%