



THE SCHOOL DISTRICT OF  
PHILADELPHIA

# Grades 6-12 Assessment Data Snapshot

Star Math, Winter 2020-2021

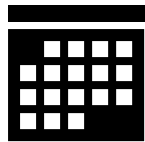
March 2021

Office of Research and Evaluation

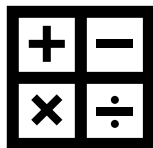
# This slide deck provides a District-level overview of 6<sup>th</sup> – 12<sup>th</sup> grade student performance on the winter Star Math Assessments



Renaissance Star is a suite of computer-adaptive universal screening, progress monitoring, and formative assessment products from Renaissance.



At the District, Star is administered four times in grades 6-8 and three times in grades 9-12.



The Star reading assessment assesses students' skills in numbers and operations, algebra, geometry and measurement, and data analysis, statistics, and probability.

# The District tracks student progress toward Board Goals by using *Leading Indicators*

The **Leading Indicator** toward Goal 3 for the 2020-2021 school year is that by Spring 2021, 54.7% of students in grades 3-8 will test at target on their within-year math assessment.

**Board Goal #3**  
The percentage of students in grades 3-8 who are proficient on the state math assessment will grow from 21.6% in August 2019 to 52.0% by August 2026.

The **Leading Indicator** toward Goal 4 for the 2020-2021 school year is that by Spring 2021, 47.4% of students in grades 9-11 will test at target on their within-year math and literacy assessments.

**Board Goal #4**  
The percentage of students who are proficient on all three state high school assessments (Algebra, Literature, and Biology) by the end of their 11th grade year will grow from 26.1% in August 2019 to 52.0% by August 2026.



For more information, please visit the District's [Office of Evaluation, Research, and Accountability's Goals and Guardrails page](#).

# We measure **student performance** using the following metrics:

Metric	Description	Analytic Purpose
<b>Average National Percentile</b>	A student's National Percentile; a norm-referenced performance measure that compares a student's scaled score to her grade-level peers nationwide.	The Percentile Rank is useful for understanding a student's reading ability compared to other students in the same grade nationally.
<b>Tier Level</b>	<p>Based on a student's Percentile Rank, Tiers are used to identify the level of intervention students need in order to reach proficiency. There are four tier levels:</p> <ul style="list-style-type: none"> <li>• <b>Intensive Intervention</b> (Below the 10<sup>th</sup> percentile)</li> <li>• <b>Strategic Intervention</b> (Between and including the 10<sup>th</sup> percentile and the 24<sup>th</sup> percentile)</li> <li>• <b>On Watch</b> (between and including the 25<sup>th</sup> percentile and the 39<sup>th</sup> percentile)</li> <li>• <b>At/Above Benchmark</b> (the 40<sup>th</sup> percentile or above)</li> </ul>	Tier Levels are useful for understanding District-wide performance trends, as well as for identifying students who need additional supports in the classroom.

# We measure **student growth** using the following metric:

Metric	Description	Analytic Purpose
<b>Student Growth Percentile (SGP)</b>	<p>A norm-referenced metric that compares a student’s growth to her “academic peers” (students in the same grade with a similar score history) nationwide. Measured on a 1-99 scale; lower numbers indicate lower relative growth and higher numbers indicate higher relative growth.</p> <p>Students are placed into three growth categories, based on their SGP:</p> <ul style="list-style-type: none"><li>• <b>High Growth</b> (SGP between 66<sup>th</sup>-99<sup>th</sup> percentiles)</li><li>• <b>Typical Growth</b> (SGP between 35<sup>th</sup>-65<sup>th</sup> percentiles)</li><li>• <b>Low Growth</b> (SGP between 1<sup>st</sup>-34<sup>th</sup> percentiles)</li></ul>	<p>The SGP is used to understand how much growth a student is making compared to his or her peers.</p>



For more information about SGP, please visit [Star’s website](#).

# The following sections present student performance for all 6<sup>th</sup> -12<sup>th</sup> grade students who took the winter Star Math assessment

- Student performance and growth on the key metrics outlined on the previous slide is presented as follows:
  - Overall and by grade
  - By racial/ethnic subgroup
  - By other student subgroups (economically disadvantaged status, special education, English Learner)
- Tier levels are presented first, followed by Average National Percentile, then Student Growth Percentiles

## **Student Participation in Assessments**

**How many students participated in the winter 2020-21 assessment?**

# Winter 20-21 Star participation rates were higher in grades 6-8 than 9-12.

	Number of students eligible to participate in assessment	Number of students who were assessed	Participation rate (percentage of students who were assessed)
<b>Grades 6-8 Combined</b>	27,615	23,303	84.4%
<b>6<sup>th</sup> Grade</b>	9,107	7,779	85.4%
<b>7<sup>th</sup> Grade</b>	9,224	7,764	84.2%
<b>8<sup>th</sup> Grade</b>	9,284	7,760	83.6%
<b>Grades 9-12 Combined</b>	35,524	23,958	67.4%
<b>9<sup>th</sup> Grade</b>	9,879	7,451	75.4%
<b>10<sup>th</sup> Grade</b>	9,556	6,735	70.4%
<b>11<sup>th</sup> Grade</b>	8,234	5,663	68.8%
<b>12<sup>th</sup> Grade</b>	7,855	4,109	52.3%

Source: Qlik Aimsweb-Star App. Accessed 03/09/2021



# Asian and White students had higher participation rates than other groups of students.

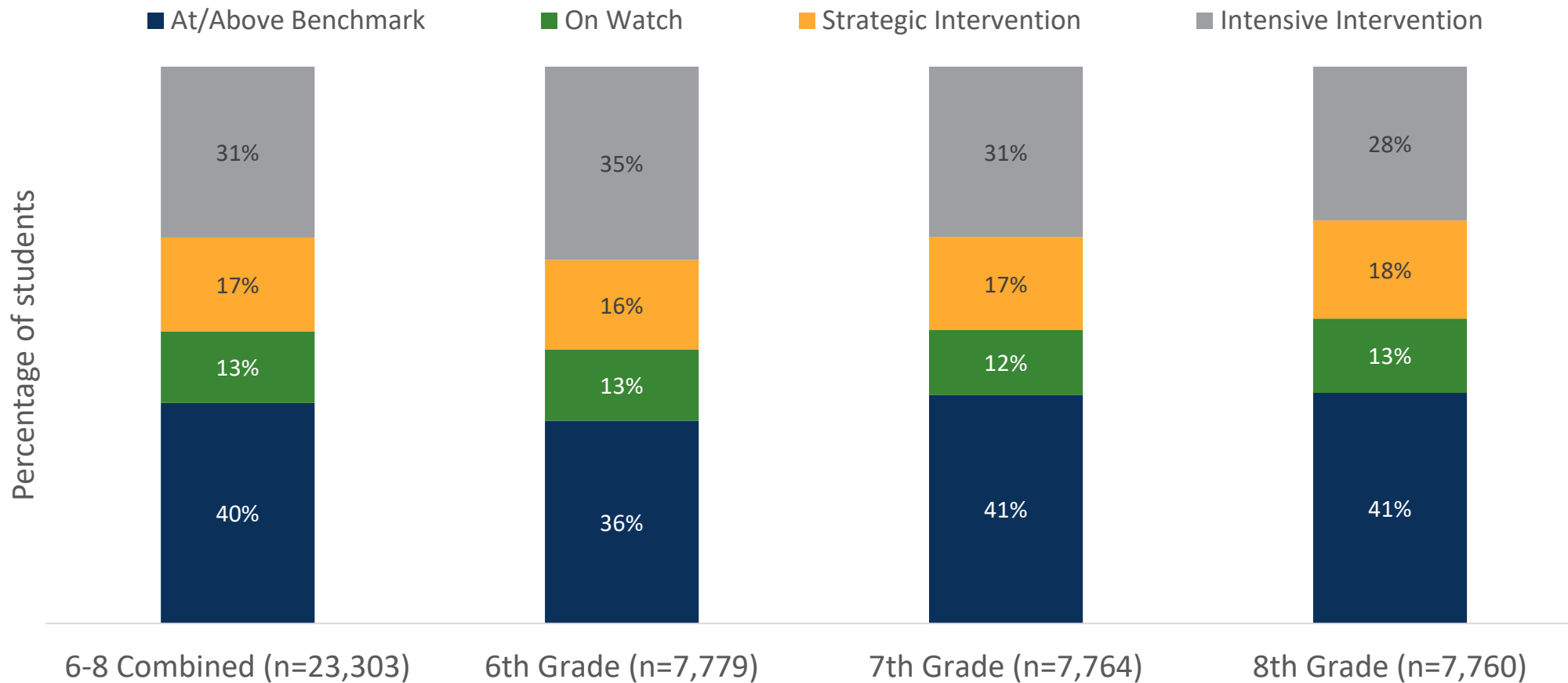
	Number of students eligible to participate in assessment	Number of students who were assessed	Participation rate (percentage of students who were assessed)
<b>Asian</b>	6,430	5,591	87.0%
<b>Black/African American</b>	31,200	22,704	72.8%
<b>Hispanic/Latinx</b>	13,511	9,416	71.1%
<b>Multi-racial/Other</b>	3,144	2,306	73.5%
<b>White</b>	8,631	7,058	81.8%
<b>Economically Disadvantaged</b>	42,738	31,708	74.4%
<b>Has IEP (Individualized Education Plan)*</b>	11,660	7,049	60.5%
<b>EL (English Learner)</b>	7,913	5,517	75.2%

\* All students are required to participate except for students who are exempted based on their Individualized Education Program (IEP). For the Special Education student group, participation rate includes all students, included those who are exempted, in the denominator.

## Tier-Level Analysis

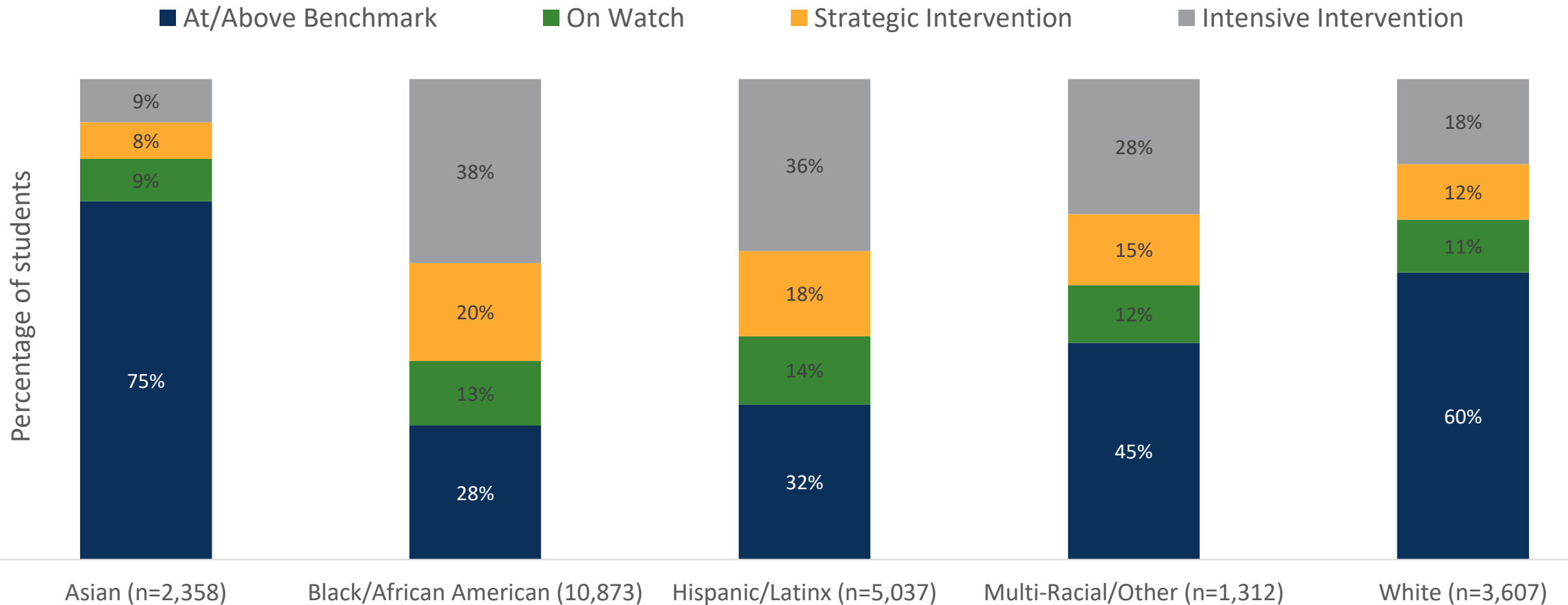
Who is performing at target and who requires additional support?

# Overall, about half of all 6<sup>th</sup> – 8<sup>th</sup> grade students who took the winter Star Math assessment scored either On Watch or At/Above Benchmark.

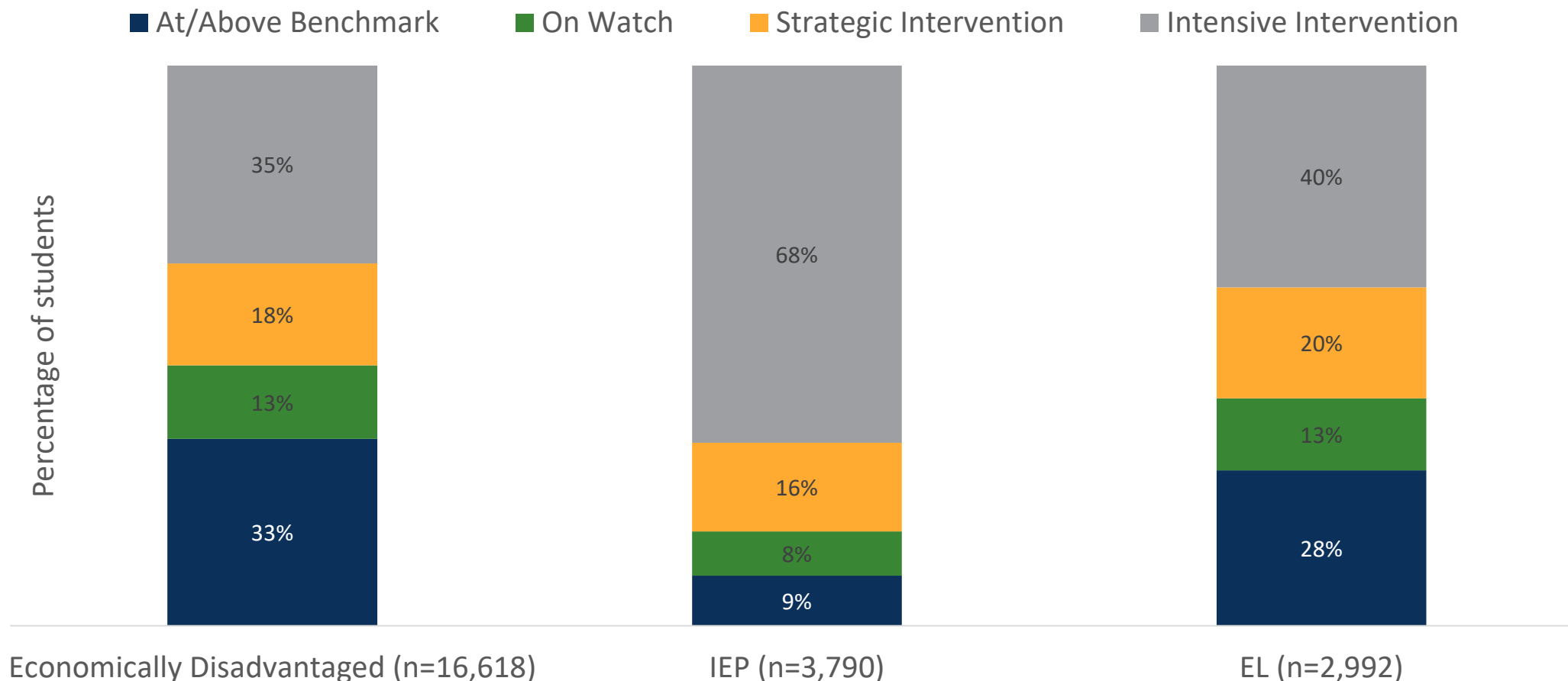


Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# Over one-third of African American/Black and Hispanic/Latinx 6<sup>th</sup> – 8<sup>th</sup> graders required Intensive Intervention.

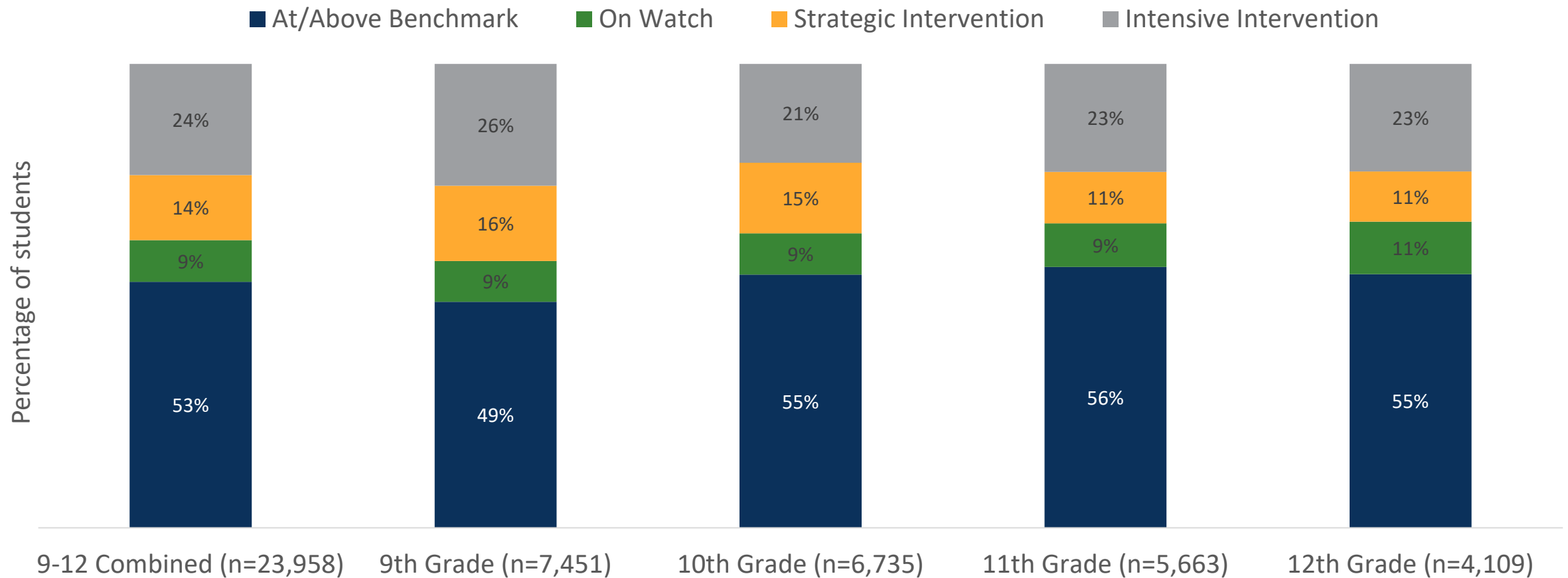


# About three-quarters of 6<sup>th</sup> – 8<sup>th</sup> graders who had an Individualized Education Plan (IEP) or were classified as English Learners (ELs) required Intensive Intervention.

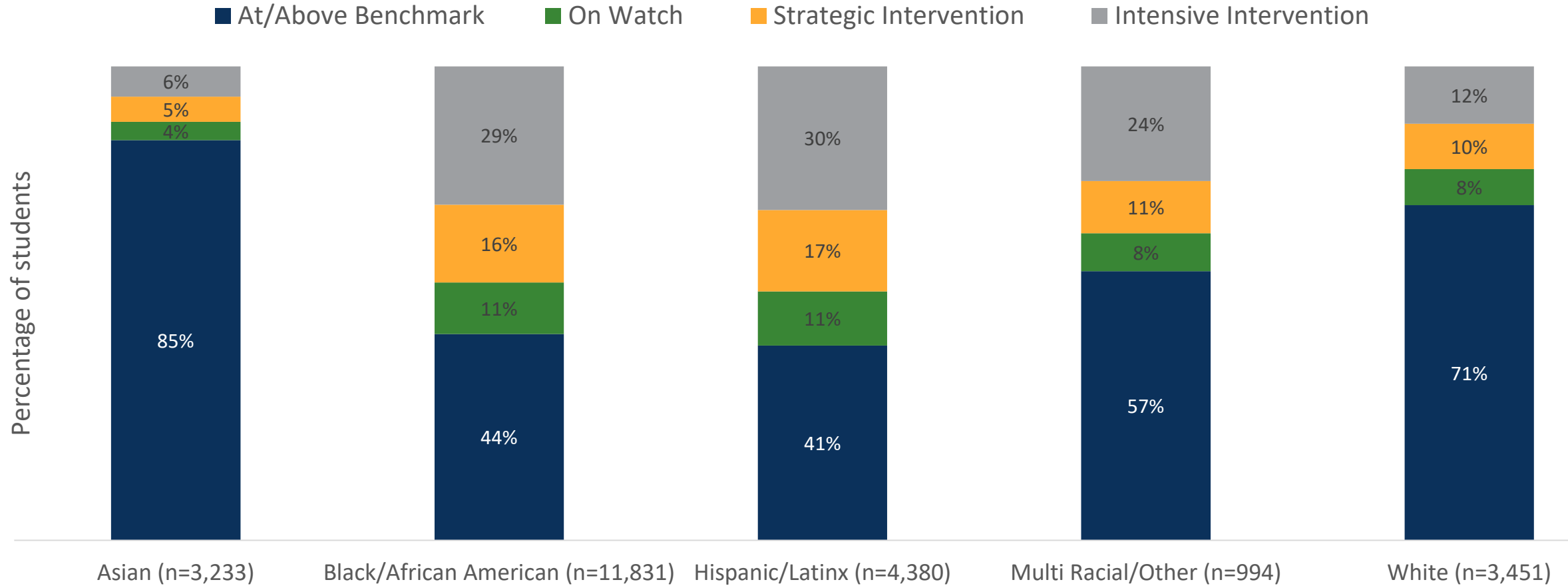


Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# Overall, about one-half of all 9<sup>th</sup> – 12<sup>th</sup> grade students who took the winter Star Math assessment scored At/Above Benchmark.

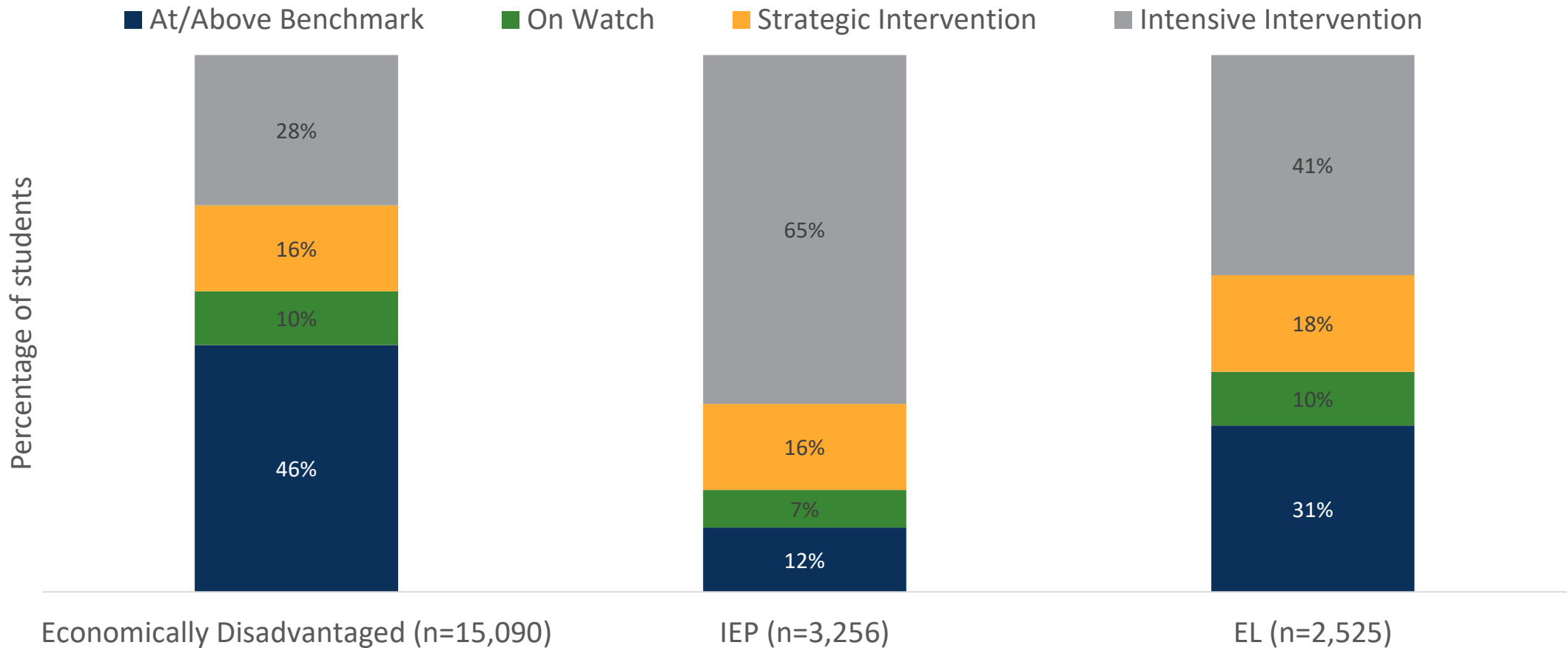


# About one-third of Hispanic/Latinx 9<sup>th</sup> – 12<sup>th</sup> graders required Intensive Intervention.



Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# About two-thirds of 9<sup>th</sup> – 12<sup>th</sup> graders who had an Individualized Education Plan (IEP) required Intensive Intervention.



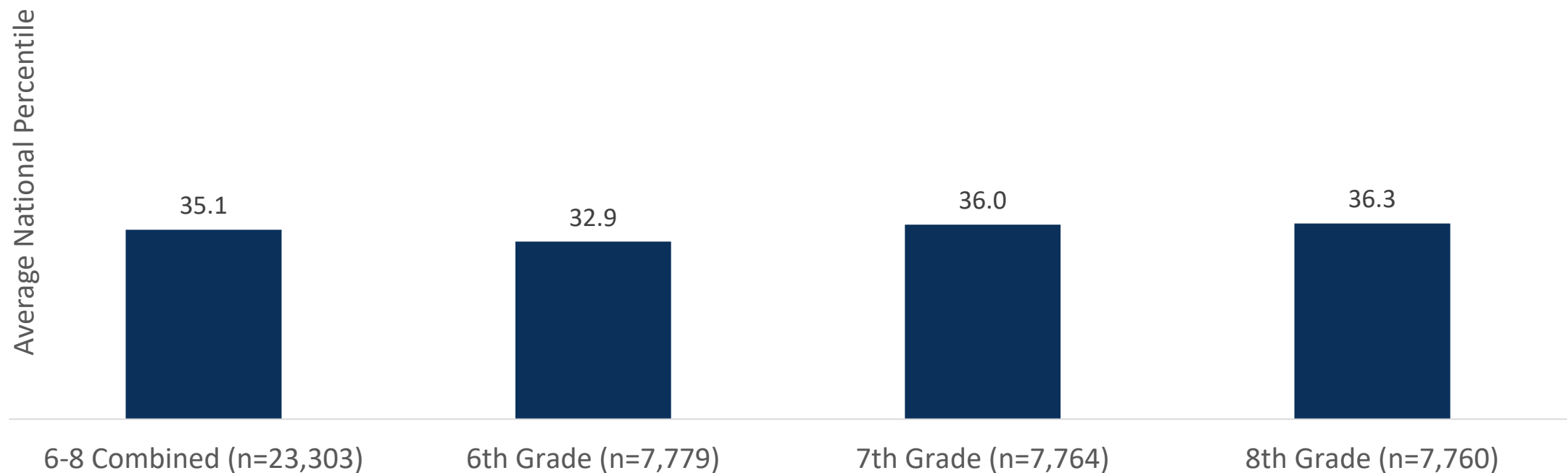
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021



## Average National Percentiles

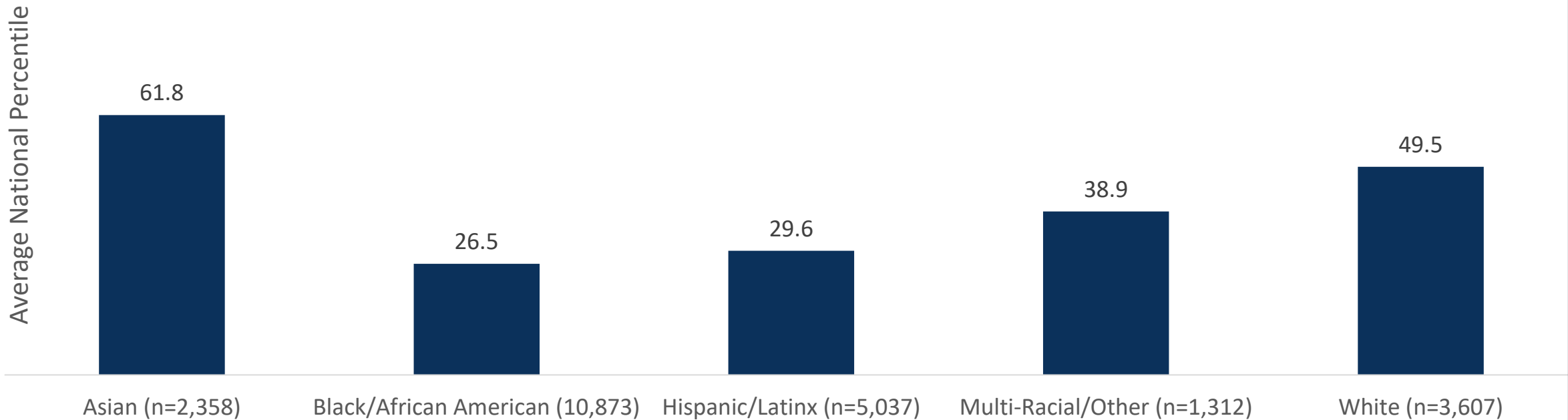
How are students performing compared to the national sample?

**Overall, students in grades 6-8 had an Average National Percentile (ANP) of 35.1, meaning they scored higher than about a third of students in the national sample.**



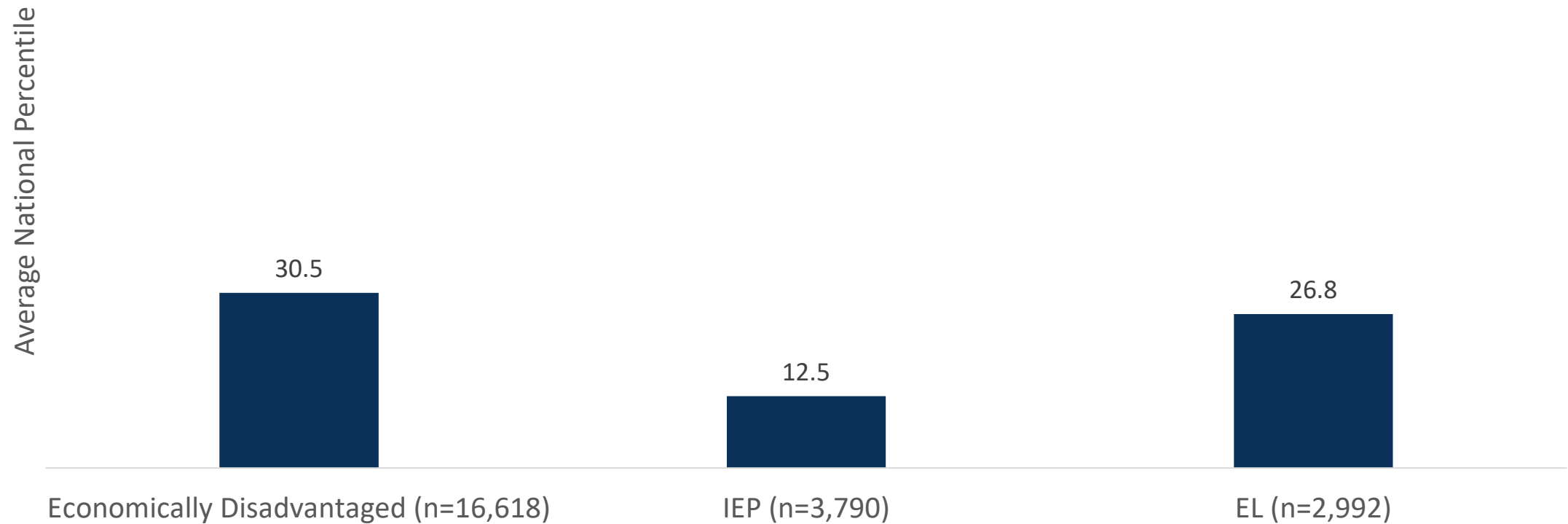
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# Asian and White 6<sup>th</sup> – 8<sup>th</sup> graders had higher ANPs than their Black/African American and Hispanic/Latinx peers.



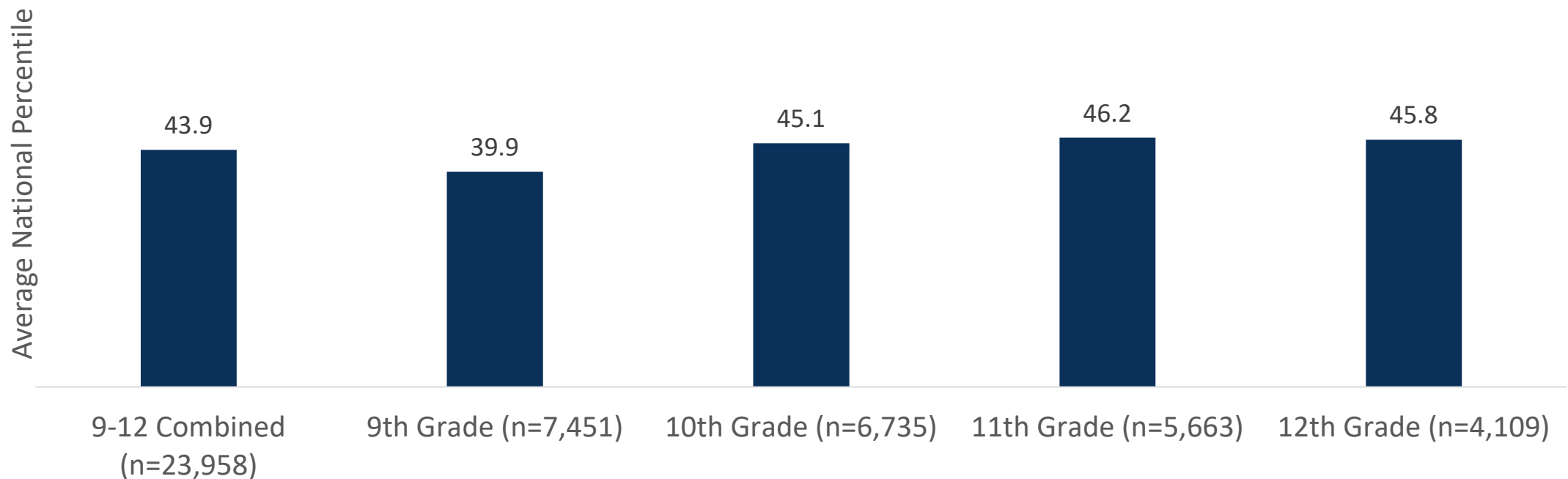
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# 6<sup>th</sup> – 8<sup>th</sup> graders with an Individualized Education Plan (IEP) scored lower than about 88% of the national sample.



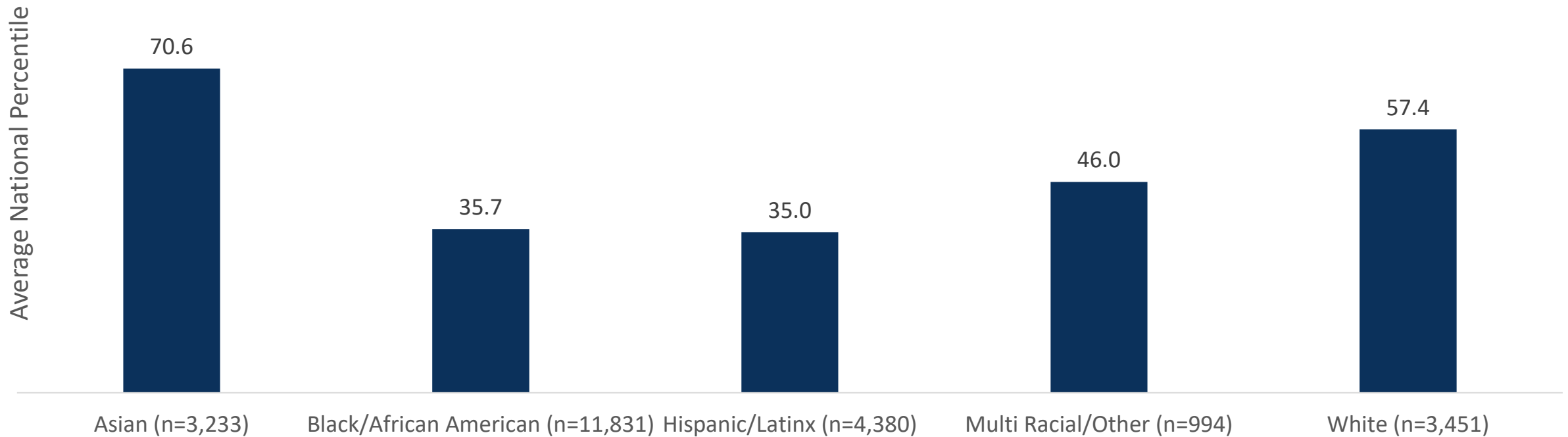
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

**Overall, students in grades 9-12 had an Average National Percentile (ANP) of 43.9, meaning they scored higher than nearly one-half of students in the national sample.**



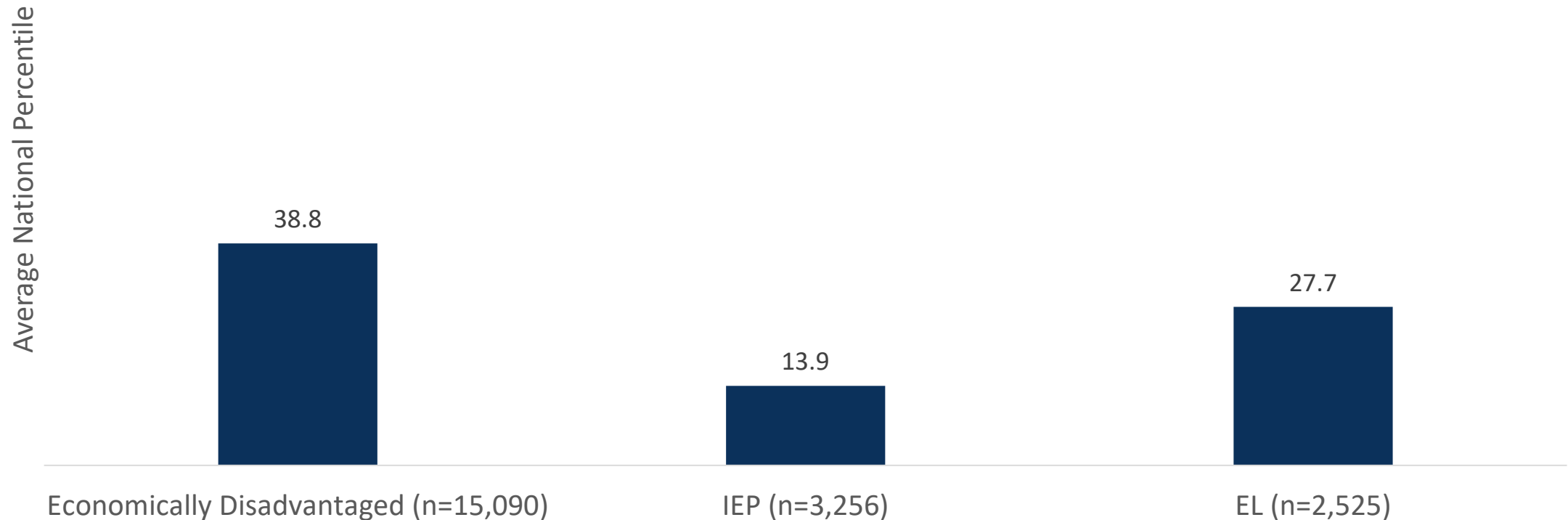
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# Asian and White 9<sup>th</sup> – 12<sup>th</sup> graders had higher ANPs than their Black/African American and Hispanic/Latinx peers.



Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# 9<sup>th</sup> – 12<sup>th</sup> graders with an Individualized Education Plan (IEP) scored lower than about 87% of the national sample.



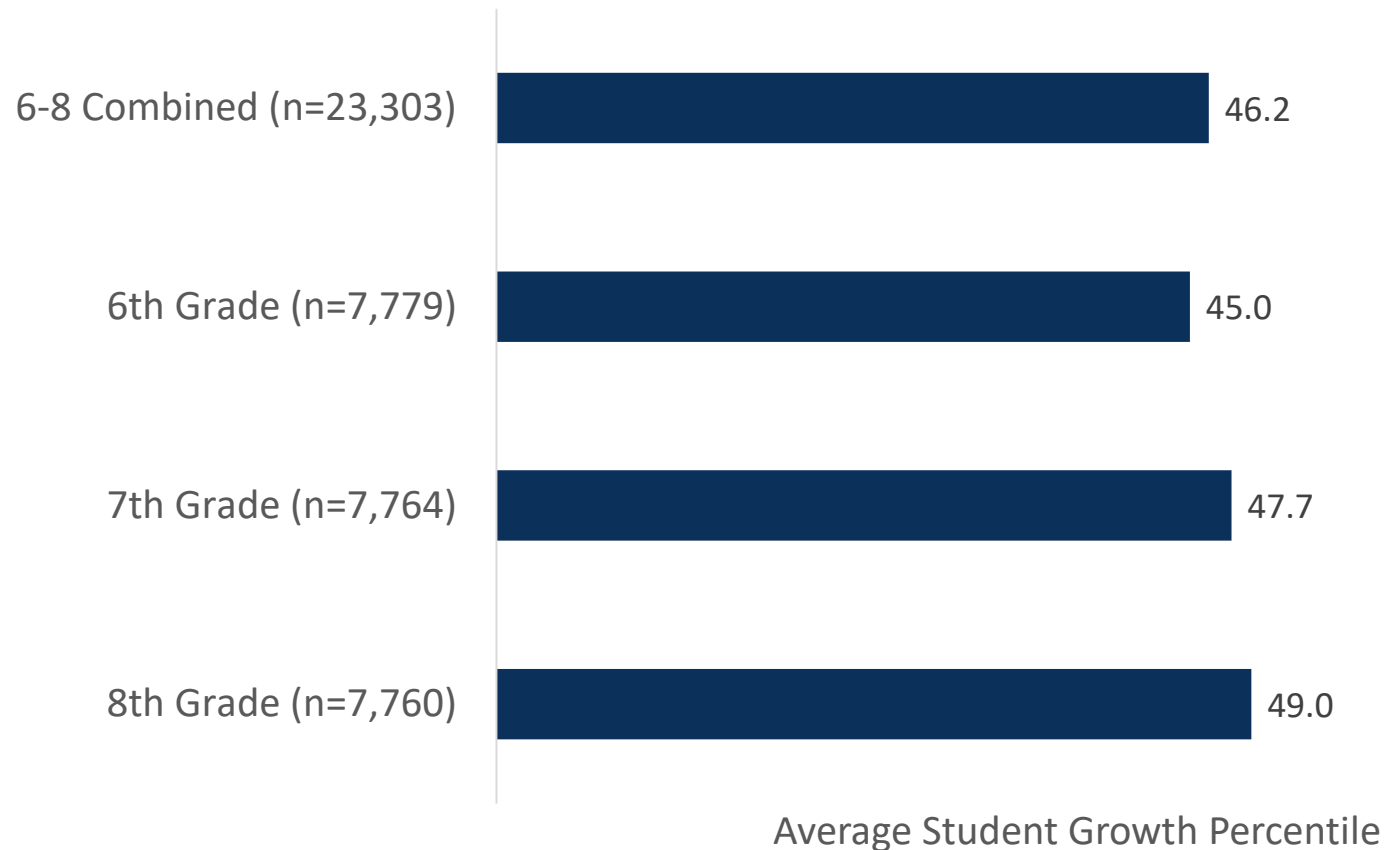
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

## Student Growth Percentiles (SGP)

How quickly are students growing compared to similar students in the national sample?



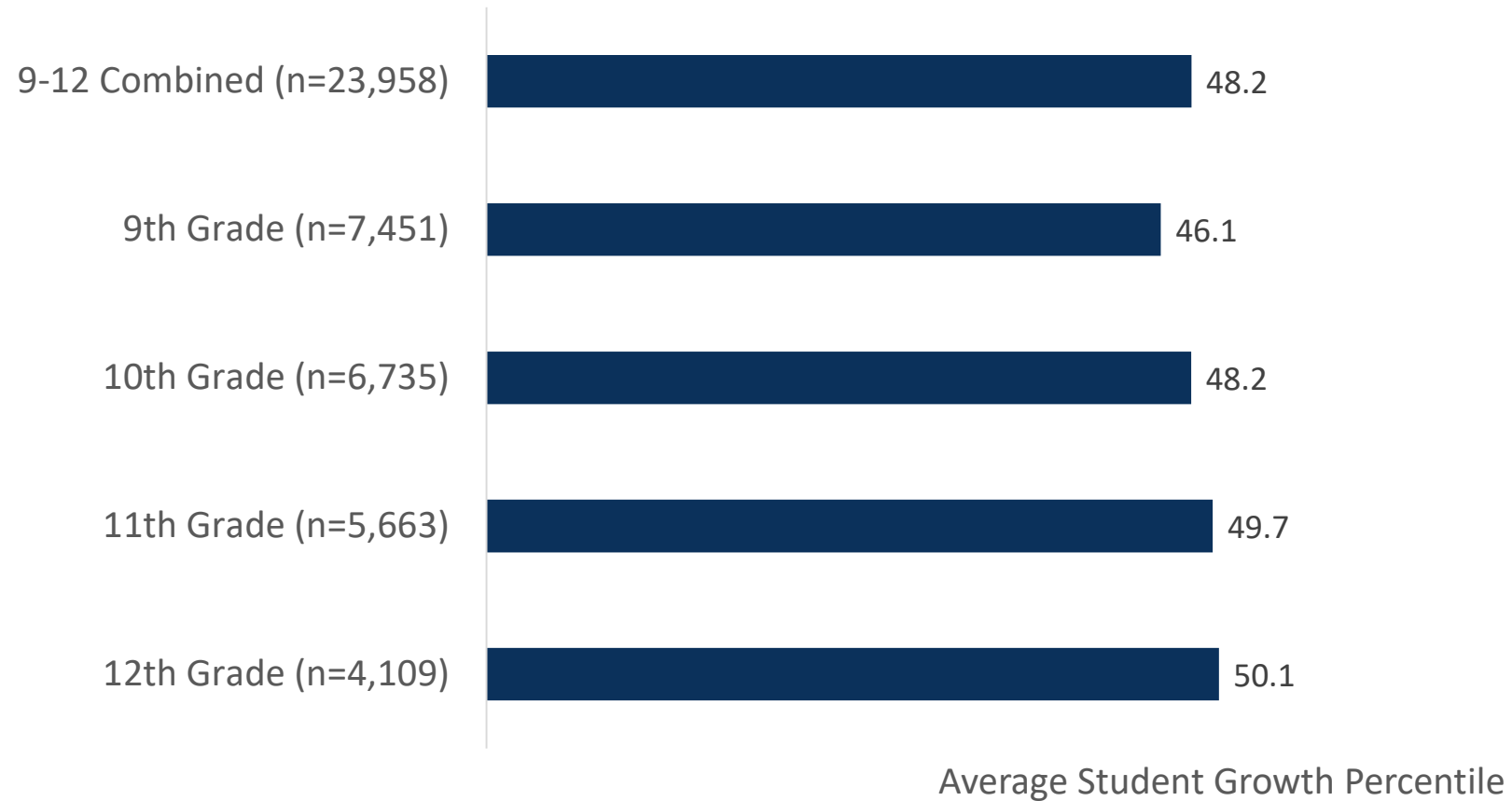
# On average, 6<sup>th</sup>-8<sup>th</sup> graders demonstrated “typical” growth from fall to winter.



Remember - students are placed into three growth categories, based on their SGP:

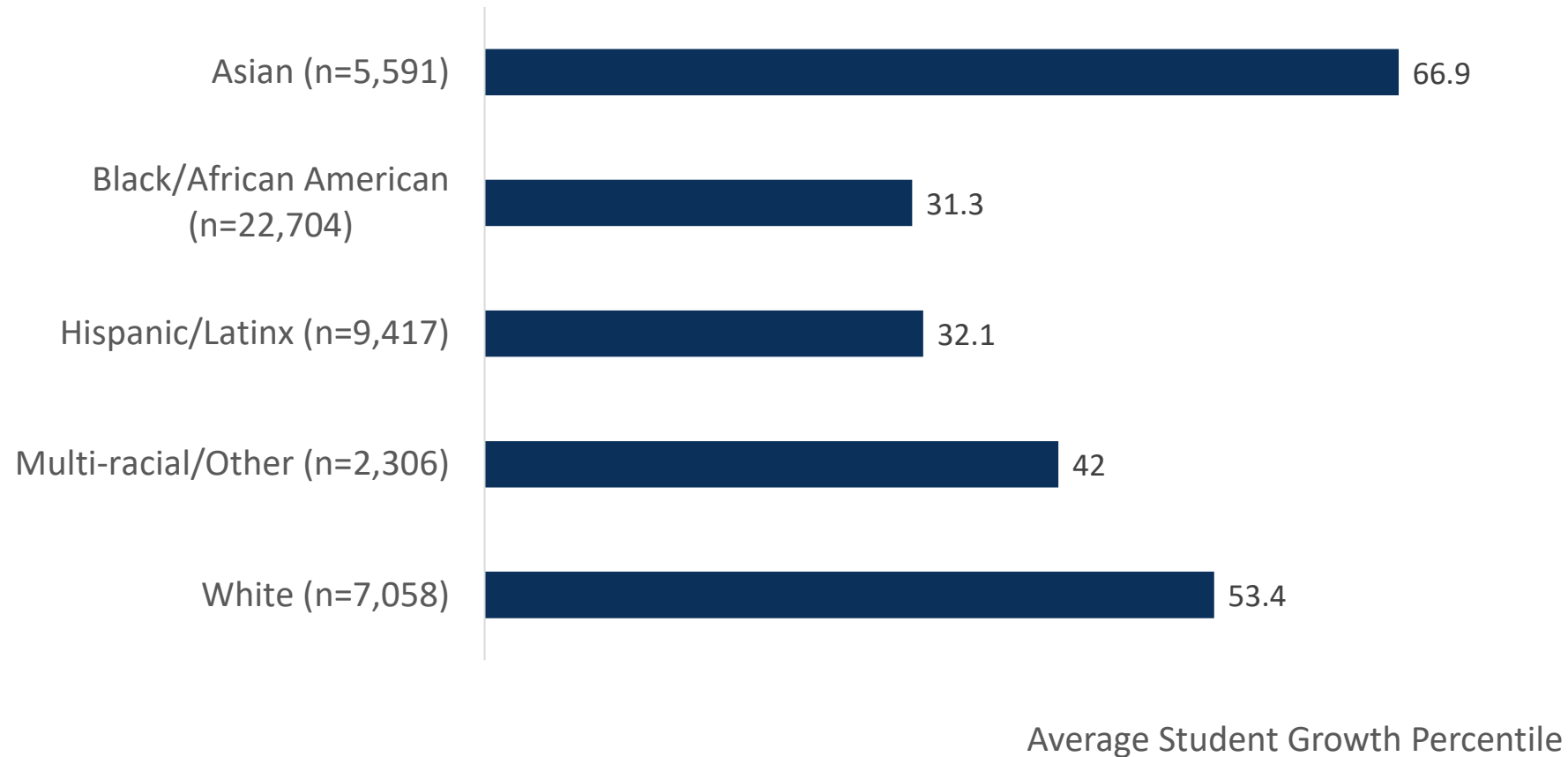
- **High Growth** (SGP between 66<sup>th</sup>-99<sup>th</sup> percentiles)
- **Typical Growth** (SGP between 35<sup>th</sup>-65<sup>th</sup> percentiles)
- **Low Growth** (SGP between 1<sup>st</sup>-34<sup>th</sup> percentiles)

# On average, 9<sup>th</sup>-12<sup>th</sup> graders demonstrated “typical” growth from fall to winter.



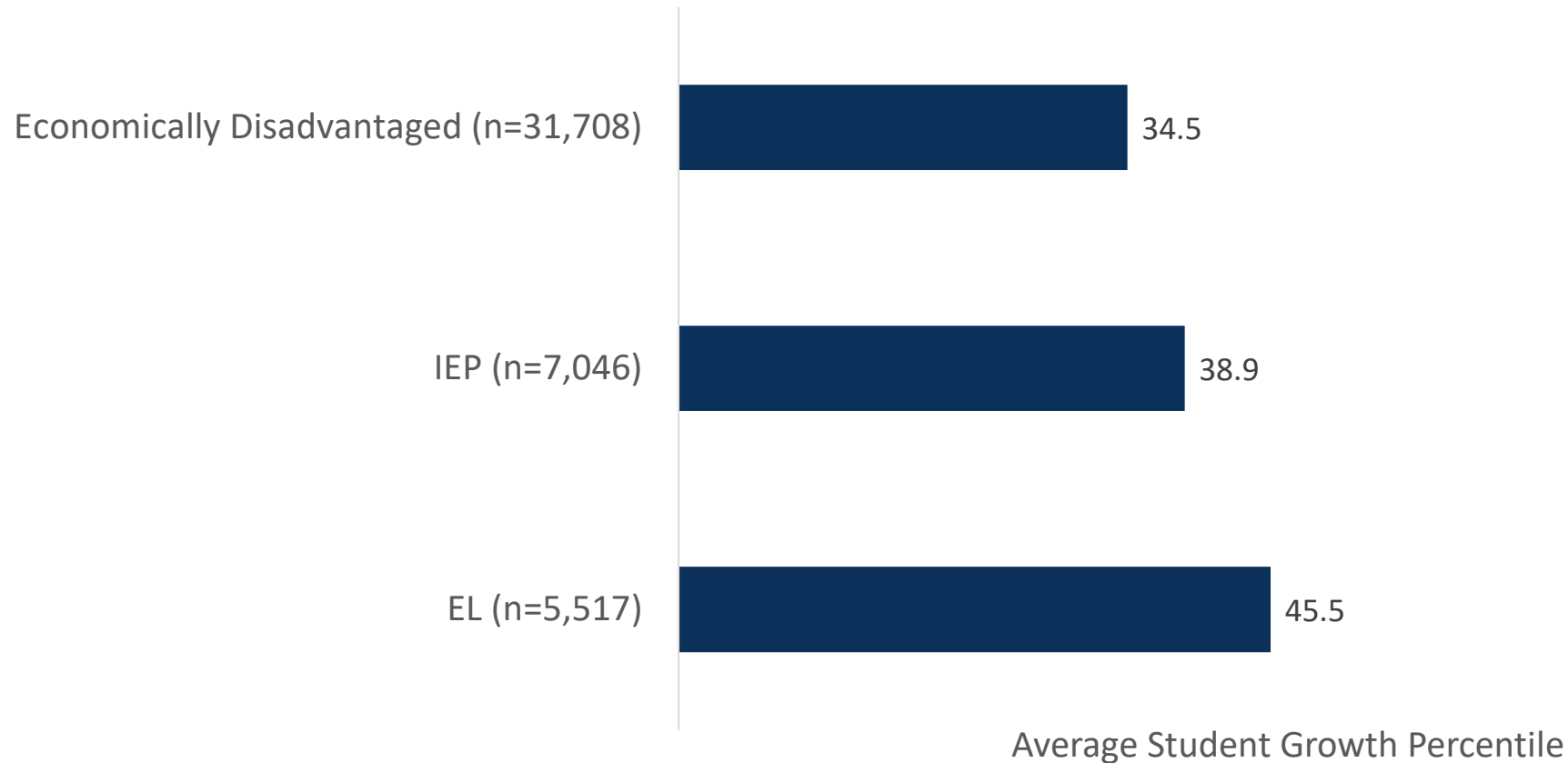
Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# On average, Black/African American and Hispanic/Latinx students demonstrated “low” growth from fall to winter.



Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# On average, economically disadvantaged students and students with IEPs demonstrated “low” growth from fall to winter.



Source: Qlik Aimsweb-Star App. Accessed 03/09/2021

# Summary of Winter 2020-21 Star Math Assessment Data

- About one-third of 6<sup>th</sup> -8<sup>th</sup> graders and one-half of 9<sup>th</sup> -12<sup>th</sup> graders scored At/Above Benchmark on the winter Star Math assessment.
- The majority of 6<sup>th</sup> -12<sup>th</sup> grade special education students required either strategic or intensive intervention. EL students performed higher, on average, on the winter Star math assessments than on the winter Star reading assessments.
- The majority of 6<sup>th</sup> -12<sup>th</sup> grade students scored lower, on average, than their peers nationwide, except for Asian students.
- Black/African American, Hispanic/Latinx, and special education students demonstrated “low” growth between the fall and winter Star math assessments.