

Palm Springs Unified School District
Results Monitoring Report
R-2.2 Academic Achievement in Core Academic Disciplines
Mathematics
October 12, 2021

SUPERINTENDENT CERTIFICATION:

With respect to Results Policy R-2.2 "Meet or exceed state standards in academic achievement mathematics," the Superintendent certifies the following information is accurate and complete, and that the District is:

Making Reasonable Progress

Making Reasonable Progress with noted exception(s)

- The context of pandemic-related school closures directly impacted overall performance for students at all grade levels.
- Systems for distance learning instruction and intervention were implemented to minimize learning loss and unfinished learning.

Failing to make Reasonable Progress

Signed: _____ Date: _____
Superintendent

BOARD ACTION:

With respect to Results Policy R-2.2, "Meet or exceed state standards in academic achievement in mathematics," the Board finds that the District and the Superintendent are:

Making Reasonable Progress

Making Reasonable Progress with noted exception(s)

Failing to make Reasonable Progress

Comments and/or Directives:

Signed: _____ Date: _____
Board President

Palm Springs Unified School District
Results Monitoring Report
R-2.2 Academic Achievement in Core Academic Disciplines
Mathematics

R-1 Mission

Students will graduate prepared and motivated to succeed in their choice of career and higher education and to contribute to the common good.

PURPOSE

The purpose of this Results Monitoring Report is to provide the Board with appropriate data demonstrating progress in the achievement of the core academic subject, Mathematics.

The following interpretation, indicators, and data analysis memorializes the achievement of PSUSD students in Mathematics. The external evidence assists the Board in answering the question, "Has reasonable progress been accomplished towards meeting the District's Results Policies?"

CRITERIA TO DETERMINE REASONABLE PROGRESS

1. The Results Policy has been reasonably interpreted.
2. Appropriate indicators have been selected that accurately measure student achievement.
3. The data is sufficient to allow the Board to decide.
4. Students show performance improvement over time.

R-2 Academic Achievement

Students will:

- 2.2 Achieve personally rigorous standards in Mathematics
 - 2.2.1 Demonstrate solid understanding of mathematical concepts
 - 2.2.2 Demonstrate procedural skill and fluency
 - 2.2.3 Apply knowledge and skills in solving problems

INTERPRETATION

Achieve personally rigorous standards: students will increase in Mathematics as compared to their previous level of proficiency.

Mathematics: the study of numbers, quantity, shape, and space and their interrelationships by using numbers and specialized symbols.

2.2.1

- *Solid understanding of mathematical concepts:* algebraic thinking, the ability to analyze patterns and relationships in mathematical problems, as well as identify and explain patterns.

2.2.2

- *Procedural skill:* practical application of the relationship between addition, subtraction, multiplication, and division.
- *Fluency:* readily and effortlessly solve problems involving the four operations.

2.2.3

- *Apply knowledge and skills in solving problems:* utilization of the Standards of Mathematical Practice, making sense of problems, using appropriate tools strategically, persevering in solving problems, and employing procedural skill and mathematical fluency.

DEFINITION OF TERMS

Smarter Balanced Assessment Consortium (SBAC)

A state-led consortium working collaboratively to develop assessments aligned to the Common Core State Standards (CCSS) that accurately measure student progress toward college and career readiness in English Language Arts/Literacy and Mathematics. These assessments were included in the development of the statewide California Assessment of Student Performance and Progress (CAASPP) system and are administered in grades three through eight and grade eleven. Smarter Balanced tests are designed to measure college and career readiness at each grade level. Each grade level Smarter Balanced test aligns to the Common Core State Standards, which comprise most of the California Standards for English Language Arts. Smarter Balanced results differ greatly from a skills test (e.g. DIBELS) and a standards-based test in that the test design requires students to apply their understanding of standard content in multiple ways rather than demonstrating a specific isolated skill or providing specific content knowledge on demand. For most items, Smarter Balanced requires students to combine multiple standards and skills to answer questions, therefore the results are not directly comparable to other test structures.

The Early Assessment Program (EAP)

A collaborative effort among the State Board of Education (SBE), the California Department of Education (CDE) and the California State University (CSU). This assessment provides opportunities for students to measure their readiness for college-level English and mathematics in their junior year of high school. The EAP is currently determined directly from eleventh grade English Language Arts/Literacy and Mathematics test results from the annual California Assessment of Student Performance and Progress (CAASPP) system. Students scoring as “Standard Met” on the SBAC are reported as “Conditionally Ready” for the EAP, while students scoring “Standard Exceeded” on the SBAC are reported as “Ready” for the EAP. Students have opportunities to improve their skills during their senior year.

Renaissance Star (Star)

The Star tests are produced by Renaissance Learning, available for reading and mathematics in both English and Spanish. Star is a diagnostic test using an adaptive algorithm that adjusts item difficulty based on student performance during the test. Star provides a variety of different results sets including benchmarking levels which identify student intervention need urgency, skills performance data, standards performance data, and score predictability for other test structures such as CAASPP, SAT, and ACT. In the Spring of 2021, PSUSD purchased licenses for Star as a locally determined assessment in lieu of CAASPP in grades three through eight in compliance with SBE approved state testing flexibility due to school closures caused by the COVID-19 pandemic. Star will continue to be administered as a district assessment three times per year starting in 2021-2022.

CONTEXT FOR THE 2020-2021 MATH RESULTS REPORT

The 2020-2021 academic year presented a variety of unique challenges brought on by the COVID-19 pandemic. School closures were in place for most of the year across the region, with distance learning methodologies used as the primary instructional delivery method in all grade levels and academic subjects. Public health conditions, executive orders by the Governor, state legislative actions, and public health authority guidance set guidelines for distance learning, small group cohorts, and the conditions necessary to transition to hybrid or in-person learning models. PSUSD was able to reopen campuses in a hybrid model for those families wishing to participate beginning in April 2021. Students and families choosing to not participate in hybrid instruction remained in distance learning for the remainder of the year. Participation rates in hybrid instruction were higher in elementary schools than in secondary schools during the last two months of the academic year.

Assessing student progress during the 2020-2021 academic year encountered similar challenges as instruction, with traditional assessment models needing to be reformatted and/or moved to remote assessment structures. Local “Start of Year” assessments were remotely administered in August 2020 to provide teachers and schools with baseline information to use in planning recovery from incomplete learning and skill regression due to the emergency school closures in the Spring of 2020. Teacher teams monitored student progress throughout the 2020-2021 academic year, using a variety of remotely administered formative assessments to measure progress towards short-term academic goals based on student needs.

State-level assessment structures and requirements suffered similar challenges in design and implementation. Spring 2020 state testing requirement was cancelled via an approved state waiver due to pandemic-related emergency school closures, leaving a gap in traditional state level performance metrics. During the opening phases of the 2020-2021 academic year, the SBE and California state legislators clearly communicated a desire to have state testing implemented to measure student performance regardless of the instructional models used due to local public health conditions. This perspective evolved over the course of the year, including some limited waiver submissions, altered CAASPP blueprints, and testing flexibility guidance provided to LEAs for use in determining the viability of conducting traditional CAASPP testing based on local context. PSUSD chose to use this testing flexibility for grades three through eight, shifting to the Renaissance Star tests in lieu of CAASPP. PSUSD administered the CAASPP in grade eleven due to a variety of factors including student identification requirements for graduation honors (e.g. State Seal of Biliteracy, Golden State Merit Seal) and the continued use of the Early Assessment Program (EAP) by the California State University system, however student participation rates were low at multiple schools resulting in comparability issues with

prior year results. Overall, these decisions and subsequent actions allowed the district to collect student performance data for 2020-2021 with comparability issues to prior performance and an inability to generate the previously established results report metric set due to the use of different assessments.

Given the uniqueness of the 2020-2021 academic year in both instruction and assessment, the 2020-2021 Mathematics Results Report has been reconfigured as a single-year focused report. This year's report features student performance on the Star tests in grades three through eight, CAASPP Smarter Balanced results in grade eleven, and connections to instructional practices implemented or modified due to the context of shifting instructional models during the 2020-2021 year. It is recommended that this report is viewed within the context presented with the understanding of limited comparability to prior or future results.

INDICATORS and TARGETS

The established indicators and targets for the Mathematics Results Report are not able to be generated for the 2020-2021 academic year due to the use of the testing flexibility provisions afforded to LEAs for the Spring of 2021. Therefore, the previously established Primary Indicators for mathematics are "not applicable" for the 2020-2021 year and a set of one-year results indicators have been provided to describe student performance and district progress for the academic year.

PRIMARY INDICATORS

Due to the administration of locally determined assessments in lieu of CAASPP in grades three through eight and lower than normal participation rates in eleventh grade CAASPP completion, the following single-year indicators are being provided as a measure of progress in the 2020-2021 academic year.

- Star Math CAASPP Potential Level – A prediction of a student's likely CAASPP level based on the results of the Star Math test. This is calculated by Renaissance Learning based on formulas developed using the historical records of Star Math and CAASPP results.
- Star Math Benchmark Monitoring Level – Levels set by Renaissance Learning to identify groups of students as being on-track or in need of intervention. There are four levels in this metric: At/Above Benchmark, On Watch, Intervention, and Urgent Intervention.
- CAASPP Mathematics Grade 11 Achievement Levels – The previously established indicators of percent meeting or exceeding standard and percentage of students in the Standard Not Met level are reported for the eleventh grade cohort. Some comparison data to prior eleventh grade results will be provided for context; however these comparisons will be shared with through the understanding that participation in the 2021 CAASPP test was lower than in normal years and the test blueprints were adjusted to support remote testing. Both factors impact direct results comparison and interpretation with prior year data sets.

Since Star tests were being used for the first time districtwide in the Spring of 2021, targets were not available for measuring performance improvement. Similarly, eleventh grade targets were not able to be set following the 2019-2020 year due to the cancellation of state testing in

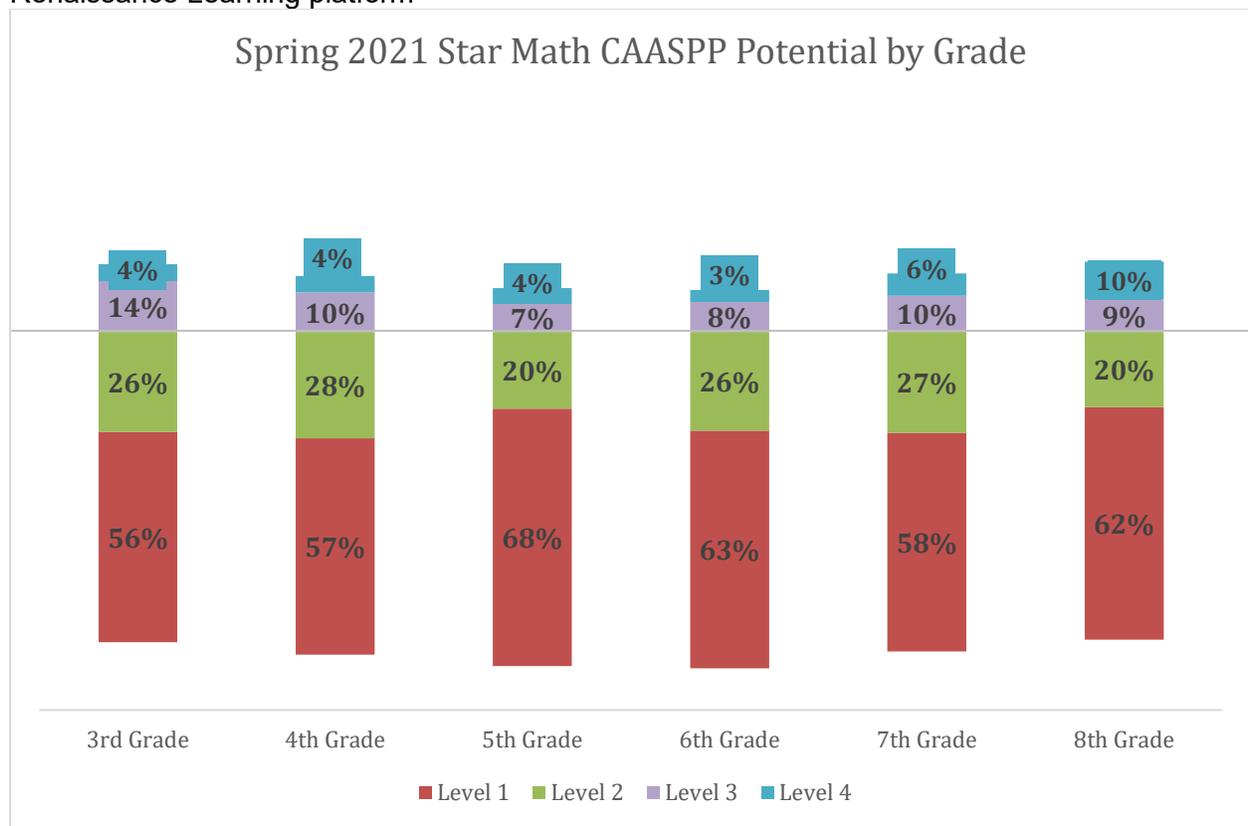
the Spring of 2020. Since results targets are not available, progress in mathematics for 2020-2021 will be evaluated based on the status of each of the indicators using comparisons to prior years across testing structures, contextual understanding of unfinished learning or learning gaps caused or expanded by school closures, and/or implementation of planned instructional practices to support student learning during the year.

SUPPORTING METRICS – Student groups

In prior year results reports, supporting metrics are provided to further describe the current performance of the District in the area of mathematics. These data points traditionally display results from key grade levels to illustrate performance within grade spans. Due to the change in reporting for 2020-2021, supporting metrics will be integrated into the main results interpretation. Supporting metrics will include results disaggregation by grade span, ethnicity groups, and program groups for each indicator.

STAR MATH CAASPP POTENTIAL LEVEL BY GRADE

Predicted CAASPP performance based on Star results in Spring 2021 as calculated by the Renaissance Learning platform



CAASPP Potential Levels

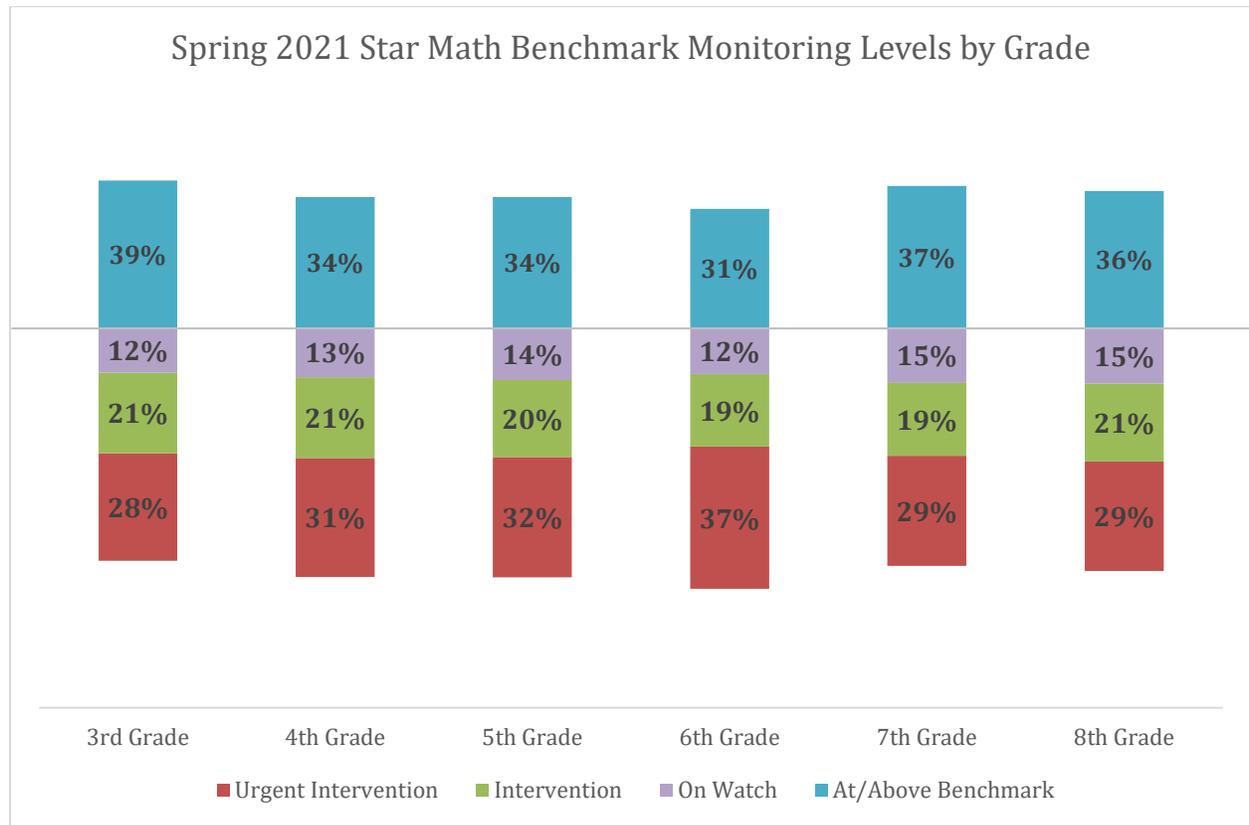
- Level 4 = Projected to score at the Standard Exceeded level
- Level 3 = Projected to score at the Standard Met level
- Level 2 = Projected to score at the Standard Nearly Met level
- Level 1 = Projected to score at the Standard Not Met level

Renaissance Star Math tests were administered in grades 3-8 in the Spring of 2021 in lieu of CAASPP testing per SBE approved testing flexibility guidelines.

Results for ethnicity groups and program groups are noted within the Data Analysis section and are provided in the Additional Data section at the end of this report.

STAR MATH BENCHMARK MONITORING LEVEL BY GRADE

Monitoring levels identify groups as being on-track or in need of intervention based on Star results in Spring 2021 as calculated by the Renaissance Learning platform



Benchmark Monitoring Levels

At/Above Benchmark = Students have either demonstrated standards knowledge at a level indicating that normal classroom instruction should allow the student to continue to be “on-track” for standards mastery.

On Watch = Students may need intervention in some areas and should be monitored closely.

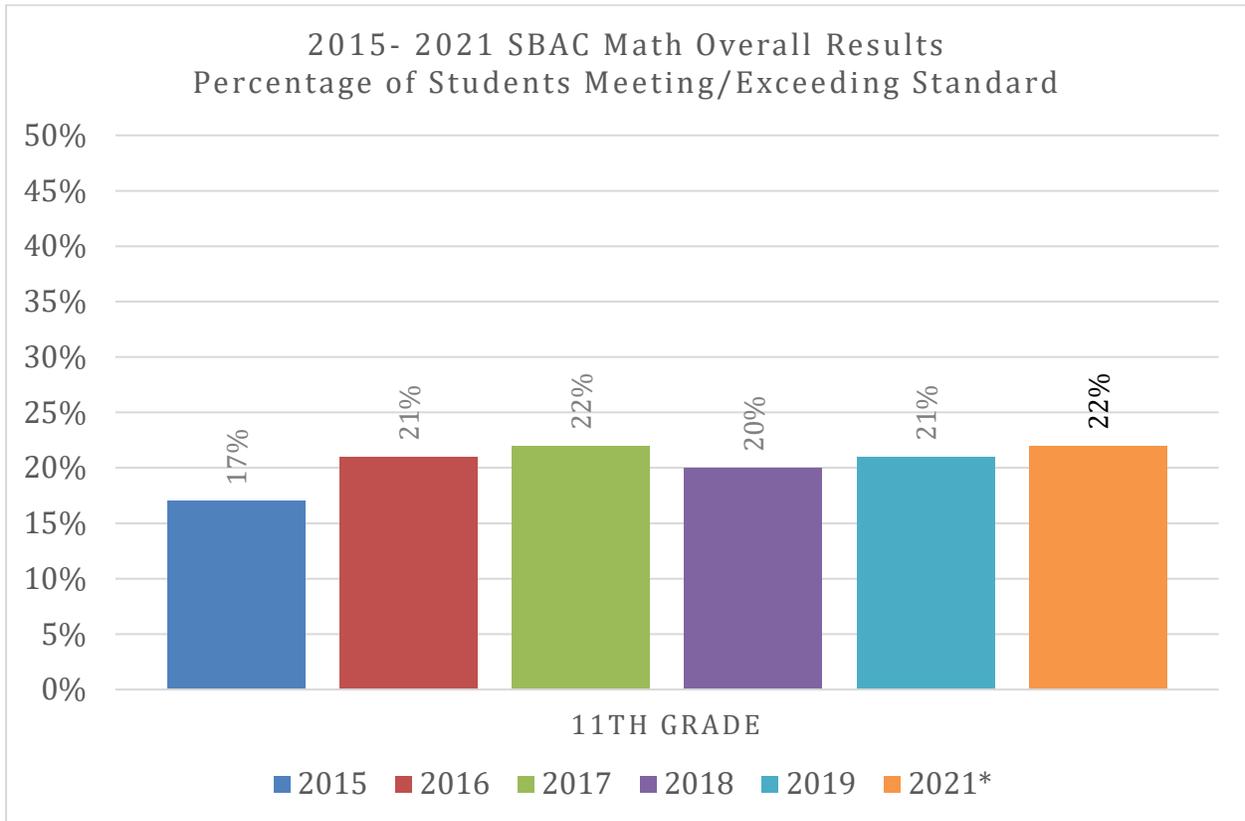
Intervention = Students need intervention in most areas to return to an “on-track” status.

Urgent Intervention = Significant intervention is needed in this academic subject.

Renaissance Star Math tests were administered in grades 3-8 in the Spring of 2021 in lieu of CAASPP testing per SBE approved testing flexibility guidelines.

Results for ethnicity groups and program groups are noted within the Data Analysis section and are provided in the Additional Data section at the end of this report.

PERCENTAGE OF STUDENTS MEETING OR EXCEEDING STANDARD
 Percent of Students Meeting or Exceeding Standard 2015-2021
 Grade 11 Only



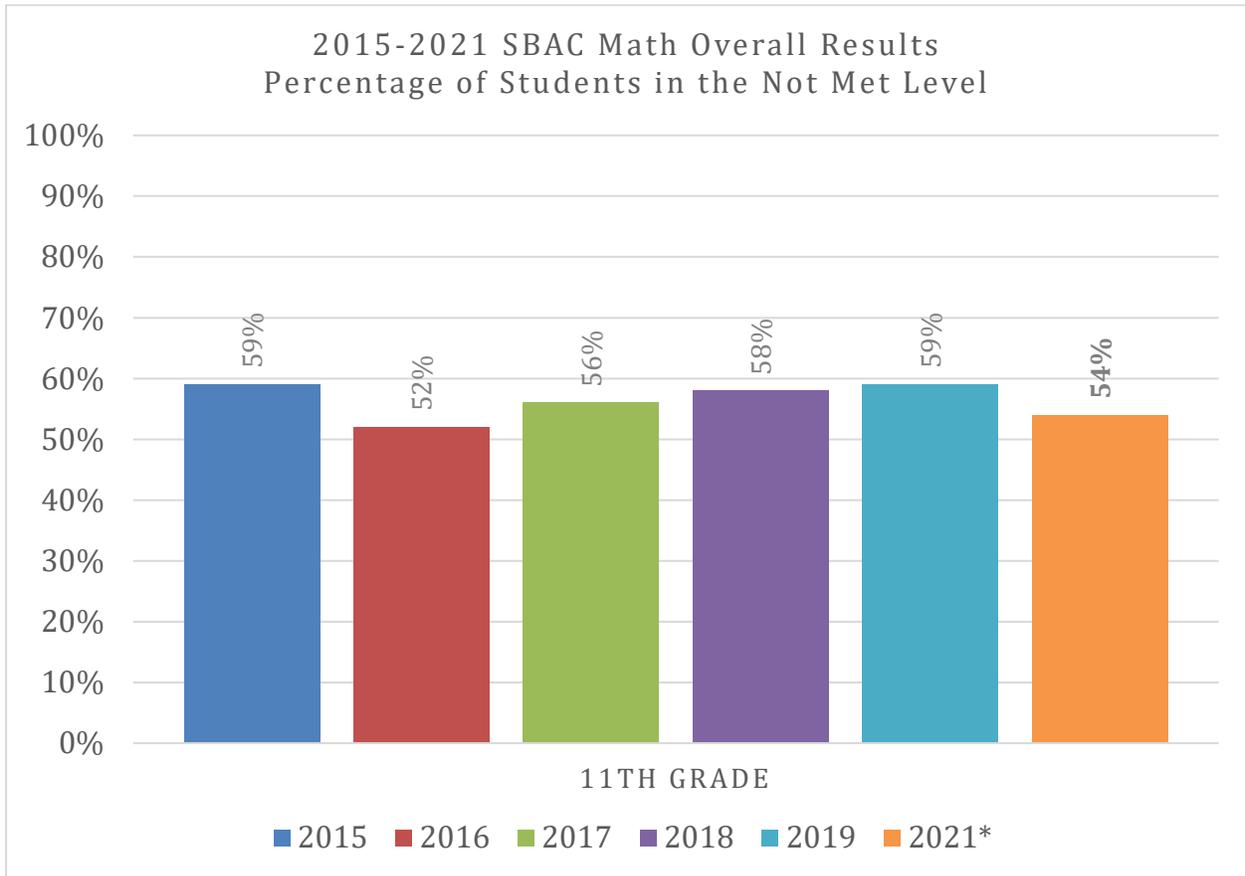
Change in Percentage of Students Meeting or Exceeding Standard Over 6 Reporting Years

Grade	2015 to 2016	2016 to 2017	2017 to 2018	2018 to 2019	2019 to 2021*
11 th Grade	+4%	+1%	-2%	+1%	+1%

Results for ethnicity groups and program groups are noted within the Data Analysis section and are provided in the Additional Data section at the end of this report.

Results presented are locally calculated and considered as preliminary, inclusive of scores available as of August 5th, 2021. Results are subject to change until the final official CDE released results expected in late Fall 2021.

PERCENTAGE OF STUDENTS IN THE NOT MET ACHIEVEMENT LEVEL
 Percent of Students reporting as Standard Not Met 2015-2021
 Grade 11 Only



Change in Percentage of Students Reporting in the Standard Not Met Level Over 6 Reporting Years

Grade	2015 to 2016	2016 to 2017	2017 to 2018	2018 to 2019	2019 to 2021*
11 th Grade	-7%	+4%	+2%	+1%	-5%

Results for ethnicity groups and program groups are noted within the Data Analysis section and are provided in the Additional Data section at the end of this report.

Results presented are locally calculated and considered as preliminary, inclusive of scores available as of August 5th, 2021. Results are subject to change until the final official CDE released results expected in late Fall 2021.

DATA ANALYSIS

The Smarter Balanced tests are traditionally administered to grades three through eight and grade eleven as part of annual state testing within the CAASPP system. Following the one-year full cancellation of testing due to emergency school closures in the Spring of 2020, the results from Spring 2021 testing represent the sixth year of reporting for the CAASPP system and Smarter Balanced Summative testing in mathematics. In 2021, the State Board of Education (SBE) provided testing flexibility to districts where CAASPP administration was not viable due to pandemic-related school closures, school reopening efforts, and other factors related to remote testing. PSUSD administered the Smarter Balanced assessments in grade eleven, and utilized the SBE testing flexibility criteria to administer the Renaissance Star tests in lieu of CAASPP testing in grades three through eight.

Results analyses for both mathematics data sets were conducted through multiple views of performance. Results report measures required adjustments for the 2020-2021 result set, as traditional measures and targets were not able to be generated due to a variety of factors including the use of different assessments, test blueprint and administration method changes, participation rate impacts, and other factors discussed further within each analysis section. Multiple measures continue to be incorporated from each assessment to provide a well-rounded picture of student performance in mathematics.

The overall analysis section will be primarily organized by grade span. Due to distance learning in 2020-2021, different instructional systems and structures were used in each grade span which factor into the results analysis. Following the overall grade span analyses, student group performance will be analyzed at the district level.

2020-2021 results should be viewed as a single year report structure due to the unique nature of the 2020-2021 academic year. Although the format of this report has been adjusted, modifications have been made with the intent to return to previous reporting models once a traditional CAASPP administration is completed (currently planned for Spring 2022).

KEY FINDINGS

A summary of key findings is provided as an overview of the following grade span specific analyses contained in the report.

- Results indicate significant impacts to student learning due to COVID-19 related school closures, high chronic absenteeism rates, distance learning, and other factors. Like results English Language Arts, mathematics results analyses suggest that these impacts are more significant in the younger grade levels.
- Examples of student success are present in all grade spans and student groups, specifically noted by Star Benchmark Monitoring Level results. This is not reflected as significantly in Star CAASPP Potential or eleventh grade CAASPP results.
- Comparisons of mathematics CAASPP Potential results from Star testing to 2019 CAASPP results in grades three through eight indicate significant performance differentials in elementary grades. Differentials are present in middle school grades, however eighth grade performance is similar to 2019 CAASPP results.
- Star Math test results indicate significant need for multiple layers of intervention in 2021-2022. Students across all student groups reported varying levels of intervention urgency according to Benchmark Monitoring Level results.

- High school Smarter Balanced results for mathematics from participating students indicate outcomes consistent with prior years across all achievement levels. Based on previous CAASPP results, non-participant students would likely produce aggregate results that would lower proficiency percentages in the eleventh-grade results set.
- Mathematics performance differentials continue to exist between student groups across all grade spans in both Star and Smarter Balanced results. Consistent with past summative result sets, students identifying as Black/African American and Hispanic reported in aggregate with lower proficiency results than students in other reportable ethnicity groups. English Learners and Students with Disabilities performed similarly across grade spans, reporting low overall proficiency levels and very high rates of students in the lowest performance level (Level 1/Standard Not Met).

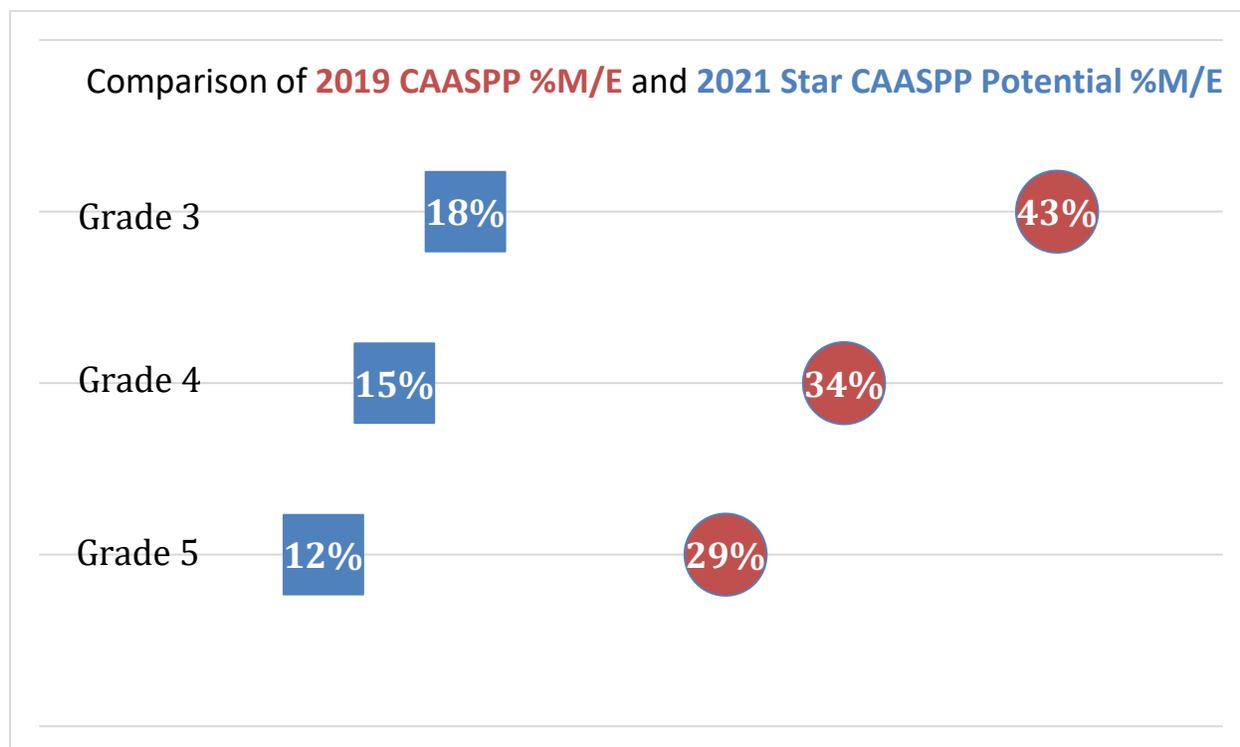
GRADE SPAN ANALYSES

ELEMENTARY SCHOOL – Star Math

Star Math test results indicate lower than normal performance outcomes for elementary students in 2020-2021. In most historical summative data sets for mathematics, the elementary grade span has outperformed secondary grade levels in the percentage of students reaching proficiency. In 2020-2021, CAASPP Potential Levels indicate higher levels of potential CAASPP proficiency by grade three students (17.9%) and lower proficiency levels for grade five students (11.6%). Most students in each elementary grade level reported with scores reflecting potential CAASPP Level 1 outcomes if they had taken the Smarter Balanced tests in Spring 2021. As noted in the table below, older elementary students reported higher levels of students with potential level 1 outcomes. This proficiency difference in grade levels is similar to prior year result patterns from CAASPP, where third grade students tend to report higher proficiency levels in mathematics than their elementary peers. Since CAASPP Potential is a calculated prediction of CAASPP results based on Star, this distribution indicates a high likelihood of low performance levels if the Smarter Balanced tests were administered. This achievement level distribution is similar to prior year result patterns from CAASPP, where third grade students tend to report higher proficiency levels in mathematics than their elementary peers.

Grade	CAASPP Potential Level 1	CAASPP Potential Level 2	CAASPP Potential Level 3	CAASPP Potential Level 4
3 rd	55.7%	26.4%	13.5%	4.4%
4 th	57.2%	28.1%	10.4%	4.4%
5 th	68.1%	20.3%	7.4%	4.2%

When comparing the 2021 CAASPP Potential Levels from Star to 2019 CAASPP results, significant declines are noted. Although this comparison is not exact due to the difference in test formats, the differences show the impact of grade level performance following school closures and distance learning until such time as the full CAASPP is administered. As noted in the following chart, performance differences in grade three are far more significant than in older grades. Third grade CAASPP Potential reported a 25 percentage point difference in 2021 result as compared to third grade results in 2019. Fourth and fifth grade CAASPP Potential results reported large differences as well, reporting potential proficiency rates 19 and 17 percentage points lower respectively when compared to 2019 grade level results.



These low performance levels are an indication of a number of factors affecting instruction and student learning within the pandemic. The district has been implementing mathematics instructional systems and strategies focused on conceptual mathematics, exploration of numbers and their interactions through “Number Corner”, small group interactions, use of manipulatives, and other highly interactive strategies. The transition to distance learning directly impacted the ability of teachers to utilize some of these strategies, as many of the interactions and strategies required significant modification or could not be directly replicated through the use of video conferencing software (e.g. Zoom). Manipulatives and additional materials needed for mathematics instruction were provided to students through material pick-up opportunities, however the effective instructional use of these materials in a distance learning setting required significant instructional adjustments. Professional development in these strategies continued through the academic year, focusing on transitioning strategies to distance learning formats as best as possible. Implementation of these strategies with needed adjustments was developing and improving throughout the year, but to a certain extent reset the progress that had been made over the last few years in this area.

Another consideration reviewing these proficiency-oriented results is the sequencing of math standards and the corresponding stacking of mathematics skills over time. In mathematics, many skills are presented and practiced in sequence in order to provide base layers of understanding prior to adding more complex numerical interactions, concepts, and strategies over time. Interruptions in instruction caused by pandemic-related school closures and chronic absenteeism have created gaps in content understanding due to unfinished learning of some base concepts. Use of adaptive online instructional resources, such as Imagine Learning Math, helped to bridge these gaps and provide practice opportunities for both new and review skills, however the results suggest that this was insufficient to provide students with the needed skills and content understanding needed for full grade level proficiency for most students.

A slightly different picture of elementary outcomes is reflected in results by Benchmark Monitoring Levels. This measure indicates the levels of urgency for student intervention, with teachers and schools having the ability to view student level needs to determine target skills and standards. Although the majority of elementary students reported in some level of intervention need using this metric, rates of students in the “At/Above Benchmark” level well exceed the CAASPP Potential measures of proficiency. As noted in the table below, more than one third of each grade level reported in the At/Above Benchmark level, indicating that there are far more students within striking distance of proficiency than the CAASPP Potential levels initially indicate.

Grade	Urgent Intervention	Intervention	On Watch	At/Above Benchmark
3 rd	28.3%	21.2%	11.8%	38.7%
4 th	31.3%	21.3%	13.0%	34.4%
5 th	31.7%	20.2%	13.8%	34.4%

The difference in these results can be explained in a couple of ways. The “At/Above Benchmark” level in Benchmark Monitoring is intended to identify students who could score in proficient state testing levels with continued quality first instruction. This indicates that there are a significant number of students who placed in the CAASPP Potential Level 2 range who may have either scored in Level 3 if taking the test again in a similar timeframe or whose skills are close to Level 3 performance. Given factors of school closures, distance learning, chronic absenteeism, instruction that was developing in effectiveness throughout the year, and student needs related to unfinished learning, there is a possibility for many of these students to score in proficient ranges with strategic intervention systems during the 2021-2022 academic year. Also of note are the students in the On Watch level. These students are likely to return to being “on track” for proficiency with some small refinement of skills and should be monitored closely. The implementation of effective “just in time” support could result in these students quickly returning to the At/Above Benchmark level and potentially scoring at proficient levels in future CAASPP testing.

There are a variety of factors to consider when evaluating district progress based on these results. As discussed in the English Language Arts Results Report, the district proved its versatility in the rapid transition to distance learning structures, quickly onboarding programs such as Imagine Learning to support independent student work and developing teacher skills in using a variety of platforms to deliver synchronous instruction. Guidance was provided through the Bridges curriculum regarding pacing and prioritizing content within distance learning. Although many of the math-centered strategies being used by elementary teachers were supported in the transition, the learning curve of using these strategies online was dramatic and certainly impacted instructional effectiveness. Many teachers reverted to more traditional mathematics instructional models to support learning, such as worksheet packets and fact practice which were more efficiently able to be transitioned to the online delivery format.

Coaching and support in mathematics was implemented during 2020-2021, as work with High Impact Math consultants continued. These sessions included co-teaching in the virtual environment, with additional support provided through team collaboration and TOSA interaction. Reflections on effective practices should take place at all levels within the district (e.g. teacher team, school, district) in order to determine which strategies were most effective during distance learning, which strategies need prioritization in the return to in-person learning, and appropriate supports to close gaps created or widened due to pandemic-related factors. The intentional use

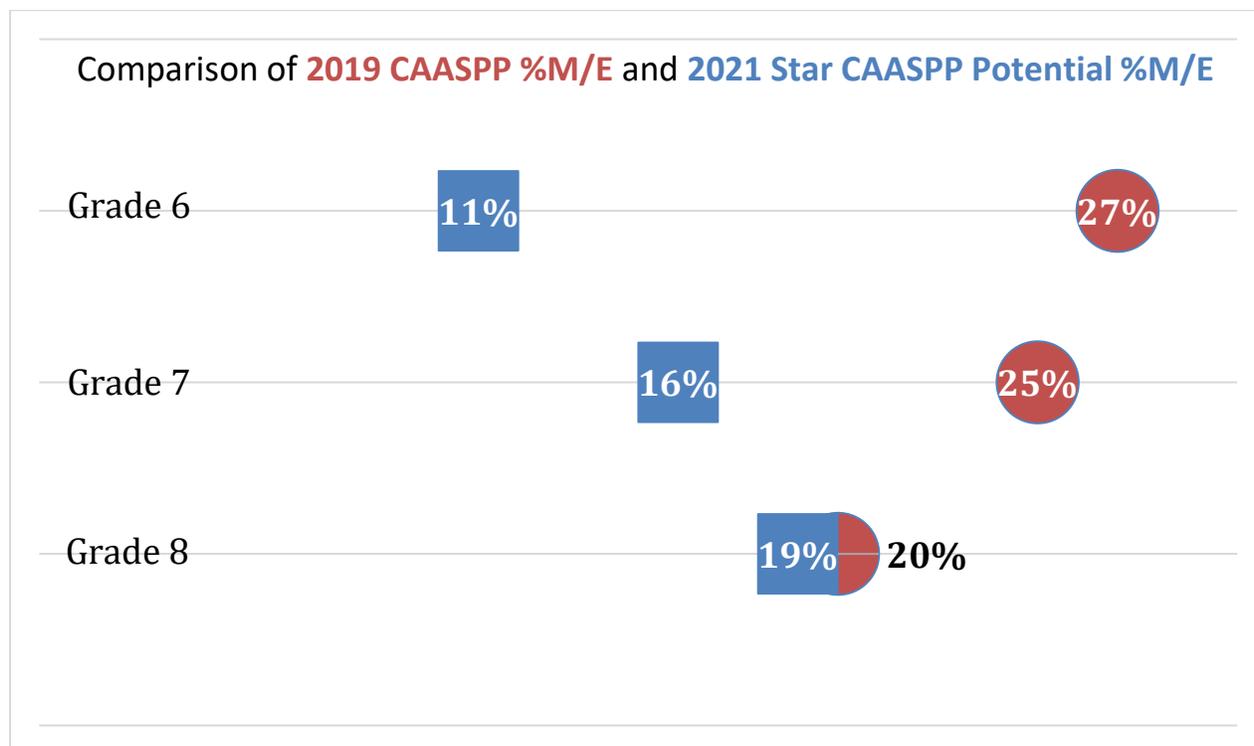
of diagnostic results from the Star test administrations in 2021-2022 will assist in determining best next steps for intervention and prioritization of standards and skills in first instruction.

MIDDLE SCHOOL – Star Math

Star Math test results in middle school are mixed. CAASPP Potential Levels indicate higher levels of potential CAASPP proficiency by grade eight students (18.6%) and lower proficiency levels for grade six students (11.1%), indicating better proficiency rates for older students within the grade span. When compared to elementary results, middle school potential CAASPP proficiency rates create an overall “V-shape” of proficiency rates where the transitional grades (five and six) reported the lowest proficiency rates and the polar ends of the overall testing group reported better performance. As in elementary, the largest group sizes reported in middle school grades is in Level 1, indicating a significant need for improved performance.

Grade	CAASPP Potential Level 1	CAASPP Potential Level 2	CAASPP Potential Level 3	CAASPP Potential Level 4
6 th	62.9%	26.1%	7.9%	3.2%
7 th	57.8%	26.7%	9.6%	5.9%
8 th	61.5%	19.9%	8.7%	9.9%

When comparing the 2021 CAASPP Potential Levels from Star to 2019 CAASPP results, differentials are present but not as significant as in the elementary results, ranging from 16 percentage points to only one point of differential in eighth grade. As noted in the following chart, performance differences in grade six are far more significant than in seventh or eighth grades, potentially indicating that the combination of distance learning, transitioning to a new school setting, and instructional strategies used were factors in sixth grade performance.



Eighth grade results present as a bit of an enigma when viewed within the overall results set. Results reported from the 2021 Star Math test through the CAASPP Potential calculations are very similar to results from 2019 CAASPP testing in the eighth grade. As noted in the table below, eighth grade performance in each band varies by less than 1% indicating that the 2019 cohort and the 2021 cohort would be expected to perform at nearly identical overall levels.

Cohort Grade	% Not Met / Level 1	% Nearly Met / Level 2	% Met / Level 3	% Exceeded / Level 4
2019 8 th grade CAASPP	60.8%	20.1%	9.6%	9.5%
2021 8 th grade Star CAASPP Potential	61.5%	19.9%	8.7%	9.9%

There are multiple possible explanations for this result. In each of the five previous years of CAASPP mathematics results, the district's eighth grade math performance has reported percentages of students in the standard met and standard exceeded range within one percentage point of 20%. The 2021 Star data reflect similar results, reporting 18.6% of students across Levels 3 and 4 in CAASPP Potential. Among the plausible rationales for this anomaly are instructional methods used in traditional eight grade mathematics instruction transferred over to distance learning more reliably, student skills acquired prior to eighth grade carry over more significantly in predicting eighth grade results, or that the current predominant instructional strategies and materials within the grade level tend to produce the outcome of 20% of students meeting or exceeding standard. The large percentage of students in the lowest level across each of the last six summative data sets, regardless of test used, indicates that the majority of eighth grade students are not able to adequately demonstrate mastery of standards, skills, and content in the eighth grade level, indicating a need for significant shifts in mathematics instruction at this grade level and likely within the grade span.

As noted in the English Language Arts report, middle school connectedness is a factor in the interpretation of these results. Students in the middle school setting tend to have varied social-emotional needs and perspectives on school climate over the course of the middle school years, often changing frequently throughout the year. Students who feel connected with school tend to maintain performance throughout these years and are potentially more able to persist through disruptions in instructional methods. High chronic absenteeism rates in 2020-2021 reflect some of these connectedness issues, with chronic absentee rates ranging from 17% to over 35% between the middle schools for the year. As noted in the English Language Arts Results Report, most middle school students spent less than half of their middle school tenure to date in in-person learning formats, impacting overall performance in any middle school instructional area. Participation in hybrid instruction in middle school was lower than in elementary, meaning many students did not attend middle school in-person at all in the 2020-2021 academic year.

Star Math results by Benchmark Monitoring Level indicate a wide distribution of intervention needs in math. Significant proportions of students reported as needing urgent and significant intervention in mathematics, with sixth grade students presenting the most need within the results set. As with elementary grades, the middle school grades reported between 31% and 37% of students in the At/Above Benchmark level, indicating that many students are close to the CAASPP proficiency target with high quality first instruction and strategic timely support to patch content and skills gaps as they occur. As noted in the table below, a tiered intervention support will be needed to return students to a proficiency track in mathematics.

Grade	Urgent Intervention	Intervention	On Watch	At/Above Benchmark
6 th	37.4%	19.1%	12.2%	31.3%
7 th	29.0%	19.2%	14.5%	37.3%
8 th	28.8%	20.5%	14.7%	36.0%

School sites offered various levels of support to students in 2020-2021. Learning hubs and small group intervention opportunities were offered at all middle school sites to support student learning, however limited participation in these opportunities created limited effectiveness in improving outcomes. Designated time blocks for small group instruction and intervention were rarely attended in the distance learning setting, with students often attending the primary instruction session in the morning and not returning for intervention in the afternoon. Teachers in middle school reported large numbers of students who would have their cameras off during distance learning instruction, creating a barrier which further widened existing gaps from unfinished and interrupted learning. The district implemented the “Academy of Scholars” program as an intervention support for middle school students, which was a positive intervention format for participating students.

Curriculum use varied in the middle schools, with one site transitioning to the Desmos curriculum for math and the others used a mix of materials, including the online Imagine Learning Math system, to support learning. Reports from the Desmos pilot were positive, with teachers noting that the curriculum activities for first instruction were able to be implemented well during distance learning. Support was provided by the TOSA team and professional development was provided throughout the year to support distance learning efforts. Most sites utilized the commonly developed unit assessments created through the consultant work, with results either mirroring Star test results or provided misleading results regarding student performance. The utilization of Star tests in 2021-2022 should provide a more accurate data set for instruction and intervention planning, allowing for strategic responses based on diagnostic information.

HIGH SCHOOL – Grade 11 CAASPP (Smarter Balanced)

Note: Results presented are locally calculated and considered as preliminary, inclusive of scores available as of August 5th, 2021. Results are subject to change until the final official CDE released results expected in late Fall 2021.

The 2021 CAASPP administration differed from other CAASPP administration in multiple ways that directly impact the ability to make direct comparisons to prior results. A temporary test blueprint modification was implemented for the Spring 2021 version of the Smarter Balanced tests in both ELA and mathematics, reducing the number of items by 50% on the adaptive portion of the test. This adjustment was made to support remote testing, lessening the amount of time needed to complete testing while testing from home. To complete testing in time, some students completed segments in-person and other segments remotely, creating a total of three different testing formats within the district (remote, in-person, and mixed). Participation rates also varied between sites, for a variety of reasons, including non-attendance, students leaving remote testing sessions, and student refusals to test. Sites created make-up sessions, made home visits, and provided incentives to complete testing with as high of a participation rate as possible. Note that the state received a federal waiver of any penalties related to low participation rates for 2021 testing, so the impacts of lower participation rates is in results interpretation and explanations within each site’s School Accountability Report Card (SARC). Also note that all results presented are locally calculated and reflective of currently available

student scores. These results reflect nearly all expected results, however they should be viewed as preliminary and subject to change prior to the official CDE calculated results expected to be available in late Fall, 2021.

These various factors will be incorporated into the analysis for high school CAASPP results. Comparisons will be provided to prior results, however these are intended to frame the current year performance within the context of the uniqueness of 2021 testing. Once traditional state testing cycles and formats resume (currently planned for Spring 2022), it is recommended that both 2020 and 2021 are noted as exceptions and the new “normal” data set is used for direct comparison purposes.

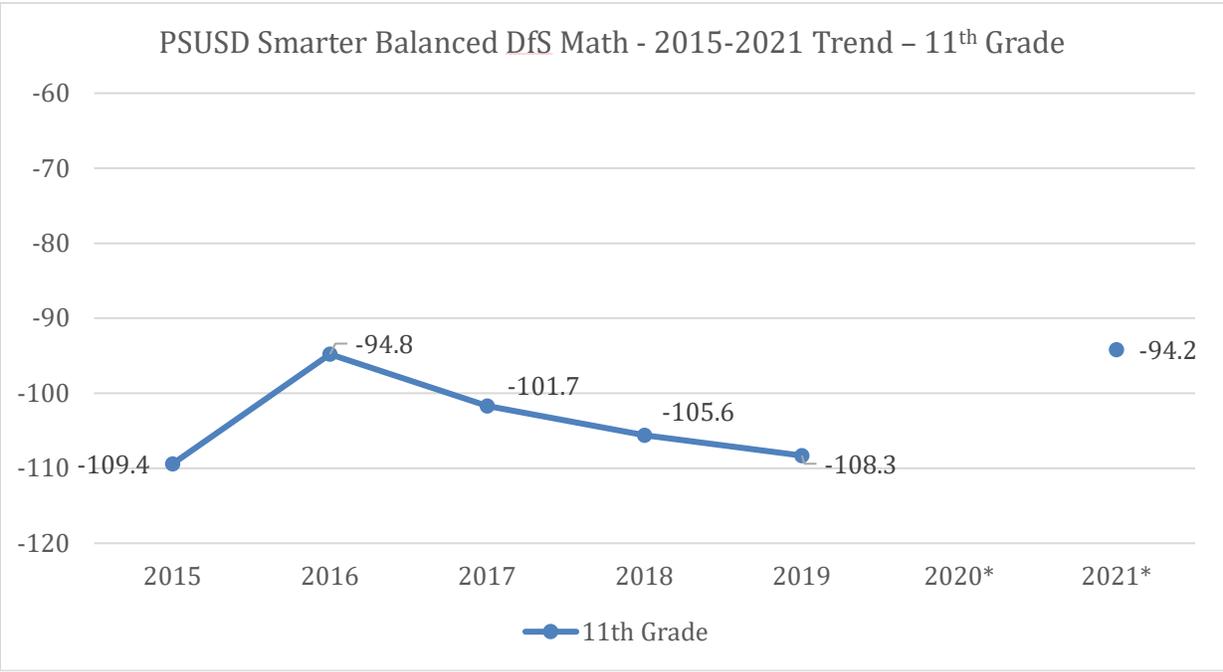
High school 2021 CAASPP results for mathematics are projected to be very similar as results from prior school years, which is a similar outcome to English Language Arts. The chart below outlines the currently available mathematics results, including student counts. Note the lower student counts in 2021 are not reflective of a significantly lower student cohort, but low participation rates as compared to a normal testing year result set. High school sites were able to complete testing for approximately 73.4% of eleventh grade students, significantly less than the federal requirement of 95% of students. Participation rates by site ranged from 94.4% to 44.6%, due to a variety of factors including student attendance, student refusals to test, students disconnecting from their schools, and scheduling issues.

Grade 11 Smarter Balanced Results 2015-2021

Test Year	Level 1 Standard Not Met	Level 2 Standard Nearly Met	Level 3 Standard Met	Level 4 Standard Exceeded
2015	59% (N=995)	23% (386)	13% (218)	4% (71)
2016	52% (831)	26% (417)	15% (244)	6% (95)
2017	56% (976)	22% (385)	15% (268)	7% (116)
2018	58% (973)	22% (369)	14% (228)	6% (103)
2019	59% (994)	20% (341)	15% (258)	6% (103)
2021*	54% (655)	25% (301)	16% (189)	6% (75)

2021 results as of 8/5/21

Results as presented may be misleading, as a review of prior performance from non-participating students indicates and these results would be lower if all students in the eleventh grade cohort participated in testing. This assumption is also reflected using the Distance from Standard (DfS) calculation method used for the California School Dashboard. Based on currently available results, the eleventh grade cohort was 94.2 points below standard, indicating that the average student score improved 14.1 points from the 2019 results (see chart below). This potentially significant improvement in average DfS is direct evidence of students not testing that normally would score in lower achievement levels. Note that average performance in most years of eleventh grade testing resulted in DfS results lower than 100 points below standard, with the exception of the statewide anomaly in 2016 results. Although accurate calculation of DfS including the non-participating students is not possible, it would be expected that the 2021 DfS value would report below 2019 levels given the historical performance and pandemic-related factors. This would result in percentages of students meeting or exceeding standard to report at lower levels as well.



The comparison of prior test scores for the eleventh grade cohort does provide a possible indication that the performance may not be as low as the 2019 cohort even with full participation. Historically in the district, eighth grade and eleventh grade mathematics results report quite similarly in both percentages in achievement levels and DfS. As noted in the table below, the percentages of students in each achievement level and DfS for the cohort are similar from 2018 to 2021, however the historical scores of the missing students are represented within the lower two achievement levels and therefore would not likely improve eleventh grade results unless non-participant students made significant strides in mathematics performance in the high school years.

Cohort Grade	% Not Met	% Nearly Met	% Met	% Exceeded	DfS
2018 8 th grade	57%	22%	11%	10%	-99.4
2021 11 th grade	54%	25%	16%	6%	-94.2

As noted previously, students took tests in one of three formats: in-person, remote, or mixed. As with English Language Arts, most students completed mathematics testing in remote formats, testing from home settings while observed via video feed by a Test Administrator during the test session. In-person testing followed the more traditional format of testing in a room under supervision of a Test Administrator, using socially distanced room arrangements and required personal protective equipment. Mixed format involved students taking one or more portions in-person and one or more portions remotely. Conclusions about students being more successful through one format or another are limited due to small comparative sample sizes of students taking the test in-person or in a mixed format compared to the number of students testing remotely. Although the test administration method may be presented in some circles as having an impact on state testing results, the table below indicates that this is not the case in the context of PSUSD students.

Test Method	Level 1 Standard Not Met	Level 2 Standard Nearly Met	Level 3 Standard Met	Level 4 Standard Exceeded
In-Person	72% (101)	22% (31)	6% (8)	1% (1)
Remote	51% (535)	25% (260)	17% (177)	7% (73)
Mixed	56% (19)	29% (10)	12% (4)	3% (1)

High schools created a quarter-based compacted instructional schedule during distance learning, reducing the number of courses that students were taking at one time but covering a semester's content within a quarter's timeline. The eleventh grade Smarter Balanced test is a three-year test covering content from the three course Integrated Math sequence, however many of the items that would be considered for the Standard Met and Standard Exceeded ranges are inclusive of content covered in Integrated Math 3. High levels of performance on items covered in Integrated Math 1 and 2 courses may allow a student to approach a Standard Met score, however it is unlikely given the adaptive design of the discrete item portion of the test and the randomly assigned Performance Task that may or may not contain Integrated Math 3 content. The condensed blueprint used for Spring 2021 testing did not remove any eligible content, however the lower number of items presented to students on the adaptive portion of the test did not allow students to show what they knew on as many items as they otherwise would have had access to. It is relatively safe to assume that students needed to at a minimum access and have some relative success with content from Integrated Math 3 in order to succeed on the Smarter Balanced mathematics tests, especially with the reduced item count in Spring 2021 testing. This year's instructional model required teachers to prioritize content, focusing on skills and content that are most important within the year, which was more important in the area of mathematics than in ELA given the scope of the assessment as described above.

Attendance in both first instruction and intervention was reported to be a challenge in most high school settings. Teachers noted that students would leave off cameras and had limited participation even while attending sections. Intervention and small group opportunities were rarely attended at the high school level. Given the historical results in secondary mathematics, these missed opportunities for support would likely have negatively impacted student performance for most students.

Like other grade spans, the effective use of these resources and strategies within a distance learning environment was developing throughout the year and not as refined and effective as traditional instructional practices. Although secondary mathematics instructional strategies likely transferred to the distance learning setting more easily than elementary strategies, the limited attendance and participation as noted above was a factor in teachers developing their online instructional skills, as the student-to-teacher portion of the feedback loop was limited while distance learning instructional skills were developing through the year. Professional development in Professional Learning Communities (PLC) practices continued to be provided at the high school level, allowing teams to share resources and work together in improving practice. Solution Tree consultants not only supported teams with professional development for PLCs, but also facilitated discussions around best practices for a virtual environment and in the structure of intervention opportunities. These developing structures combined with strategic use of Star diagnostic data will be vital over the next two to three years as the intervention needs of promoting students will need to be addressed to adequately prepare students for eleventh grade testing, completion of mathematics course requirements for graduation and UC/CSU entrance requirements, and further college and career preparations.

STUDENT GROUP ANALYSES

Student group data was aggregated at the district level for this report, allowing more groups to meet reportable group sizes so as to not identify individual students in the results. Star Math results are presented by student group for both CAASPP Potential Level and Benchmark Achievement Level, while eleventh grade CAASPP results are reported by achievement level. In each case, the current status of ethnicity groups and student program groups are reported.

Performance levels differ between student groups in the 2020-2021 results set across both test structures, referred to as “achievement gaps” in this report. Achievement gaps exist between ethnicity groups in similar ways to prior year summative mathematics results sets. Students identified in the Black/African American student group and Hispanic student group reported lower rates of proficiency across all measures and grade levels when compared with the performance of other ethnicity groups. As noted in the tables below, results from these groups reported significant differentials in each measure. Note that overall scores for the district tend to align closely with the performance of the Hispanic student group, as 78% to 80% of results in each grade level are posted by students identifying as Hispanic.

Group	Star CAASPP Potential % in Level 3 & 4	Star Benchmark Monitoring Level % At/Above	11 th Grade CAASPP % M/E
Black/African American	8%	23%	10%
Filipino	43%	65%	45%
Hispanic	13%	33%	18%
White	26%	51%	41%

Although all ethnicity groups reported students requiring intervention and academic support, more students in the Black/African American student group and Hispanic student group report in the lowest scoring level in each indicator. This can be viewed in the charts in the Additional Data section of this report.

As with the overall grade level reported data, the Star Benchmark Monitoring Level reporting indicates that there are more students in grades three through eight who are showing that they have skills that would align with being on-track for standards proficiency. In the case of the Black/African American and Hispanic student groups, rates of students within the “At/Above Benchmark” reported 15 to 20 percentage points higher than for CAASPP Potential based on Star test results. As noted in previous sections, these two measures differ by design with the Benchmark Monitoring Level used to determine the level of intervention need for each group. The larger group within the At/Above Benchmark Level is a sign that more students in these student groups have the potential of reaching proficiency with quality first instruction and timely support as needed. Although this will not be sufficient to close the achievement gaps in mathematics, the continued improvement of mathematics instructional systems in the return to in-person instruction will be critical in starting that work.

Equity initiatives within the district began to expand in the 2019-2020 academic year before school closures and expanded further during the 2020-2021 academic year. Many of these efforts focused on SEL, school climate, connectedness, and other factors. Similar to what was reported for English Language Arts, mathematics results indicate that most students in these groups likely struggled with some combination of lesson access, content understanding, or test performance in more substantially than other peer groups. This will need to be addressed and

monitored moving forward to continue work in closing achievement gaps between ethnic groups. It is likely that intervention structures will need to strategically address the needs of students within the Black/African American and Hispanic student groups, including culturally responsive teaching strategies built into the intervention structure to connect students' strengths with learning needs.

Achievement gaps are also present between program groups. As with the English Language Art results, English Learners (ELs) and Students with Disabilities (SWDs) reported similar proficiency rates in mathematics across all three measures, indicating that both groups struggled to access and retain content and skills during distance learning. These low performance levels are consistent with previous summative testing results; however the results continue to identify a significant need for academic support. The table below shows rates for program groups across all three measures. Note that the Socioeconomic Disadvantaged group represents over 95% of students within the district, a percentage that increased significantly between 2019-2020 and 2020-2021 due to business closures in the early stages of the pandemic.

Group	Star CAASPP Potential % in Level 3 & 4	Star Benchmark Monitoring Level % At/Above	11 th Grade CAASPP % M/E
English Learners	4%	26%	3%
Socioeconomic Disadvantaged	15%	36%	22%
Students with Disabilities	4%	12%	0%
Foster	10%	22%	Not reported due to small group size
Homeless	8%	27%	10%

ELs and SWDs groups had vastly different experiences in distance learning. ELs were tasked with attending online classes in English, followed by support sessions offered by school sites and the English Learners Office, while living in a home environment where another language was spoken throughout the day. This style of instruction removed a key language learning component for EL students: daily informal use of English with peers. ELs learn significant amounts of language, syntax, context, and vocabulary skills from interacting during non-structured times, withing small collaborative groups, and in school activities, none of which were available to ELs during pandemic-related school closures. In turn, SWDs were provided services remotely to the extent possible, but did not have similar learning interactions with differently abled peers that could assist and demonstrate skills that these students are working on through their IEPs. Significant intervention is needed for both ELs and SWDs as noted by the percentages of students in these groups reporting in the Urgent Intervention Star Benchmark Monitoring Level in grades three through eight (ELs 60%, SWDs 74%) and in the percentage of students in the Standard Not Met level in eleventh grade CAASPP results (ELs 68%, SWDs 71%).

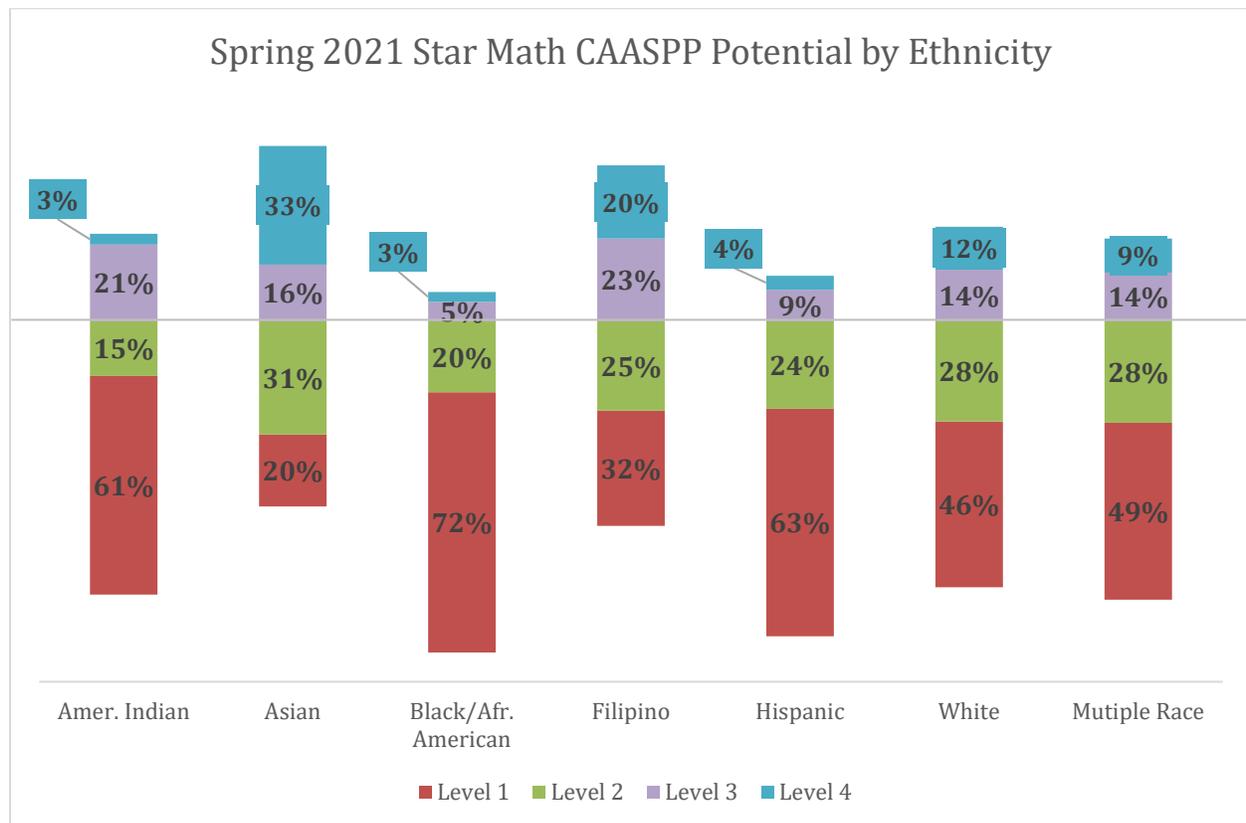
Prioritized Intervention and in-person opportunities, such as the learning hubs, were available once small groups were able to attend sites in-person in 2020-2021. Some students attended these sessions as well as additional online opportunities. Some SWDs were not able to attend in-person opportunities during the pandemic due to their own health conditions making group interactions unsafe for these students. These options may have mitigated declines in some

cases, and expanded learning gaps for others depending on student and family ability to participate in these opportunities. The continued use of the diagnostic data produced through the Star assessment should assist teachers in supporting these students with learning goals and intervention actions tailored to these students' specific needs moving forward.

ADDITIONAL DATA

STAR MATH CAASPP POTENTIAL LEVEL BY ETHNICITY

Predicted CAASPP performance based on Star results in Spring 2021 as calculated by the Renaissance Learning platform



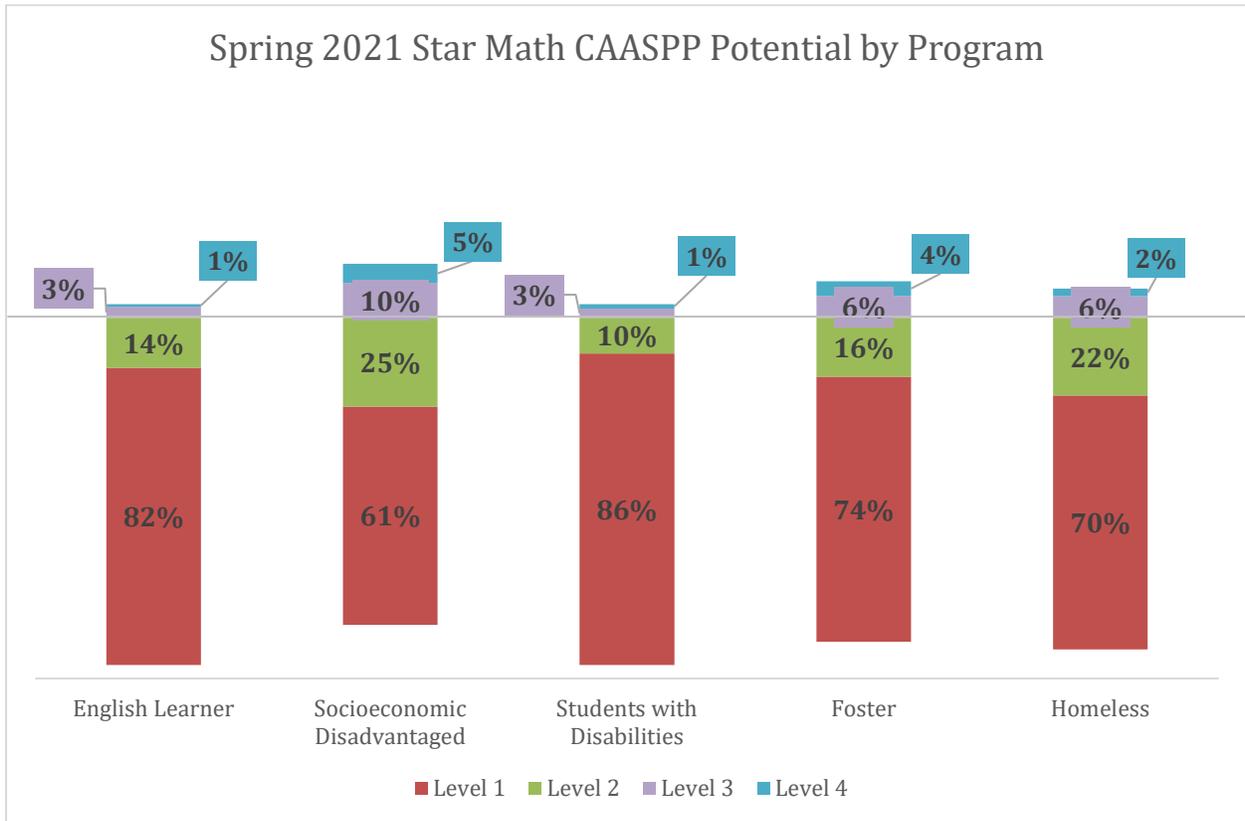
CAASPP Potential Levels

- Level 4 = Projected to score at the Standard Exceeded level
- Level 3 = Projected to score at the Standard Met level
- Level 2 = Projected to score at the Standard Nearly Met level
- Level 1 = Projected to score at the Standard Not Met level

Renaissance Star Math tests were administered in grades 3-8 in the Spring of 2021 in lieu of CAASPP testing per SBE approved testing flexibility guidelines.

STAR MATH CAASPP POTENTIAL LEVEL BY PROGRAM

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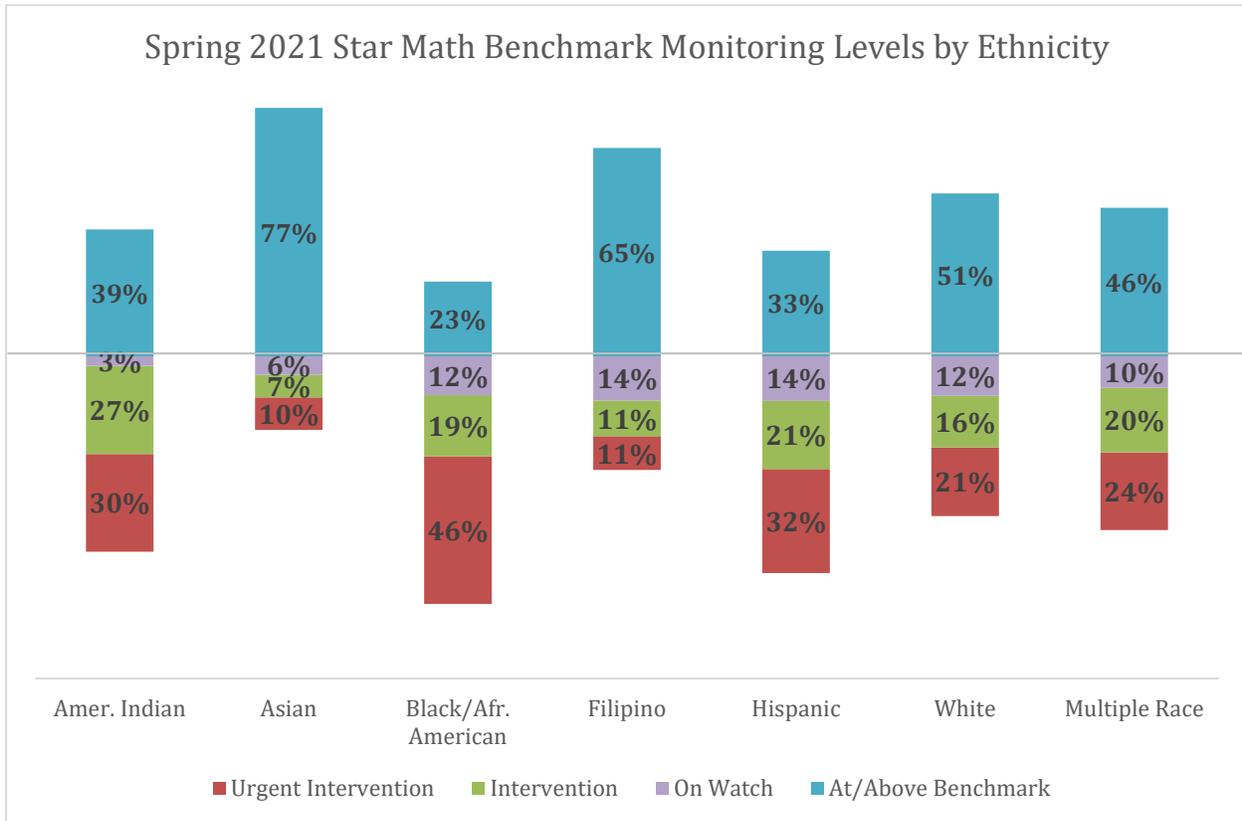
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STAR MATH BENCHMARK MONITORING LEVEL BY ETHNICITY

Monitoring levels identify groups as being on-track or in need of intervention based on Star results in Spring 2021 as calculated by the Renaissance Learning platform



Benchmark Monitoring Levels

At/Above Benchmark = Students have either demonstrated standards knowledge at a level indicating that normal classroom instruction should allow the student to continue to be “on-track” for standards mastery.

On Watch = Students may need intervention in some areas and should be monitored closely.

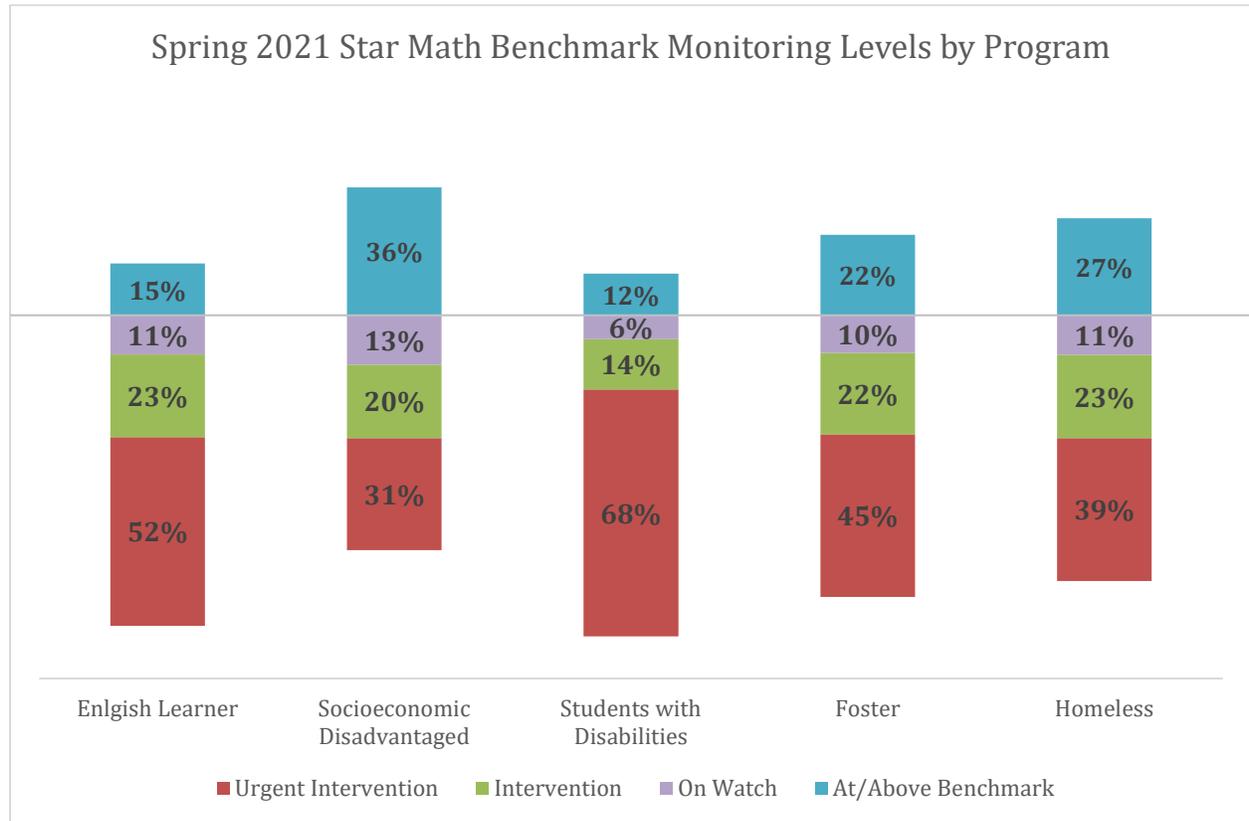
Intervention = Students need intervention in most areas to return to an “on-track” status.

Urgent Intervention = Significant intervention is needed in this academic subject.

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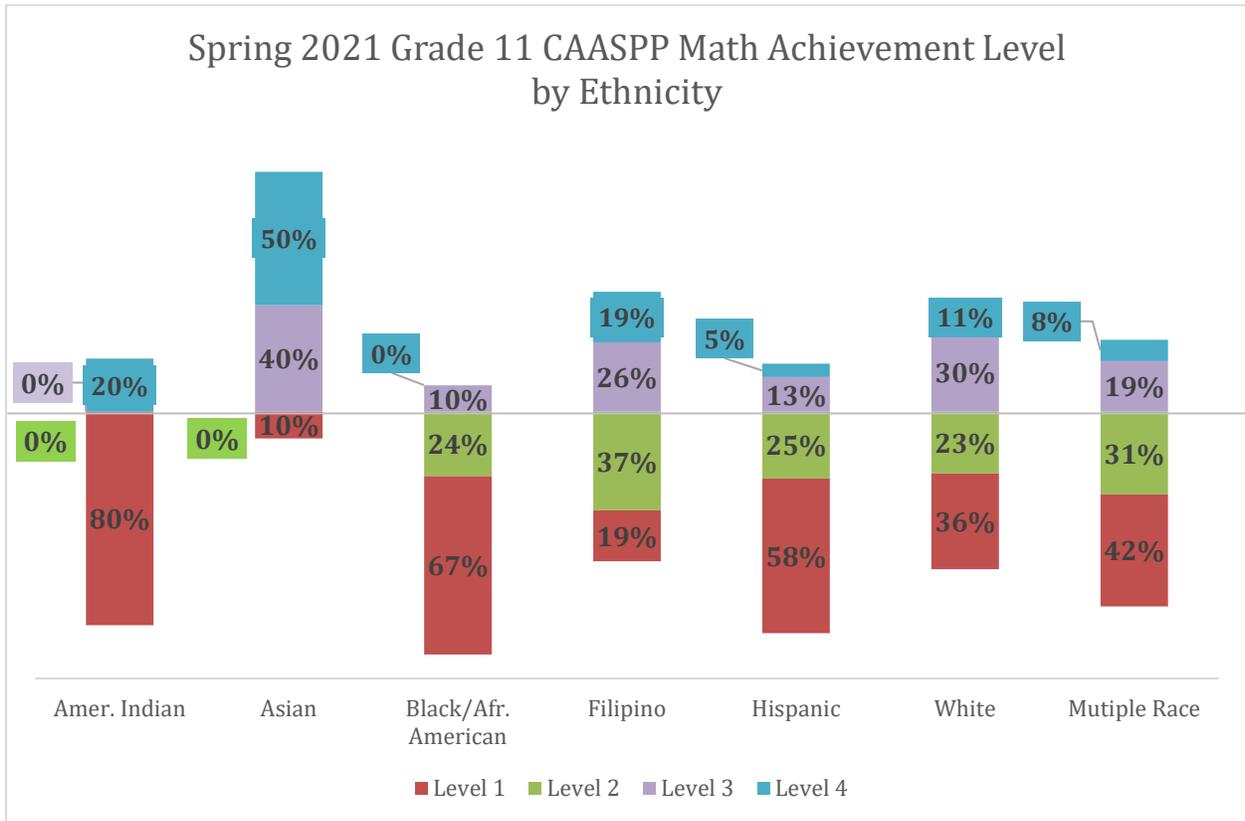
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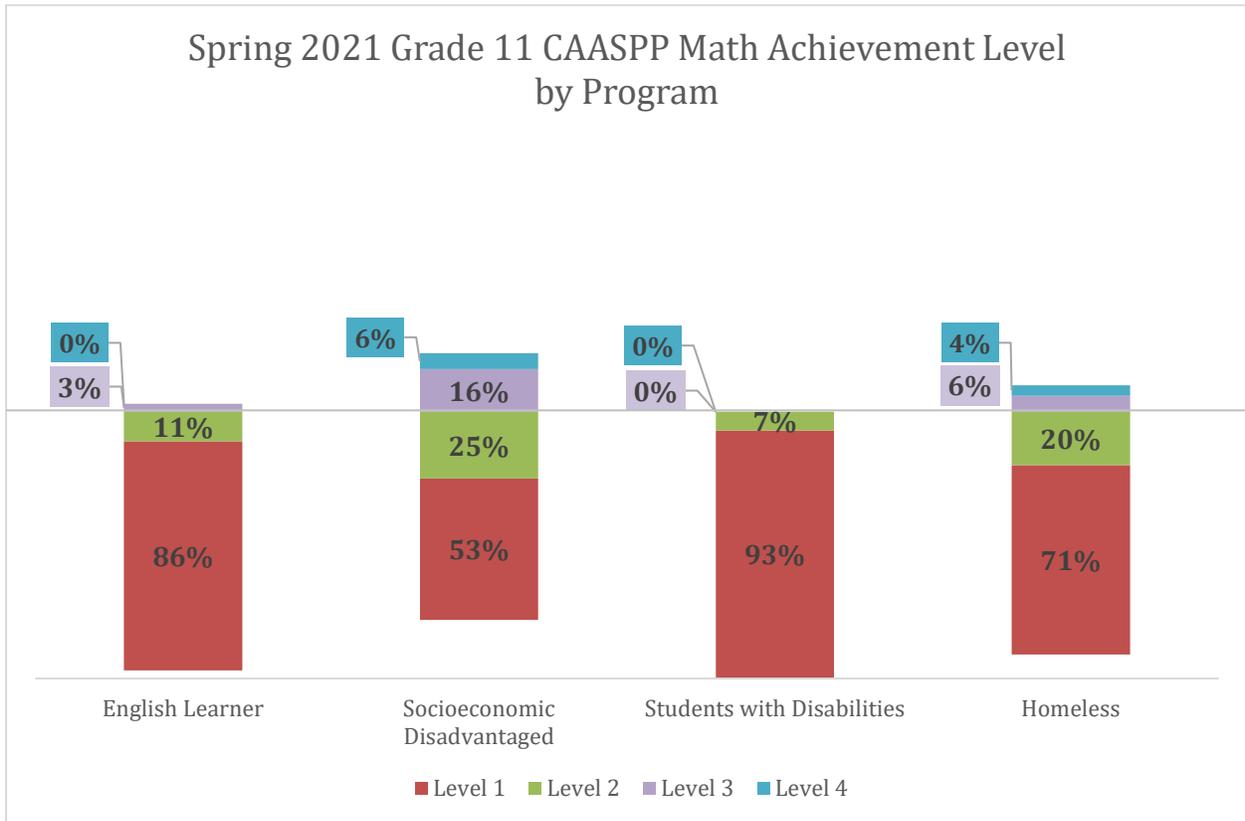
PERCENTAGE OF STUDENTS BY CAASPP ACHIEVEMENT LEVEL BY ETHNICITY
 Percent of Students Meeting or Exceeding Standard 2021
 Grade 11 Only



2021 Grade 11 Math Results by Ethnicity Group

Measure	American Indian	Asian	Black/Afr. American	Filipino	Hispanic	White	Multiple Race
% M/E	20%	90%	10%	45%	18%	41%	27%
% Not Met	80%	10%	67%	19%	58%	36%	42%

PERCENTAGE OF STUDENTS BY CAASPP ACHIEVEMENT LEVEL BY Program
 Percent of Students Meeting or Exceeding Standard 2021
 Grade 11 Only



2021 Grade 11 Math Results by Ethnicity Group

Measure	English Learner	Socioeconomic Disadvantaged	Students with Disabilities	Homeless
% M/E	3%	22%	0%	10%
% Not Met	86%	53%	93%	71%