State of Florida

Florida Assessment of Student Thinking (FAST), Benchmarks for Excellent Student Thinking (B.E.S.T.), and Science & Social Studies Statewide Assessments

2023–2024

Volume 6
Score Interpretation Guide

ACKNOWLEDGMENTS

This technical report was produced on behalf of the Florida Department of Education (FDOE). Requests for additional information concerning this technical report or the associated appendices should be directed to Dr. Salih Binici at the FDOE (Salih.Binici@fldoe.org).

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1 FLORIDA SCORE REPORTS

Beginning with the 2022–2023 school year, Florida's statewide, standardized assessments in English language arts (ELA) reading, ELA writing, mathematics, Algebra 1, and Geometry end-of-course (EOC) will be aligned with the Benchmarks for Excellent Student Thinking (B.E.S.T.). Assessments for science and social studies remain aligned to Florida's State Academic Standards that were adopted in 2008. Revised Civics and Government (CG) standards were adopted by the State Board of Education on July 14, 2021, after House Bill 807 (2019) required FDOE to complete a review of the statewide Civics education course standards. These science and social studies standards were previously referred to as Next Generation Sunshine State Standards (NGSSS). Florida implemented new online computer-adaptive tests (CAT) for operational use beginning with the 2022–2023 school year for ELA, writing, and mathematics, and in 2023–2024 for science and social studies. Prior to this, they were fixed form online and paper tests. This new assessment program for grades 3–10 ELA reading and grades 3–8 mathematics, referred to as the Florida Assessment of Student Thinking (FAST), replaced the Florida Standards Assessments (FSA) in ELA reading and mathematics. The FAST assessments are now computer-adaptive, progress-monitoring (PM) assessments administered three times a year. By statute, all Florida public school students are required to participate in the statewide assessments.

The grades 4–10 ELA Writing and Algebra 1 and Geometry EOC tests are considered B.E.S.T. assessments and are not part of the FAST progress monitoring program. The B.E.S.T. Writing assessment was first administered in spring 2023 as a field test given to a representative sample of Florida students. Beginning with the 2023–2024 school year, ELA Writing will be administered during each spring administration. FSA Algebra 1 EOC and ELA grade 10 retake assessments were administered until the end of spring 2024 for students for whom it is their graduation requirement have completed four years of high school. In 2021, legislation was passed that requires all students enrolled in a U.S. Government course in high school to take the Florida Civic Literacy Exam (FCLE). The FCLE is a CAT that measures students' civic literacy knowledge. Throughout this technical report's text, the phrase Florida Statewide Assessments may be used to refer to a collection of tests administered to Florida students.

In the spring 2024 testing window, the following tests were administrated to Florida students: FAST grades 3–10 ELA Reading, FAST grades 3–8 Mathematics, grades 5 and 8 Science, B.E.S.T. EOC (Algebra 1 and Geometry), Biology 1, U.S. History, and Civics, as well as FCLE. In addition, the FSA grade 10 ELA Retake and FSA Algebra 1 Retake were offered to students who needed to retake the test for graduation purposes. To receive a valid ELA Retake score, students were required to complete both the writing and reading components.

For computer-based tests, a paper-based version was provided as an accommodation for eligible students, according to their Section 504 Plans or Individual Educational Plans (IEPs). For spring 2024 FAST assessments in ELA reading grades 3–10 and mathematics grades 3–8, student responses from the paper-based tests were transcribed into the Data Entry Interface (DEI) system to ensure timely results.

The purpose of this volume—the Score Interpretation Guide—is to document the features of the Florida Reporting System (FRS). The FRS is designed to assist stakeholders in reviewing and downloading test results and in understanding and appropriately using the results of the state assessments. Additionally, this volume describes the score types reported for the spring 2023

assessments, the features of the score report, and the appropriate uses and inferences that can be drawn from these score types.

1.1 Overview of Florida's Score Reports

Florida FAST Grades 3–10 ELA Reading, FAST Grade 10 ELA Reading Retake, FAST Grades 3–8 Mathematics, B.E.S.T. EOC, Grades 5 and 8 Science, Biology 1, U.S. History, Civics, and FSA Retake assessments were administered in the spring. The FSA grade 10 ELA retake, ELA reading, and ELA writing responses were combined to create an overall ELA scale score. Beginning with the 2023–2024 school year, B.E.S.T. ELA writing scores will be reported separately, and they will not contribute to an overall ELA score.

For the 2023–2024 school year, the FSA ELA grade 10 and FSA Algebra 1 Retakes were provided to districts and schools through PANext Reporting after the FDOE verified the student and score information included in the data files and score reports. For fall and winter 2023, Biology 1, U.S. History, and Civics were also reported in PANext. PANext Reporting provided information on student performance and aggregated score summaries at several levels (i.e., state, district, and school). Printed individual student reports (ISRs) were delivered to districts (packaged by school) for distribution to parents. Additionally, ISRs were released on the Family Portal so that parents and students could access them.

PANext Reporting is a web-based application that provides access to certain Florida Statewide Assessment results at various, appropriate levels. Access to the reports provided in PANext Reporting depends on each user's role and its school and district associations. These roles are assigned in CAI's Test Information Distribution Engine (TIDE). For example, district users can view data for all schools in their respective districts; school users can view data only for their school(s). Access to these reports is password protected. For more information regarding the PANext Reporting System, please refer to Appendix A of this volume of the technical report.

During the 2023–2024 school year, ELA, mathematics, and B.E.S.T. EOCs test scores were reported using the Florida Reporting System (FRS). In spring 2024, the scores for the grade 5 and 8 Science, Biology, U.S. History, and Civics tests were also reported in FRS. FCLE was reported through FRS for the entire 2023–2024 school year. FRS provided information on student achievement and aggregated summaries at several levels—state, district, and school. Additionally, ISRs were released on the Family Portal so that parents and students could access them.

The FRS is designed to help educators answer questions about how well students have performed on the tests. The FRS is an online tool that provides educators and other stakeholders with timely, relevant score reports. The FRS for the Florida Statewide Assessments has been designed with stakeholders, who are not technical measurement experts, in mind to make score reports easy to read. This is achieved by using simple language so that users can quickly understand assessment results and make inferences about student achievement. The FRS is also designed to present student achievement in a uniform format. For example, similar colors are used for groups of similar elements, such as achievement levels, throughout the design. This design strategy allows readers to compare similar elements and avoid comparing dissimilar elements.

Access to the reports provided in FRS depends on each user's role and their school and district associations. These roles are assigned in CAI's TIDE. Once authorized users log in to the FRS, the dashboard page shows overall test results for all tests that students have taken grouped by test

family (e.g., FAST ELA Reading PM1). Once the user clicks the test family that he or she wants to explore further, it will take the user to the detailed dashboard, where the results are shown by test (e.g., grade 7 ELA Reading). Additionally, when authorized state-level users log in to the FRS and select "State View," the FRS generates a summary of student achievement data for a test across the entire state.

Generally, the FRS provides two categories of online score reports: (1) aggregate score reports and (2) individual student score reports. Detailed information about the online score reports and instructions on how to navigate the online score reporting system can be found in the *Florida Reporting System User Guide 2024* (Appendix F) located via a help button on the FRS.

1.2 Overall Scores and Reporting Categories

Each student receives a single overall scale score for each subject tested if there is a valid score to report. A student's score is based only on the operational items on the assessment. In the State Student Results (SSR) and District Student Results (DSR) data files, the overall scale score and overall achievement level, as well as the theta score, scale score, and achievement level by reporting category are calculated if the test record is assigned a Score Status Flag of 1 or 9, meaning the score is reported. The computation of the various student scores is outlined in this technical report in Section 2, Calculation of Student Scores, and discussed further in Volume 1, Annual Technical Report.

Tables 1–4 display the reporting categories by grade level and test subject.

Table 1: Reporting Categories for ELA

Grade	Reporting Category
3-10	• Reading Prose and Poetry • Reading Informational Text • Reading Across Genres & Vocabulary
Retake	• Reading Prose and Poetry • Reading Informational Text • Reading Across Genres & Vocabulary • Writing (only applicable for FSA ELA Retake)

Table 2: Reporting Categories for Mathematics

Grade	Reporting Category
3	• Number Sense and Additive Reasoning • Number Sense and Multiplicative Reasoning • Fractional Reasoning • Geometric Reasoning, Measurement, and Data Analysis and Probability
4	• Number Sense and Operations with Whole Numbers • Number Sense and Operations with Fractions and Decimals • Geometric Reasoning, Measurement, and Data Analysis and Probability
5	• Number Sense and Operations with Whole Numbers • Number Sense and Operations with Fractions and Decimals • Algebraic Reasoning • Geometric Reasoning, Measurement, and Data Analysis and Probability

Grade	Reporting Category
6	• Number Sense and Operations • Algebraic Reasoning • Geometric Reasoning, Data Analysis, and Probability
7	• Number Sense and Operations and Algebraic Reasoning • Proportional Reasoning and Relationships • Geometric Reasoning • Data Analysis and Probability
8	• Number Sense and Operations and Probability • Algebraic Reasoning • Linear Relationships, Data Analysis, and Functions • Geometric Reasoning

Table 3: Reporting Categories for Mathematics EOC

Course	Reporting Category
Algebra 1	• Expressions, Functions, and Data Analysis • Linear Relationships • Non-Linear Relationships
Geometry	• Logic, Relationships, and Theorems • Congruence, Similarity, and Constructions • Measurement and Coordinate Geometry

Table 4: Reporting Categories for Science & Social Studies

Course	Reporting Category
Biology 1	• Molecular and Cellular Biology • Classification, Heredity, and Evolution • Organisms, Populations, and Ecosystems
Grade 5 Science	• Nature of Science • Earth and Space Science • Physical Science • Life Science
Grade 8 Science	• Nature of Science • Earth and Space Science • Physical Science • Life Science
Civics	• Origins and Purposes of Law and Government • Roles, Rights, and Responsibilities of Citizens • Government Policies and Political Processes • Organization and Function of Government
U.S. History	• Late Nineteenth and Early Twentieth Century, 1860–1910 • Global Military, Political, and Economic Challenges, 1890–1940 • The United States and the Defense of the International Peace, 1940–Present

1.3 ACHIEVEMENT-LEVEL DESCRIPTORS

Achievement-Level Descriptors (ALDs) describe a student's level of achievement (e.g., Below Grade Level, On Grade Level, Proficient) on a large-scale assessment. The FDOE develops ALDs to guide participants during the standard-setting process for its statewide assessments, to offer score interpretation on student reports, and to further teacher understanding of expectations for the progressions of student performance at each achievement level. The purpose of the ALD development framework is to enable valid inferences about student content-area knowledge and skill in relation to a state's content standards measured on a large-scale assessment.

Volume 3 of the *Florida B.E.S.T. 2023–2024 Technical Report* documents the process and results from the B.E.S.T. standard-setting meetings in 2023. Chapter 5 of the *Florida Statewide Science and EOC Assessments 2019 Technical Report* documents the process and results from the NGSSS standard-setting meetings in 2012, 2013, and 2014; the final cut scores are approved by the State Board of Education.

Standard setting is a content-centered, empirical means of identifying achievement-level cut scores to delineate and establish levels of mastery and classify students' achievement levels based on their test scores. It provides critical evidence that the State used a technically sound and well-documented process to develop scoring interpretations and performance standards. Appendix D includes the reporting category and ALDs, respectively, as evidence to support the proposed use of test scores regarding the validity argument.

Florida has determined that Level 3 on its Achievement Level Scale (which ranges from Level 1 to Level 5) indicates on-grade-level performance. Levels 4 and 5 describe growth beyond the Level 3 expectations and indicate proficiency in the standards.

Appendix D provides detailed descriptions for a student's content-area knowledge and skill at each achievement level for each statewide assessment.

1.4 AVAILABLE REPORTS OF THE FLORIDA REPORTING SYSTEM

The FAST ELA Reading, FAST ELA Reading Retake, FAST Mathematics, B.E.S.T. EOC, Grade 5 and 8 Science, Biology 1, U.S. History, and Civics results are reported in the FRS and are available within a day of the student completing a test. Teachers, school-level users, and district-level users have access to different features and data in the reporting system. Users can print any of the reports available in the FRS.

The *Florida Reporting System User Guide 2024* is included in Appendix F, *Understanding Florida Reporting System Reports* in Appendix H, and *The TIDE User Guide* is included in Appendix B. Appendices C and E include explanations of the reports, information about the content assessed in Florida's Statewide Standards, and a glossary of terms used in the Florida Statewide Assessments reports.

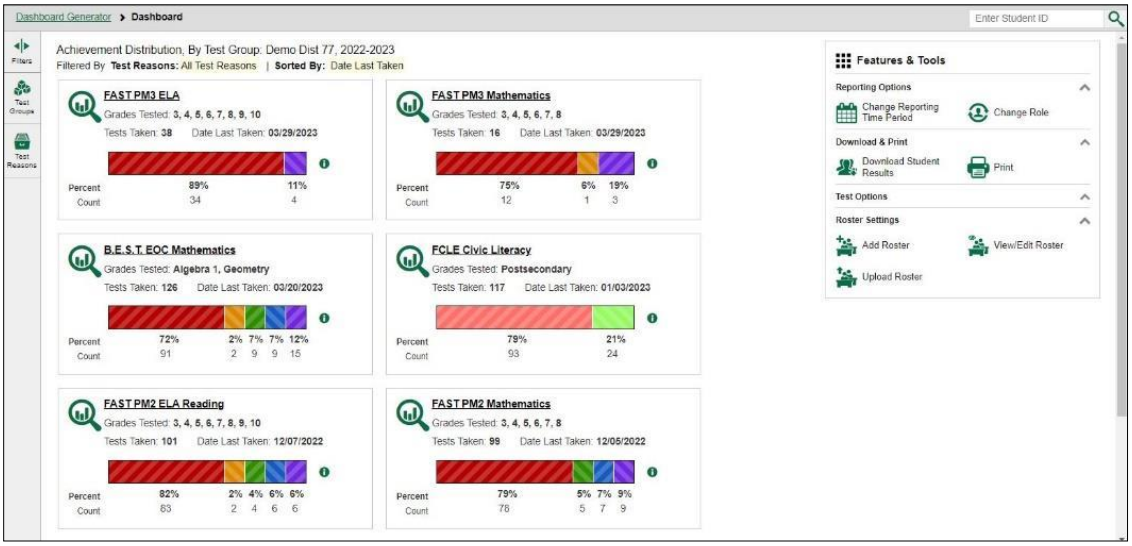
Participation reports are also available on the TIDE website. These reports indicate the students who have completed or need to complete computer-based testing and allow users to view participation summary statistics (counts and percentages) of students who have tested.

1.4.1 Dashboard

The Dashboard page is the first page that users see when they log in to the FRS and make their selections. The Dashboard page contains summaries of student performance by test family (e.g., B.E.S.T. EOC Mathematics). It displays aggregation cards for each test family. Based on the access rights, district and school level users are able to view their district or school summaries.

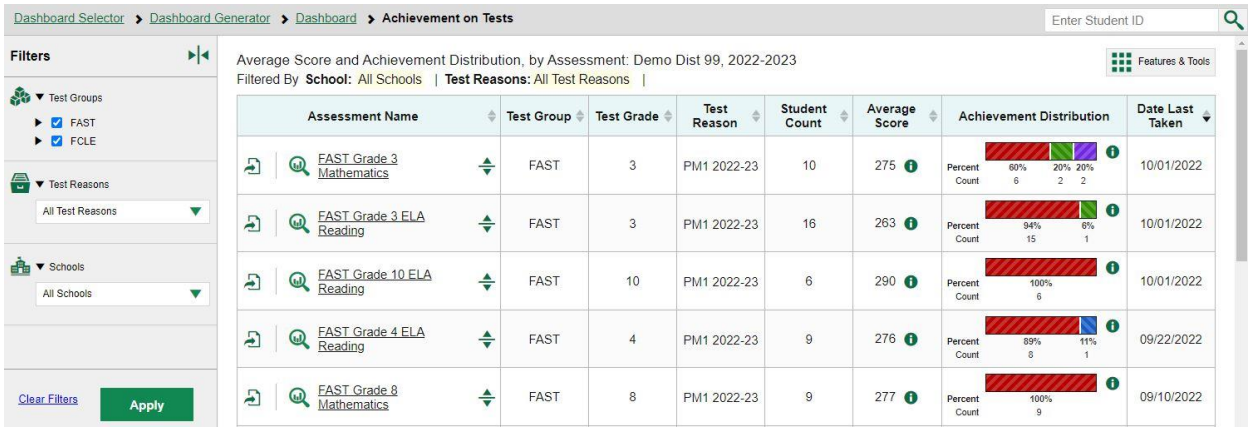
The dashboard summarizes students' performance by test family, including: (1) the number of students tested, (2) the grades of the students who have tested, and (3) the percentage and counts of students at each performance level. Figure 1 presents a sample dashboard page at the district level.

Figure 1: Dashboard



Educators can click the subject group to view individual test results for the selected test group. Once the user clicks the test family that he or she wants to explore further, the detailed dashboard page will appear. The detailed dashboard summarizes students' performance by test, including: (1) the number of students tested, (2) average scale score, and (3) the percentage and counts of students at each achievement level. Figure 2 presents a sample detailed dashboard page for FAST PM3 Mathematics at the district level.

Figure 2: Detailed Dashboard: District Level

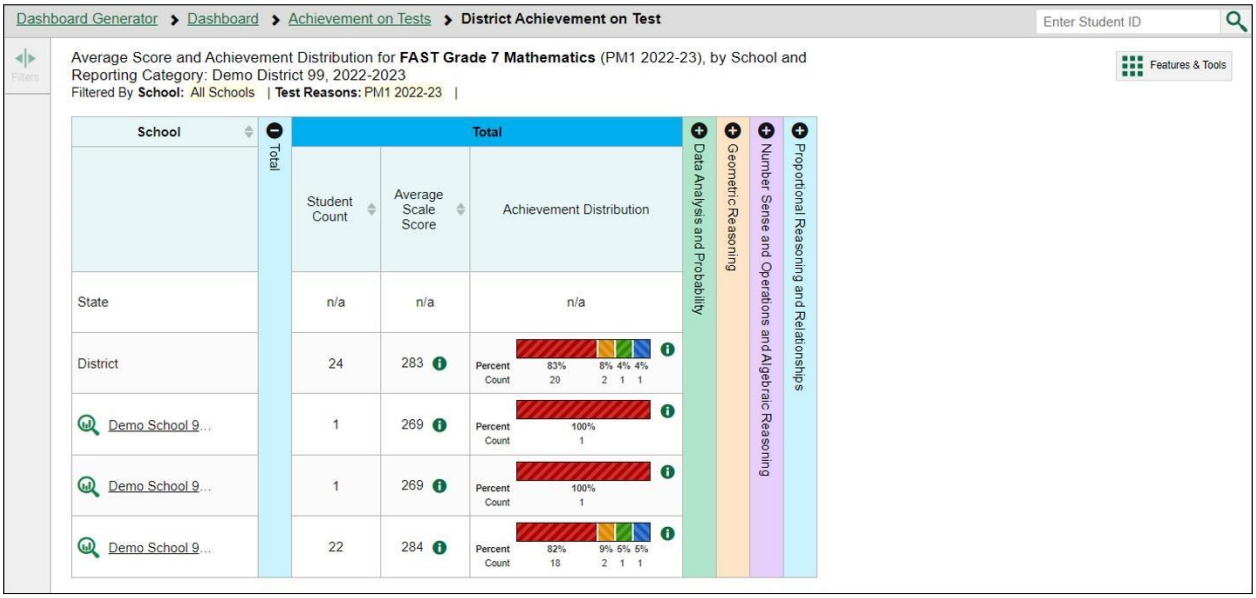


1.4.2 Summary Results for a Particular Test

Detailed summaries of student performance for each grade in a subject area for a selected aggregate level are presented when users select a specific assessment name. On each aggregate report, the summary report presents the summary results for the selected aggregate unit, the summary results for the state, and the aggregate unit above the selected aggregate. For example, if a school is selected, the summary results of the state and district of the school are provided above the school summary results as well, so that school performance can be compared with the district and state aggregate levels.

The aggregated subject summary report provides the summaries on a specific subject area, including: (1) the number of students tested, (2) the average scale score, (3) the percentage of on-grade-level students, and (4) the percentage and counts of students in each achievement level. The summaries are also presented for students overall and by subgroup. Figure 3 presents an example of subject summary results for the Grade 7 Mathematics assessment at the district level.

Figure 3: Summary Results for FAST Grade 7 Mathematics: District Level



1.4.3 Reporting Category-Level Results

Aggregated reporting category results are also available on the same report page as the subject-level results. The reporting category result provides the aggregate summaries on student achievement in each reporting category for a particular grade and subject.

Like the subject-level results, the summary report presents the summary results for the selected aggregate unit and the summary results for the state and aggregate unit above the selected aggregate. Figure 4 presents an example of reporting category-level results for grade 3 FAST ELA Reading at the district level.

Figure 4: Reporting Category-Level Results for FAST Grade 3 ELA Reading: District Level

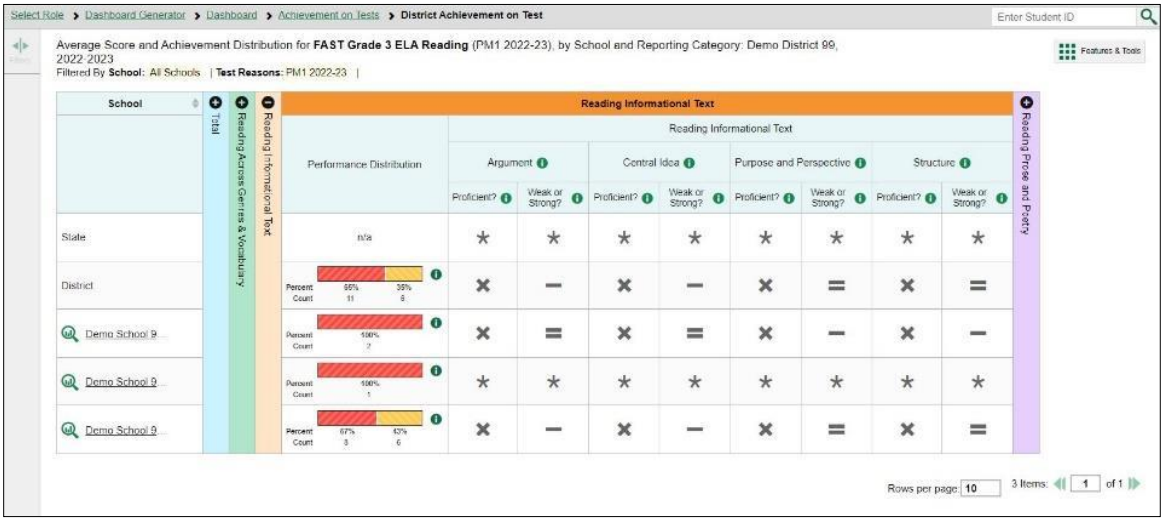
1.4.4 Standard-Level Strengths and Weaknesses Results

Target scores are produced for the online tests only. Target scores are computed for attempted tests based on the responded items. If a test has unanswered items, unanswered items are ignored.

Target scores are computed within each standard. For ELA reading, these scores are computed at level 2 content classification for all grades. For mathematics, these scores are computed at the level 3 content classification for grades 3–8, Algebra 1, geometry, biology, U.S. History, and Civics. Target scores will be computed in two ways: (1) target scores relative to a student's overall estimated ability (θ), and (2) target scores relative to the proficiency standard (Level 3 cut score).

The standard-level results provide the aggregate summaries on student performance in target areas. Strength and weakness indicators are supplied for each target and are computed in two ways (i.e., achievement relative to the on-grade level, achievement relative to the test as a whole). In the target level, strengths and weaknesses are reported for groups of students based on whether there is a statistically significant difference between the group's performance on each target and the group's performance on the rest of the test. A target-level result also includes group achievement relative to the expected performance of a student at the on-grade-level cut score. Figure 5 presents an example of target-level results for the FAST grade 3 ELA Reading assessment at the district level.

Figure 5: Standard-Level Results for FAST Grade 3 ELA Reading: District Level

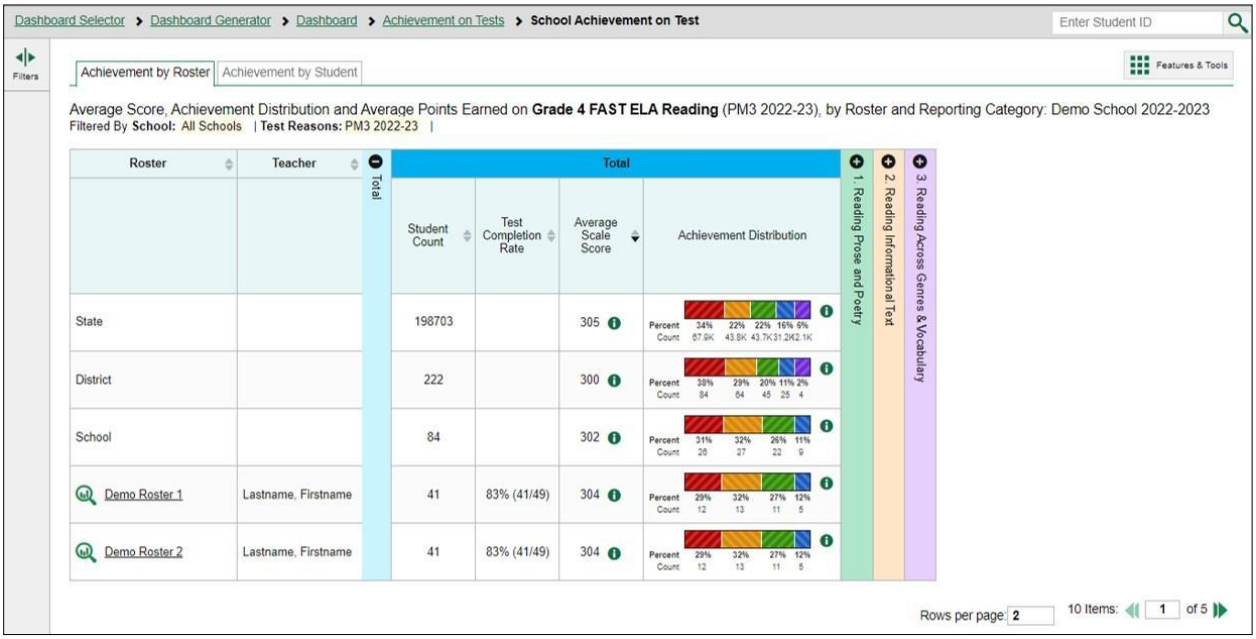


1.4.5 Roster Performance Report

The Test Completion Rates report can be generated from TIDE and summarizes the number and percentage of students who have started or completed a test.

Class, teacher, and school performance rosters provide users with achievement data for a group of students belonging to a system-defined or user-defined class. The report includes the student's overall subject scale scores and the achievement level. Figure 6 shows a sample roster performance report for FAST grade 4 ELA Reading.

Figure 6: Roster Performance Report for FAST Grade 4 ELA Reading

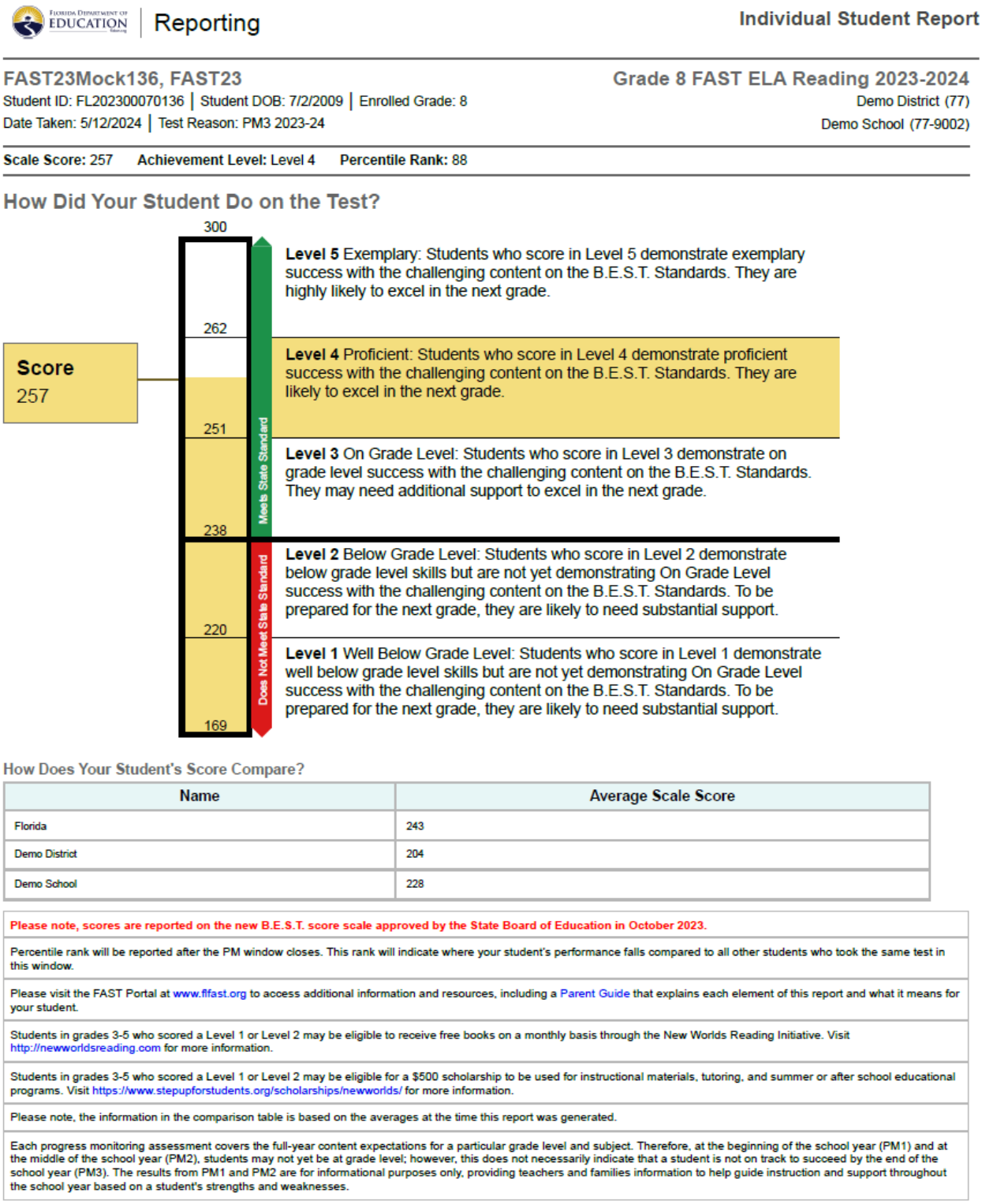


1.4.6 Individual Student Report

When a student completes a test, an ISR can be generated in the FRS. The detailed ISR shows individual student achievement on the test. Figure 7, Figure 8, and Figure 9 show the details of a sample ISR for FAST grade 8 ELA Reading. In each subject area, the ISR provides: (1) the scale score; (2) achievement level for overall test; (3) average scale scores for the student's state, district, and school; (4) student growth in scale score and achievement level over time (ELA reading and mathematics only); (5) and the student's reporting category achievement in each reporting category, as well as an enhanced ALD based on whether the student performed below, at/near, or above the standard with an explanation of the student's strengths and weaknesses as well as next steps parents can take to help the student make progress in their learning (refer to Figure 8).

The student's name, scale score, and achievement level are shown at the top of the page. In the middle section, the student's achievement is described in detail using a barrel chart. In the barrel chart, ALDs with cut scores at each achievement level are provided. This defines the content-area knowledge, skills, and processes that test takers at the achievement level are expected to possess. Figure 9 displays the trend of student performance over time.

Figure 7: Individual Student Report for FAST Grade 8 ELA Reading



Florida Department of Education | Reporting

Individual Student Report

FAST23Mock136, FAST23
Student ID: FL202300070136 | Student DOB: 7/2/2009 | Enrolled Grade: 8
Date Taken: 5/12/2024 | Test Reason: PM3 2023-24

Grade 8 FAST ELA Reading 2023-2024
Demo District (77)
Demo School (77-9002)

Scale Score: 257 **Achievement Level:** Level 4 **Percentile Rank:** 88

How Did Your Student Do on the Test?

How Does Your Student's Score Compare?

Name	Average Scale Score
Florida	243
Demo District	204
Demo School	228

Please note, scores are reported on the new B.E.S.T. score scale approved by the State Board of Education in October 2023.

Percentile rank will be reported after the PM window closes. This rank will indicate where your student's performance falls compared to all other students who took the same test in this window.

Please visit the FAST Portal at www.flfast.org to access additional information and resources, including a Parent Guide that explains each element of this report and what it means for your student.

Students in grades 3-5 who scored a Level 1 or Level 2 may be eligible to receive free books on a monthly basis through the New Worlds Reading Initiative. Visit http://newworldsreading.com for more information.

Students in grades 3-5 who scored a Level 1 or Level 2 may be eligible for a $500 scholarship to be used for instructional materials, tutoring, and summer or after school educational programs. Visit https://www.stepupforstudents.org/scholarships/newworlds/ for more information.

Please note, the information in the comparison table is based on the averages at the time this report was generated.

Each progress monitoring assessment covers the full-year content expectations for a particular grade level and subject. Therefore, at the beginning of the school year (PM1) and at the middle of the school year (PM2), students may not yet be at grade level; however, this does not necessarily indicate that a student is not on track to succeed by the end of the school year (PM3). The results from PM1 and PM2 are for informational purposes only, providing teachers and families information to help guide instruction and support throughout the school year based on a student's strengths and weaknesses.

Figure 8: Detail of Individual Student Report for FAST Reading with Reporting Categories and Next Steps

Florida Department of Education | Reporting

Individual Student Report

FAST23Mock136, FAST23
Student ID: FL202300070136 | Student DOB: 7/2/2009 | Enrolled Grade: 8
Date Taken: 5/12/2024 | Test Reason: PM3 2023-24

Grade 8 FAST ELA Reading 2023-2024
Demo District (77)
Demo School (77-9002)

Scale Score: 257 **Achievement Level:** Level 4 **Percentile Rank:** 88

How Did Your Student Perform on Different Areas of the Test?

The table and the graph below indicate student performance on individual reporting categories. The black dot indicates the student's performance in each reporting category. The lines to the left and right of the dot show the range of likely scores your student would receive if he or she took the test multiple times within this testing window.

Category	Achievement	Achievement Level	Achievement Level Description
1. Reading Prose and Poetry		At/Near the Standard	**What These Results Mean** For example, your learner may be able to: • Analyze straightforward interactions between character development, setting, and plot (how story events develop and unfold). • Explain two or more themes (the underlying messages or big ideas) and their development throughout the text. • Explain how an author develops and/or individualizes perspectives of different characters. • Explain structure, sound, imagery, and/or figurative language in poetry. **Next Steps** Have your learner read a variety of literary texts. For example, ask your learner to: • Analyze the interaction between character development, setting, and plot (how story events develop and unfold). • Analyze two or more themes (the underlying messages or big ideas) and their development throughout the text. • Analyze how an author develops and individualizes perspectives of different characters. Have your learner read a variety of poems and ask your learner to: • Analyze structure, sound, imagery, and/or figurative language.
2. Reading Informational Text		Above the Standard	**What These Results Mean** For example, your learner may be able to: • Analyze how individual sections of text and/or text features convey a purpose and/or meaning in a text. • Analyze two or more central ideas and their development throughout the text. • Explain how an author establishes and achieves purpose(s) through rhetorical appeals and/or figurative language. • Track the development of an argument, analyzing the types of reasoning used and their effectiveness as well as identifying ways in which the argument could be improved. **Next Steps** Have your learner read a variety of informational texts. For example, ask your learner to thoroughly: • Analyze how complex individual text sections and/or text features convey a layered purpose and/or meaning in a text. • Analyze two or more complex central ideas and their development throughout the text. • Explain how an author establishes and achieves implicit purpose(s) through complex rhetorical appeals and/or figurative language. • Track the development of layered arguments in the text, analyzing the types of complex reasoning used and their effectiveness, and identify ways in which the argument could be improved.

Figure 9: Individual Student Report for FAST Grade 8 ELA Reading with Longitudinal Graph of Current and Previous School Year

Florida Department of Education | Reporting

Individual Student Report

FAST23Mock136, FAST23
Student ID: FL202300070136 | Student DOB: 7/2/2009 | Enrolled Grade: 8
Date Taken: 5/12/2024 | Test Reason: PM3 2023-24

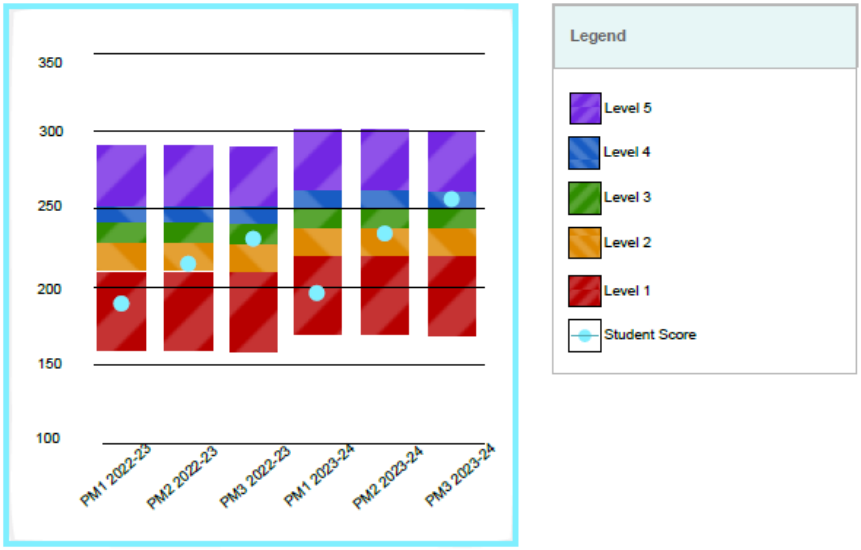
Grade 8 FAST ELA Reading 2023-2024
Demo District (77)
Demo School (77-9002)

Scale Score: 257 **Achievement Level:** Level 4 **Percentile Rank:** 88

Your Student's Progress

Longitudinal Trend Chart Information

The chart below reports your student's performance over time. The shaded areas in multiple colors indicate the scale score range in each achievement level.



Your Student's Progress

Date	Test Reason	Test Label	Scale Score	Achievement Level
7/24/2022	PM1 2022-23	Grade 7 FAST ELA Reading	187	Level 1
11/10/2022	PM2 2022-23	Grade 7 FAST ELA Reading	216	Level 2
5/12/2023	PM3 2022-23	Grade 7 FAST ELA Reading	234	Level 3
7/24/2023	PM1 2023-24	Grade 8 FAST ELA Reading	195	Level 1
11/10/2023	PM2 2023-24	Grade 8 FAST ELA Reading	235	Level 2
5/12/2024	PM3 2023-24	Grade 8 FAST ELA Reading	257	Level 4

1.4.7 Longitudinal Reports

Longitudinal Reports show students' performance over the three progress monitoring opportunities within a school year. This report shows the student's or students' performance over time. The shaded areas in multiple colors indicate the scale score range in each achievement level for each grade (refer to Figure 10). Each mark on the graph represents the student's score and indicates whether the student meets the standards that year.

Each Longitudinal Report displays achievement data for one of the following:

- A group of students who have completed every assessment available in the report; for district- or school-level users, a certain percentage of students must have taken *all* the

related assessments for users to be able to generate a Longitudinal Report (teachers have the option of adjusting the pool of students, tests, and test reasons)

- An individual student (refer to Figure 11)

Figure 10: Longitudinal Report Window: Report for Multiple Students with Multiple Reporting Categories

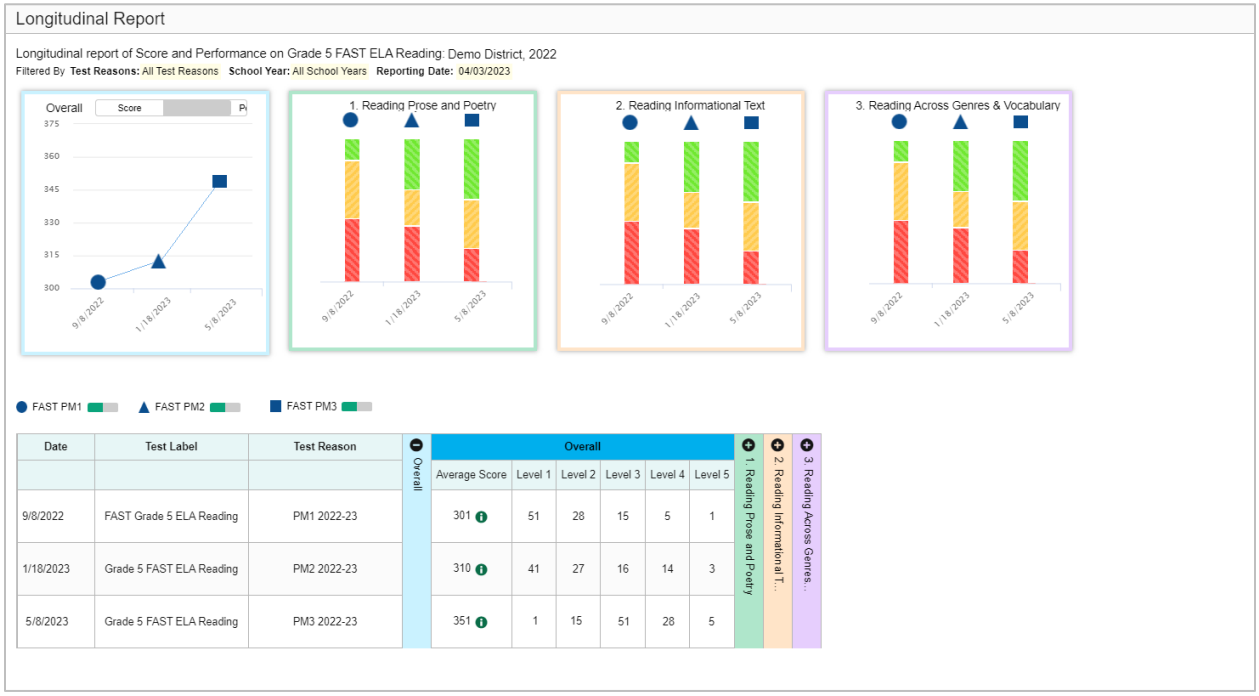
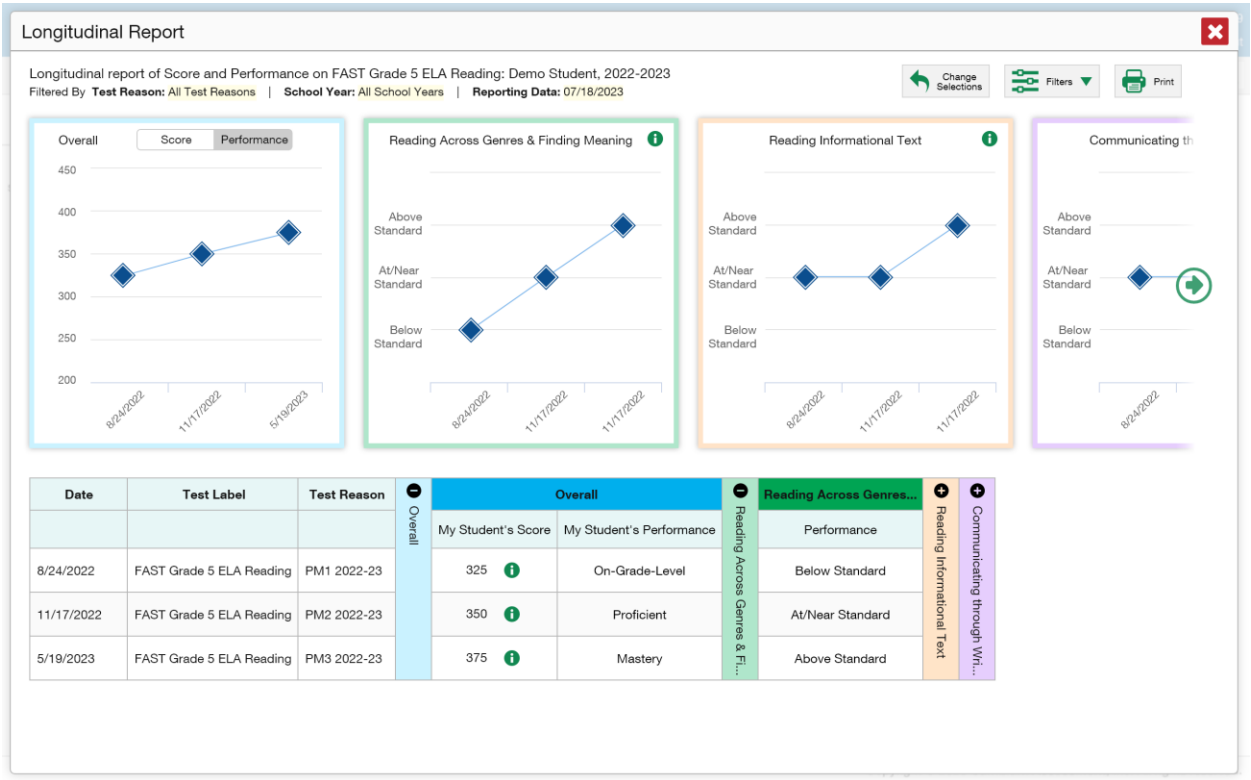


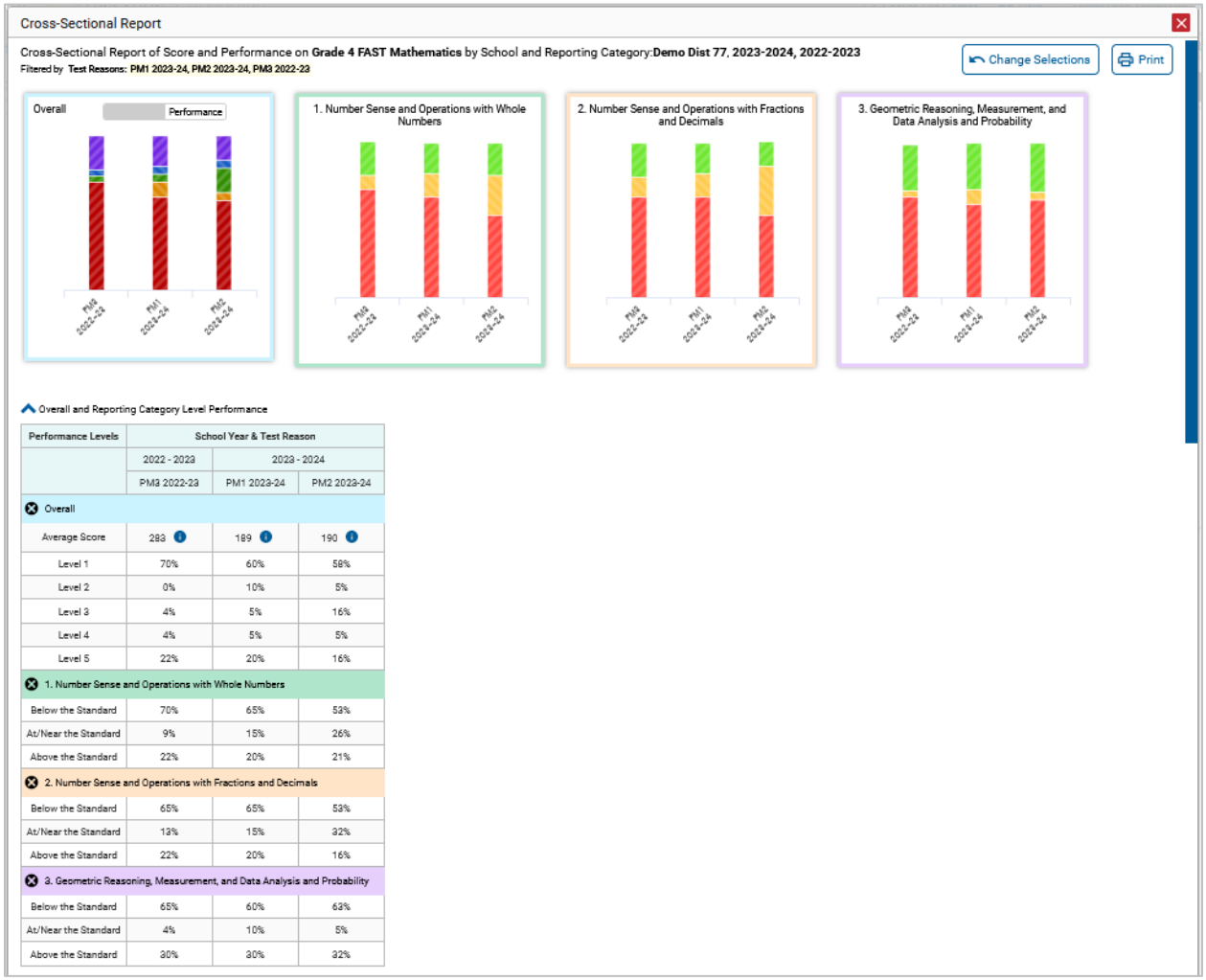
Figure 11: Longitudinal Report Window: Report for a Single Student with Multiple Reporting Categories



1.4.8 Cross-Sectional Report

The Cross-Sectional Report shows how school and/or district performance has improved or changed across student populations (refer to Figure 12). It allows school- and district-level users to compare different groups of students for the same test over three different administrations (e.g., PM2 2023–2024 vs PM1 2023–2024 vs PM3 2022–2023).

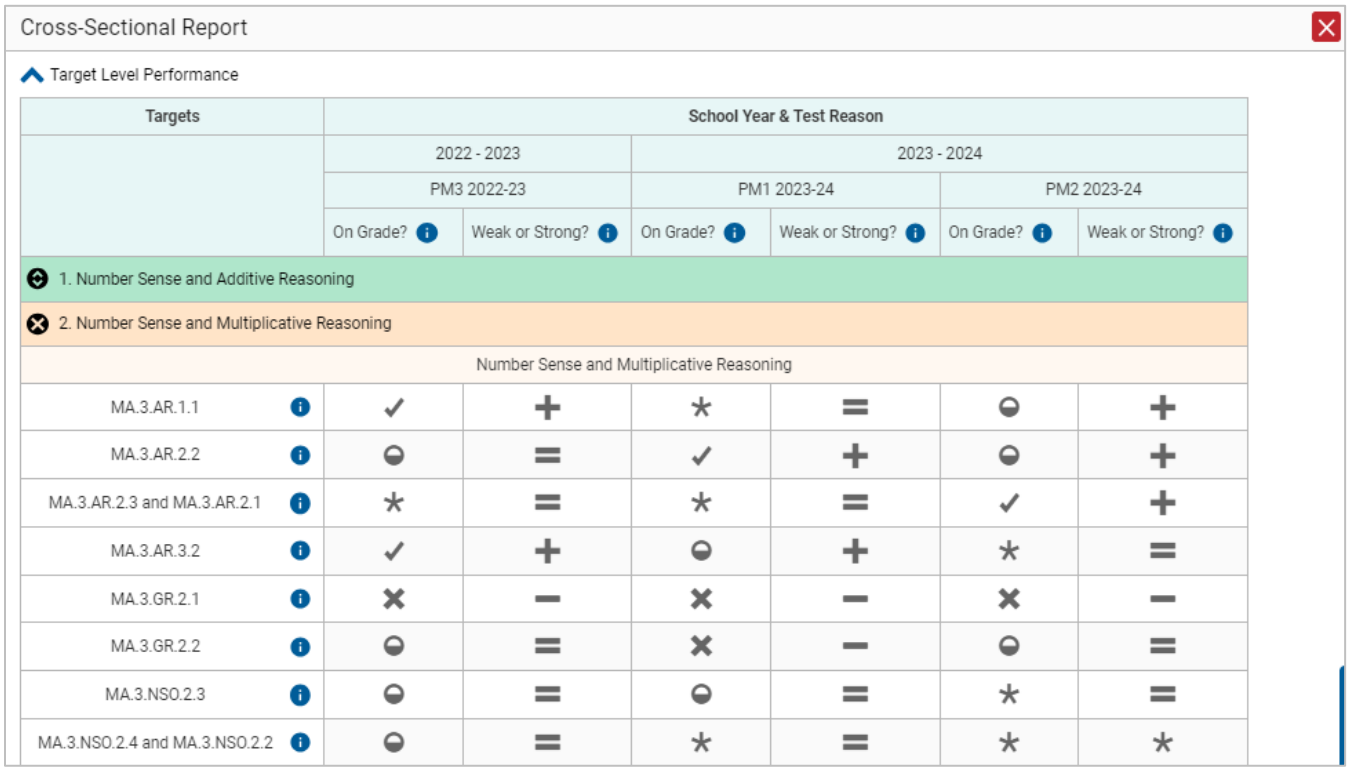
Figure 12: Cross-Sectional Report: Breakdown of Overall and Reporting Category Performance



Overall and Reporting Category Level Performance

Performance Levels	School Year & Test Reason		
	2022 - 2023	2023 - 2024	
	PM3 2022-23	PM1 2023-24	PM2 2023-24
Overall			
Average Score	283	189	190
Level 1	70%	60%	58%
Level 2	0%	10%	5%
Level 3	4%	5%	16%
Level 4	4%	5%	5%
Level 5	22%	20%	16%
1. Number Sense and Operations with Whole Numbers			
Below the Standard	70%	65%	53%
At/Near the Standard	9%	15%	26%
Above the Standard	22%	20%	21%
2. Number Sense and Operations with Fractions and Decimals			
Below the Standard	65%	65%	53%
At/Near the Standard	13%	15%	32%
Above the Standard	22%	20%	16%
3. Geometric Reasoning, Measurement, and Data Analysis and Probability			
Below the Standard	65%	60%	63%
At/Near the Standard	4%	10%	5%
Above the Standard	30%	30%	32%

Figure 13: Cross-Sectional Report: Performance by Benchmark



1.4.9 Breakdown by Sub-Groups

FRS provides the ability to breakdown results by sub-groups. Figure 14 and Figure 15 show how users can compare achievement between different demographic sub-groups (including EOC retakers). This button is available for most aggregate test results.

Figure 14: Breakdown Attributes

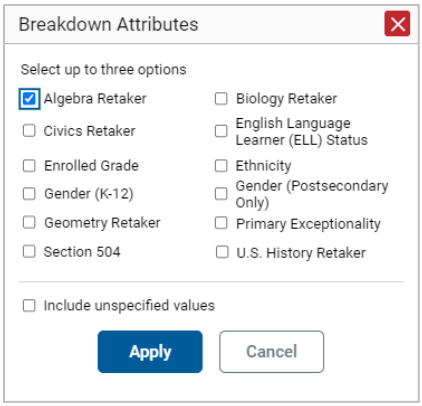
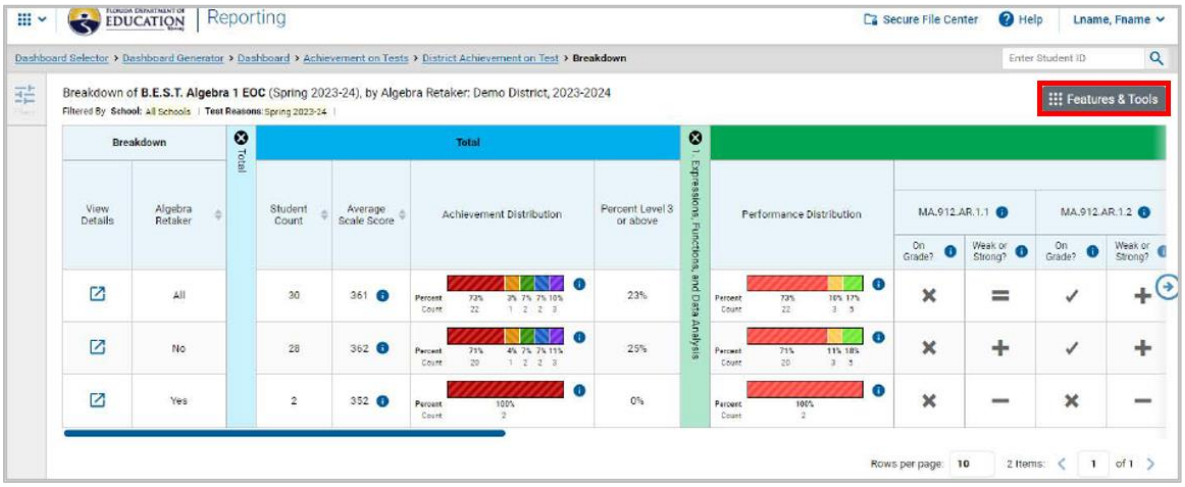


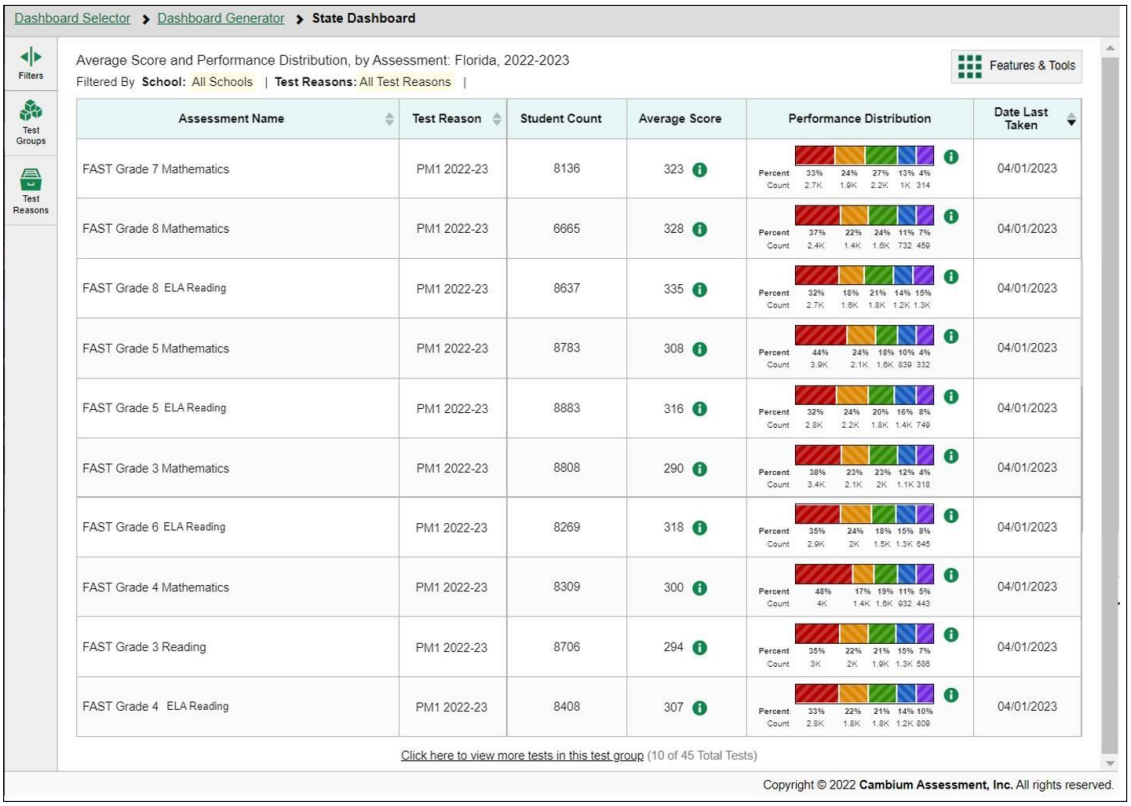
Figure 15. Algebra Retaker Breakdown



1.4.10 State-Level Summary

The FRS provides a state dashboard view for authorized state-level users to track state performance for a particular test. Users can specify the test and administration year to display in the report. Figure 16 presents a sample state-level summary for the FAST ELA Reading and Mathematics assessments.

Figure 16: State Dashboard for FAST Progress Monitoring 1



1.4.11 Student Data File

FRS users have the option to quickly generate comprehensive data files of their students' scores. Data files can be downloaded in Microsoft Excel, CSV, or TXT format and contain a wide variety of data fields, including scale score and reporting category scores, student demographic information, and achievement levels for overall performance and reporting categories. Data files can be useful as a resource for further analysis and can be generated at the district, school, teacher, or roster level, depending on the user role.

1.4.12 Family Portal

Starting in spring 2022, student scores and ISRs became available for parents and students on the Family Portal. The Family Portal was developed for families and guardians to view their student's statewide assessment results. Figure 17 shows the Family Portal log-in screen. Parents will have direct access to the Family Portal, which contains PDF versions of the ISRs for their students, as seen in Figure 18. Families can see their student's scale score and achievement level, as well as a chart indicating where the student's scale score falls within the achievement level. Families may also download a copy of their student's Individual Student Report when available. Percentile rank is available for the FAST assessments, after the testing window closes. The results from Fall 2020 onwards are provided.

Figure 17: Family Portal Log-In Screen

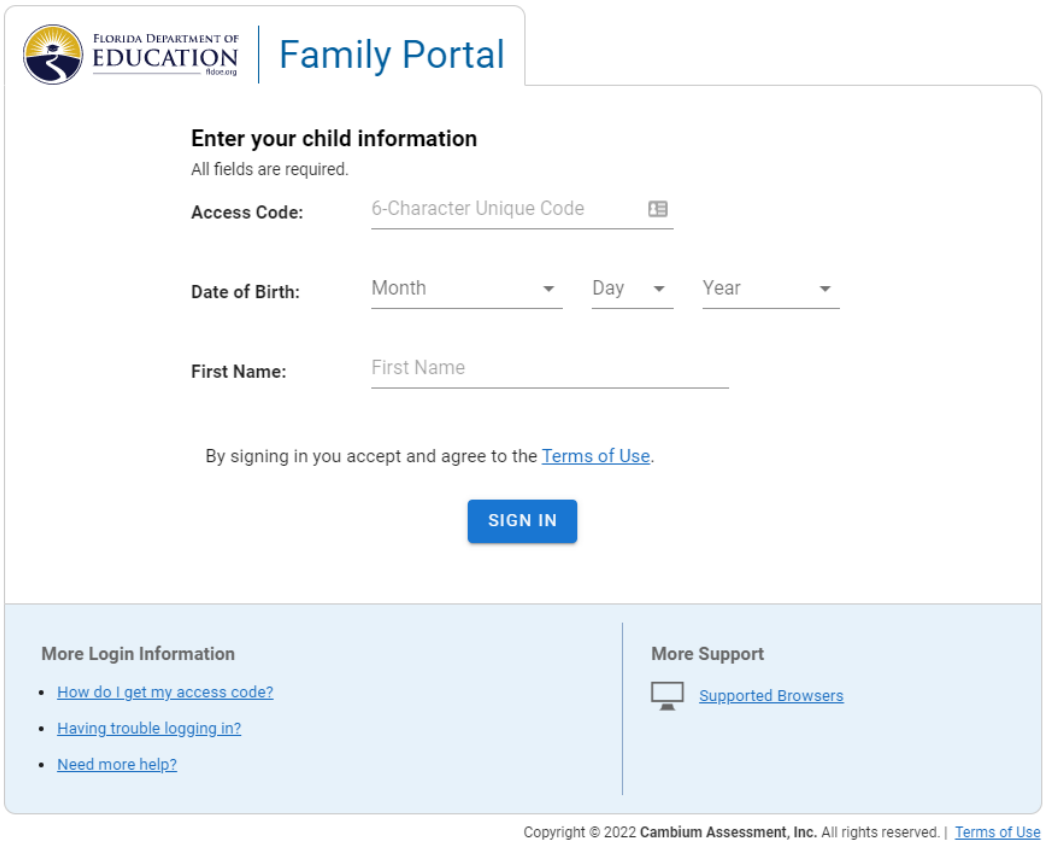
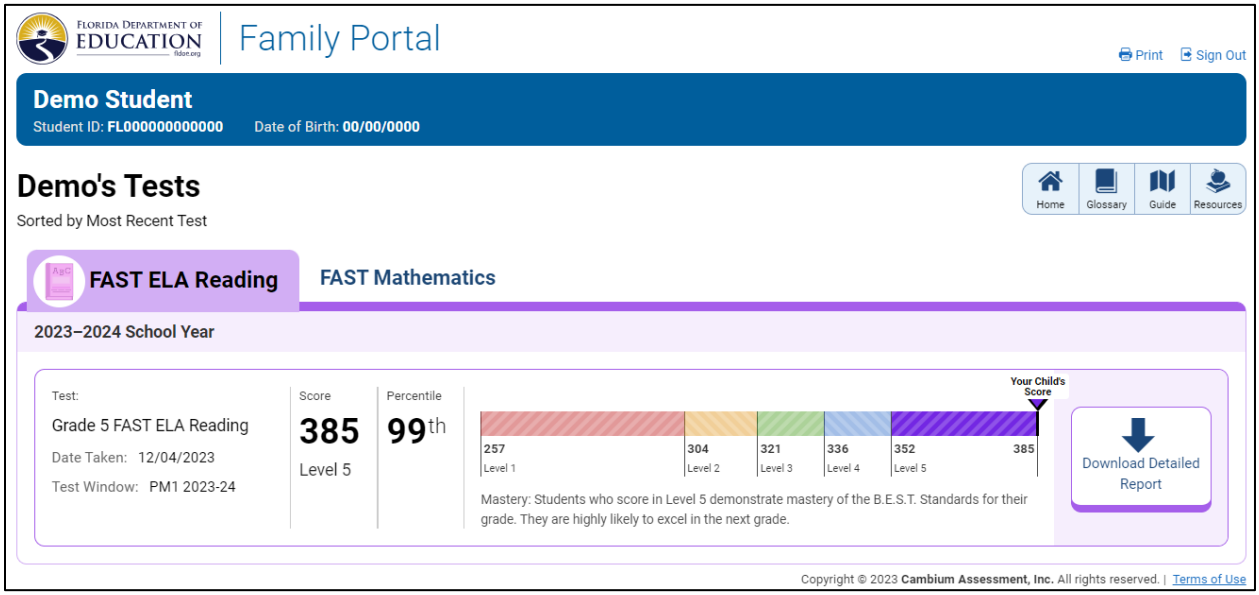


Figure 18: Family Portal Subject Page



2 CALCULATION OF STUDENT SCORES

This section provides an overview of the calculation of student scores. More detailed information can be found in Volume 1 of this technical report.

2.1 POINTS POSSIBLE FOR FSA ASSESSMENTS ONLY

Students receive a raw score for each reporting category, with scores being derived using only the operational items in each reporting category for the FSA assessments, particularly Algebra 1 Retake and ELA Reading Retake in the 2023–2024 school year. The number of points earned is the sum of the scores of the items measuring a given reporting category. Raw scores are reported at the individual level and shown in the Points Earned column of the ISRs.

2.2 THETA SCORE ESTIMATION

Student ability estimates, or *theta scores*, are generated using *pattern scoring*, which is a method that scores students differently depending on which items they answer correctly. Some test items provide more statistical information than other items, and when students answer those items correctly, this improves their ability estimate. Because the B.E.S.T. assessments are calibrated and scored based on the three-parameter logistic (3PL) model and generalized partial credit model (GPCM) of item response theory (IRT) models, with the two-parameter logistic (2PL) model treated as a special case of the 3PL, two students with the same overall raw score but with correct answers to different items may have slightly different ability estimates. The science and social studies assessments are calibrated and scored based on the 3PL model only. Section 8.1.1 of Volume 1 of this technical report outlines the formulas and rules applied during calculation.

Theta scores are not listed in the reports but are used in the calculation of other scores.

2.3 SCALE SCORES

Scale scores are a linear transformation of a student's theta score onto a consistent scale. Scale scores are calculated as follows:

$$SS_i = a * \widehat{\theta_i} + b$$

where $\widehat{\theta}_i$ is an individual student's ability estimate obtained from maximum likelihood estimation (MLE) in Cambium Assessment, Inc.'s (CAI) scoring engine, and *a* and *b* are grade- and subject-specific slope and intercept values. Scale scores are rounded to the nearest whole number for reporting. Section 8.1.2 of Volume 1 of this technical report provides additional details about the calculation of scale scores, as well as the grade and subject slopes and intercepts.

Scores for FSA assessments are reported at the individual level in PANext Reporting. Scores for FAST and B.E.S.T. and science and social studies assessments are reporting in FRS.

2.4 ALTERNATE PASSING SCORE

This section provides information regarding the Alternative Passing Scores (APS) for the FAST and B.E.S.T. assessments for students who took the FAST grade 10 ELA or B.E.S.T. Algebra 1 or

Geometry EOC assessments in spring 2024, and who are required to earn a passing score on these to meet graduation requirements.

The APS is the FSA equivalent score reported on the FAST and B.E.S.T. scaled score. When scores were reported in the 2022–2023 and fall 2023–2024 school year, there was no approved FAST and B.E.S.T. reporting scale, and so cut scores were reported as the FSA-linked equivalent. The FAST and B.E.S.T scale transformation constants are now known, so the passing scores can be reported on the FAST and B.E.S.T scale. The State Board of Education has adopted the Commissioner's proposed score scale for the FAST and B.E.S.T. assessments on October 18, 2023. Since the cut scores recommended from the summer 2023 standard-setting process have been approved, it is important to note that these APS cut scores were used only with students who were retaking the test. The new FAST and B.E.S.T. cut scores will apply to students taking the FAST and B.E.S.T. assessments for the first time in 2023–2024 and beyond.

The APS was derived from the *equipercentile* relationship between the FSA/EOC level 2/3 cut scores, FAST/B.E.S.T. score scale, and corresponding alternative passing scores on the FAST/B.E.S.T. score scale. The following are the scores for the tests:

- The alternate passing score for FAST grade 10 ELA is **246** and above on the FAST scale, which corresponds to the passing score of 350 and above on the FSA grade 10 ELA.
- The alternate passing score for B.E.S.T. Algebra 1 EOC is **398** and above on the B.E.S.T. scale, which corresponds to the passing score of 497 and above on the FSA Algebra 1 EOC.
- The alternate passing score for B.E.S.T. Geometry EOC is **401** and above on the B.E.S.T. scale, which corresponds to the passing score of 499 and above on the FSA Geometry EOC.

A student's passing indicator is based on whether the scale score meets the passing requirement, whereas the performance level is based on the scale score and the scale score cut point exclusively.

APS Eligibility on the FAST & B.E.S.T Assessments

Grade 10 ELA Reading

Eligibility for using the grade 10 FSA ELA APS cut score on the B.E.S.T. score scale is based on student cohort. Students who entered grade 10 in fall 2023 (or prior), regardless of his or her first attempt taking the assessment, are eligible to use the APS for graduation purposes. In addition, students who took the grade 10 FAST ELA assessment in spring 2023 as above-grade-level testers (e.g., grade 9 students receiving grade 10 instruction) are also eligible to use the APS, even though they are NOT in the 2022–2023 cohort.

Algebra 1 and Geometry

Eligibility for using the APS for the B.E.S.T. Algebra 1 and B.E.S.T. Geometry tests is based on **when students first participated in the assessment**. Students who took one of these assessments prior to the adoption of the new passing scores (i.e., prior to winter 2023) are eligible to use the APS for Algebra 1 for graduation purposes, or the APS for geometry for scholar designation/CAP purposes. Students who participate in B.E.S.T. Algebra or B.E.S.T. Geometry assessment for the first time in winter 2023 and beyond must obtain the new passing scores for graduation/CAP and scholar designation/CAP purposes, respectively.

Students that take winter 2023 B.E.S.T EOC onwards will *not* be APS eligible and will need to earn the passing score based on the new FAST and B.E.S.T. cut scores accordingly.

The APS that applies to a particular student will vary depending on student cohort, when students first participated in the assessment and the test administration season. Not all historical APS have been included here. Information about the full range of prior APS scores can be found in *The B.E.S.T. and FAST 2023–2024 Administration Summative Scoring Specifications.*

2.5 STANDARD ERRORS

A standard error is a statistical measure that indicates the uncertainty associated with a student's score. No test is perfectly reliable; therefore, a single test score does not perfectly capture any student's performance. The standard error of a test score can be used to judge the degree to which a student would perform differently if he or she were to repeat the test administration. For example, if a student has a scale score of 350 with a standard error of 10, then—applying properties of the normal distribution—68% of the time, one can expect that student to score between 340 and 360 on repeated testing administrations.

3 INTERPRETATION OF REPORTED SCORES

The following business rules are applied for student scores in reporting and the aggregation files that are posted for districts.

3.1 BUSINESS RULES

3.1.1 Inclusion in Aggregation

All aggregate report data are based on the total number of students who took the test and had a reported score. Only students with a score flag status of 1 are included in these data; all other score flags are excluded from aggregation. Thus, students who completed but did not submit their tests for scoring or whose scores were suppressed are not included in the aggregated reports.

3.1.2 Aggregation

Test data are collected at the individual student level during the testing period. Aggregations to a higher unit, such as a school or district, are calculated directly from the student level. More specifically, state, district, and school aggregates are calculated by aggregating all the students in the state, district, and school, respectively. For example, the mean scale score is based on the scale scores of the students in their given district, rather than on the average scale scores of each school in the district.

Records are excluded from aggregation based on the Score Status Flag and School Type. Only records for students who have a Score Status Flag of 1 are included in the regular reporting aggregated data. The aggregated data do not include data for the schools that are assigned a school type of 10, 11, 17, or 99. The Ahfachkee School (school type 14) does NOT appear on SAR data file, but a DAR file is generated. The state-level summary is the same as what is on the SAR, which is calculated by excluding all special schools.

Table 5 shows the school type information.

Table 5: School Type

Special School Name	School Type
Personalized Education Program	11
Empowerment Scholarship Program	11
Department of Juvenile Justice (DJJ) School	10
Private-to-Public School	10
Brick and Mortar Private School	17
Home Education School	99
Ahfachkee School	14

To provide meaningful results and to protect the privacy of individual students, the aggregation results are suppressed if any of the following criteria are met:

- The number of students with reported scores is less than 10.
- All students fall into the same performance level.

When the aggregated score information is suppressed, the number of students is displayed on the aggregation report, but the "—" shows on other score fields.

3.1.3 Student Mobility Rules

Scores are reported based on the enrolled school and district in TIDE as of the last day of the testing window (e.g., May 1st, 2024, for the spring 2024 FAST Progress Monitoring 3 [PM3] administration), if available. Otherwise, the student's last known school and district are used.

3.1.4 Minimum Group Size

For all grades and subjects, no score data are reported if fewer than 10 students are tested.

This section provides guidance for appropriate interpretations and uses of the test results.

3.1.5 Scale Scores

As described earlier, scale scores are reported for all Florida assessments, including ELA Reading, Mathematics, B.E.S.T EOC, Social Studies and Science EOCs, and Science Grades 5 and 8.

Scale scores can be averaged to form overall summaries of student performance within a group.

3.1.6 Alternate Passing Scores

Eligible retake students in grade 10 ELA, Algebra 1, and geometry receive an alternate passing score. The ISRs and school reports contain a passing status ("Y" for yes or "N" for no).

3.1.7 Reporting Categories

The Florida Department of Education (FDOE) encourages educators to use assessment results in a statistically appropriate way. The comparisons described in this report provide possibilities for evaluation of reporting category scores at the school and district levels.

Reporting category scores will be calculated using MLE. These subscores, however, will be based only on the items contained in the reporting category. Reporting categories represent groups of student skills, or benchmarks, which are assessed in each grade and subject.

4 APPROPRIATE SCORE USES

The Florida Statewide Assessments are designed primarily to measure student achievement and to determine school and district accountability related to the implementation of the B.E.S.T. Standards, the Florida Assessment of Student Thinking (FAST) progress monitoring program, and the implementation of Florida's standards for science and social studies.

In the 2022–2023 school year, all Florida schools transitioned to the Florida Benchmark for Excellent Student Thinking (B.E.S.T.) content standards for English language arts (ELA), reading, and mathematics (including Algebra 1 and geometry) and to the FAST progress monitoring program for grades 3–10 ELA reading and grades 3–8 mathematics. The first administration for the FAST program was in fall 2022, while the first administration for the B.E.S.T. standards for Algebra 1 and geometry was in winter 2022. Starting with the 2023–2024 school year, the FAST ELA Reading Retake assessment will be offered. Each progress monitoring assessment covers the full-year content expectations for a particular grade level and subject. Therefore, at the beginning of the school year (PM1) and at the middle of the school year (PM2), students may not yet be at grade level; however, this does not necessarily indicate that a student is not on track to succeed by the end of the school year (PM3). The results from PM1 and PM2 are for informational purposes only, providing teachers and families information to help guide instruction and support throughout the school year based on a student's strengths and weaknesses.

The Florida Statewide Assessments are summative measures of a student's performance in a subject at one point in time. They provide a snapshot of the student's overall achievement, not a detailed accounting of the student's understanding of specific content areas defined by the standards. Florida Statewide Assessments test scores, when used appropriately, can provide a basis for making valid inferences about student performance. The following list outlines some of the ways that student scores can be used:

- *Reporting results to parents of individual students:*

  The information can help parents begin to understand their child's academic performance as related to the Florida Statewide Assessments.

- *Evaluating student scores for placement decisions:*

  The information can be used to suggest areas needing further evaluation of student performance. Results can also be used to focus resources and staff on a particular group of students who appear to be struggling with the Florida Statewide Assessments. Students may also exhibit strengths or deficits in the reporting categories measured on these tests. Because the reporting categories are based on a small number of items, the scores must be used in conjunction with other performance indicators to assist schools in making placement decisions, such as whether a student should take an improvement course or be placed in a gifted or talented program.

- *Evaluating programs, resources, and staffing patterns:*

  Test scores can be a valuable tool for evaluating programs. For example, a school may use its scores as one piece of evidence in evaluating the strengths and weaknesses of a particular academic program or curriculum in the school or district as it relates to the Florida Statewide Assessments.

4.1 INDIVIDUAL STUDENTS

Scale scores determine whether a student's performance has met or fallen short of the on-grade criterion level. Test results can also be used to compare the performance of an individual student with the performance of a similar demographic group or an entire school, district, or state group. For example, the score of a Hispanic student in a gifted program could be compared with the average scores of Hispanic students, gifted students, all the students on campus, or any combination of these aggregations.

Reporting category scores provide information about student performance in more narrowly defined academic content areas. For example, individual scores on reporting categories can provide information to help identify areas in which a student may be having difficulty, as indicated by a particular test. Once an area of possible weakness has been identified, supplementary data should be collected to further define the student's instructional needs.

Finally, individual student test scores **must** be used in conjunction with other performance indicators to assist in making placement decisions. All decisions regarding placement and educational planning for a student should incorporate as much student data as possible.

4.2 GROUPS OF STUDENTS

Test results may be used to evaluate the performance of student groups. The data should be viewed from different perspectives and compared with district and state data to gain a more comprehensive understanding of group performance. For example, the average scale score of a group of students may show that they are above the district and/or state average, yet the percentage of students who are proficient in the same group of students may be less than the district or state percentage. One perspective is never sufficient.

Another way that test results can be used is to evaluate the performance of student groups over time. Average scale scores can be compared across test administrations within the same grade and subject area to provide insight into whether student performance is improving across years. The percentages of students in each achievement level can also be compared across test administrations within the same grade and subject area to provide insight into whether student performance is improving across years.

Yet another way that test scores can be used is to compare the performance of different demographic or program groups (within the same subject and grade) on a single test administration to determine which demographic or program group, for example, had the highest or lowest average performance, or the highest percentage of students considered "on grade" on the Florida Statewide Assessments. Other test scores can be used to help evaluate academic areas of relative strength or weakness. Average performance on a reporting category can help identify areas where further diagnosis may be warranted for a group of students.

Test results for groups of students may also be used when evaluating instructional programs; year-to-year comparisons of average scale scores, or the percentage of students considered proficient in the program, will provide useful information. Considering test results by subject area and by reporting category may be helpful when evaluating curriculum, instruction, and their alignment to standards because all Florida Statewide Assessments are designed to measure content areas within the required state standards.

Generalizations from test results may be made to the specific content domain represented by the reporting categories being measured on the test. However, because the tests are measuring a finite set of skills with a limited set of items which vary from year to year, any generalizations about student achievement derived solely from a particular test should be made cautiously and with full reference to the fact that the conclusions were based on only one test. All instruction and program evaluations should include as much information as possible to provide a more complete picture of performance.

5 CAUTIONS FOR SCORE USE

Test results can be interpreted in many ways and used to answer many different questions about a student, educational program, school, or district. As these interpretations are made, there are always cautions to consider.

5.1 UNDERSTANDING MEASUREMENT ERROR

While assessment results provide valuable information to understand students' performance, these scores and reports should be used with caution. It is important to note that the reported scale scores are estimates of true scores and hence do not represent the precise measure for student performance. A student's scale score is associated with measurement error, and thus users need to consider measurement error when using student scores to make decisions about student achievement. Moreover, although student scores may be used to help make important decisions about students' placement and retention, or teachers' instructional planning and implementation, the assessment results should not be used as the only source of information. Given that assessment results measured by a test provide limited information, other sources on student achievement, such as classroom assessment and teacher evaluation, should be considered when making decisions on student learning. Finally, when student performance is compared across groups, users need to consider the group size. The smaller the group size, the larger the measurement error related to the aggregate data, thus requiring interpretation with more caution.

5.2 USING SCORES AT EXTREME ENDS OF THE DISTRIBUTION

As with any fixed-length test, student scores at the extremes of the score range must be viewed cautiously. For instance, if a student achieves the maximum scale score for the grade 9 mathematics assessment, it cannot be determined whether the student would have achieved a higher score if a higher score were possible. Caution should be taken when comparing students who score at the extreme ends of the distribution.

Analyses of student scores at extreme ends of the distribution should also be cautiously undertaken because of a phenomenon known as regression toward the mean. Students who scored high on the test may achieve a lower score the next time they test because of regression toward the mean. (The magnitude of this regression effect is proportional to the distance of the student's score from the mean and bears an inverse relationship to reliability.) For example, if a student who obtained a high score of 38 out of 40 took the same test again, there would be many more opportunities—compared to a student with a score close to the mean—to incorrectly answer an item that he or she originally answered correctly (38 opportunities, in fact), while there would only be two opportunities to correctly answer items missed the first time. If an item is answered differently, it is more likely to decrease the student's score than to increase it. The converse of this is also true for a student with a very low score; the next time the student tests, he or she is more likely to achieve a higher score, and this higher score may be a result of regression toward the mean rather than an actual gain in achievement. It is more difficult for students with very high or very low scores to maintain their scores than it is for students in the middle of the distribution. The regression toward the mean phenomenon applies to any test and is another reason to be cautious when interpreting any scores at extreme ends of the distribution.

5.3 Interpreting Score Means

The scale score mean (or average) is computed by summing each student's scale score and dividing by the total number of students. Although the mean provides a convenient and compact representation of where the center of a set of scores lies, it is not a complete representation of the observed score distribution. Very different scale score distributions in two groups could yield the same mean scale score. When the mean of a group's scale score falls above the scale score designated as the passing or proficient cut score, it does not necessarily follow that most students received scale scores higher than the cut score. It can be the case that a majority of students received scores lower than the cut score while a small number of students got very high scores. Only when more than half of the students score at or above the particular scale score can one conclude that most students passed or are proficient on the test. Therefore, both the scale score mean and percentage at or above a particular scale cut score should be examined when comparing results from one test administration to another.

5.4 Using Reporting Category Information

Reporting category information can be useful as a preliminary survey to help identify skill areas in which further diagnosis is warranted. The standard error of measurement (SEM) associated with these generally brief scales makes drawing inferences from them at the individual level very suspect; more confidence in inferences is gained when analyzing group averages. When considering data at the reporting-category level, the SEM increases because the number of possible items is small. In order to provide comprehensive diagnostic data for each reporting category, the tests would have to be prohibitively lengthened. Once an area of possible weakness has been identified, supplementary data should be gathered to understand strengths and deficits.

5.5 Program Evaluation Implications

Test scores can be a valuable tool for evaluating programs, but any achievement test can give only one part of the picture. Standard 13.9 in the *Standards for Educational and Psychological Testing* (2014) states, "In evaluation or accountability settings, test results should be used in conjunction with information from other sources when the use of the additional information contributes to the validity of the overall interpretation." The Florida Statewide Assessments are not all-encompassing assessments measuring every factor that contributes to the success or failure of a program. Although more accurate evaluation decisions can be made by considering all the data the test provides, users should consider test scores to be only one component of a comprehensive evaluation system.

6 DATA FORENSIC ANALYSIS OF TEST DATA

After the testing window is closed, Caveon Exam Security® reviews the data for statistical anomalies that may be indicative of administration irregularities, including test security threats. Caveon performs the analysis on individual test instances as well as groups of tests, including districts, schools, and proctors.

Possible examples of test security vulnerabilities include a student copying another student's answers or a test administrator coaching students or changing students' answers. The data forensic analyses use several statistics to detect the following six anomalies, where applicable and where relevant data are provided:

1. Unusually similar or identical pairs or groups of tests
2. Groups of tests with unusually fast and/or erratic response times
3. Groups of tests with unusual numbers of wrong-to-right answer changes and performance increases that may be associated with answer changes
4. Unusual performance differences associated with subsets of items, which may be indicative of pre-knowledge of those items among test takers and groups of test takers
5. Groups of tests with unusual numbers of visits to items and potential performance increases associated with high numbers of visits
6. Aberrant response patterns, such as correctly answering difficult items and not providing correct answers for easy items

Through the results of these statistical analyses, it is possible to identify vulnerabilities in the testing networks and guide decisions and actions for improving the test administrations. If a high-risk anomaly is found in the data, any flagged student scores are put on hold and noted on issue logs for the FDOE's review. The FDOE reviews the data and can either request to release or maintain the hold on the scores.

7 REFERENCES

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (Eds.). (2014). *Standards for educational and psychological testing*. American Educational Research Association.