State of Florida

Benchmarks for Excellent Student Thinking (B.E.S.T.)

2022–2023

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, and Algebra 1 and Geometry End-of-Course (EOC)will be aligned with the Benchmarks for Excellent Student Thinking (B.E.S.T.). The State of Florida implemented a new online assessment for operational use beginning with the 2022–2023 school year. This new assessment program, 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 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.

ELA Writing in grades 4–10 and Algebra 1 and Geometry EOCs 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 will continue to be administered until 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 computer-based assessment that measures students' civic literacy knowledge. Throughout this technical report's text, the collection of FAST, FSA, and B.E.S.T. assessments will be referred to as the Florida Statewide Assessments.

In the spring 2023 testing window, the following FSA and B.E.S.T. tests were administrated to Florida students: FAST Grades 3–10 ELA Reading, FAST Grades 3–8 Mathematics, B.E.S.T. EOC (Algebra 1, Geometry), and 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 score, students were required to complete both the writing and reading components.

For computer-based tests, a paper-based version is provided as an accommodation for eligible students, according to their Section 504 Plans or Individual Educational Plans (IEPs). For spring 2023 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 was 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 grades 3–8 Mathematics, B.E.S.T. EOC, and FSA retake assessments were administered in the spring. For 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 from FAST ELA Reading, and they will not contribute to an overall ELA score.

For the 2022–2023 school year, test scores for FSA ELA Grade 10 Retake and FSA Algebra 1 Retake from each assessment 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 summer and fall 2022, FSA Algebra 1 test scores were also provided through PANext Reporting. PANext Reporting provides information on student performance and aggregated score summaries at several levels—state, district, and school. Printed individual student reports were delivered to districts, packaged by school, for distribution to parents. Additionally, individual student reports will be released on the Family Portal so that parents and students can access them (accessible at https://fl-familyportal.cambiumast.com).

PANext Reporting (accessible at https://fl.pearsonaccessnext.com/customer/index.action) 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 2022–2023 school year, FAST ELA Reading and Mathematics test scores were reported using the Florida Reporting System (FRS). Beginning winter 2022, the B.E.S.T. Mathematics EOC test scores will also be reported using the FRS. FCLE was reported through FRS for the entire 2022–2023 school year. FRS provides information on student achievement and aggregated summaries at several levels—state, district, and school. Additionally, individual student reports will be released on the Family Portal so that parents and students can access them (accessible at https://fl-familyportal.cambiumast.com).

The FRS is designed to help educators and students answer questions about how well students have performed on the ELA Reading and Mathematics assessments. The FRS is an online tool (https://fl.reporting.cambiumast.com) 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 in order 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 its 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 on 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 2022–2023* (Appendix F) located via a help button on the FRS.

1.2 Overall Scores and Reporting Categories

Each student receives a single 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.

Table 1, Table 2, and Table 3 display the reporting categories by grade and subject.

Table 1: Reporting Categories for ELA

Grade	Reporting Category
3	• Reading Prose and Poetry • Reading Informational Text • Reading Across Genres & Vocabulary
4–10	• Reading Prose and Poetry • Reading Informational Text • Reading Across Genres & Vocabulary • Writing – Raw Scores (only) (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
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 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

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. 2022–2023 Technical Report* documents the process and results from the B.E.S.T. standard-setting meetings in 2023. The final cut scores for B.E.S.T. were approved by the State Board of Education. Standard setting is a content-centered, as well as 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. Appendices A–D in Volume 2: Test Development include the reporting category and achievement-level descriptors, respectively, as evidence to support the proposed use of test scores in regard to the validity argument.

Florida 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.

Appendices A–D in Volume 2: Test Development provide 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 (FRS)

The FAST ELA Reading, FAST ELA Reading Retake, FAST Mathematics, and B.E.S.T. EOC results are reported in the Florida Reporting System (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 2022–2023* is included in Appendix F, and the *TIDE User Guide* is included in Appendix B. Appendix C, Understanding Florida Statewide Assessment Reports, includes explanations of the reports, information about the content assessed in Mathematics, ELA Reading, and EOC relating to the B.E.S.T. Standards, and a glossary of terms used in the Florida Statewide Assessments reports.

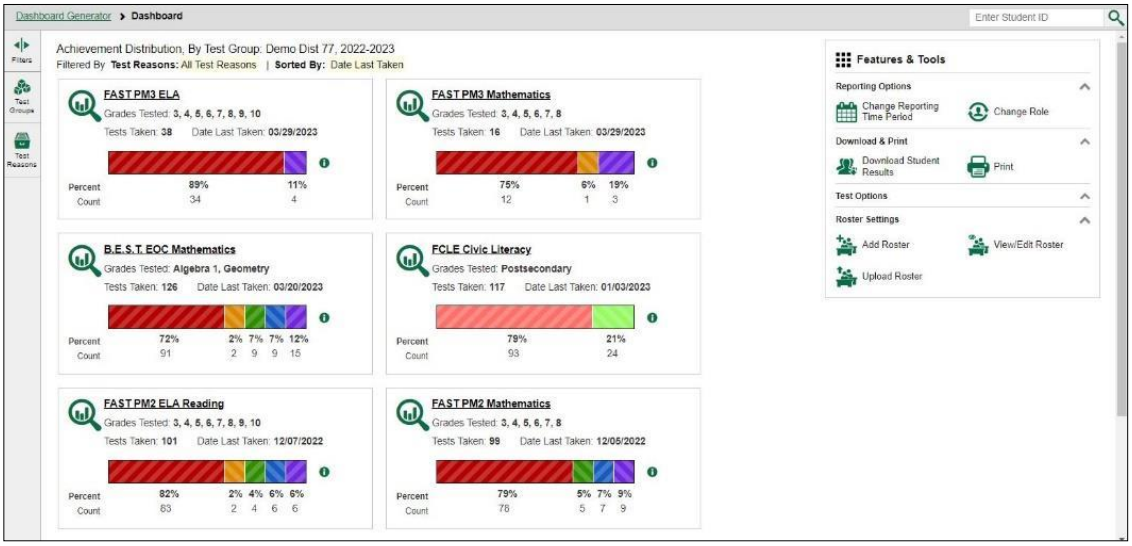
Participation reports are also available on the TIDE website (https://fl.tide.cambiumast.com). These reports indicate the students who have completed or need to complete computer-based testing, and allow users to view participation summary statistics (counts and percentages) of students who have tested.

1.4.1 Dashboard

The dashboard is the first page that users see when they log in to the FRS and make their selections on the Dashboard Generator page. 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 coordinators are able to view their district or school summaries.

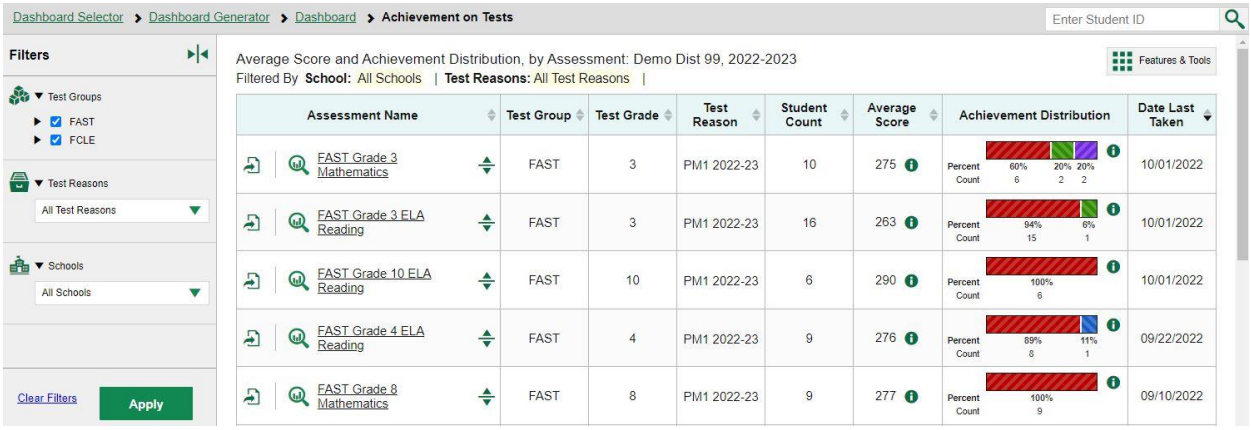
The dashboard summarizes students' performance by test family, including: (1) the number of students tested, (2) the grades of the students who have tested, and (3) the percentage and counts of students at each performance level. Figure 1 presents a sample dashboard page at the district level.

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

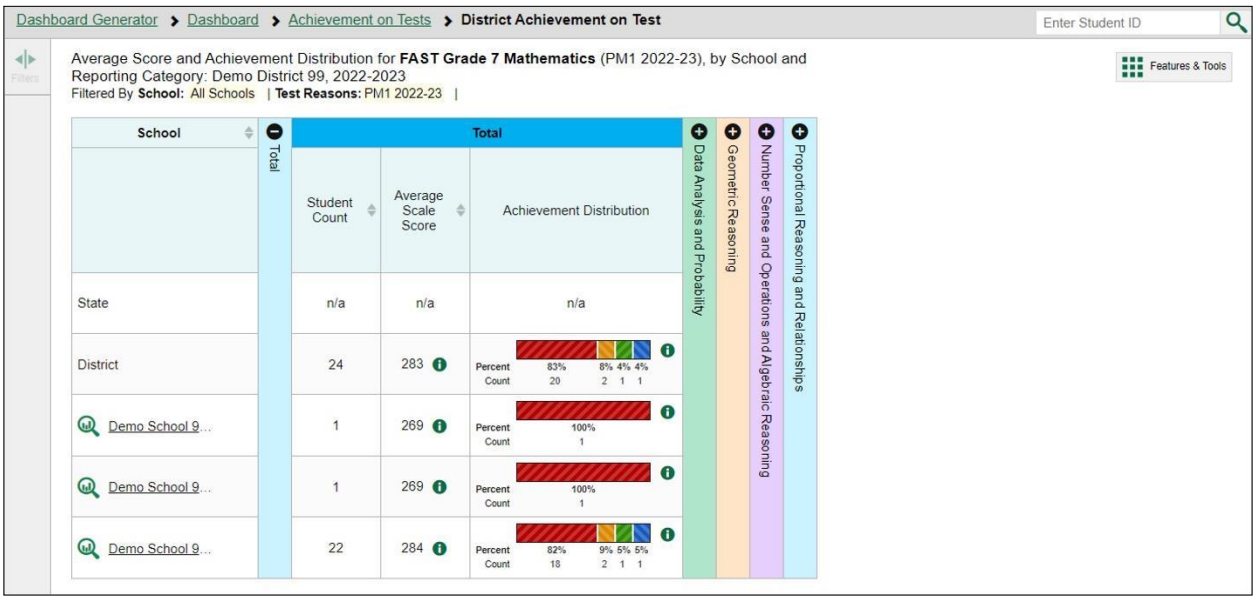


1.4.2 Summary Results for a Particular Test

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 grade 7 Mathematics at the district level.

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

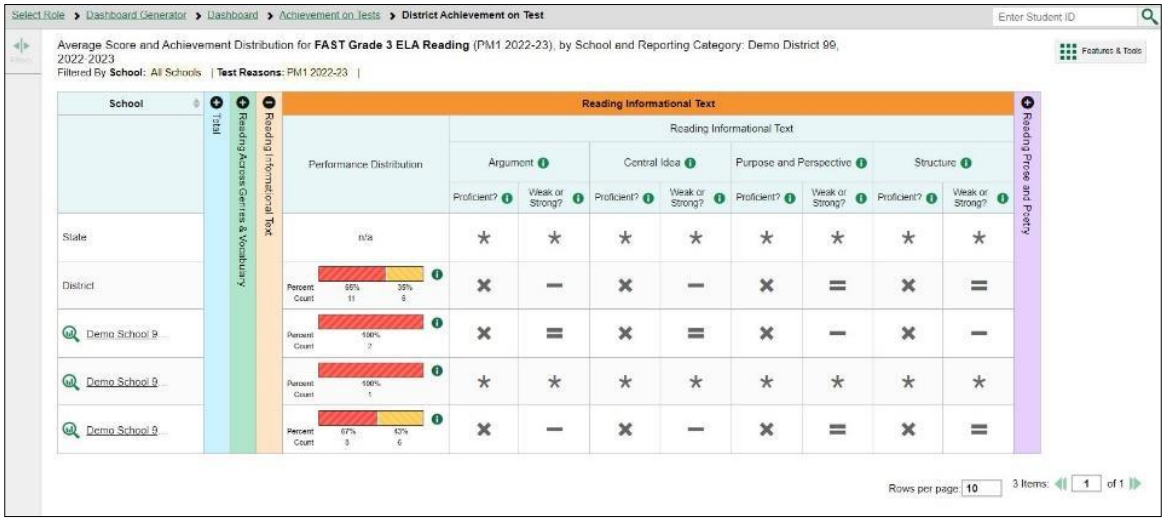


1.4.3 Reporting Category-Level Results

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

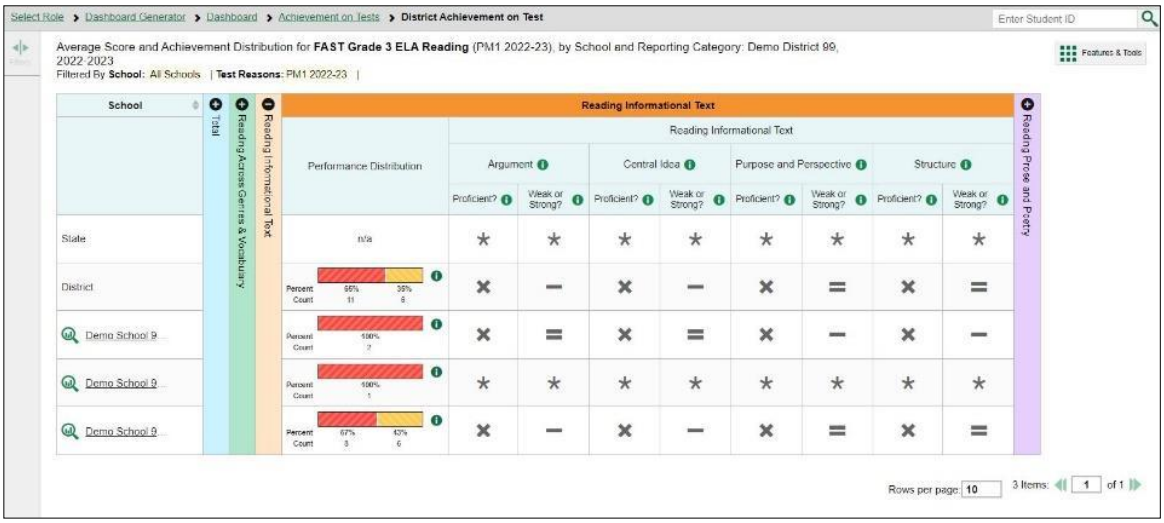
Target scores are produced for the online Mathematics and ELA Reading tests only. Target scores are computed for attempted tests based on the responded items. If a test has unanswered items, unanswered items are ignored.

Target scores are computed within each standard in ELA Reading and in Mathematics. 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 and Geometry.

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).

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 FAST grade 3 ELA Reading at the district level.

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

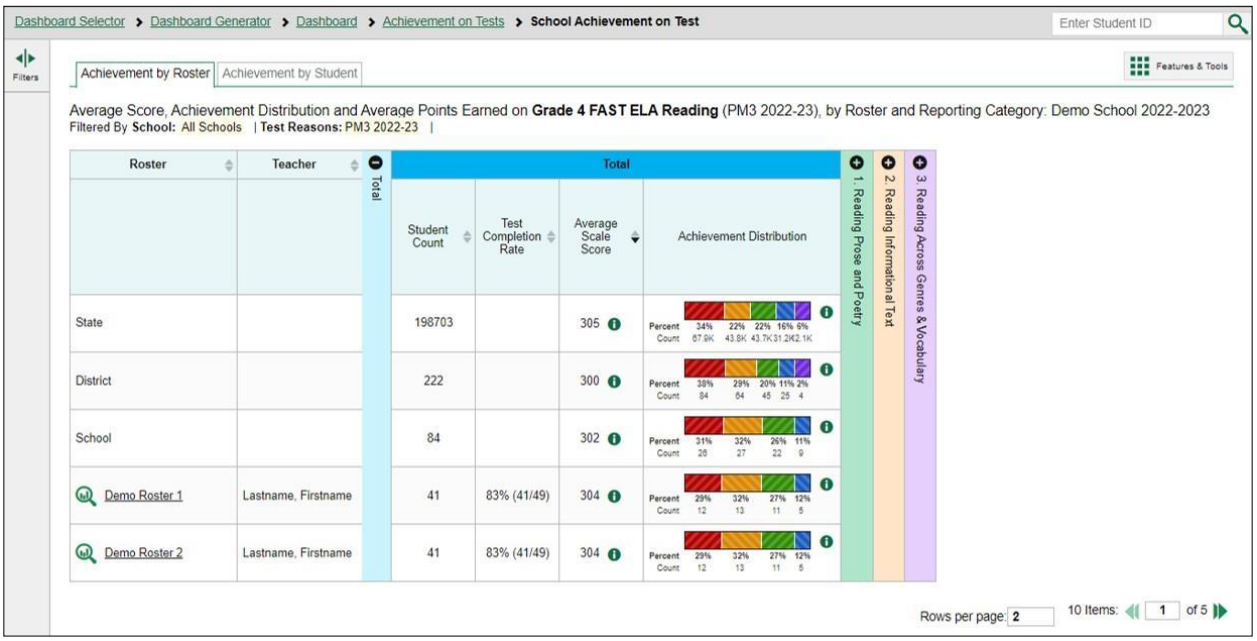


1.4.5 Roster Performance Report

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

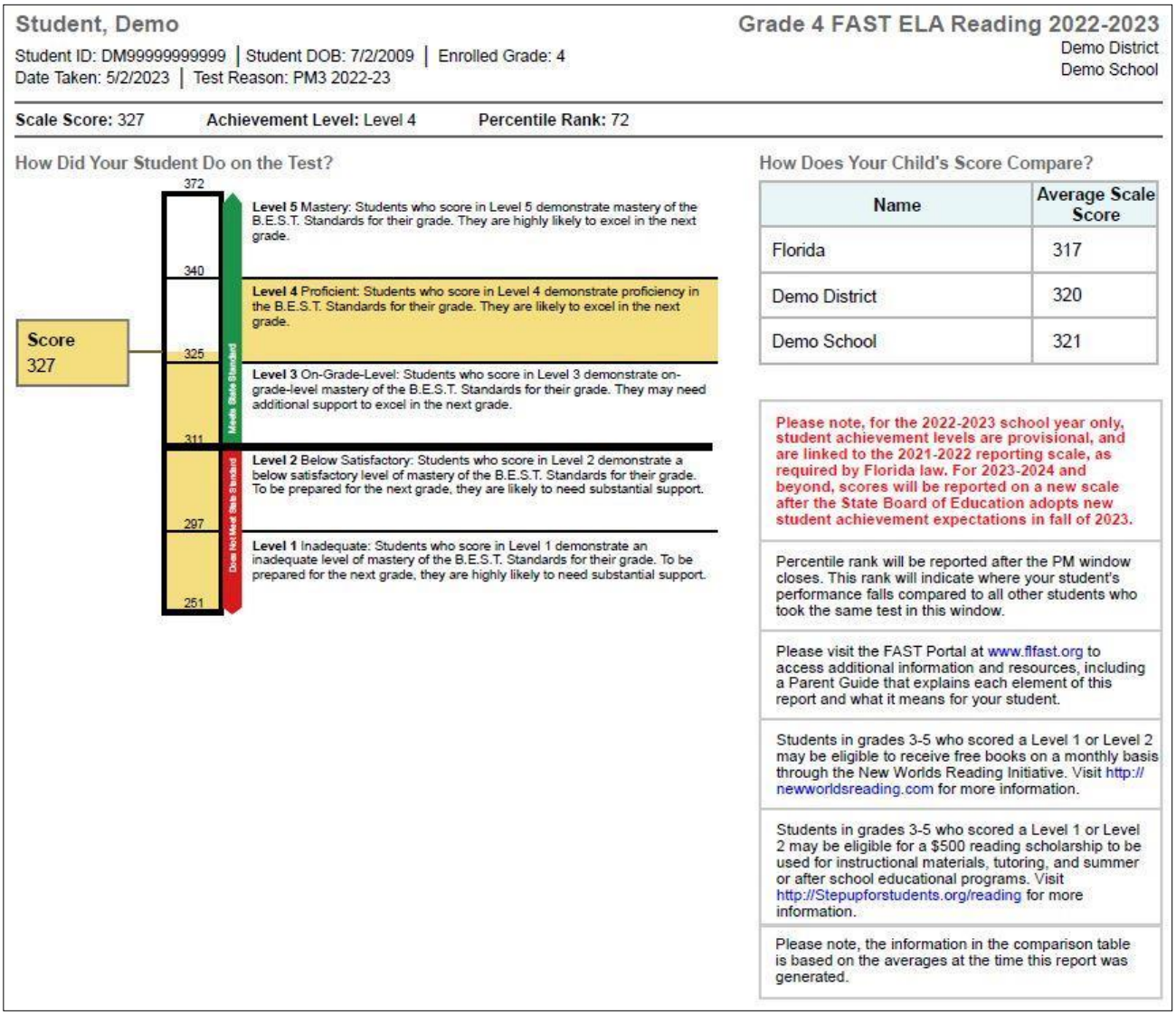


1.4.6 Individual Student Report

When a student completes a test, an individual student report (ISR) can be generated in the FRS. The 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 4 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 (see 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, achievement-level descriptors 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 4 ELA Reading



Student, Demo

Student ID: DM99999999999 | Student DOB: 7/2/2009 | Enrolled Grade: 4
Date Taken: 5/2/2023 | Test Reason: PM3 2022-23

Grade 4 FAST ELA Reading 2022-2023
Demo District
Demo School

Scale Score: 327 **Achievement Level:** Level 4 **Percentile Rank:** 72

How Did Your Student Do on the Test?

372
340
325
311
297
251

Score 327

Meets State Standard

Does Not Meet State Standard

Level 5 Mastery: Students who score in Level 5 demonstrate mastery of the B.E.S.T. Standards for their grade. They are highly likely to excel in the next grade.

Level 4 Proficient: Students who score in Level 4 demonstrate proficiency in the B.E.S.T. Standards for their grade. They are likely to excel in the next grade.

Level 3 On-Grade-Level: Students who score in Level 3 demonstrate on-grade-level mastery of the B.E.S.T. Standards for their grade. They may need additional support to excel in the next grade.

Level 2 Below Satisfactory: Students who score in Level 2 demonstrate a below satisfactory level of mastery of the B.E.S.T. Standards for their grade. To be prepared for the next grade, they are likely to need substantial support.

Level 1 Inadequate: Students who score in Level 1 demonstrate an inadequate level of mastery of the B.E.S.T. Standards for their grade. To be prepared for the next grade, they are highly likely to need substantial support.

How Does Your Child's Score Compare?

Name	Average Scale Score
Florida	317
Demo District	320
Demo School	321

Please note, for the 2022-2023 school year only, student achievement levels are provisional, and are linked to the 2021-2022 reporting scale, as required by Florida law. For 2023-2024 and beyond, scores will be reported on a new scale after the State Board of Education adopts new student achievement expectations in fall of 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.

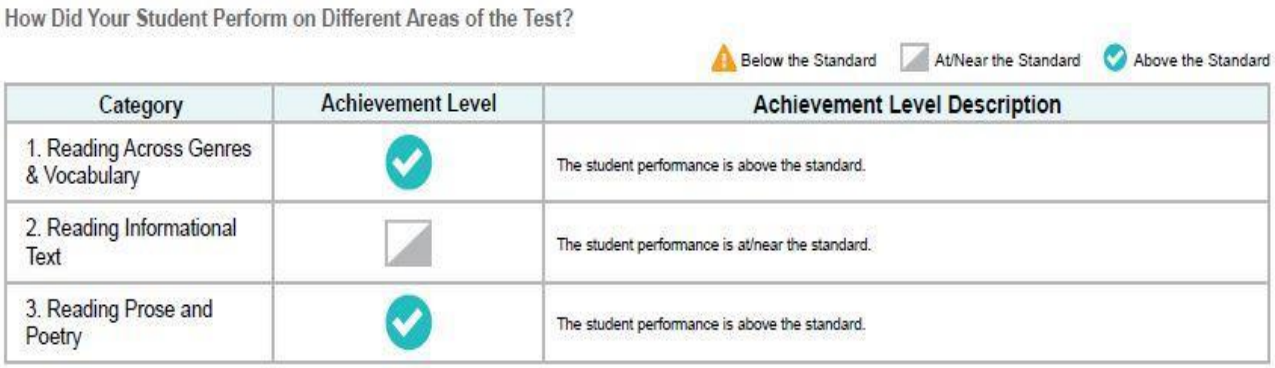
Please visit the FAST Portal at www.flfast.org to access additional information and resources, including a Parent Guide that explains each element of this report and what it means for your student.

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 reading scholarship to be used for instructional materials, tutoring, and summer or after school educational programs. Visit http://Stepupforstudents.org/reading for more information.

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

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

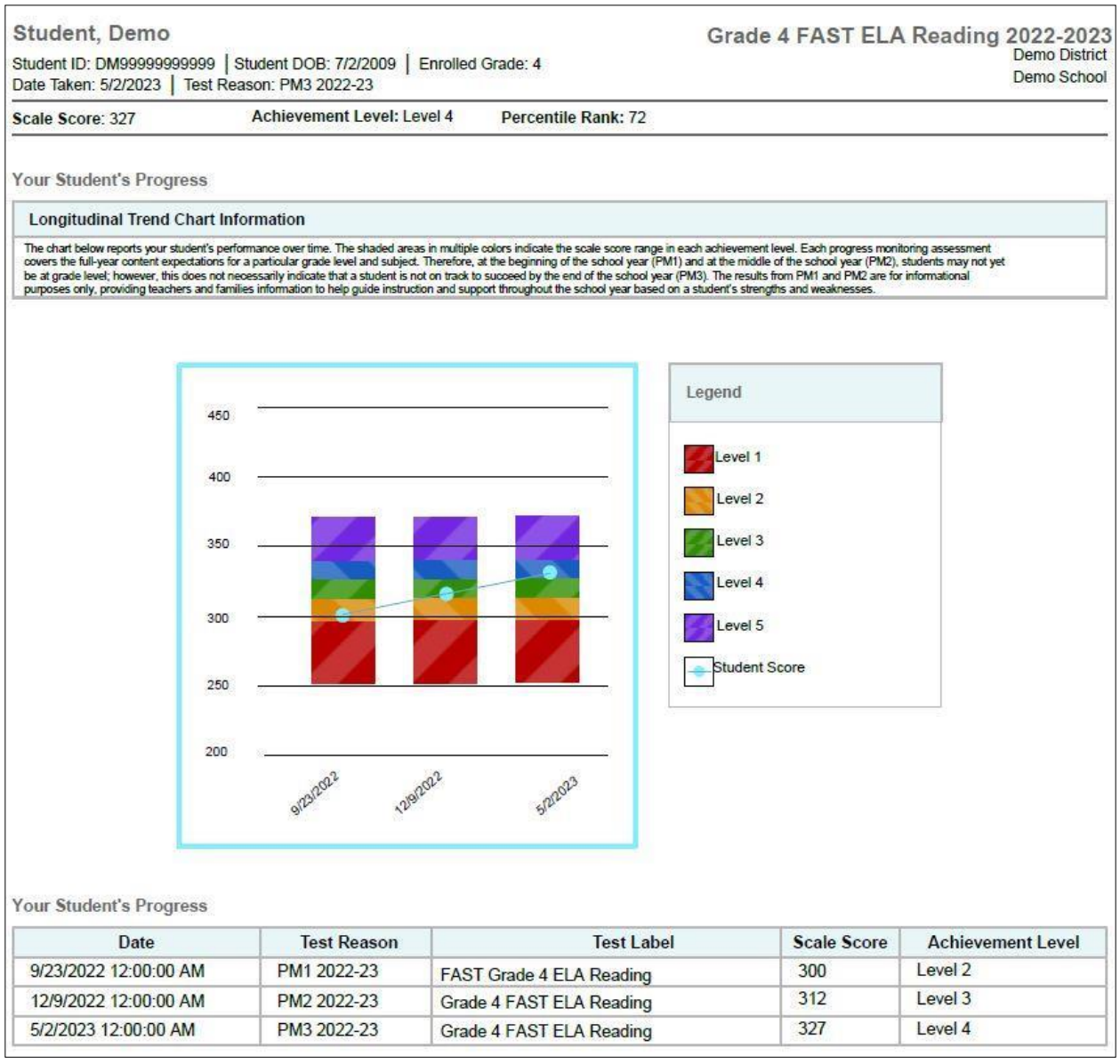


How Did Your Student Perform on Different Areas of the Test?

Below the Standard | At/Near the Standard | Above the Standard

Category	Achievement Level	Achievement Level Description
1. Reading Across Genres & Vocabulary	✓	The student performance is above the standard.
2. Reading Informational Text	◪	The student performance is at/near the standard.
3. Reading Prose and Poetry	✓	The student performance is above the standard.

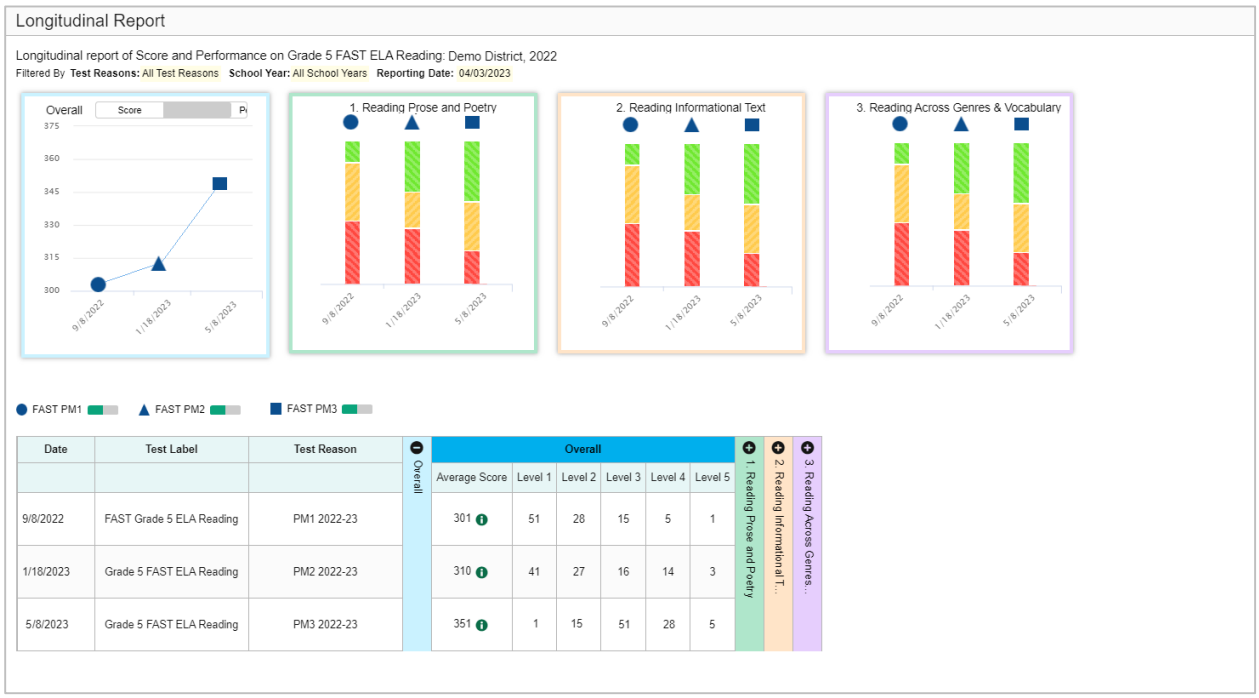
Figure 9: Individual Student Report for FAST Grade 4 ELA Reading with Longitudinal Graph



1.4.7 Longitudinal Reports

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

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

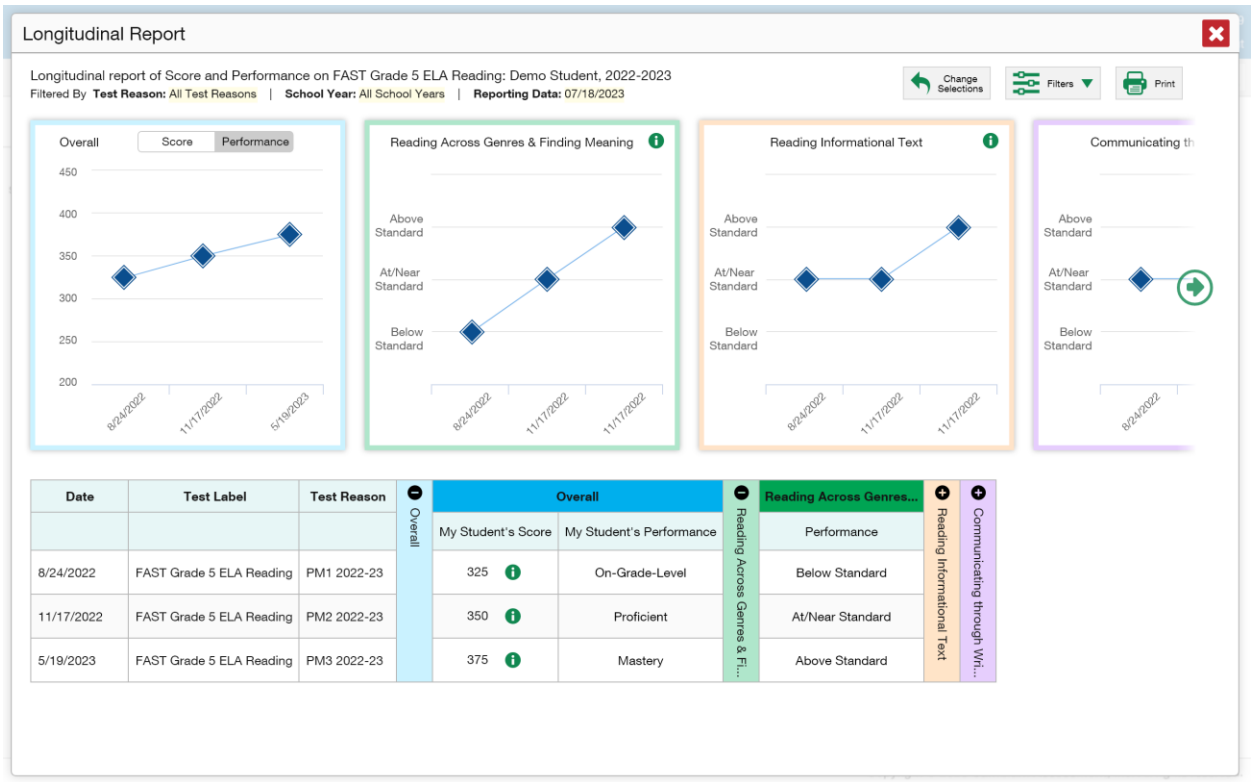


Date	Test Label	Test Reason	Overall						1. Reading Prose and Poetry	2. Reading Informational T...	3. Reading Across Genres...
			Average Score	Level 1	Level 2	Level 3	Level 4	Level 5			
9/8/2022	FAST Grade 5 ELA Reading	PM1 2022-23	301	51	28	15	5	1			
1/18/2023	Grade 5 FAST ELA Reading	PM2 2022-23	310	41	27	16	14	3			
5/8/2023	Grade 5 FAST ELA Reading	PM3 2022-23	351	1	15	51	28	5			

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 in order for users to generate a Longitudinal Report. Teachers have the option of adjusting the pool of students, tests, and test reasons.
- An individual student (see Figure 11).

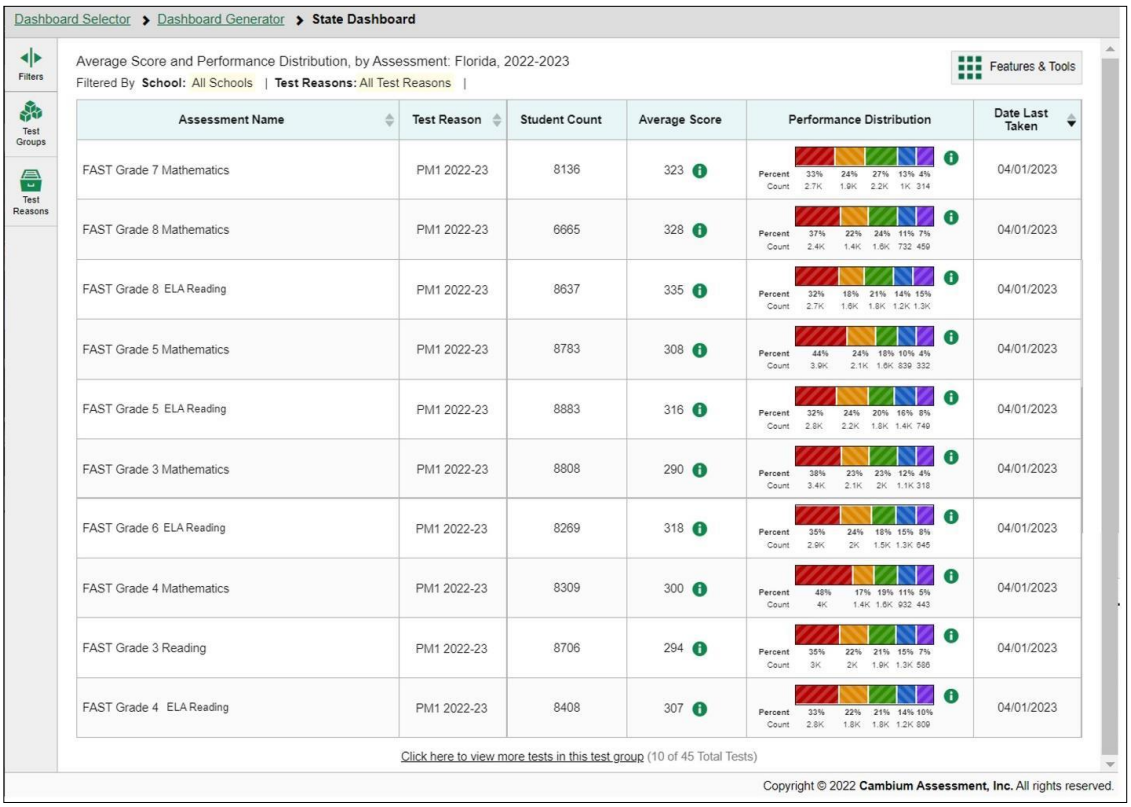
Figure 11. Longitudinal Report Window: Report for a Single Student with Multiple Reporting Categories



1.4.8 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 12 presents a sample state-level summary for FAST ELA Reading and Mathematics.

Figure 12: State Dashboard for FAST Progress Monitoring 1



1.4.9 Student Data File

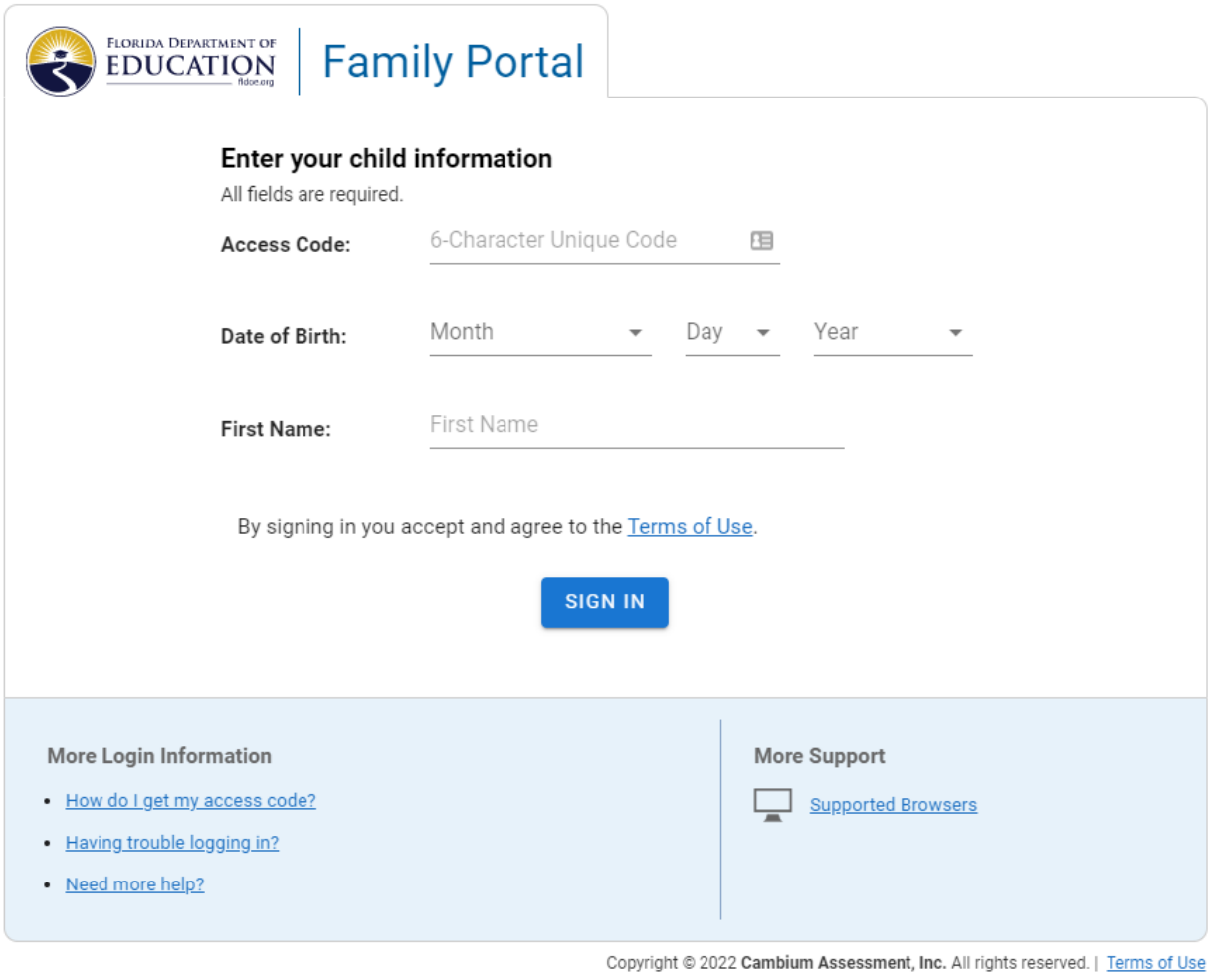
FRS users have the option to generate a comprehensive data file of their students' scores quickly. Data files can be downloaded in Microsoft Excel, CSV, or TXT format and contain a wide variety of data, including scale score and reporting category scores, demographic data, and achievement levels. Data 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.

1.4.10 Family Portal

The Family Portal was developed for families and guardians to view their student's statewide assessment results. Parents will have direct access to the Family Portal, which contains PDF individual student reports for their students.

Starting in spring 2022, student scores and ISRs became available for parents and students on the Family Portal (accessible at https://fl-familyportal.cambiumast.com). Figure 13 shows the Family Portal log-in screen.

Figure 13: Family Portal Log-In Screen



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. 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 Individual Student Score Reports (ISRs).

2.2 THETA SCORE ESTIMATION

Student ability estimates, or theta scores, are generated using *pattern scoring*, 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 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. Section 8.1.1 of Volume 1 of this technical report outlines the formulas and rules applied during calculation.

Theta scores are not reported, 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 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. assessments are reporting in FRS.

2.4 ALTERNATE PASSING SCORE

The alternate passing score (APS) is the FSA and FCAT 2.0 equivalent score reported on the FAST and B.E.S.T. scaled score. When scores were reported in 2022-23 and Fall of 2023-24 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. Refer to the Tech Scoring Specs.
The State Board of Education has adopted the Commissioner's proposed score scale for the FAST and B.ES.T. assessments on October 18, 2023. Since the cuts recommended from the Summer 2023 standard setting process have been approved, it is important to note that these APS cuts will be used only with students who are retaking the test.
The new FAST and BEST cut scores will apply to first time test takers who are taking FAST and BEST assessments after October 18, 2023 and starting Winter 2023 and beyond.

APS eligibility on the FAST & B.E.S.T assessments

Grade 10/Retake FSA English Language Arts (ELA)
Eligibility for using the Grade 10 FSA ELA APS cut on the FAST/BEST 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 2022-23 cohort.

For the students who are going to take the Fall 2023 & Winter 2023 FAST ELA Retake and Spring 24 FAST ELA Retake, the districts will need to identify them as APS eligible using the APS indicator in the Pre-ID file. CAI should confirm that the APS indicator is embedded in the TIDE system to allow districts to identify APS students. Additionally, for the students who are going to take Fall 23 and Spring 24 Gr 10 FSA ELA Retake, the districts will also need to identify them as APS eligible using the APS indicator in the Pre-ID file.

Even though, CAI did not originally ask districts through your TIDE system which students are FSA APS eligible, CAI will flag all students in the Spring 2023, Summer 2023 and PM1 2324 SSR file, except the ones who are FCAT 2.0 APS eligible, as FSA APS eligible students.

FSA Algebra 1/Algebra 1 Retake and FSA 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 (prior to Summer 2023) are eligible to use the APS for Algebra 1 for graduation/CAP 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.

CAI will flag the APS students by confirming student history in the database. If a student had participated in the same test in Fall 2010 – Summer 2023 and earned a scoreflag 1 or 9, they will be flagged as APS eligible.

- 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 FSA Grade 10 ELA.

- The alternate passing score for BEST Algebra EOC is 398 and above on the BEST scale, which corresponds to the passing score of 497 and above on the FSA Algebra EOC.
- The alternate passing score for BEST Geometry EOC is 401 and above on the BEST scale, which corresponds to the passing score of 499 and above on the FSA Geometry EOC.

Note the following for APS flagging:
- APS eligible on FCAT 2.0: School years: 2010-11, 2011-12, 2012-13, 2013-14, 2014-15, including Fall 15 and Winter 2015
- APS eligible on FSA: School years: Spring 2016 – Fall 2023 (2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22, 2022-23, and Fall 2023)
- Students taking Algebra, Geometry and Gr 10 ELA/ELA Retake beginning Winter 2023 will use achievement level 3 passing
  - First-time test takers for Winter 23 and Spring 24 Gr 10 ELA and FAST Retake will use the new cut score
  - Everyone taking Winter 23 FAST Retake are retakers or Gr 11,12 students in the cohort and therefore will be flagged as APS eligible with passing score of 246

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

APS cut points for Winter 2023 and PM2 onwards

Test	APS Proposed Level 2/3 Cut Score on the FAST/BEST Score Scale	FSA Alternative Passing Cut Score on the FAST/BEST Score Scale	FCAT 2.0 Alternative Passing Cut Score on the FAST/BEST Score Scale
Grade 10 ELA	247	246	245
Algebra 1	400	398	390
Geometry	404	401	394

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.

3 INTERPRETATION OF REPORTED SCORES

The following business rules are applied for student scores in PANext 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, in the district, and in the 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 is 14 and district is 98) does NOT appear on SAR data file, but a DAR file is generated for the district 98. The state level summary is the same as what is on the SAR, which is calculated by excluding all special schools.

Table 4 shows the school type information.

Table 4: School Type

Special School Name	School Type
McKay Scholarship School	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 earn 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 the Test Information Distribution Engine (TIDE) as of the last day of the testing window (e.g., June 2, 2023, for the spring 2023 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, and B.E.S.T end-of-course (EOC).

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 individual score reports and School Report of Students contain a passing status ("Y" for yes or "N" for no). Student Reports include a statement indicating whether the student met the graduation requirements.

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 maximum likelihood estimation (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 and the Florida Assessment of Student Thinking (FAST) progress monitoring program.

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 EOC) and to the Florida Assessment of Student Thinking (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 B.E.S.T. standards for Algebra 1 and Geometry was first administered 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 reporting categories measured on these tests. Because the reporting categories are based on small numbers 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 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.

Test results may also be used 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.

Test scores can also be used 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 different 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 scale scores reported 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 take into account 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 undertaken cautiously 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 a group's scale score mean 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 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 error of measurement 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 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, and
6. Aberrant response patterns, such as answering difficult items correctly 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 Florida Department of Education's (FDOE) 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.