



**California Department of Education
Assessment Development and
Administration Division**



California Assessment of
Student Performance and Progress

**California Assessment of Student
Performance and Progress**

**Smarter Balanced Technical Report
2015–16 Administration**

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Acronyms and Initialisms Used in the Technical Report for CAASPP Smarter Balanced Technical Report

2PL	two-parameter logistic	IEP	individualized education program
AERA	American Educational Research Association	IFEP	initially fluent English proficient
AI	artificial intelligence	IRT	item response theory
AIR	American Institutes for Research	JAWS®	Job Access With Speech
AYP	adequate yearly progress	ISAAP	Individual Student Assessment Accessibility Profile
CAASPP	California Assessment of Student Performance and Progress	LEA	local educational agency
CAPA	California Alternate Performance Assessment	LOT	lowest obtainable theta
CAT	computer-adaptive test	LOSS	lowest obtainable scale score
CCR	<i>California Code of Regulations</i>	MI	Measurement Incorporated
CCSS	Common Core State Standards	MLE	maximum likelihood estimation
CDE	California Department of Education	NAEP	National Assessment of Educational Progress
CDS	county/district/school	NCME	National Council on Measurement in Education
CI	confidence interval	ORS	Online Reporting System
CMA	California Modified Assessment	OTI	Office of Testing Integrity
CR	constructed response	PIN	problem item notification
CRESST	Center for Research on Evaluation, Standards, & Student Testing	PISA	Program for International Student Assessment
CSEMs	conditional standard errors of measurement	PT	performance task
CSTs	California Standards Tests	RFEP	reclassified fluent English proficient
CSU	California State University	SBE	State Board of Education
DFA	<i>Directions for Administration</i>	SEM	standard error of measurement
DIF	differential item functioning	SFTP	secure file transfer protocol
EAP	Early Assessment Program	SGID	School and Grade Identification sheet
EC	<i>Education Code</i>	SS	scale score
EL	English learner	STS	Standards-based Tests in Spanish
ELA	English language arts/literacy	TCC	test characteristic curve
eSKM	Enterprise Score Key Management	TDS	test delivery system
ETS	Educational Testing Service	TIF	test information function
GPCM	generalized partial credit model	TIPS	Technology and Information Processing Services
HOSS	highest obtainable scale score	TOMS	Test Operations Management System
HOT	highest obtainable theta	USC	United States Code
HumRRO	Human Resource Research Organization	wABC	weighted Area Between the Curves
ICC	item characteristic curve <i>or</i> intraclass correlation	WER	writing extended response

Chapter 1: Introduction

1.1. Background

In October 2013, Assembly Bill 484 established the California Assessment of Student Performance and Progress (CAASPP) as the new student assessment system that replaced the Standardized Testing and Reporting program. The primary purpose of the CAASPP System of assessments is to assist teachers, administrators, and students and their parents/guardians by promoting high-quality teaching and learning through the use of a variety of item types and assessment approaches. These tests provide the foundation for the state's school accountability system.

The Smarter Balanced Summative Assessments for English language arts/literacy (ELA) and mathematics were administered during the 2015–16 CAASPP administration as a result of California's participation in the Smarter Balanced Assessment Consortium. This technical report describes the results of that administration.

In 2015–16, the CAASPP System comprised the following assessments:

- Smarter Balanced assessments and tools:
 - Summative Assessments—Online assessments for ELA and mathematics in grades three through eight and grade eleven
 - Interim Assessments—Optional resources developed for grades three through eight and grade eleven designed to inform and promote teaching and learning by providing information that can be used to monitor student progress toward mastery of the Common Core State Standards (CCSS) that may be administered to students at any grade level
 - Digital Library—Tools and practices designed to help teachers utilize formative assessment processes for improved teaching and learning in all grades
- California Alternate Assessments (CAAs) for ELA and mathematics in grades three through eight and grade eleven
- Science assessments in grades five, eight, and ten (i.e., California Standards Tests [CSTs], California Modified Assessment [CMA], and California Alternate Performance Assessment [CAPA] for Science)
- A primary language assessment, the Standards-based Tests in Spanish (STS) for Reading/Language Arts in grades two through eleven (optional for eligible Spanish-speaking English learners)

The CAASPP Smarter Balanced tests are presented as online assessments. Paper-pencil and braille versions of the Smarter Balanced assessments are made available to local educational agencies (LEAs) that do not have the necessary computer network infrastructure to administer the online tests; these are available with prior permission from the California Department of Education (CDE). The paper-pencil versions are fixed forms (i.e., a test where students are given a fixed set of questions irrespective of the student's responses or ability) that also include the components of the online assessment such as constructed-response (CR) items and performance tasks.

The CSTs, CMA, and CAPA for science and the STS are available as paper-pencil tests only.

More background information about the CAASPP System can be found on the CAASPP Description – *CalEdFacts* Web page at <http://www.cde.ca.gov/ta/tg/ai/cefcaaspp.asp>.

1.2. Test Purpose

The purposes of the Smarter Balanced assessment system are to provide teachers with information and the tools they need to improve teaching and learning and to prepare students for college and career readiness. The Smarter Balanced Summative Assessments, which are aligned with the California CCSS for ELA and mathematics, form one component of the Smarter Balanced assessment system. The summative assessments are comprehensive, end-of-year tests of grade-level learning that measure students' progress toward college and career readiness.

1.3. Test Content

Smarter Balanced summative assessments are comprised of two required components: a computer adaptive test (CAT) and a performance task (PT). A student's final scale score is calculated by combining the student's responses to items within both components.

1.3.1 Computer Adaptive Test

The computer-adaptive portion of the test is designed to present items of varying levels of difficulty to match the ability of each student according to the responses the student provided to previous test items. By adapting to the student's ability as the assessment is being taken, the CAT presents an individually tailored set of questions that is appropriate to each student and provides more accurate scores for all students across the full range of the achievement continuum. A CAT requires fewer questions as compared to a fixed-form assessment—that is, a test where students are given the same questions regardless of the student's responses or ability—to obtain an equally precise estimate of a student's ability.

At the beginning of the test, the assumption is made that a student is of average ability, and an item is presented that is appropriate for an average student. During the test, if a student gives a wrong answer, the test delivery system (TDS) will follow up with an easier question; while if the student answers correctly, the next question will be slightly more difficult. Since the answers on items used to estimate the student's ability are machine-scored, the student's performance on the items administered can be known immediately, and the successive items are selected to adapt to the current ability of the student. The CAT selects questions based on a student's responses, scores the responses, and iteratively estimates the student's performance. This process continues until the test content outlined in the test's blueprint is covered.

The CAT requires a large pool of test questions statistically calibrated on a common scale to cover the ability range. For the Smarter Balanced Online Summative Assessments, the test question statistics were obtained from the spring 2013–14 field test.

1.3.2 Performance Tasks

The performance task (PT) is a non-adaptive test designed to provide students with an opportunity to demonstrate their ability to apply knowledge and higher-order thinking skills to explore and analyze a complex, real-world scenario. Prior to the administration of a PT, the test administrator had the option to administer a Classroom Activity for all students in the class to ensure that students understand the context of the PT and that lack of understanding does not interfere with a student's ability to address the content of the PT. PTs are not targeted to students' specific ability levels.

Some PT responses are machine-scored, others are human-scored. Scores are later combined with CAT results for the student’s final score.

1.4. Intended Population

Each grade-level, content area Smarter Balanced Summative Assessment was administered to approximately 438,000 to 477,000 students during the 2015–16 administration. All students enrolled in grades three through eight and grade eleven are required to take part in the Smarter Balanced Summative Assessments unless students are eligible to participate in the alternate assessments (*California Code of Regulations, Title 5 [5 CCR] Education, Division 1, Chapter 2, Subchapter 3.75, Article 1, Section 851.5*) (CDE, 2016a). English learners (ELs) who are in their first 12 months of attending school in the United States are exempt from taking the ELA portion of the assessment. ELs are defined as follows:

“English learner students are those students for whom there is a report of a primary language other than English on the state-approved Home Language Survey **and** who, on the basis of the state approved oral language (grades kindergarten through grade twelve) assessment procedures and literacy (grades three through twelve only), have been determined to lack the clearly defined English language skills of listening comprehension, speaking, reading, and writing necessary to succeed in the school's regular instructional programs.”¹

EL students within their first 12 months of enrollment in a U.S. school and who choose to participate in taking the ELA assessment are included in the calculation of the percent of students testing but their scores are excluded from all aggregate calculations.

For students with significant cognitive disabilities, the decision to administer the Smarter Balanced Summative Assessments or CAAs is made by their individualized education program (IEP) team. Parents/Guardians may submit a written request to have their child exempted from taking any or all parts of the Smarter Balanced Summative Assessments or CAAs. Only students whose parents/guardians submit a written request may be exempted from taking the tests (*Education Code [EC] Section 60615*).

1.5. Intended Use and Purpose of Test Scores

The results of tests within the CAASPP System are used for two primary purposes as described in *Education Code (EC) sections 60602.5 (a) and (a) (4)*. (Excerpted from the *EC Section 60602 Web page* at http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=EDC&division=4.&title=2.&part=33.&chapter=5.&article=1 [outside source].)

“60602.5 (a) It is the intent of the Legislature in enacting this chapter to provide a system of assessments of pupils that has the primary purposes of assisting teachers, administrators, and pupils and their parents; improving teaching and learning; and promoting high-quality teaching and learning using a variety of assessment approaches and item types. The assessments, where applicable and valid, will produce scores that can be aggregated and disaggregated for the purpose of holding schools and local educational agencies accountable for the achievement of all their pupils in learning the California academic content standards.”

¹ “English Learner (EL) Students (Formerly Known as Limited-English-Proficient or LEP),” from the CDE Glossary of Terms Web page at <http://www.cde.ca.gov/ds/sd/cb/glossary.asp>.

“60602.5 (a) (4) Provide information to pupils, parents or guardians, teachers, schools, and local educational agencies on a timely basis so that the information can be used to further the development of the pupil and to improve the educational program.”

Sections 60602.5 (c) and (d) provide additional information regarding intent and context for the system of assessments:

“60602.5 (c) It is the intent of the Legislature that parents, classroom teachers, other educators, pupil representatives, institutions of higher education, business community members, and the public be involved, in an active and ongoing basis, in the design and implementation of the statewide pupil assessment system and the development of assessment instruments.”

“60602.5 (d) It is the intent of the Legislature, insofar as is practically feasible and following the completion of annual testing, that the content, test structure, and test items in the assessments that are part of the statewide pupil assessment system become open and transparent to teachers, parents, and pupils, to assist stakeholders in working together to demonstrate improvement in pupil academic achievement. A planned change in annual test content, format, or design should be made available to educators and the public well before the beginning of the school year in which the change will be implemented.”

1.6. Testing Window

The Smarter Balanced Summative Assessments for grades three through eight are administered within a testing window pursuant to 5 CCR, Sections 855 (b) (1) and 855(b) (2) and proposed emergency regulations 5 CCR, Sections 855 (a) (1), 855 (a) (2), 855 (b), and 855 (c) (please note this section of 5 CCR has been updated since the 2015–16 CAASPP administration). The 12-week window begins on the day of completion in which 66 percent of the instructional year is completed. The summative assessment for students in grade eleven was administered within a seven-week window beginning on the day in which 80 percent of the instructional year is completed.

1.7. Significant CAASPP Developments in 2015–16

1.7.1 Adoption of Emergency Regulations

CAASPP emergency regulations were adopted by the State Board of Education at its November 2015 meeting.

1.7.2 Update to the Definition of Testing Windows

Windows were recalculated to start on the day that 66 percent of instruction was completed (rather than the day after completion).

1.7.3 Administration of the Classroom Activity

Failure to administer the Classroom Activity within requested guidelines or failure to administer it at all was not considered to be a testing irregularity beginning in 2015–16. Failure to administer the Classroom Activity did *not* impact accountability results.

1.7.4 New Process for Reporting Testing Incidents

LEA CAASPP coordinators and CAASPP test site coordinators reported all testing incidents and irregularities for summative assessments using the *CAASPP Security and Test Administration Incident Reporting System (STAIRS)* form. If STAIRS determined that an appeal was required for the summative assessment, the LEA CAASPP coordinator or

CAASPP test site coordinator filed an appeal through the Test Operations Management System (TOMS).

1.7.5 Accessibility Supports

The following changes were made to Smarter Balanced accessibility supports:

- The *Separate Setting* non-embedded support accommodation for ELA and mathematics included *Special Lighting or Acoustics* and *Administration of the Test to the Pupil at the Most Beneficial Time of The Day*.
- *Translated Test Directions* were made an allowable non-embedded support for ELA.
- The embedded accommodation *Text-to-Speech* for reading passages was permitted for all grades.

The following additions were made to Smarter Balanced accessibility supports:

- *Calculator* for allowed items was added as a non-embedded accommodation for grades six through eight and grade eleven mathematics.
- *Read Aloud in Spanish* for mathematics items and stimuli was added as a non-embedded designated support.

The following accessibility supports were removed:

- *American Sign Language* for ELA (reading passages and reading, writing, and listening items) and mathematics was removed as a non-embedded support.
- The non-embedded protractor and non-embedded ruler (*Math Tools*) were removed as non-embedded supports for mathematics.

1.7.6 Unlisted Resources

The term “individualized aid” was replaced with “unlisted resource.” An unlisted resource is an instructional support that a pupil regularly uses in daily instruction and/or assessment that has not been previously identified as a universal tool, designated support, or accommodation. Because an unlisted resource has not been previously identified as a universal tool, designated support, or accommodation, it may or may not change the construct of the assessment (5 CCR, Section 850 [ak]). When an unlisted resource has been determined to change the construct, its use invalidates the results for the purpose of accountability. A student score is provided with a statement that the test was administered under conditions that resulted in a score that may not be an accurate representation of the student’s achievement.

1.7.7 Web Reporting

Statewide results were released via a newly designed Public Reporting Web site at <http://caaspp.cde.ca.gov/>, which is available to view summary results. Two new features included the ability to see change over time (e.g., view grade four summary results and review results from grade three from the previous year), and the ability to view results from up to three entities (i.e., school, district, county, or state).

1.7.8 Assessment Target Reports

Assessment targets were made available in the Online Reporting System (ORS). Assessment targets are specific to each content domain and linked to Common Core State Standards. The targets can provide insight into strengths and weaknesses for a group of students relative to the test performance of the group. For a selected group of students (for

example, a classroom), if its performance on an assessment target is better than the test as a whole, it is an area of relative strength. Conversely, if the group of students did not perform as well on an assessment target in relation to the test as a whole, it would be an area of relative weakness.

1.7.9 Historical Comparisons

Trends in examinee performance and test characteristics over time were provided through historical comparisons. Such comparisons were performed between the results of the 2014–15 CAASPP Smarter Balanced administration and the 2015–16 administration. The comparisons consist of cross-sectional comparisons, which are between the current year and the previous year for the same grade; and longitudinal comparisons, which are between the current year and the previous year for the same students.

1.7.10 Conditional Standard Error of Measurement (CSEM) Conversion Tables

The average CSEMs at each scale score point were estimated based on the 2014–15 Smarter Balance Summative Assessment data for all students. CSEMs at each scale score point were applied to the 2015–16 score reporting process.

1.8. Groups and Organizations Involved with the CAASPP System

1.8.1 State Board of Education (SBE)

The SBE is the state agency that establishes educational policy for kindergarten through grade twelve in the areas of standards, instructional materials, assessment, and accountability. The SBE adopts textbooks for kindergarten through grade eight, adopts regulations to implement legislation, and has the authority to grant waivers of the *Education Code*.

In addition to adopting the rules and regulations for itself, its appointees, and California's public schools, the SBE is also the state educational agency responsible for overseeing California's compliance with programs that meet the requirements of the federal Every Student Succeeds Act and the state's Public School Accountability Act, which measure the academic performance and progress of schools on a variety of academic metrics (CDE, 2016d).

1.8.2 California Department of Education (CDE)

The CDE oversees California's public school system, which is responsible for the education of more than 6,200,000 children and young adults in more than 9,800 schools. California aims to provide a world-class education for all students, from early childhood to adulthood. The CDE serves the state by innovating and collaborating with educators, school staff, parents/guardians, and community partners which together, as a team, prepares students to live, work, and thrive in a highly connected world.

Within the CDE, it is the Assessment Development & Administration Division that oversees programs promoting innovation and improved student achievement. Programs include oversight of statewide assessments and the collection and reporting of educational data (CDE, 2016b).

1.8.3 Smarter Balanced Assessment Consortium

The Smarter Balanced Assessment Consortium is a public agency governed by a consortium of states, of which California is a member. The consortium created an online assessment system aligned to the CCSS. The Smarter Balanced Assessment Consortium

offers year-end summative assessments, optional interim assessments, and the Digital Library, an online collection of resources to help teachers to improve classroom-based assessment practices. The roles of Smarter Balanced in the CAASPP System are to provide the collection of test items in the item bank and to provide access to the Digital Library.

1.8.4 Contractors

1.8.4.1 Educational Testing Service

The CDE and the SBE contract with Educational Testing Service (ETS) to administer and report the CAASPP Smarter Balanced assessments. As the prime contractor, ETS has overall responsibility for working with the CDE to implement and maintain an effective assessment system and to coordinate the work of ETS with its subcontractors. Activities directly conducted by ETS include but are not limited to:

- Providing management of the program activities;
- Supporting and training counties, LEAs, and direct funded charter schools;
- Providing tiered help desk support to LEAs;
- Constructing, producing, and controlling the quality of test booklets and related test materials;
- Hosting and maintaining a Web site with resources for LEA CAASPP coordinators;
- Developing, hosting, and providing support for TOMS;
- Processing student test assignments;
- Processing orders and shipment of test materials and pre-identification services;
- Servicing all aspects of CR scoring for the CAASPP Smarter Balanced summative assessments;
- Producing and distributing score reports;
- Developing a score reporting Web site; and
- Completing all psychometric procedures.

1.8.4.2 American Institutes for Research (AIR)

ETS also monitors and manages the work of AIR, subcontractor to ETS for the CAASPP System of online assessments. Activities conducted by AIR include:

- Providing the AIR proprietary TDS, including the Student Testing Interface, Test Administrator Interface, secure browser, and practice and training tests;
- Hosting and providing support for its TDS and ORS, a component of the overall CAASPP Assessment Delivery System;
- Scoring machine-scorable items; and
- Providing Level 3 technology help desk support to LEAs.

1.8.4.3 Measurement Incorporated (MI)

ETS monitors and manages the work of Measurement Incorporated (MI), subcontractor to ETS for the CAASPP System. MI uses its artificial intelligence (AI) scoring system to score some of the CR items for the CAASPP Smarter Balanced Online Summative Assessments.

1.9. Systems Overview and Functionality

1.9.1 Test Operations Management System (TOMS)

TOMS is the password-protected, Web-based system used by LEAs to manage all aspects of CAASPP testing. TOMS serves various functions, including but not limited to:

- Managing test administration windows;
- Assigning and managing CAASPP online user roles;
- Managing student test assignments and accessibility supports;
- Ordering test materials and pre-identification services;
- Viewing and downloading reports; and
- Providing a platform for authorized user access to secure materials such as CAA *Directions for Administration*, student data and results, CAASPP user information, and access to the *CAASPP STAIRS* form and the Appeals module.

TOMS receives student enrollment data and LEA/school hierarchy data from the California Longitudinal Pupil Achievement Data System (CALPADS) via a daily feed. CALPADS is “a longitudinal data system used to maintain individual-level data including student demographics, course data, discipline, assessments, staff assignments, and other data for state and federal reporting.”² LEA staff involved in the administration of the CAASPP assessments—such as LEA CAASPP coordinators, CAASPP test site coordinators, test administrators, and test examiners—are assigned varying levels of access to TOMS. For example, only an LEA CAASPP coordinator is given permission to set up the LEA’s test administration window; a test administrator cannot download student reports. A description of user roles is explained more extensively in the *2015–16 CAASPP Smarter Balanced Online Test Administration Manual* (CDE, 2016c).

1.9.2 Test Delivery System (TDS)

The TDS is the means by which the statewide online assessments are delivered to students. CAT items are selected in the TDS according to an adaptive algorithm (AIR, 2014). Components of the TDS include:

- Test Administrator Interface, the Web browser–based application that allows test administrators to activate student tests and monitor student testing;
- Student Testing Interface, on which students take the test using the secure browser; and
- Secure browser, the online application through which the student testing interface may be accessed. The secure browser prevents students from accessing other applications during testing.

1.9.3 Practice and Training Tests

The practice and training tests are provided to LEAs to prepare students and LEA staff for the summative assessment. These tests simulate the experience of the Smarter Balanced Online Assessments. Unlike the summative assessments, the practice and training tests do not assess standards, gauge student success on the operational test, or produce scores. Students may access them using a Web browser, although accessing them through the

² From the CDE California Longitudinal Pupil Achievement Data System (CALPADS) Web page at <http://www.cde.ca.gov/ds/sp/cl/>.

secure browser permits them to take the tests using the text-to-speech embedded accommodation.

The purpose of the training tests is to allow students and administrators to quickly become familiar with the user interface and components of the TDS as well as with the process of starting and completing a testing session. The purpose of the practice tests is to allow students and administrators the experience of a grade-level assessment, grade-specific items and difficulty levels, performance tasks, and the format and structure of an operational assessment.

1.9.4 Online Reporting System (ORS)

The ORS is the system used by LEAs to view preliminary student results from the CAASPP assessments. The primary purposes of the ORS are for LEAs to access completion data to determine which students need to complete testing or start testing, and for LEAs to access preliminary score reports that can provide claim-related data for schools within the LEA. Results in the ORS are preliminary and may not be used for accountability purposes. (Note that after the 2015–16 test administration, the ORS module was separate from the Completion Status Reporting module.)

1.9.5 Constructed-Response (CR) Scoring Systems for Educational Testing Service (ETS) and Measurement Incorporated (MI)

CRs from the TDS were routed to either ETS's or MI's CR scoring systems based on the division of work between ETS and MI. CR items were scored by certified raters. A small percentage of CR items were deemed appropriate to be scored by the AI system and were routed for both AI scoring and human-scoring for the purpose of producing agreement samples. More information regarding scoring of CR items is available in *Chapter 7: Scoring and Reporting*, which starts on page 134.

Targeted efforts were made to hire California educators for human scoring opportunities. Hired raters were provided in-depth training and certified before starting the human scoring process. Human raters were organized under a scoring leader and provided Smarter Balanced scoring materials such as anchor sets, scoring rubrics, validity samples, qualifying sets, and condition codes for unscorable responses within the interface. The quality control processes for CR scoring are explained further in *Chapter 9: Quality Control Procedures*, which starts on page 539.

1.10. Overview of the Technical Report

This technical report addresses the characteristics of the CAASPP Smarter Balanced Summative Assessment administered in spring 2016. The technical report contains nine additional chapters as follows:

- Chapter 2 presents an overview of the processes involved in a testing cycle for a Smarter Balanced Summative Assessment. This includes test administration, generation of test scores, and dissemination of score reports. It also includes information about the distributions of scores aggregated by subgroups based on demographics and the use of designated supports and accommodations.
- Chapter 3 discusses the procedures followed during the development of Smarter Balanced items to help ensure valid interpretation of test scores.
- Chapter 4 discusses the content and psychometric criteria that guide the construction of the Smarter Balanced summative assessments.

- Chapter 5 details the processes involved in the administration of the 2015–16 Smarter Balanced summative assessments. It also describes the procedures followed by ETS to ensure test security.
- Chapter 6 discusses the standard-setting process outlined by Smarter Balanced.
- Chapter 7 summarizes the types of scores and score reports that are produced at the end of each administration of the Smarter Balanced Summative Assessments.
- Chapter 8 summarizes the results of the analyses performed on the data resulting from the spring 2015 administration. These include:
 - item response theory parameters,
 - omission and completion analyses,
 - conditional exposure analyses,
 - reliability analyses that include assessments of the reliability of test scores and claim scores for the population as a whole and for selected subgroups,
 - consistency and accuracy of the performance-level classifications,
 - interrater reliability statistics for the human-scoring items and statistics showing the agreement of artificial intelligence scoring with human scoring, and
 - procedures designed to ensure the validity of score uses and interpretations are presented.
- Chapter 9 highlights the quality control processes used at various stages of administration of the Smarter Balanced assessments.
- Chapter 10 presents cross-sectional and longitudinal historical comparisons of the overall tests and claims for all students and selected subgroups. Descriptions and data are provided on the basis of student performances and test characteristics.
- Chapter 11 provides a summary of test assembly, test administration, calibration, and scaling procedures that are specifically applied to the paper-pencil tests; and the results of the analyses performed on the data for students who took paper-pencil tests instead of the online assessments. Analyses include:
 - score distributions,
 - item response theory parameter values,
 - reliability analyses,
 - conditional standard error of measurement,
 - correlations between claims and between content areas, and
 - the use of designated supports and accommodations.

References

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- California Department of Education. (2016a). *California Code of Regulations, Title 5, Education, Division 1, Chapter 2, Subchapter 3.75, Article 2*. Sacramento, CA: California Department of Education. Retrieved from <https://bit.ly/2UXCtEi>
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Chapter 2: Overview of Smarter Balanced Processes

This chapter provides an overview of the processes conducted by Smarter Balanced to develop the summative assessments. The chapter also describes the processes implemented by Educational Testing Service (ETS) to administer the tests.

The chapter also provides a brief description of each process and a summary of the associated specifications. More details about the specifications and the analyses associated with each process are described in other chapters that are referenced in the subsections that follow.

2.1. Item Development

All items in the Smarter Balanced operational item bank were developed and revised during the pilot and field test periods. Item and performance task specifications provide guidance on how to translate the Smarter Balanced content specifications into actual assessment items (Smarter Balanced, 2015a, 2015b, and 2016c). In addition, guidelines for bias and sensitivity, accessibility and accommodations, and style help item developers and reviewers ensure consistency and fairness across the item development process. The specifications and guidelines from Smarter Balanced were reviewed by member states, school districts, higher education professionals, and other stakeholders (Smarter Balanced, 2016a). *For more information regarding the item response theory methodology used by Smarter Balanced to form the basis for new item development, test equating, and computer-adaptive testing, refer to Chapter 9 of the 2013–14 Smarter Balanced Technical Report (Smarter Balanced, 2016a).*

2.1.1 Item Format

The Smarter Balanced assessments include the following online item formats:

- Selected response
- Constructed response
- Technology enhanced

Formats for these item types are described in more detail in section 7.1.3 *Types of Item Responses* on page 135.

2.1.2 Item Specifications

The item specifications describe the characteristics of the items that should be written to measure each content standard. Items of the same type should consistently measure the content standards in the same way. The *Smarter Balanced Item and Task Specifications* were given to item developers to help ensure that the tests are measuring the intended constructs without influence from extraneous factors. These documents contain item specification tables and provide item writers with definitions of the constructs that are intended to support the claims of measurement and clear direction regarding the types of evidence needed for students to demonstrate their knowledge and skills (Smarter Balanced, 2015a, 2015b, and 2016b; note that because these specifications were reorganized following the initial development, their publication dates were updated).

2.2. Test Assembly

2.2.1 Test Length

The California Assessment of Student Performance and Progress (CAASPP) online summative assessments for English language arts/literacy (ELA) and mathematics are composed of two portions: the computer adaptive test (CAT) and the performance task (PT). The number of PT items that a student is administered depends on the particular PT a student is assigned. Refer to Table 5.A.1 and Table 5.A.2 for the number of items in each PT. Refer to Table 5.B.1 through Table 5.B.3 for the distributions of number of items presented to students in the total test, PT, and CAT components respectively.

The number of CAT items encountered in an individual testing session may vary from student to student. The length of the CAT portion is determined by the termination rule of the CAT engine, which includes the following conditions:

1. Administer at least a specified minimum number of items in each reporting category and overall.
2. Achieve a target level of precision on the overall test score.
3. Achieve a target level of precision on all reporting categories.

The termination rule of CAASPP assessments is discussed in more detail in the *Smarter Balanced Adaptive Item Selection Algorithm Design Report* (American Institutes for Research [AIR], 2015).

2.2.2 Test Blueprints

Blueprints represent a set of constraints and specifications to which each test form must conform. Each grade band—grades three through five, grades six through eight, and grade eleven—of the Smarter Balanced assessments includes a separate blueprint (Appendix 2.A on page 23) with criteria including, but not limited to:

- whether the test is adaptive or fixed form;
- termination conditions for the segment;
- content constraints such as minimum/maximum number of items administered; and
- non-nested content constraints such as priority weights for a group of items.

2.2.3 Item Selection

In the CAT portion of each assessment, items are presented to the student according to the adaptive algorithm mapped onto the test blueprint (AIR, 2015). Use of the adaptive algorithm in 2015–16 testing is discussed in the report *Smarter Balanced Summative Assessments Testing Procedures for Adaptive Item Selection Algorithm* (AIR, 2015).

For more information regarding test length, refer to *Chapter 5: Test Administration* on page 112; the test blueprints are provided in Appendix 2.A which starts on page 23.

2.3. Test Administration

It is of utmost priority to administer the Smarter Balanced assessments in a secure, confidential, standardized, consistent, and appropriate manner.

2.3.1 Test Security and Confidentiality

All tests within the CAASPP System are secure. For the Smarter Balanced Online Summative Assessment administration, every person having access to test materials maintains the security and confidentiality of the tests. ETS's internal Code of Ethics requires

that all test information, including tangible materials (such as test booklets, test questions, test results), confidential files, processes, and activities are kept secure. To ensure security for all tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI). A detailed description of the OTI and its mission is presented in *Chapter 5: Test Administration* on page 114.

In the pursuit of enforcing secure practices, ETS strives to safeguard the various processes involved in a test development and administration cycle. Those processes are listed below. The practices related to each of the following security processes are discussed in detail in Chapter 5, starting on page 114.

- Test delivery
- Security of electronic files using a firewall
- Transfer of scores via secure data exchange
- Data management
- Statistical analysis
- Student confidentiality
- Student test results

2.3.2 Procedures to Maintain Standardization

ETS takes all necessary measures to ensure the standardization of administration of the Smarter Balanced Summative Assessments. The measures for standardization include, but are not limited to, the aspects described in these subsections.

2.3.2.1. Test Administrators

The Smarter Balanced Summative Assessments are administered in conjunction with the other assessments that comprise the CAASPP System. ETS employs processes to ensure the standardization of an administration cycle; these processes are discussed in more detail in *Chapter 5: Test Administration*, which starts on page 112.

Staff at local educational agencies (LEAs) involved in the CAASPP Smarter Balanced administration include LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators. The responsibilities of each of the staff members are described in the *CAASPP Smarter Balanced Online Test Administration Manual* (CDE, 2016b).

2.3.2.2. Test Directions

Several series of instructions regarding the CAASPP administration are compiled in detailed manuals and provided to the LEA staff. Such documents include, but are not limited to, the following:

Directions for Administration (DFAs)—A manual that provides the script and directions for administration to be followed exactly by test administrators during a testing session. The *DFAs* are available in the *CAASPP Smarter Balanced Online Test Administration Manual* (CDE, 2016b) and as a standalone PDF (CDE, 2016c). (See page 122 in Chapter 5 for more information.)

CAASPP Smarter Balanced Online Test Administration Manual—A manual that provides test administration procedures and guidelines for LEA CAASPP coordinators and CAASPP test site coordinators (CDE, 2016a). (See page 122 in Chapter 5 for more information.)

Test Operations Management System (TOMS) manuals—Instructions for TOMS that allow LEA CAASPP coordinators to set up test administrations, add and manage users,

configure online student test settings, and order student paper-pencil tests. Each functionality has its own user manual with detailed instructions on how to use the TOMS module. (See page 122 in Chapter 5 for a list of all manuals.)

2.4. Participation

All students enrolled in grades three through eight and grade eleven are required to participate in the Smarter Balanced mathematics assessment except for students with the most significant cognitive disabilities who meet the criteria for the California Alternate Assessments (CAAs) for Mathematics based on alternate achievement standards (approximately one percent or fewer of the student population). The decision to assign a student to take an alternate assessment is made by his or her individualized education program (IEP) team.

All students enrolled in grades three through eight and grade eleven are required to participate in the Smarter Balanced for ELA except:

- Students with the most significant cognitive disabilities who meet the criteria for the CAA for ELA alternate assessment based on alternate achievement standards (approximately one percent or fewer of the student population). The decision to assign a student to take an alternate assessment is made by his or her IEP team.
- English learners who are within their first 12 months of enrollment in a U.S. school on the day that is the midpoint of the LEA's selected testing window have a one-time exemption from the Smarter Balanced for ELA assessment. These are cumulative, not consecutive, months. These students may instead participate in the California English Language Development Test.

The treatment of incomplete tests and participation situations are illustrated in Table 7.5 on page 149. Refer to Appendix 7.A on page 168 regarding the number of participants and the percent of participation of all students and selected demographic groups for each test.

2.5. Universal Tools, Designated Supports, and Accommodations

All public school students participate in the CAASPP System, including students with disabilities and English learners. Supports are sometimes needed for these students.

Universal tools are available to all students. These supports may be turned on and off when embedded as part of the technology platform for the online CAASPP assessments on the basis of student preference and selection.

Designated supports are available to all students when determined as needed by an educator or team of educators, with parent/guardian and student input as appropriate, or when specified in the student's IEP or Section 504 plan.

Accommodations must be permitted on CAASPP assessments for all eligible students when specified in the student's IEP or Section 504 plan.

Assignment of designated supports and accommodations to individual students based on student need is made in TOMS by the LEA CAASPP coordinator and/or CAASPP test site coordinator either through individual assignment through the student's profile in TOMS; or uploading of settings for multiple students that were either selected and entered into a macro-enabled template called the Individual Student Assessment Accessibility Profile (ISAAP) Tool that created an upload file; or entered into a template. These designated supports and accommodations were delivered to the student through the test delivery

system at the time of testing. Refer to subsection *1.9 Systems Overview and Functionality* in *Chapter 1: Introduction* on page 8 for more details regarding these systems.

Appendix 2.B on page 50 presents counts and percentages of students using designated supports, accommodations, or unlisted resources for PTs and CAT respectively (2.5.3 *Unlisted Resources* on page 17). The majority of students do not use any designated supports, accommodations, or unlisted resources. Note that the tables in Appendix 2.B were created using student demographic data that are in version 3 of the production data file (“P3”) which was updated on March 20, 2017, because P3 data have more accurate information about the designated supports, accommodations, and unlisted resources used than version 2 of the production data file (“P2”).

2.5.1 Resources for Selection of Accessibility Supports

The CDE maintains a list of the universal tools, designated supports, and accommodations that are permitted for use in CAASPP online assessments in its Web document “Matrix One: Universal Tools, Designated Supports, and Accommodations for the CAASPP System” (CDE, 2016a). Parts 2 and 3 of Matrix One include the non-embedded universal tools, designated supports, accommodations, and unlisted resources that are available for online testing. School-level personnel, IEP teams, and Section 504 teams use Matrix One when deciding how best to support the student’s test-taking experience. *Note that this technical report is based on the version of Matrix One that was available during the 2015–16 CAASPP administration.*

The Smarter Balanced Assessment Consortium’s *Usability, Accessibility, and Accommodations Guidelines* (“*Guidelines*”) (Smarter Balanced, 2016b) aids in the selection of universal tools, designated supports, and accommodations deemed necessary for individual students. The *Guidelines* apply to all students and promote an individualized approach to the implementation of assessment practices. The *Guidelines* are intended to provide Smarter Balanced policy regarding universal tools, designated supports, and accommodations. Another manual, the *Smarter Balanced Usability, Accessibility, and Accommodations Implementation Guide* (Smarter Balanced, 2014), provides suggestions for implementation of these supports.

In addition to assigning accessibility supports individually and via file upload in TOMS, LEAs had the option of using the ISAAP Tool to assign supports to students. Smarter Balanced developed the ISAAP Tool to facilitate selection of the accessibility resources that match student access needs for the Smarter Balanced assessments. The CAASPP ISAAP Tool was used by LEAs in conjunction with the *Guidelines* as well as with state regulations and policies (such as Matrix One) related to assessment accessibility as a part of the ISAAP process. LEA personnel, including IEP and Section 504 plan teams, used the CAASPP 2015–16 ISAAP Tool to facilitate the selection of designated supports and accommodations for students.

2.5.2 Delivery of Accessibility Supports

Universal tools, designated supports, and accommodations can be delivered as either embedded or non-embedded supports. Embedded supports are digitally delivered features or settings available as part of the technology platform for the online CAASPP assessments. Examples of embedded supports include the braille language support, color contrast, and closed captioning for ELA listening items.

Non-embedded supports are available, when provided by the LEA, for both online and paper-pencil CAASPP assessments. These supports are not part of the technology platform

for the computer-administered CAASPP tests. Examples of non-embedded supports include magnification, noise buffers, and the use of a scribe.

2.5.3 Unlisted Resources

An unlisted resource, previously called an “individualized aid,” is an instructional support that a student regularly uses in daily instruction and/or assessment that has not been previously identified as a universal tool, designated support, or accommodation. Matrix One includes an inventory of unlisted resources that have already been identified and are preapproved (CDE, 2016a). An LEA CAASPP coordinator or CAASPP test site coordinator may submit a request using forms available in TOMS to request such a support for an eligible student. The support must be specified in the eligible student’s IEP or Section 504 plan and only may be assigned with the CDE’s approval.

Test results for unlisted resources that are approved but change the construct of what is being tested will not be considered valid for accountability purposes. The student will receive a score with a footnote that the test was administered under conditions that resulted in a score that may not be an accurate representation of the student’s achievement.

2.6. Scores

For information regarding score specifications and score reports, refer to *Chapter 7: Scoring and Reporting*, which starts on page 134.

2.6.1 Score Reporting

TOMS is a secure Web site hosted by ETS that permits LEA users to manage aspects of CAASPP test administration such as test assignment and the assignment of test settings. It also provides a secure means for LEA CAASPP coordinators to download Student Score Reports as PDF files as well as aggregated results for the LEA.

Another means of viewing CAASPP scores is the Online Reporting System (ORS), a secure Web site that provides authorized users with interactive and cumulative online reports for ELA and mathematics at the student, school, and LEA levels. The ORS provides three types of score reports: an individual student score report, a school report, and an LEA report. Refer to subsection *7.6.1 Online Reporting* on page 161 for details about TOMS and the ORS; and subsection *7.6.3 Types of Score Reports* on page 162 for the content of each type of score report.

2.6.2 Aggregation Procedures

In order to provide meaningful results to the stakeholders, CAASPP scores for a given grade are aggregated at the school, LEA or direct funded charter school, county, and state levels. State-level results are available on the Public Reporting Web page at <http://caaspp.cde.ca.gov>. The aggregated scores are presented for all students or selected demographic subgroups.

Aggregate scores are generated by combining student scores. They can be created by combining results at the state, LEA or direct funded charter school, or school level; for all students, or by combining results for all students or students who represent selected demographic subgroups.

Aggregation procedures used to present CAASPP Smarter Balanced results are described in subsection *7.5 Overview of Score Aggregation Procedures* on page 157 of this report. In Table 7.E.1 through Table 7.E.28 starting on page 222, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, special

education service status, and economic status. The tables show the numbers of students with valid scores in each group, scale score means and standard deviations, and percentage in an achievement level. Table 7.13 on page 160 provides definitions for the demographic groups included in the tables.

2.7. Calibration and Scaling

Item response theory (IRT) methods are ideally suited to the assessments and measurement goals of Smarter Balanced in both establishing a common scale and ongoing maintenance of the program. The purpose of calibration, equating, and scaling using IRT methods is to place item difficulty and student ability estimates onto a common theta scale in each content area. As a result, scores on different versions of the same test are statistically adjusted to compensate for any differences in difficulty between the test versions.

The Common Core State Standards were developed with the intent of supporting inferences concerning a student's change in achievement (i.e., progress) as demonstrated by performance on the corresponding assessments. *Vertical scaling* is an approach that places test scores across grades onto a common scale. A vertical scale is a single scale for scores on tests at different grade levels of the same content area. Reporting scores on a vertical scale allows student progress to be tracked for a particular content area across grade levels; it is expected that students' proficiency increases across different levels of the assessment. An advantage of vertical scaling is that progress expectations concerning the establishment of achievement levels across grades can be inspected and ordered by standard setting panelists.

All items used on the Smarter Balanced Online Summative Assessments were calibrated within grade and vertically scaled during the 2013–14 Smarter Balanced field test phase (Smarter Balanced, 2016a). These activities supported the creation of scale scores.

The basic steps in the process of scaling the scores are as follows:

1. Calibrate the items at each grade level.
2. Transform the ability scales at the different grade levels onto a common ability scale.
3. Transform the ability scale onto the reported score scale by applying a single linear transformation for all grade levels.

The reported test scores for the 2015–16 administration of the Smarter Balanced assessments were based on the baseline scale since all items were pre-equated. The baseline scale was defined following the 2013–14 Smarter Balanced field test administration.

2.7.1 Calibration

Unidimensional IRT models were used for calibration. Based on the psychometric research conducted during the pilot and field test phases by the Smarter Balanced Assessment Consortium, the two-parameter logistic (2PL) model (Birnbbaum, 1968) and the generalized partial credit model (GPCM) (Muraki, 1992) were chosen for calibration. Refer to Equation 7.1 on page 146 for the 2PL model and GPCM formulas.

Item parameter calibration software, model-to-data fit, and evaluation of vertical scale anchor items are described in more detail in Chapter 6 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016a). The summary statistics describing the

distribution of item difficulty and discrimination parameter estimates at each grade level from the field-test calibration and scaling that comprised the 2015–16 administration item pool are available in Appendix 8.A on page 332.

2.7.2 Horizontal Scaling

Item parameters derived for the Smarter Balanced assessment were linked during the Smarter Balanced field test administration by concurrently calibrating items within grade for each content area. The calibration approach relied on a hybrid of the “common items” approach and the “randomly equivalent groups” linking approach. The common items approach requires that items and tasks partially overlap and be administered to different student samples. For the randomly equivalent groups approach, the test material presented to different student samples is considered as comparably “on scale” by virtue of the random equivalence of the groups. The horizontal linking design incorporated both types of approaches and was done by assembling test versions with partially overlapping test content and randomly assigning the test versions to students.

2.7.3 Vertical Scaling

After the grade-specific horizontal scaling was conducted for a content area, a separate, cross-grade, vertical scaling occurred using common items (vertical linking items). To implement the vertical scaling, representative sets of off-grade items were administered to adjacent grades—for example, grade four and grade six items also were administered to students in grade five.

Vertical linking item sets were intended to sample the construct that included both the CAT and PT components and associated item types as well as claims that conformed to the test blueprint. Linking items from the lower grade were administered to the upper-adjacent-grade-level students. Content experts designated a target grade for each item and a minimum and maximum grade designation. A set of PTs was given on-grade; the same set was administered off-grade for vertical linking.

The vertical scaling was undertaken using the test characteristic curve transformation method (Stocking & Lord, 1983). The Stocking-Lord procedure minimizes the sum of the squared differences over students between the target and reference test characteristic curves based on common items. Using grade six as the base grade, each grade was successively linked onto the vertical scale separately for ELA and for mathematics. For example, grade seven was linked to grade six, and then grade eight was linked to grade seven and so forth until grade eleven was placed onto the vertical scale. Likewise, grade five was linked to grade six, and then grade four was linked to grade five and so forth until grade three was placed onto the vertical scale. Vertical scaling is represented in Figure 2.1.

Once the Smarter Balanced horizontal and vertical scales were established, the remaining items (i.e., the entire calibration item pool including the noncommon items) were linked onto this final scale in each grade and content area.

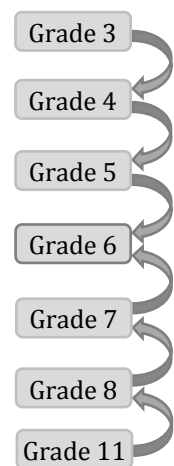


Figure 2.1 Vertical Scaling

2.7.4 Vertical Scale Evaluation

The results of vertical scaling were evaluated using a number of methods. Refer to the section *Vertical Scale Evaluation* in *Chapter 9 Field Test Design, Sampling, and*

Administration in the 2013–14 Smarter Balanced Technical Report (Smarter Balanced, 2016a) that included the following results:

- Correlation of difficulties of common items across grade levels
- Changes in test difficulty across grades
- Comparison of mean scale scores across grades
- Comparison of scale scores associated with achievement levels across grades
- Comparison of overlap/separation of scale score distributions across grades
- Comparison of variability in scale scores within and across grades

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Appendix 2.A: Smarter Balanced Blueprints

English Language Arts/Literacy Summative Assessments Blueprint

Blueprint Table ELA/Literacy Grades 3–5 Estimated Total Testing Time: 4:00 (with Classroom Activity) ³						
Claim/Score Reporting Category ⁴	Content Category ⁵	Stimuli		Items		Total Items by Claim ⁶
		CAT	PT ⁷	CAT Items ⁸	PT Items ⁹	
1. Reading	Literary	2	0	7–8	0	14–16
	Informational	2	0	7–8		
2. Writing	Organization/Purpose	0	1a	5	1 ¹⁰	13 ¹¹
	Evidence/Elaboration	0			1 ⁸	
	Conventions	0		5	1 ¹⁰	
3. Speaking/Listening	Listening	3–4	0	8–9	0	8–9
4. Research	Research	0	1b	6	2–3	8–9

³ All times are estimates. Actual times may vary.

⁴ Each student receives an overall ELA/literacy score and four claim scores or subscores reported at the individual level.

⁵ For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

⁶ Total number of items is not necessarily equal to weighting by claim.

⁷ Each student receives one PT, which includes a set of stimuli on a given topic. A Classroom Activity will be conducted for each PT to help orient students to the PT context. In California for the 2015–16 administration, Classroom Activities were optional.

⁸ The CAT component of the test includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁹ Each PT includes two or three research items, one of which may be machine scored, and one or two of which are short text items. Each PT also has one full write that is scored across three traits: Organization/Purpose, Evidence/Elaboration, and Conventions. The short-text items and the full write are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

¹⁰ For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.

¹¹ Total Items by Claim for Claim 2 includes 10 CAT items and 3 items from the PT as described in footnote 8.

Blueprint Table ELA/Literacy Grades 6–8 Estimated Total Testing Time: 4:00 (with Classroom Activity) ¹						
Claim/Score Reporting Category ²	Content Category ³	Stimuli		Items		Total Items by Claim ⁴
		CAT	PT–	CAT Items ⁵	PT Items ⁶	
1. Reading	Literary	1–2	0	4–7 ¹⁰	0	13–17
	Informational	2–3	0	9–10		
2. Writing	Organization/Purpose	0	1a	5	1 ⁷	13 ⁸
	Evidence/Elaboration	0			1 ⁸	
	Conventions	0		5	1 ⁸	
3. Speaking/Listening	Listening	3–4	0	8–9	0	8–9
4. Research	Research	0	1b	6	2–3	8–9

¹ All times are estimates. Actual times may vary.

² Each student receives an overall ELA/literacy score and four claim scores or subscores reported at the individual level.

³ For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

⁴ Total number of items is not necessarily equal to weighting by claim.

⁵ The CAT component of the test includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁶ Each PT includes two or three research items, one of which may be machine scored, and one or two of which are short text items. Each PT also has one full write that is scored across three traits: Organization/Purpose, Evidence/Elaboration, and Conventions. The short-text items and the full write are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁷ For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.

⁸ Total Items by Claim for Claim 2 includes 10 CAT items and 3 items from the PT as described in footnote 10.

¹⁰ In 2015 and 2016, students will receive 4 literary items.

Blueprint Table ELA/Literacy Grade 11 Estimated Total Testing Time: 4:30 (with Classroom Activity) ¹						
Claim/Score Reporting Category ²	Content Category ³	Stimuli		Items		Total Items by Claim ⁴
		CAT	PT ⁵	CAT Items ⁶	PT Items ⁷	
1. Reading	Literary	1	0	4	0	15–16
	Informational	3	0	11–12		
2. Writing	Organization/Purpose	0	1a	5	1 ⁸	13 ⁹
	Evidence/Elaboration	0			1 ⁸	
	Conventions	0		5	1 ⁸	
3. Speaking/Listening	Listening	3–4	0	8–9	0	8–9
4. Research	Research	0	1b	6	2–3	8–9

¹ All times are estimates. Actual times may vary.

² Each student receives an overall ELA/literacy score and four claim scores or subscores reported at the individual level.

³ For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

⁴ Total number of items is not necessarily equal to weighting by claim.

⁵ Each student receives one PT, which includes a set of stimuli on a given topic. A Classroom Activity will be conducted for each PT to help orient students to the PT context. In California for the 2015–16 administration, Classroom Activities were optional.

⁶ The CAT component of the test includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁷ Each PT includes two or three research items, one of which may be machine scored, and one or two of which are short text items. Each PT also has one full write that is scored across three traits: Organization/Purpose, Evidence/Elaboration, and Conventions. The short-text items and the full write are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁸ For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.

⁹ Total Items by Claim for Claim 2 includes 10 CAT items and 3 items from the PT as described in footnote 8.

Target Sampling ELA/Literacy Grades 3–5										
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items		
						Machine Scored	Short Text			
CAT	1. Reading	Literary ⁴	2: Central Ideas	2, 3	1–2 ⁵	6–8 ⁵	0–1 ⁵	7–8		
			4: Reasoning and Evaluation	3						
			1: Key Details	1, 2	3–6		0			
			3: Word Meanings	1, 2						
			5: Analysis within/across Texts	3, 4						
			6: Text Structures and Features	2, 3						
			7: Language Use	2, 3						
		Informational ⁶	9: Central Ideas	2, 3	1–2 ⁷	6–8 ⁷			0–1 ⁷	0
			11: Reasoning and Evaluation	3						
			8: Key Details	1, 2	3–6					
			10: Word Meanings	1, 2						
			12: Analysis within/across Texts	3, 4						
			13: Text Structures and Features	2, 3						
			14: Language Use	2, 3						

¹ For more information on assessment targets, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

² DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

³ The CAT algorithm will be configured to ensure the following:

For Claim 1, a student will receive at least seven items at DOK 2 and two items at DOK 3 or higher.

For Claim 2, a student will receive at least four items at DOK 2 and one item at DOK 3 or higher.

For Claim 3, a student will receive at least three items at DOK 2 or higher.

For Claim 4, CAT items are DOK 2 for all grades.

⁴ Each student will receive at least one long literary passage set and up to two additional short passage sets.

⁵ For the Reading Literary long passage set, students may see up to one short answer question on either target 2 or 4.

⁶ Each student will receive at least one long informational passage set and up to two additional short informational passage sets.

⁷ For the Reading Informational long passage set, students may see up to one short answer question on either target 9 or 11.

Target Sampling ELA/Literacy Grades 3–5								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	2. Writing	Organization/Purpose	1a/3a/6a: Write Brief Texts ⁸	3	3	0	0–1 ⁸	10
			1b/3b/6b: Revise Brief Texts	2		0–2 ⁸	0	
		Evidence/Elaboration	1a/3a/6a: Write Brief Texts ⁸	3		0	0–1 ⁸	
			1b/3b/6b: Revise Brief Texts	2		0–2 ⁸	0	
			8: Language and Vocabulary Use ⁹	1, 2	2	0		
	Conventions	9: Edit/Clarify	1, 2	5	5	0		
	3. Speaking/Listening	Listening	4: Listen/Interpret	1, 2, 3	8	8	0	8
	4. Research	Research	2: Interpret and Integrate Information	2	6	6	0	6
			3: Analyze Information/Sources	2				
			4: Use Evidence	2				

⁸ Each student will receive at least one item in Organization/Purpose and at least one item in Evidence/Elaboration, for a total of three items, assessed in either Write Brief Texts or Revise Brief Texts. Among these three items will be one and only one Write Brief Text.

⁹ Language and Vocabulary Use contributes two items to Evidence/Elaboration.

Target Sampling ELA/Literacy Grades 3–5									
Component	Claim/Score Reporting Category	Content Category	Assessment Target	DOK	Item Type			Scores	
					Machine Scored	Short Text	Full Write		
PT	2. Writing	Organization/Purpose	2/4/7: Compose Full Texts	4	0	0	1	1	
		Evidence/Elaboration	2/4/7: Compose Full Texts					1	
			8: Language and Vocabulary Use					1	
		Conventions	9: Edit/Clarify				1		
	4. Research	Research		2: Interpret and Integrate Information	3	0–1	1–2	0	2–3
				3: Analyze Information/Sources	3, 4				
			4: Use Evidence	3					

Target Sampling ELA/Literacy Grades 6–8								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	1. Reading	Literary ⁴	2: Central Ideas	2, 3	1 ⁵	1–2 ⁵	0–1 ⁵	4–7 ⁶
			4: Reasoning and Evaluation	3, 4	1 ⁵			
			1: Key Details	2	2–5	2–5	0	
			3: Word Meanings	1, 2				
			5: Analysis within/across Texts	3, 4				
			6: Text Structures and Features	2, 3, 4				
			7: Language Use	3				
		Informational ⁷	9: Central Ideas	2, 3	1–3 ⁷	9–10	0–1 ⁸	9–10
			11: Reasoning and Evaluation	3, 4				
			8: Key Details	2	7–8	9–10	0	
			10: Word Meanings	1, 2				
			12: Analysis within/across Texts	3, 4				
			13: Text Structures and Features	2, 3				
			14: Language Use	3				

¹ For more information on assessment targets, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

² DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

³ The CAT algorithm will be configured to ensure the following:

For Claim 1, a student will receive no more than 5 items at DOK 1 and at least 2 items at DOK 3 or higher.

For Claim 2, a student will receive at least five items at DOK 2 or higher, at least one of which will be DOK 3 or higher.

For Claim 3, a student will receive at least three items at DOK 2 or higher.

For Claim 4, CAT items are DOK 2 for all grades.

⁴ Each student will receive at least one literary passage set.

⁵ For the Reading Literary long passage set, students may see up to 1 short answer question on either target 2 or 4.

⁶ In 2015 and 2016, students receive 4 literary items.

⁷ Each student will receive at least one informational passage set and up to two additional short informational passage sets.

⁸ For the Reading Informational long passage set, students may see up to one short answer question on either target 9 or 11.

Target Sampling ELA/Literacy Grades 6–8								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	2. Writing	Organization/Purpose	1a/3a/6a: Write Brief Texts ⁹	3	3	0	0–1 ¹⁰	10
			1b/3b/6b: Revise Brief Texts	2		0–2 ¹⁰	0	
		Evidence/Elaboration	1a/3a/6a: Write Brief Texts ¹⁰	3		0	0–1 ¹⁰	
			1b/3b/6b: Revise Brief Texts	2	0–2 ¹⁰	0		
			8: Language and Vocabulary Use ¹⁰	1, 2	2	0		
	Conventions	9: Edit/Clarify	1, 2	5	5	0		
	3. Speaking/Listening	Listening	4: Listen/Interpret	1, 2, 3	8–9	8–9	0	8–9
	4. Research	Research	2: Analyze/Integrate Information	2	6	6	0	6
			3: Evaluate Information/Sources	2				
4: Use Evidence			2					

Target Sampling ELA/Literacy Grades 6–8								
Component	Claim/Score Reporting Category	Content Category	Assessment Target	DOK	Item Type			Scores
					Machine Scored	Short Text	Full Write	
PT	2. Writing	Organization/Purpose	2/4/7: Compose Full Texts	4	0	0	1	1
		Evidence/Elaboration	2/4/7: Compose Full Texts					1
			8: Language and Vocabulary Use					1
	Conventions	9: Edit/Clarify	1					
	4. Research	Research	2: Analyze/Integrate Information	3, 4	0–1	1–2	0	2–3
			3: Evaluate Information/Sources	3, 4				
4: Use Evidence			3, 4					

⁹ Each student will receive at least one item in Organization/Purpose and at least one item in Evidence/Elaboration, for a total of three items, assessed in either Write Brief Texts or Revise Brief Texts. Among these three items will be one and only one Write Brief Text.

¹⁰ Language and Vocabulary Use contributes 2 items to Evidence/Elaboration.

Target Sampling ELA/Literacy Grade 11								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	1. Reading	Literary ⁴	2: Central Ideas	2, 3	1 ⁵	1-2 ⁵	0-1 ⁵	4
			4: Reasoning and Evaluation	3, 4	1 ⁵			
			1: Key Details	2	2	2	0	
			3: Word Meanings	1, 2				
			5: Analysis within/across Texts	3, 4				
			6: Text Structures and Features	3, 4				
			7: Language Use	3				
		Informational ⁶	9: Central Ideas	2,3	2-4 ⁷	10-12 ⁷	0-1 ⁷	11-12
			11: Reasoning and Evaluation	3, 4				
			8: Key Details	2	7-10		0	
			10: Word Meanings	1, 2				
			12: Analysis within/across Texts	3, 4				
			13: Text Structures and Features	3, 4				
			14: Language Use	3				

¹ For more information on assessment targets, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

² DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

³ The CAT algorithm will be configured to ensure the following:

For Claim 1, a student will receive no more than 4 items at DOK 1 and at least 3 items at DOK 3 or higher.

For Claim 2, a student will receive at least five items at DOK 2 or higher, at least one of which will be DOK 3 or higher.

For Claim 3, a student will receive at least four items at DOK 2 or higher.

For Claim 4, CAT items are DOK 2 for all grades.

⁴ Each student will receive at least one literary long passage set.

⁵ For the Reading Literary long set, students may see up to one short answer question on either target 2 or 4.

⁶ Each student will receive at least one long informational passage set and up to two additional short informational passage sets.

⁷ For the Reading Informational long passage set, students may see up to one short answer question on either target 9 or 11.

Target Sampling ELA/Literacy Grade 11								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	2. Writing	Organization/Purpose	1a/3a/6a: Write Brief Texts ⁸	3	3	0	0–1 ⁸	10
			1b/3b/6b: Revise Brief Texts	2		0–2 ⁸	0	
		Evidence/Elaboration	1a/3a/6a: Write Brief Texts ⁸	3		0	0–1 ⁸	
			1b/3b/6b: Revise Brief Texts	2	2	0		
			8: Language and Vocabulary Use ⁹	1, 2	2	0		
	Conventions	9: Edit/Clarify	1, 2	5	5	0		
	3. Speaking/Listening	Listening	4: Listen/Interpret	1, 2, 3	8–9	8–9	0	8–9
	4. Research	Research	2: Analyze/Integrate Information	2	6	6	0	6
			3: Evaluate Information/Sources	2				
			4: Use Evidence	2				

Target Sampling ELA/Literacy Grade 11												
Component	Claim/Score Reporting Category	Content Category	Assessment Target	DOK	Item Type			Scores				
					Machine Scored	Short Text	Full Write					
PT	2. Writing	Organization/Purpose	2/4/7: Compose Full Texts	4	0	0	1	1				
		Evidence/Elaboration	2/4/7: Compose Full Texts					3, 4	0–1	1–2	0	1
			8: Language and Vocabulary Use									1
	Conventions	9: Edit/Clarify	3, 4	0–1	1–2	0	1					
	4. Research	Research	2: Analyze/Integrate Information	3, 4	0–1	1–2	0	2–3				
			3: Evaluate Information/Sources	3, 4								
4: Use Evidence			3, 4									

⁸ Each student will receive at least one item in Organization/Purpose and at least one item in Evidence/Elaboration, for a total of three items, assessed in either Write Brief Texts or Revise Brief Texts. Among these three items will be one and only one Write Brief Text.

⁹ Language and Vocabulary Use contributes 2 items to Evidence/Elaboration.

Smarter Balanced Mathematics Summative Assessments Blueprint

Blueprint Table Mathematics Grades 3–5
Estimated Total Testing Time: 3:00 (with Classroom Activity)¹

Claim/Score Reporting Category	Content Category ²	Stimuli		Items		Total Items by Claim ³
		CAT	PT	CAT ⁴	PT ⁵	
1. Concepts and Procedures	Priority Cluster	0	0	13–15	0	17–20
	Supporting Cluster	0		4–5		
2. Problem Solving 4. Modeling and Data Analysis ⁶	Problem Solving	0	1	6	2–4	8–10
	Modeling and Data Analysis	0				
3. Communicating Reasoning	Communicating Reasoning	0			8	0–2

¹ All times are estimates. Actual times may vary.

² For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

³ While the range for the total items by Claim for Problem Solving/Modeling and Data Analysis and Communicating Reasoning indicates 8–10 items in each reporting category, the total number of items across these two reporting categories for any individual test event is 18–20.

⁴ All CAT items in grades 3–5 are designed to be machine-scored.

⁵ Each PT contains 4–6 total items. Up to four PT items may require hand-scoring.

⁶ Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined because of content similarity and to provide flexibility for item development. There are still four claims, but only three claim scores will be reported with the overall math score.

Blueprint Table Mathematics Grades 6–8
Estimated Total Testing Time: 3:30 (with Classroom Activity)¹

Claim/Score Reporting Category	Content Category ²	Stimuli		Items		Total Items by Claim ³
		CAT	PT	CAT ⁴	PT ⁵	
1. Concepts and Procedures	Priority Cluster	0	0	12–15	0	16–20
	Supporting Cluster	0		4–5		
2. Problem Solving 4. Modeling and Data Analysis ⁶	Problem Solving	0	1	6	2–4	8–10
	Modeling and Data Analysis	0		8		
3. Communicating Reasoning	Communicating Reasoning	0			0–2	8–10

¹ All times are estimates. Actual times may vary.

² For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

³ While the range for the total items by Claim for Problem Solving/Modeling and Data Analysis and Communicating Reasoning indicates 8–10 items in each reporting category, the total number of items across these two reporting categories for any individual test event is 18–20.

⁴ In grades 6–8, up to one CAT item per student may require hand-scoring (from either Claim 3 or Claim 4), which may be AI-scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁵ Each PT contains 4–6 total items. Up to four PT items may require hand-scoring.

⁶ Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined because of content similarity and to provide flexibility for item development. There are still four claims, but only three claim scores will be reported with the overall math score.

Blueprint Table Mathematics Grade 11
Estimated Total Testing Time: 4:00 (with Classroom Activity)¹

Claim/Score Reporting Category	Content Category ²	Stimuli		Items		Total Items by Claim ³
		CAT	PT	CAT ⁴	PT ⁵	
1. Concepts and Procedures	Priority Cluster	0	0	14–16	0	19–22
	Supporting Cluster	0		5–6		
2. Problem Solving 4. Modeling and Data Analysis ⁶	Problem Solving	0	1	6	2–4	8–10
	Modeling and Data Analysis	0		8		
3. Communicating Reasoning	Communicating Reasoning	0			0–2	8–10

¹ All times are estimates. Actual times may vary.

² For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/assessments/development/>.

³ While the range for the total items by Claim for Problem Solving/Modeling and Data Analysis and Communicating Reasoning indicates 8–10 items in each reporting category, the total number of items across these two reporting categories for any individual test event is 18–20.

⁴ In grade 11, up to one CAT item per student may require hand-scoring (from either Claim 3 or Claim 4), which may be AI-scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁵ Each PT contains 4–6 total items. Up to six PT items may require hand-scoring.

⁶ Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined, because of content similarity and to provide flexibility for item development. There are still four claims, but only three claim scores will be reported with the overall math score.

Target Sampling Mathematics Grade 3						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	B. Understand properties of multiplication and the relationship between multiplication and division.	1	5-6	0	17-20
		C. Multiply and divide within 100.	1			
		I. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	1, 2			
		G. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	1, 2			
		D. Solve problems involving the four operations, and identify and explain patterns in arithmetic.	2	5-6		
		F. Develop understanding of fractions as numbers.	1, 2			
	A. Represent and solve problems involving multiplication and division.	1, 2	2-3			
	Supporting Cluster	E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1	3-4		
		J. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1			
		K. Reason with shapes and their attributes.	1, 2			
H. Represent and interpret data.		2, 3	1			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications. The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 3						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2		

Target Sampling Mathematics Grade 4						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	A. Use the four operations with whole numbers to solve problems.	1, 2	8–9	0	17–20
		E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1, 2			
		F. Extend understanding of fraction equivalence and ordering.	1, 2			
		G. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	1, 2	2–3		
		D. Generalize place value understanding for multi-digit whole numbers.	1, 2	1–2		
		H. Understand decimal notation for fractions, and compare decimal fractions.	1, 2	1		
	Supporting Cluster	I. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	1, 2	2–3		
		K. Geometric measurement: understand concepts of angle and measure angles.	1, 2			
		B. Gain familiarity with factors and multiples.	1, 2	1		
		C. Generate and analyze patterns.	2, 3			
		J. Represent and interpret data.	1, 2			
L. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	1, 2	1				

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications. The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 4

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2		

Target Sampling Mathematics Grade 5						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	E. Use equivalent fractions as a strategy to add and subtract fractions.	1, 2	5–6	0	17–20
		I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	1, 2			
		F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	1, 2	4–5		
		D. Perform operations with multi-digit whole numbers and with decimals to hundredths.	1, 2	3–4		
		C. Understand the place value system.	1, 2			
	Supporting Cluster	J. Graph points on the coordinate plane to solve real-world and mathematical problems.	1	2–3		
		K. Classify two-dimensional figures into categories based on their properties.	2			
		A. Write and interpret numerical expressions.	1	2		
		B. Analyze patterns and relationships.	2			
		G. Convert like measurement units within a given measurement system.	1			
H. Represent and interpret data.	1, 2					

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- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 5						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4	1		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.				
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0				
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2		

Target Sampling Mathematics Grade 6						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	E. Apply and extend previous understandings of arithmetic to algebraic expressions.	1	5–6	0	16–19
		F. Reason about and solve one-variable equations and inequalities.	1, 2			
		A. Understand ratio concepts and use ratio reasoning to solve problems.	1, 2			
		G. Represent and analyze quantitative relationships between dependent and independent variables.	2	2		
		B. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1, 2			
		D. Apply and extend previous understandings of numbers to the system of rational numbers.	1, 2	2		
	Supporting Cluster	C. Compute fluently with multi-digit numbers and find common factors and multiples.	1, 2	4–5		
		H. Solve real-world and mathematical problems involving area, surface area, and volume.	1, 2			
		I. Develop understanding of statistical variability.	2			
		J. Summarize and describe distributions.	1, 2			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.
 The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 6								
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items		
				CAT	PT			
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10		
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3			
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1				
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1				
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0				
	3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3		0–2	8–10
			B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)			2, 3	2				

Target Sampling Mathematics Grade 7						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	A. Analyze proportional relationships and use them to solve real-world and mathematical problems.	2	8–9	0	17–20
		D. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	1, 2			
		B. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	1, 2	5–6		
		C. Use properties of operations to generate equivalent expressions.	1, 2			
	Supporting Cluster	E. Draw, construct, and describe geometrical figures and describe the relationship between them.	1, 2	2–3		
		F. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	1, 2			
		G. Use random sampling to draw inferences about a population.	1, 2	1–2		
		H. Draw informal comparative inferences about two populations.	2			
		I. Investigate chance processes and develop, use, and evaluate probability models.	1, 2			

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- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 7						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

Target Sampling Mathematics Grade 8						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	C. Understand the connections between proportional relationships, lines, and linear equations.	1, 2	5–6	0	17–20
		D. Analyze and solve linear equations and pairs of simultaneous linear equations.	1, 2			
		B. Work with radicals and integer exponents.	1, 2			
		E. Define, evaluate, and compare functions.	1, 2			
		G. Understand congruence and similarity using physical models, transparencies, or geometry software.	1, 2			
		F. Use functions to model relationships between quantities.	1, 2			
	H. Understand and apply the Pythagorean Theorem.	1, 2	2–3			
	Supporting Cluster	A. Know that there are numbers that are not rational, and approximate them by rational numbers.	1, 2	4–5		
		I. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	1, 2			
		J. Investigate patterns of association in bivariate data.	1, 2			

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- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 8						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

Target Sampling Mathematics Grade 11						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	D. Interpret the structure of expressions.	1, 2	2	0	19–22
		E. Write expressions in equivalent forms to solve problems.	1, 2			
		F. Perform arithmetic operations on polynomials.	2	1		
		G. Create equations that describe numbers or relationships.	1, 2	4–5		
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2			
		I. Solve equations and inequalities in one variable.	1, 2			
		J. Represent and solve equations and inequalities graphically.	1, 2	2		
		K. Understand the concept of a function and use function notation.	1, 2	2		
		L. Interpret functions that arise in applications in terms of a context.	1, 2	3–4		
		M. Analyze functions using different representations.	1, 2, 3			
	N. Build a function that models a relationship between two quantities.	2				
	Supporting Cluster	O. Define trigonometric ratios and solve problems involving right triangles.	1, 2	2		
		P. Summarize, represent, and interpret data on a single count or measurement variable.	2	1–2		
		A. Extend the properties of exponents to rational exponents.	1, 2	1		
		B. Use properties of rational and irrational numbers.	1, 2			
C. Reason quantitatively and use units to solve problems.		1, 2	1			

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The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 11						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

Appendix 2.B: Special Services Summaries

Table 2.B.1 Special Services Summary for ELA Performance Task (PT), Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	150	0.03	149	0.03	173	0.04	151	0.03
Embedded—Braille	12	0.00	5	0.00	11	0.00	16	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	995	0.22	1,239	0.26	1,307	0.28	1,261	0.27
Embedded—Text-to-Speech (for Reading Passages only)	7,693	1.68	8,825	1.87	9,378	2.02	12,223	2.66
Non-Embedded—Alternate Response Options	170	0.04	231	0.05	194	0.04	201	0.04
Non-Embedded—Print on Demand	180	0.04	255	0.05	307	0.07	229	0.05
Non-Embedded—Scribe (for ELA Writing)	1,154	0.25	1,132	0.24	1,019	0.22	636	0.14
Non-Embedded—Speech-to-Text	1,574	0.34	1,980	0.42	2,183	0.47	1,876	0.41
Designated Supports								
Embedded—Color Contrast	1,137	0.25	1,248	0.26	1,141	0.25	1,188	0.26
Embedded—Masking	5,669	1.24	6,733	1.42	6,578	1.42	5,913	1.29
Embedded—Permissive Mode	2,513	0.55	2,913	0.62	2,884	0.62	2,861	0.62
Embedded—Print Size	1,658	0.36	1,623	0.34	1,768	0.38	1,296	0.28
Embedded—Text-to-Speech (for ELA except for Reading Passages)	47,467	10.39	50,274	10.63	46,697	10.07	39,850	8.68
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	6,440	1.41	5,519	1.17	4,346	0.94	4,442	0.97
Non-Embedded—Color Contrast	623	0.14	860	0.18	852	0.18	894	0.19
Non-Embedded—Color Overlay	794	0.17	867	0.18	790	0.17	769	0.17
Non-Embedded—Magnification	1,128	0.25	1,354	0.29	1,170	0.25	1,109	0.24
Non-Embedded—Noise Buffers	3,719	0.81	3,977	0.84	4,052	0.87	2,932	0.64
Non-Embedded—Read Aloud (for ELA except Reading Passages)	12,216	2.67	13,717	2.90	13,552	2.92	10,629	2.32
Non-Embedded—Scribe (for Reading and Listening)	1,567	0.34	1,654	0.35	1,398	0.30	951	0.21
Non-Embedded—Separate Setting	15,315	3.35	18,973	4.01	20,248	4.36	17,645	3.84
Non-Embedded—Translated Test Directions	3,485	0.76	2,867	0.61	2,271	0.49	2,217	0.48
Other								
Unlisted Resources	100	0.02	120	0.03	113	0.02	43	0.01
Designated support or accommodation is in IEP	26,233	5.74	32,770	6.93	34,926	7.53	32,714	7.13
Designated support or accommodation is in Section 504 plan	733	0.16	901	0.19	1,083	0.23	852	0.19

Table 2.B.2 Special Services Summary for ELA PT, Grades Seven, Eight, and Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	195	0.04	164	0.04	206	0.05
Embedded—Braille	13	0.00	16	0.00	10	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	1,009	0.22	998	0.22	394	0.09
Embedded—Text-to-Speech (for Reading Passages only)	13,599	2.98	11,783	2.62	4,256	0.98
Non-Embedded—Alternate Response Options	195	0.04	158	0.04	122	0.03
Non-Embedded—Print on Demand	187	0.04	146	0.03	129	0.03
Non-Embedded—Scribe (for ELA Writing)	382	0.08	295	0.07	157	0.04
Non-Embedded—Speech-to-Text	1,804	0.39	1,497	0.33	683	0.16
Unlisted Resources	195	0.04	164	0.04	206	0.05
Designated Supports						
Embedded—Color Contrast	839	0.18	815	0.18	1,720	0.40
Embedded—Masking	5,633	1.23	4,922	1.09	6,886	1.59
Embedded—Permissive Mode	2,742	0.60	2,584	0.57	296	0.07
Embedded—Print Size	1,179	0.26	1,030	0.23	601	0.14
Embedded—Text-to-Speech (for ELA except for Reading Passages)	32,316	7.07	28,610	6.35	15,415	3.55
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	3,658	0.80	3,488	0.77	3,112	0.72
Non-Embedded—Color Contrast	701	0.15	670	0.15	371	0.09
Non-Embedded—Color Overlay	443	0.10	375	0.08	294	0.07
Non-Embedded—Magnification	1,121	0.25	935	0.21	548	0.13
Non-Embedded—Noise Buffers	2,261	0.49	1,734	0.38	768	0.18
Non-Embedded—Read Aloud (for ELA except Reading Passages)	7,760	1.70	6,735	1.50	3,147	0.73
Non-Embedded—Scribe (for Reading and Listening)	737	0.16	630	0.14	380	0.09
Non-Embedded—Separate Setting	15,467	3.38	14,456	3.21	10,320	2.38
Non-Embedded—Translated Test Directions	1,835	0.40	1,786	0.40	2,089	0.48
Other						
Unlisted Resources	74	0.02	54	0.01	30	0.01
Designated support or accommodation is in IEP	29,478	6.45	26,862	5.96	14,342	3.30
Designated support or accommodation is in Section 504 plan	714	0.16	728	0.16	484	0.11

Table 2.B.3 Special Services Summary for ELA PT, Grades Three through Six—Students With No Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.00	0	0.00	1	0.00	5	0.00
Embedded—Braille	0	0.00	1	0.00	0	0.00	0	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	22	0.01	49	0.01	49	0.01	46	0.01
Embedded—Text-to-Speech (for Reading Passages only)	154	0.04	190	0.05	182	0.04	212	0.05
Non-Embedded—Alternate Response Options	4	0.00	10	0.00	1	0.00	8	0.00
Non-Embedded—Print on Demand	5	0.00	2	0.00	3	0.00	3	0.00
Non-Embedded—Scribe (for ELA Writing)	26	0.01	41	0.01	41	0.01	16	0.00
Non-Embedded—Speech-to-Text	28	0.01	50	0.01	46	0.01	54	0.01
Designated Supports								
Embedded—Color Contrast	562	0.14	574	0.14	408	0.10	497	0.12
Embedded—Masking	2,568	0.63	2,620	0.62	2,226	0.54	1,638	0.40
Embedded—Permissive Mode	1,705	0.42	1,878	0.45	1,835	0.45	1,843	0.45
Embedded—Print Size	822	0.20	441	0.10	566	0.14	265	0.06
Embedded—Text-to-Speech (for ELA except for Reading Passages)	29,234	7.14	27,624	6.57	22,695	5.53	17,887	4.38
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	5,810	1.42	4,751	1.13	3,600	0.88	3,717	0.91
Non-Embedded—Color Contrast	257	0.06	307	0.07	259	0.06	265	0.06
Non-Embedded—Color Overlay	517	0.13	524	0.12	444	0.11	442	0.11
Non-Embedded—Magnification	522	0.13	496	0.12	312	0.08	299	0.07
Non-Embedded—Noise Buffers	1,114	0.27	1,049	0.25	849	0.21	651	0.16
Non-Embedded—Read Aloud (for ELA except Reading Passages)	3,021	0.74	2,511	0.60	1,692	0.41	1,641	0.40
Non-Embedded—Scribe (for Reading and Listening)	441	0.11	377	0.09	276	0.07	243	0.06
Non-Embedded—Separate Setting	1,789	0.44	1,910	0.45	1,710	0.42	1,557	0.38
Non-Embedded—Translated Test Directions	2,946	0.72	2,288	0.54	1,734	0.42	1,712	0.42
Other								
Unlisted Resources	1	0.00	2	0.00	5	0.00	5	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	557	0.14	675	0.16	850	0.21	644	0.16

Table 2.B.4 Special Services Summary for ELA PT, Grades Seven, Eight, and Eleven—Students with No Special Education Services

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	2	0.00	1	0.00	1	0.00
Embedded—Braille	0	0.00	0	0.00	1	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	41	0.01	39	0.01	11	0.00
Embedded—Text-to-Speech (for Reading Passages only)	226	0.06	228	0.06	67	0.02
Non-Embedded—Alternate Response Options	3	0.00	2	0.00	4	0.00
Non-Embedded—Print on Demand	3	0.00	7	0.00	6	0.00
Non-Embedded—Scribe (for ELA Writing)	18	0.00	14	0.00	8	0.00
Non-Embedded—Speech-to-Text	37	0.01	31	0.01	8	0.00
Designated Supports						
Embedded—Color Contrast	293	0.07	256	0.06	1,385	0.35
Embedded—Masking	1,840	0.45	1,453	0.36	5,177	1.31
Embedded—Permissive Mode	1,848	0.45	1,789	0.44	28	0.01
Embedded—Print Size	341	0.08	247	0.06	171	0.04
Embedded—Text-to-Speech (for ELA except for Reading Passages)	13,787	3.38	13,011	3.22	10,598	2.67
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	2,977	0.73	2,876	0.71	2,655	0.67
Non-Embedded—Color Contrast	209	0.05	180	0.04	217	0.05
Non-Embedded—Color Overlay	197	0.05	162	0.04	172	0.04
Non-Embedded—Magnification	435	0.11	337	0.08	214	0.05
Non-Embedded—Noise Buffers	702	0.17	451	0.11	313	0.08
Non-Embedded—Read Aloud (for ELA except Reading Passages)	1,087	0.27	855	0.21	559	0.14
Non-Embedded—Scribe (for Reading and Listening)	260	0.06	225	0.06	176	0.04
Non-Embedded—Separate Setting	1,237	0.30	1,141	0.28	952	0.24
Non-Embedded—Translated Test Directions	1,389	0.34	1,445	0.36	1,759	0.44
Other						
Unlisted Resources	1	0.00	0	0.00	1	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	579	0.14	561	0.14	404	0.10

Table 2.B.5 Special Services Summary for ELA PT, Grades Three through Six—Students with Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	148	0.31	149	0.28	172	0.32	146	0.29
Embedded—Braille	12	0.03	4	0.01	11	0.02	16	0.03
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	973	2.05	1,190	2.26	1,258	2.34	1,215	2.39
Embedded—Text-to-Speech (for Reading Passages only)	7,539	15.86	8,635	16.40	9,196	17.13	12,011	23.60
Non-Embedded—Alternate Response Options	166	0.35	221	0.42	193	0.36	193	0.38
Non-Embedded—Print on Demand	175	0.37	253	0.48	304	0.57	226	0.44
Non-Embedded—Scribe (for ELA Writing)	1,128	2.37	1,091	2.07	978	1.82	620	1.22
Non-Embedded—Speech-to-Text	1,546	3.25	1,930	3.67	2,137	3.98	1,822	3.58
Designated Supports								
Embedded—Color Contrast	575	1.21	674	1.28	733	1.37	691	1.36
Embedded—Masking	3,101	6.52	4,113	7.81	4,352	8.11	4,275	8.40
Embedded—Permissive Mode	808	1.70	1,035	1.97	1,049	1.95	1,018	2.00
Embedded—Print Size	836	1.76	1,182	2.25	1,202	2.24	1,031	2.03
Embedded—Text-to-Speech (for ELA except for Reading Passages)	18,233	38.35	22,650	43.03	24,002	44.70	21,963	43.16
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	630	1.33	768	1.46	746	1.39	725	1.42
Non-Embedded—Color Contrast	366	0.77	553	1.05	593	1.10	629	1.24
Non-Embedded—Color Overlay	277	0.58	343	0.65	346	0.64	327	0.64
Non-Embedded—Magnification	606	1.27	858	1.63	858	1.60	810	1.59
Non-Embedded—Noise Buffers	2,605	5.48	2,928	5.56	3,203	5.97	2,281	4.48
Non-Embedded—Read Aloud (for ELA except Reading Passages)	9,195	19.34	11,206	21.29	11,860	22.09	8,988	17.66
Non-Embedded—Scribe (for Reading and Listening)	1,126	2.37	1,277	2.43	1,122	2.09	708	1.39
Non-Embedded—Separate Setting	13,526	28.45	17,063	32.42	18,538	34.53	16,088	31.61
Non-Embedded—Translated Test Directions	539	1.13	579	1.10	537	1.00	505	0.99
Other								
Unlisted Resources	99	0.21	118	0.22	108	0.20	38	0.07
Designated support or accommodation is in IEP	26,233	55.18	32,770	62.26	34,926	65.05	32,714	64.28
Designated support or accommodation is in Section 504 plan	176	0.37	226	0.43	233	0.43	208	0.41

Table 2.B.6 Special Services Summary for ELA, PT, Grades Seven, Eight, and Eleven—Students with Special Education Services

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	193	0.40	163	0.35	205	0.54
Embedded—Braille	13	0.03	16	0.03	9	0.02
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	968	1.98	959	2.07	383	1.01
Embedded—Text-to-Speech (for Reading Passages only)	13,373	27.40	11,555	24.96	4,189	11.07
Non-Embedded—Alternate Response Options	192	0.39	156	0.34	118	0.31
Non-Embedded—Print on Demand	184	0.38	139	0.30	123	0.33
Non-Embedded—Scribe (for ELA Writing)	364	0.75	281	0.61	149	0.39
Non-Embedded—Speech-to-Text	1,767	3.62	1,466	3.17	675	1.78
Designated Supports						
Embedded—Color Contrast	546	1.12	559	1.21	335	0.89
Embedded—Masking	3,793	7.77	3,469	7.49	1,709	4.52
Embedded—Permissive Mode	894	1.83	795	1.72	268	0.71
Embedded—Print Size	838	1.72	783	1.69	430	1.14
Embedded—Text-to-Speech (for ELA except for Reading Passages)	18,529	37.97	15,599	33.70	4,817	12.73
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	681	1.40	612	1.32	457	1.21
Non-Embedded—Color Contrast	492	1.01	490	1.06	154	0.41
Non-Embedded—Color Overlay	246	0.50	213	0.46	122	0.32
Non-Embedded—Magnification	686	1.41	598	1.29	334	0.88
Non-Embedded—Noise Buffers	1,559	3.19	1,283	2.77	455	1.20
Non-Embedded—Read Aloud (for ELA except Reading Passages)	6,673	13.67	5,880	12.70	2,588	6.84
Non-Embedded—Scribe (for Reading and Listening)	477	0.98	405	0.87	204	0.54
Non-Embedded—Separate Setting	14,230	29.16	13,315	28.76	9,368	24.76
Non-Embedded—Translated Test Directions	446	0.91	341	0.74	330	0.87
Other						
Unlisted Resources	73	0.15	54	0.12	29	0.08
Designated support or accommodation is in IEP	29,478	60.40	26,862	58.03	14,342	37.91
Designated support or accommodation is in Section 504 plan	135	0.28	167	0.36	80	0.21

Table 2.B.7 Special Services Summary for ELA, PT, Grades Three through Six—English-only (EO) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	109	0.04	100	0.04	111	0.04	97	0.04
Embedded—Braille	7	0.00	4	0.00	3	0.00	11	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	585	0.22	711	0.26	765	0.29	723	0.28
Embedded—Text-to-Speech (for Reading Passages only)	4,437	1.67	4,837	1.79	5,018	1.93	6,553	2.57
Non-Embedded—Alternate Response Options	111	0.04	138	0.05	126	0.05	117	0.05
Non-Embedded—Print on Demand	110	0.04	155	0.06	186	0.07	131	0.05
Non-Embedded—Scribe (for ELA Writing)	703	0.26	713	0.26	669	0.26	438	0.17
Non-Embedded—Speech-to-Text	933	0.35	1,154	0.43	1,260	0.48	1,070	0.42
Designated Supports								
Embedded—Color Contrast	596	0.22	639	0.24	643	0.25	590	0.23
Embedded—Masking	2,762	1.04	3,448	1.28	3,422	1.31	3,036	1.19
Embedded—Permissive Mode	1,724	0.65	1,958	0.73	1,903	0.73	1,943	0.76
Embedded—Print Size	880	0.33	910	0.34	955	0.37	788	0.31
Embedded—Text-to-Speech (for ELA except for Reading Passages)	21,540	8.09	23,135	8.58	21,837	8.38	18,796	7.37
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	240	0.09	256	0.09	189	0.07	298	0.12
Non-Embedded—Color Contrast	317	0.12	451	0.17	483	0.19	480	0.19
Non-Embedded—Color Overlay	366	0.14	425	0.16	399	0.15	374	0.15
Non-Embedded—Magnification	488	0.18	666	0.25	644	0.25	563	0.22
Non-Embedded—Noise Buffers	2,015	0.76	2,158	0.80	2,224	0.85	1,606	0.63
Non-Embedded—Read Aloud (for ELA except Reading Passages)	6,358	2.39	7,269	2.70	7,143	2.74	5,370	2.10
Non-Embedded—Scribe (for Reading and Listening)	914	0.34	1,018	0.38	888	0.34	598	0.23
Non-Embedded—Separate Setting	9,397	3.53	11,375	4.22	12,065	4.63	10,298	4.04
Non-Embedded—Translated Test Directions	181	0.07	253	0.09	232	0.09	198	0.08
Other								
Unlisted Resources	45	0.02	69	0.03	55	0.02	24	0.01
Designated support or accommodation is in IEP	15,375	5.77	18,685	6.93	19,603	7.52	18,217	7.14
Designated support or accommodation is in Section 504 plan	519	0.19	679	0.25	839	0.32	669	0.26

Table 2.B.8 Special Services Summary for ELA, PT, Grades Seven, Eight, and Eleven—EO Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	137	0.05	104	0.04	147	0.06
Embedded—Braille	8	0.00	7	0.00	4	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	617	0.25	597	0.24	215	0.09
Embedded—Text-to-Speech (for Reading Passages only)	7,506	2.98	6,397	2.61	2,301	0.96
Non-Embedded—Alternate Response Options	119	0.05	107	0.04	82	0.03
Non-Embedded—Print on Demand	95	0.04	85	0.03	68	0.03
Non-Embedded—Scribe (for ELA Writing)	268	0.11	207	0.08	97	0.04
Non-Embedded—Speech-to-Text	1,018	0.40	833	0.34	399	0.17
Designated Supports						
Embedded—Color Contrast	501	0.20	519	0.21	660	0.28
Embedded—Masking	2,779	1.10	2,482	1.01	3,108	1.30
Embedded—Permissive Mode	1,797	0.71	1,741	0.71	214	0.09
Embedded—Print Size	646	0.26	632	0.26	324	0.14
Embedded—Text-to-Speech (for ELA except for Reading Passages)	15,555	6.18	13,660	5.57	6,159	2.58
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	290	0.12	263	0.11	193	0.08
Non-Embedded—Color Contrast	396	0.16	352	0.14	203	0.08
Non-Embedded—Color Overlay	268	0.11	201	0.08	141	0.06
Non-Embedded—Magnification	507	0.20	433	0.18	292	0.12
Non-Embedded—Noise Buffers	1,174	0.47	948	0.39	465	0.19
Non-Embedded—Read Aloud (for ELA except Reading Passages)	3,819	1.52	3,252	1.33	1,502	0.63
Non-Embedded—Scribe (for Reading and Listening)	455	0.18	392	0.16	204	0.09
Non-Embedded—Separate Setting	8,978	3.57	8,489	3.46	6,155	2.58
Non-Embedded—Translated Test Directions	194	0.08	160	0.07	232	0.10
Other						
Unlisted Resources	47	0.02	23	0.01	16	0.01
Designated support or accommodation is in IEP	16,556	6.58	14,991	6.11	8,328	3.48
Designated support or accommodation is in Section 504 plan	563	0.22	565	0.23	393	0.16

Table 2.B.9 Special Services Summary for ELA, PT, Grades Three through Six—Initially Fluent English Proficient (IFEP) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.01	6	0.03	7	0.04	3	0.01
Embedded—Braille	0	0.00	0	0.00	2	0.01	0	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	7	0.04	12	0.06	16	0.09	18	0.09
Embedded—Text-to-Speech (for Reading Passages only)	48	0.29	61	0.33	77	0.41	113	0.55
Non-Embedded—Alternate Response Options	1	0.01	1	0.01	2	0.01	0	0.00
Non-Embedded—Print on Demand	0	0.00	5	0.03	3	0.02	3	0.01
Non-Embedded—Scribe (for ELA Writing)	14	0.08	8	0.04	10	0.05	13	0.06
Non-Embedded—Speech-to-Text	15	0.09	25	0.13	16	0.09	17	0.08
Designated Supports								
Embedded—Color Contrast	11	0.07	18	0.10	12	0.06	16	0.08
Embedded—Masking	81	0.49	85	0.46	65	0.35	74	0.36
Embedded—Permissive Mode	38	0.23	53	0.29	59	0.32	57	0.28
Embedded—Print Size	30	0.18	17	0.09	30	0.16	14	0.07
Embedded—Text-to-Speech (for ELA except for Reading Passages)	605	3.66	637	3.43	616	3.31	540	2.63
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	25	0.15	28	0.15	18	0.10	23	0.11
Non-Embedded—Color Contrast	5	0.03	5	0.03	10	0.05	9	0.04
Non-Embedded—Color Overlay	5	0.03	10	0.05	8	0.04	12	0.06
Non-Embedded—Magnification	9	0.05	12	0.06	11	0.06	13	0.06
Non-Embedded—Noise Buffers	48	0.29	41	0.22	58	0.31	39	0.19
Non-Embedded—Read Aloud (for ELA except Reading Passages)	119	0.72	140	0.75	128	0.69	115	0.56
Non-Embedded—Scribe (for Reading and Listening)	14	0.08	13	0.07	15	0.08	11	0.05
Non-Embedded—Separate Setting	146	0.88	203	1.09	219	1.18	203	0.99
Non-Embedded—Translated Test Directions	13	0.08	21	0.11	13	0.07	11	0.05
Other								
Unlisted Resources	1	0.01	2	0.01	1	0.01	1	0.00
Designated support or accommodation is in IEP	200	1.21	285	1.53	321	1.72	357	1.74
Designated support or accommodation is in Section 504 plan	1	0.01	13	0.07	17	0.09	19	0.09

Table 2.B.10 Special Services Summary for ELA, PT, Grades Seven, Eight, and Eleven—IFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	8	0.04	4	0.02	5	0.01
Embedded—Braille	0	0.00	0	0.00	4	0.01
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	17	0.08	8	0.04	14	0.04
Embedded—Text-to-Speech (for Reading Passages only)	136	0.62	103	0.49	94	0.28
Non-Embedded—Alternate Response Options	5	0.02	0	0.00	6	0.02
Non-Embedded—Print on Demand	1	0.00	1	0.00	7	0.02
Non-Embedded—Scribe (for ELA Writing)	3	0.01	3	0.01	11	0.03
Non-Embedded—Speech-to-Text	16	0.07	9	0.04	15	0.04
Designated Supports						
Embedded—Color Contrast	13	0.06	21	0.10	104	0.31
Embedded—Masking	67	0.30	73	0.35	506	1.49
Embedded—Permissive Mode	100	0.45	77	0.37	10	0.03
Embedded—Print Size	24	0.11	13	0.06	30	0.09
Embedded—Text-to-Speech (for ELA except for Reading Passages)	549	2.49	461	2.19	823	2.43
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	19	0.09	20	0.09	9	0.03
Non-Embedded—Color Contrast	10	0.05	6	0.03	3	0.01
Non-Embedded—Color Overlay	7	0.03	3	0.01	3	0.01
Non-Embedded—Magnification	17	0.08	9	0.04	14	0.04
Non-Embedded—Noise Buffers	40	0.18	26	0.12	21	0.06
Non-Embedded—Read Aloud (for ELA except Reading Passages)	90	0.41	77	0.37	55	0.16
Non-Embedded—Scribe (for Reading and Listening)	7	0.03	5	0.02	9	0.03
Non-Embedded—Separate Setting	227	1.03	164	0.78	258	0.76
Non-Embedded—Translated Test Directions	9	0.04	4	0.02	8	0.02
Other						
Unlisted Resources	2	0.01	0	0.00	0	0.00
Designated support or accommodation is in IEP	343	1.56	283	1.34	376	1.11
Designated support or accommodation is in Section 504 plan	14	0.06	16	0.08	16	0.05

Table 2.B.11 Special Services Summary for ELA, PT, Grades Three through Six—English Learner (EL) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	36	0.03	41	0.03	45	0.05	44	0.06
Embedded—Braille	5	0.00	1	0.00	5	0.01	3	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	396	0.30	491	0.40	493	0.51	466	0.59
Embedded—Text-to-Speech (for Reading Passages only)	3,144	2.36	3,807	3.10	4,040	4.17	5,078	6.38
Non-Embedded—Alternate Response Options	56	0.04	86	0.07	57	0.06	77	0.10
Non-Embedded—Print on Demand	66	0.05	92	0.08	104	0.11	86	0.11
Non-Embedded—Scribe (for ELA Writing)	423	0.32	391	0.32	316	0.33	162	0.20
Non-Embedded—Speech-to-Text	610	0.46	777	0.63	869	0.90	717	0.90
Designated Supports								
Embedded—Color Contrast	493	0.37	493	0.40	362	0.37	402	0.50
Embedded—Masking	2,533	1.90	2,809	2.29	2,468	2.55	2,214	2.78
Embedded—Permissive Mode	554	0.42	644	0.53	554	0.57	517	0.65
Embedded—Print Size	657	0.49	634	0.52	602	0.62	397	0.50
Embedded—Text-to-Speech (for ELA except for Reading Passages)	23,032	17.32	23,064	18.81	19,453	20.07	15,625	19.62
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	5,815	4.37	4,748	3.87	3,698	3.81	3,522	4.42
Non-Embedded—Color Contrast	275	0.21	347	0.28	267	0.28	285	0.36
Non-Embedded—Color Overlay	359	0.27	322	0.26	237	0.24	218	0.27
Non-Embedded—Magnification	585	0.44	599	0.49	403	0.42	389	0.49
Non-Embedded—Noise Buffers	1,541	1.16	1,618	1.32	1,519	1.57	1,012	1.27
Non-Embedded—Read Aloud (for ELA except Reading Passages)	5,419	4.07	5,924	4.83	5,689	5.87	4,408	5.54
Non-Embedded—Scribe (for Reading and Listening)	591	0.44	566	0.46	403	0.42	250	0.31
Non-Embedded—Separate Setting	5,539	4.16	6,994	5.70	7,259	7.49	6,166	7.74
Non-Embedded—Translated Test Directions	3,192	2.40	2,473	2.02	1,822	1.88	1,795	2.25
Other								
Unlisted Resources	54	0.04	48	0.04	55	0.06	15	0.02
Designated support or accommodation is in IEP	10,389	7.81	13,243	10.80	13,959	14.40	12,542	15.75
Designated support or accommodation is in Section 504 plan	190	0.14	180	0.15	181	0.19	117	0.15

Table 2.B.12 Special Services Summary for ELA, PT, Grades Seven, Eight, and Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	41	0.06	50	0.09	48	0.12
Embedded—Braille	3	0.00	3	0.01	2	0.01
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	315	0.49	310	0.56	114	0.29
Embedded—Text-to-Speech (for Reading Passages only)	5,065	7.90	4,198	7.64	1,356	3.44
Non-Embedded—Alternate Response Options	54	0.08	36	0.07	20	0.05
Non-Embedded—Print on Demand	74	0.12	40	0.07	32	0.08
Non-Embedded—Scribe (for ELA Writing)	94	0.15	66	0.12	30	0.08
Non-Embedded—Speech-to-Text	669	1.04	544	0.99	206	0.52
Designated Supports						
Embedded—Color Contrast	236	0.37	188	0.34	287	0.73
Embedded—Masking	2,044	3.19	1,613	2.94	1,309	3.32
Embedded—Permissive Mode	410	0.64	327	0.60	51	0.13
Embedded—Print Size	387	0.60	275	0.50	132	0.33
Embedded—Text-to-Speech (for ELA except for Reading Passages)	11,436	17.84	9,173	16.69	4,362	11.07
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	2,932	4.57	2,782	5.06	2,523	6.40
Non-Embedded—Color Contrast	191	0.30	184	0.33	47	0.12
Non-Embedded—Color Overlay	89	0.14	81	0.15	40	0.10
Non-Embedded—Magnification	433	0.68	317	0.58	107	0.27
Non-Embedded—Noise Buffers	755	1.18	492	0.90	118	0.30
Non-Embedded—Read Aloud (for ELA except Reading Passages)	3,226	5.03	2,687	4.89	1,170	2.97
Non-Embedded—Scribe (for Reading and Listening)	175	0.27	129	0.23	54	0.14
Non-Embedded—Separate Setting	5,028	7.84	4,254	7.74	2,587	6.56
Non-Embedded—Translated Test Directions	1,479	2.31	1,433	2.61	1,515	3.84
Other						
Unlisted Resources	24	0.04	24	0.04	10	0.03
Designated support or accommodation is in IEP	10,441	16.29	8,902	16.20	3,840	9.74
Designated support or accommodation is in Section 504 plan	79	0.12	75	0.14	25	0.06

Table 2.B.13 Special Services Summary for ELA, PT, Grades Three through Six—Reclassified Fluent English Proficient (RFEP) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	3	0.01	2	0.00	9	0.01	7	0.01
Embedded—Braille	0	0.00	0	0.00	1	0.00	2	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	5	0.01	23	0.04	32	0.04	54	0.05
Embedded—Text-to-Speech (for Reading Passages only)	59	0.15	115	0.19	238	0.27	471	0.46
Non-Embedded—Alternate Response Options	2	0.00	6	0.01	9	0.01	7	0.01
Non-Embedded—Print on Demand	3	0.01	3	0.00	14	0.02	9	0.01
Non-Embedded—Scribe (for ELA Writing)	13	0.03	19	0.03	23	0.03	23	0.02
Non-Embedded—Speech-to-Text	15	0.04	23	0.04	38	0.04	69	0.07
Designated Supports								
Embedded—Color Contrast	36	0.09	96	0.16	124	0.14	180	0.17
Embedded—Masking	282	0.70	383	0.62	621	0.71	579	0.56
Embedded—Permissive Mode	196	0.49	255	0.42	366	0.42	341	0.33
Embedded—Print Size	88	0.22	58	0.09	181	0.21	97	0.09
Embedded—Text-to-Speech (for ELA except for Reading Passages)	2,219	5.54	3,391	5.52	4,740	5.45	4,844	4.70
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	348	0.87	474	0.77	433	0.50	586	0.57
Non-Embedded—Color Contrast	24	0.06	54	0.09	92	0.11	120	0.12
Non-Embedded—Color Overlay	63	0.16	107	0.17	145	0.17	165	0.16
Non-Embedded—Magnification	43	0.11	73	0.12	112	0.13	144	0.14
Non-Embedded—Noise Buffers	110	0.27	153	0.25	251	0.29	273	0.27
Non-Embedded—Read Aloud (for ELA except Reading Passages)	297	0.74	373	0.61	579	0.67	727	0.71
Non-Embedded—Scribe (for Reading and Listening)	45	0.11	55	0.09	90	0.10	92	0.09
Non-Embedded—Separate Setting	204	0.51	379	0.62	686	0.79	964	0.94
Non-Embedded—Translated Test Directions	91	0.23	107	0.17	194	0.22	203	0.20
Other								
Unlisted Resources	0	0.00	1	0.00	2	0.00	3	0.00
Designated support or accommodation is in IEP	242	0.60	535	0.87	1,021	1.17	1,582	1.54
Designated support or accommodation is in Section 504 plan	22	0.05	29	0.05	46	0.05	47	0.05

Table 2.B.14 Special Services Summary for ELA, PT, Grades Seven, Eight, and Eleven—RFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	9	0.01	6	0.00	6	0.00
Embedded—Braille	1	0.00	6	0.00	0	0.00
Embedded—Closed Captioning	0	0.00	0	0.00	0	0.00
Embedded—Streamlining	56	0.05	83	0.06	51	0.04
Embedded—Text-to-Speech (for Reading Passages only)	883	0.75	1,079	0.84	503	0.42
Non-Embedded—Alternate Response Options	17	0.01	15	0.01	14	0.01
Non-Embedded—Print on Demand	17	0.01	20	0.02	22	0.02
Non-Embedded—Scribe (for ELA Writing)	16	0.01	19	0.01	18	0.01
Non-Embedded—Speech-to-Text	99	0.08	111	0.09	61	0.05
Designated Supports						
Embedded—Color Contrast	89	0.08	87	0.07	668	0.55
Embedded—Masking	740	0.63	748	0.58	1,950	1.61
Embedded—Permissive Mode	433	0.37	434	0.34	21	0.02
Embedded—Print Size	121	0.10	110	0.09	114	0.09
Embedded—Text-to-Speech (for ELA except for Reading Passages)	4,739	4.01	5,267	4.10	4,054	3.35
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	390	0.33	386	0.30	358	0.30
Non-Embedded—Color Contrast	104	0.09	127	0.10	118	0.10
Non-Embedded—Color Overlay	79	0.07	90	0.07	109	0.09
Non-Embedded—Magnification	163	0.14	176	0.14	134	0.11
Non-Embedded—Noise Buffers	292	0.25	267	0.21	163	0.13
Non-Embedded—Read Aloud (for ELA except Reading Passages)	621	0.52	705	0.55	412	0.34
Non-Embedded—Scribe (for Reading and Listening)	98	0.08	104	0.08	112	0.09
Non-Embedded—Separate Setting	1,216	1.03	1,532	1.19	1,310	1.08
Non-Embedded—Translated Test Directions	138	0.12	162	0.13	319	0.26
Other						
Unlisted Resources	1	0.00	7	0.01	4	0.00
Designated support or accommodation is in IEP	2,118	1.79	2,668	2.08	1,792	1.48
Designated support or accommodation is in Section 504 plan	57	0.05	71	0.06	49	0.04

Table 2.B.15 Special Services Summary for Mathematics, PT, Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	152	0.03	147	0.03	178	0.04	151	0.03
Embedded—Braille	10	0.00	2	0.00	10	0.00	15	0.00
Embedded—Streamlining	1,005	0.22	1,237	0.26	1,317	0.28	1,261	0.27
Non-Embedded—Abacus	183	0.04	178	0.04	168	0.04	112	0.02
Non-Embedded—Alternate Response Options	171	0.04	232	0.05	193	0.04	192	0.04
Non-Embedded—Calculator	1,198	0.26	2,699	0.57	3,838	0.82	8,008	1.74
Non-Embedded—Multiplication Table	N/A	N/A	13,633	2.87	17,191	3.69	15,683	3.40
Non-Embedded—Print on Demand	180	0.04	255	0.05	314	0.07	228	0.05
Non-Embedded—Speech-to-Text	1,574	0.34	1,968	0.41	2,163	0.46	1,861	0.40
Designated Supports								
Embedded—Color Contrast	1,128	0.25	1,248	0.26	1,122	0.24	1,180	0.26
Embedded—Masking	5,656	1.23	6,757	1.42	6,593	1.42	5,934	1.29
Embedded—Permissive Mode	2,479	0.54	2,896	0.61	2,886	0.62	2,826	0.61
Embedded—Print Size	1,660	0.36	1,598	0.34	1,753	0.38	1,257	0.27
Embedded—Text-to-Speech	47,738	10.40	50,464	10.63	46,494	9.98	39,951	8.67
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	3,537	0.77	2,927	0.62	2,458	0.53	2,178	0.47
Embedded—Translations (glossary)	10,865	2.37	10,083	2.12	8,326	1.79	7,535	1.64
Embedded—Turn off any Universal Tool	1	0.00	0	0.00	4	0.00	1	0.00
Non-Embedded—Color Contrast	607	0.13	868	0.18	847	0.18	878	0.19
Non-Embedded—Color Overlay	775	0.17	870	0.18	782	0.17	757	0.16
Non-Embedded—Magnification	1,108	0.24	1,333	0.28	1,165	0.25	1,096	0.24
Non-Embedded—Noise Buffers	3,714	0.81	3,974	0.84	4,039	0.87	2,939	0.64
Non-Embedded—Read Aloud	12,240	2.67	13,801	2.91	13,631	2.93	10,674	2.32
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	1,079	0.24	928	0.20	756	0.16	781	0.17
Non-Embedded—Scribe	1,568	0.34	1,655	0.35	1,406	0.30	939	0.20
Non-Embedded—Separate Setting	15,305	3.33	18,971	3.99	20,250	4.35	17,650	3.83
Non-Embedded—Translated Test Directions	3,700	0.81	3,115	0.66	2,512	0.54	2,536	0.55
Other								
Unlisted Resources	15	0.00	26	0.01	29	0.01	21	0.00
Designated support or accommodation is in IEP	26,145	5.70	33,357	7.02	35,848	7.70	33,912	7.36
Designated support or accommodation is in Section 504 plan	741	0.16	930	0.20	1,130	0.24	891	0.19

Table 2.B.16 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	198	0.04	165	0.04	206	0.05
Embedded—Braille	14	0.00	15	0.00	10	0.00
Embedded—Streamlining	1,000	0.22	991	0.22	389	0.09
Non-Embedded—Abacus	70	0.02	59	0.01	65	0.02
Non-Embedded—Alternate Response Options	195	0.04	159	0.04	124	0.03
Non-Embedded—Calculator	9,189	2.00	8,921	1.98	5,558	1.29
Non-Embedded—Multiplication Table	12,367	2.70	10,006	2.22	2,191	0.51
Non-Embedded—Print on Demand	191	0.04	147	0.03	128	0.03
Non-Embedded—Speech-to-Text	1,801	0.39	1,513	0.34	674	0.16
Designated Supports						
Embedded—Color Contrast	834	0.18	796	0.18	1,712	0.40
Embedded—Masking	5,659	1.23	4,925	1.09	6,878	1.59
Embedded—Permissive Mode	2,715	0.59	2,523	0.56	279	0.06
Embedded—Print Size	1,116	0.24	992	0.22	618	0.14
Embedded—Text-to-Speech	32,323	7.05	29,009	6.42	14,634	3.38
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	2,230	0.49	2,223	0.49	2,006	0.46
Embedded—Translations (glossary)	6,204	1.35	5,528	1.22	5,878	1.36
Embedded—Turn off any Universal Tool	3	0.00	1	0.00	0	0.00
Non-Embedded—Color Contrast	707	0.15	665	0.15	370	0.09
Non-Embedded—Color Overlay	445	0.10	375	0.08	294	0.07
Non-Embedded—Magnification	1,125	0.25	923	0.20	548	0.13
Non-Embedded—Noise Buffers	2,267	0.49	1,740	0.39	765	0.18
Non-Embedded—Read Aloud	7,849	1.71	6,867	1.52	3,174	0.73
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	771	0.17	686	0.15	526	0.12
Non-Embedded—Scribe	730	0.16	626	0.14	378	0.09
Non-Embedded—Separate Setting	15,480	3.38	14,455	3.20	10,403	2.41
Non-Embedded—Translated Test Directions	2,244	0.49	2,175	0.48	2,279	0.53
Other						
Unlisted Resources	20	0.00	12	0.00	18	0.00
Designated support or accommodation is in IEP	30,475	6.65	27,833	6.16	15,510	3.59
Designated support or accommodation is in Section 504 plan	734	0.16	769	0.17	522	0.12

Table 2.B.17 Special Services Summary for Mathematics, PT, Grades Three through Six—Students with No Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.00	0	0.00	1	0.00	5	0.00
Embedded—Braille	0	0.00	1	0.00	0	0.00	0	0.00
Embedded—Streamlining	22	0.01	50	0.01	48	0.01	47	0.01
Non-Embedded—Abacus	4	0.00	5	0.00	1	0.00	2	0.00
Non-Embedded—Alternate Response Options	4	0.00	10	0.00	2	0.00	7	0.00
Non-Embedded—Calculator	22	0.01	52	0.01	62	0.02	125	0.03
Non-Embedded—Multiplication Table	N/A	N/A	208	0.05	288	0.07	238	0.06
Non-Embedded—Print on Demand	5	0.00	2	0.00	3	0.00	3	0.00
Non-Embedded—Speech-to-Text	27	0.01	50	0.01	46	0.01	54	0.01
Designated Supports								
Embedded—Color Contrast	554	0.13	585	0.14	411	0.10	503	0.12
Embedded—Masking	2,562	0.62	2,637	0.62	2,240	0.54	1,668	0.41
Embedded—Permissive Mode	1,696	0.41	1,887	0.45	1,853	0.45	1,851	0.45
Embedded—Print Size	827	0.20	440	0.10	569	0.14	264	0.06
Embedded—Text-to-Speech	29,130	7.08	27,386	6.48	22,266	5.40	17,615	4.30
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	3,322	0.81	2,751	0.65	2,279	0.55	1,970	0.48
Embedded—Translations (glossary)	10,035	2.44	9,172	2.17	7,429	1.80	6,598	1.61
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	239	0.06	310	0.07	260	0.06	255	0.06
Non-Embedded—Color Overlay	498	0.12	523	0.12	443	0.11	441	0.11
Non-Embedded—Magnification	504	0.12	491	0.12	313	0.08	298	0.07
Non-Embedded—Noise Buffers	1,099	0.27	1,053	0.25	855	0.21	646	0.16
Non-Embedded—Read Aloud	3,070	0.75	2,597	0.61	1,760	0.43	1,672	0.41
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	882	0.21	662	0.16	507	0.12	548	0.13
Non-Embedded—Scribe	451	0.11	384	0.09	284	0.07	242	0.06
Non-Embedded—Separate Setting	1,808	0.44	1,931	0.46	1,751	0.42	1,574	0.38
Non-Embedded—Translated Test Directions	3,179	0.77	2,550	0.60	1,983	0.48	2,048	0.50
Other								
Unlisted Resources	1	0.00	2	0.00	5	0.00	5	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	569	0.14	699	0.17	889	0.22	676	0.16

**Table 2.B.18 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—
Students with No Special Education Services**

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	2	0.00	1	0.00	1	0.00
Embedded—Braille	0	0.00	0	0.00	1	0.00
Embedded—Streamlining	42	0.01	37	0.01	9	0.00
Non-Embedded—Abacus	0	0.00	1	0.00	0	0.00
Non-Embedded—Alternate Response Options	3	0.00	3	0.00	4	0.00
Non-Embedded—Calculator	132	0.03	146	0.04	82	0.02
Non-Embedded—Multiplication Table	172	0.04	142	0.04	39	0.01
Non-Embedded—Print on Demand	3	0.00	7	0.00	6	0.00
Non-Embedded—Speech-to-Text	36	0.01	31	0.01	8	0.00
Designated Supports						
Embedded—Color Contrast	289	0.07	255	0.06	1,384	0.35
Embedded—Masking	1,876	0.46	1,464	0.36	5,185	1.31
Embedded—Permissive Mode	1,860	0.45	1,785	0.44	30	0.01
Embedded—Print Size	332	0.08	252	0.06	175	0.04
Embedded—Text-to-Speech	12,995	3.17	12,649	3.12	9,771	2.47
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	2,072	0.51	2,049	0.51	1,868	0.47
Embedded—Translations (glossary)	5,446	1.33	4,823	1.19	5,162	1.31
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	212	0.05	180	0.04	219	0.06
Non-Embedded—Color Overlay	197	0.05	161	0.04	172	0.04
Non-Embedded—Magnification	440	0.11	336	0.08	215	0.05
Non-Embedded—Noise Buffers	710	0.17	453	0.11	313	0.08
Non-Embedded—Read Aloud	1,178	0.29	1,013	0.25	598	0.15
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	595	0.15	563	0.14	461	0.12
Non-Embedded—Scribe	262	0.06	230	0.06	180	0.05
Non-Embedded—Separate Setting	1,248	0.30	1,162	0.29	1,001	0.25
Non-Embedded—Translated Test Directions	1,822	0.44	1,838	0.45	1,945	0.49
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	590	0.14	591	0.15	436	0.11

Table 2.B.19 Special Services Summary for Mathematics, PT, Grades Three through Six—Students with Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	150	0.32	147	0.28	177	0.33	146	0.29
Embedded—Braille	10	0.02	1	0.00	10	0.02	15	0.03
Embedded—Streamlining	983	2.08	1,187	2.26	1,269	2.37	1,214	2.39
Non-Embedded—Abacus	179	0.38	173	0.33	167	0.31	110	0.22
Non-Embedded—Alternate Response Options	167	0.35	222	0.42	191	0.36	185	0.36
Non-Embedded—Calculator	1,176	2.48	2,647	5.05	3,776	7.06	7,883	15.53
Non-Embedded—Multiplication Table	N/A	N/A	13,425	25.60	16,903	31.59	15,445	30.43
Non-Embedded—Print on Demand	175	0.37	253	0.48	311	0.58	225	0.44
Non-Embedded—Speech-to-Text	1,547	3.27	1,918	3.66	2,117	3.96	1,807	3.56
Designated Supports								
Embedded—Color Contrast	574	1.21	663	1.26	711	1.33	677	1.33
Embedded—Masking	3,094	6.53	4,120	7.85	4,353	8.14	4,266	8.40
Embedded—Permissive Mode	783	1.65	1,009	1.92	1,033	1.93	975	1.92
Embedded—Print Size	833	1.76	1,158	2.21	1,184	2.21	993	1.96
Embedded—Text-to-Speech	18,608	39.29	23,078	44.00	24,228	45.29	22,336	44.01
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	215	0.45	176	0.34	179	0.33	208	0.41
Embedded—Translations (glossary)	830	1.75	911	1.74	897	1.68	937	1.85
Embedded—Turn off any Universal Tool	1	0.00	0	0.00	4	0.01	1	0.00
Non-Embedded—Color Contrast	368	0.78	558	1.06	587	1.10	623	1.23
Non-Embedded—Color Overlay	277	0.58	347	0.66	339	0.63	316	0.62
Non-Embedded—Magnification	604	1.28	842	1.61	852	1.59	798	1.57
Non-Embedded—Noise Buffers	2,615	5.52	2,921	5.57	3,184	5.95	2,293	4.52
Non-Embedded—Read Aloud	9,170	19.36	11,204	21.36	11,871	22.19	9,002	17.74
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	197	0.42	266	0.51	249	0.47	233	0.46
Non-Embedded—Scribe	1,117	2.36	1,271	2.42	1,122	2.10	697	1.37
Non-Embedded—Separate Setting	13,497	28.50	17,040	32.49	18,499	34.58	16,076	31.67
Non-Embedded—Translated Test Directions	521	1.10	565	1.08	529	0.99	488	0.96
Other								
Unlisted Resources	14	0.03	24	0.05	24	0.04	16	0.03
Designated support or accommodation is in IEP	26,145	55.21	33,357	63.60	35,848	67.00	33,912	66.81
Designated support or accommodation is in Section 504 plan	172	0.36	231	0.44	241	0.45	215	0.42

**Table 2.B.20 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—
Students with Special Education Services**

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	196	0.40	164	0.36	205	0.55
Embedded—Braille	14	0.03	15	0.03	9	0.02
Embedded—Streamlining	958	1.97	954	2.07	380	1.02
Non-Embedded—Abacus	70	0.14	58	0.13	65	0.17
Non-Embedded—Alternate Response Options	192	0.40	156	0.34	120	0.32
Non-Embedded—Calculator	9,057	18.64	8,775	19.04	5,476	14.64
Non-Embedded—Multiplication Table	12,195	25.10	9,864	21.40	2,152	5.76
Non-Embedded—Print on Demand	188	0.39	140	0.30	122	0.33
Non-Embedded—Speech-to-Text	1,765	3.63	1,482	3.22	666	1.78
Designated Supports						
Embedded—Color Contrast	545	1.12	541	1.17	328	0.88
Embedded—Masking	3,783	7.79	3,461	7.51	1,693	4.53
Embedded—Permissive Mode	855	1.76	738	1.60	249	0.67
Embedded—Print Size	784	1.61	740	1.61	443	1.18
Embedded—Text-to-Speech	19,328	39.78	16,360	35.49	4,863	13.01
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	158	0.33	174	0.38	138	0.37
Embedded—Translations (glossary)	758	1.56	705	1.53	716	1.91
Embedded—Turn off any Universal Tool	3	0.01	1	0.00	0	0.00
Non-Embedded—Color Contrast	495	1.02	485	1.05	151	0.40
Non-Embedded—Color Overlay	248	0.51	214	0.46	122	0.33
Non-Embedded—Magnification	685	1.41	587	1.27	333	0.89
Non-Embedded—Noise Buffers	1,557	3.20	1,287	2.79	452	1.21
Non-Embedded—Read Aloud	6,671	13.73	5,854	12.70	2,576	6.89
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	176	0.36	123	0.27	65	0.17
Non-Embedded—Scribe	468	0.96	396	0.86	198	0.53
Non-Embedded—Separate Setting	14,232	29.29	13,293	28.84	9,402	25.14
Non-Embedded—Translated Test Directions	422	0.87	337	0.73	334	0.89
Other						
Unlisted Resources	20	0.04	12	0.03	18	0.05
Designated support or accommodation is in IEP	30,475	62.72	27,833	60.38	15,510	41.48
Designated support or accommodation is in Section 504 plan	144	0.30	178	0.39	86	0.23

Table 2.B.21 Special Services Summary for Mathematics, PT, Grades Three through Six—EO Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	110	0.04	100	0.04	117	0.04	97	0.04
Embedded—Braille	5	0.00	1	0.00	2	0.00	10	0.00
Embedded—Streamlining	593	0.22	707	0.26	766	0.29	720	0.28
Non-Embedded—Abacus	106	0.04	86	0.03	92	0.04	54	0.02
Non-Embedded—Alternate Response Options	109	0.04	137	0.05	127	0.05	113	0.04
Non-Embedded—Calculator	717	0.27	1,587	0.59	2,261	0.87	4,685	1.84
Non-Embedded—Multiplication Table	N/A	N/A	7,724	2.87	9,614	3.69	8,688	3.41
Non-Embedded—Print on Demand	111	0.04	154	0.06	192	0.07	131	0.05
Non-Embedded—Speech-to-Text	932	0.35	1,153	0.43	1,253	0.48	1,065	0.42
Designated Supports								
Embedded—Color Contrast	601	0.23	644	0.24	630	0.24	577	0.23
Embedded—Masking	2,754	1.03	3,450	1.28	3,430	1.32	3,044	1.19
Embedded—Permissive Mode	1,697	0.64	1,933	0.72	1,883	0.72	1,914	0.75
Embedded—Print Size	870	0.33	891	0.33	937	0.36	759	0.30
Embedded—Text-to-Speech	21,975	8.26	23,400	8.70	21,942	8.43	19,062	7.48
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	461	0.17	398	0.15	258	0.10	89	0.03
Embedded—Translations (glossary)	251	0.09	227	0.08	176	0.07	149	0.06
Embedded—Turn off any Universal Tool	1	0.00	0	0.00	1	0.00	1	0.00
Non-Embedded—Color Contrast	320	0.12	451	0.17	482	0.19	464	0.18
Non-Embedded—Color Overlay	366	0.14	426	0.16	396	0.15	367	0.14
Non-Embedded—Magnification	487	0.18	661	0.25	642	0.25	554	0.22
Non-Embedded—Noise Buffers	2,018	0.76	2,145	0.80	2,210	0.85	1,606	0.63
Non-Embedded—Read Aloud	6,353	2.39	7,269	2.70	7,153	2.75	5,394	2.12
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	125	0.05	183	0.07	166	0.06	155	0.06
Non-Embedded—Scribe	912	0.34	1,008	0.37	888	0.34	590	0.23
Non-Embedded—Separate Setting	9,392	3.53	11,354	4.22	12,050	4.63	10,308	4.05
Non-Embedded—Translated Test Directions	179	0.07	249	0.09	233	0.09	197	0.08
Other								
Unlisted Resources	10	0.00	19	0.01	20	0.01	13	0.01
Designated support or accommodation is in IEP	15,250	5.73	19,010	7.06	20,187	7.75	18,944	7.43
Designated support or accommodation is in Section 504 plan	525	0.20	693	0.26	877	0.34	702	0.28

Table 2.B.22 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—EO Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	140	0.06	105	0.04	146	0.06
Embedded—Braille	8	0.00	7	0.00	4	0.00
Embedded—Streamlining	606	0.24	587	0.24	215	0.09
Non-Embedded—Abacus	40	0.02	31	0.01	39	0.02
Non-Embedded—Alternate Response Options	119	0.05	107	0.04	85	0.04
Non-Embedded—Calculator	5,435	2.16	5,300	2.17	3,373	1.42
Non-Embedded—Multiplication Table	7,022	2.80	5,660	2.31	1,213	0.51
Non-Embedded—Print on Demand	99	0.04	86	0.04	66	0.03
Non-Embedded—Speech-to-Text	1,012	0.40	840	0.34	392	0.17
Designated Supports						
Embedded—Color Contrast	498	0.20	507	0.21	655	0.28
Embedded—Masking	2,772	1.10	2,482	1.01	3,083	1.30
Embedded—Permissive Mode	1,764	0.70	1,690	0.69	202	0.09
Embedded—Print Size	605	0.24	610	0.25	329	0.14
Embedded—Text-to-Speech	15,952	6.35	14,136	5.77	6,175	2.60
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	60	0.02	58	0.02	6	0.00
Embedded—Translations (glossary)	82	0.03	99	0.04	128	0.05
Embedded—Turn off any Universal Tool	2	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	397	0.16	351	0.14	201	0.08
Non-Embedded—Color Overlay	268	0.11	202	0.08	141	0.06
Non-Embedded—Magnification	503	0.20	426	0.17	292	0.12
Non-Embedded—Noise Buffers	1,175	0.47	950	0.39	466	0.20
Non-Embedded—Read Aloud	3,822	1.52	3,272	1.34	1,494	0.63
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	132	0.05	93	0.04	91	0.04
Non-Embedded—Scribe	446	0.18	386	0.16	197	0.08
Non-Embedded—Separate Setting	8,988	3.58	8,481	3.46	6,162	2.60
Non-Embedded—Translated Test Directions	193	0.08	157	0.06	234	0.10
Other						
Unlisted Resources	15	0.01	8	0.00	7	0.00
Designated support or accommodation is in IEP	17,185	6.84	15,559	6.36	8,843	3.73
Designated support or accommodation is in Section 504 plan	568	0.23	591	0.24	411	0.17

Table 2.B.23 Special Services Summary for Mathematics, PT, Grades Three through Six—IFEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.01	6	0.03	7	0.04	3	0.01
Embedded—Braille	0	0.00	0	0.00	2	0.01	0	0.00
Embedded—Streamlining	6	0.04	12	0.06	17	0.09	18	0.09
Non-Embedded—Abacus	1	0.01	2	0.01	1	0.01	1	0.00
Non-Embedded—Alternate Response Options	1	0.01	1	0.01	2	0.01	0	0.00
Non-Embedded—Calculator	11	0.07	12	0.06	22	0.12	66	0.32
Non-Embedded—Multiplication Table	N/A	N/A	113	0.61	139	0.75	155	0.76
Non-Embedded—Print on Demand	0	0.00	5	0.03	3	0.02	2	0.01
Non-Embedded—Speech-to-Text	14	0.08	25	0.13	16	0.09	18	0.09
Designated Supports								
Embedded—Color Contrast	11	0.07	18	0.10	12	0.06	18	0.09
Embedded—Masking	81	0.49	85	0.46	66	0.35	76	0.37
Embedded—Permissive Mode	38	0.23	53	0.29	60	0.32	57	0.28
Embedded—Print Size	30	0.18	17	0.09	30	0.16	14	0.07
Embedded—Text-to-Speech	607	3.67	645	3.47	617	3.31	550	2.68
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	56	0.34	41	0.22	28	0.15	14	0.07
Embedded—Translations (glossary)	43	0.26	44	0.24	39	0.21	30	0.15
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.01	0	0.00
Non-Embedded—Color Contrast	5	0.03	5	0.03	10	0.05	9	0.04
Non-Embedded—Color Overlay	5	0.03	10	0.05	8	0.04	12	0.06
Non-Embedded—Magnification	8	0.05	11	0.06	11	0.06	13	0.06
Non-Embedded—Noise Buffers	48	0.29	42	0.23	58	0.31	42	0.20
Non-Embedded—Read Aloud	117	0.71	141	0.76	128	0.69	116	0.57
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	11	0.07	8	0.04	7	0.04	1	0.00
Non-Embedded—Scribe	13	0.08	12	0.06	15	0.08	11	0.05
Non-Embedded—Separate Setting	143	0.86	202	1.09	220	1.18	209	1.02
Non-Embedded—Translated Test Directions	12	0.07	22	0.12	13	0.07	11	0.05
Other								
Unlisted Resources	0	0.00	0	0.00	1	0.01	0	0.00
Designated support or accommodation is in IEP	194	1.17	287	1.54	333	1.79	382	1.86
Designated support or accommodation is in Section 504 plan	1	0.01	14	0.08	16	0.09	18	0.09

Table 2.B.24 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—IFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	8	0.04	4	0.02	5	0.01
Embedded—Braille	1	0.00	0	0.00	4	0.01
Embedded—Streamlining	18	0.08	9	0.04	14	0.04
Non-Embedded—Abacus	2	0.01	1	0.00	1	0.00
Non-Embedded—Alternate Response Options	5	0.02	0	0.00	6	0.02
Non-Embedded—Calculator	91	0.41	86	0.41	134	0.40
Non-Embedded—Multiplication Table	126	0.57	97	0.46	47	0.14
Non-Embedded—Print on Demand	1	0.00	1	0.00	7	0.02
Non-Embedded—Speech-to-Text	16	0.07	7	0.03	15	0.04
Designated Supports						
Embedded—Color Contrast	12	0.05	20	0.10	104	0.31
Embedded—Masking	68	0.31	73	0.35	508	1.51
Embedded—Permissive Mode	100	0.45	76	0.36	8	0.02
Embedded—Print Size	23	0.10	13	0.06	32	0.09
Embedded—Text-to-Speech	541	2.46	462	2.19	812	2.41
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	11	0.05	7	0.03	4	0.01
Embedded—Translations (glossary)	12	0.05	15	0.07	48	0.14
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	10	0.05	6	0.03	3	0.01
Non-Embedded—Color Overlay	7	0.03	3	0.01	3	0.01
Non-Embedded—Magnification	17	0.08	8	0.04	13	0.04
Non-Embedded—Noise Buffers	40	0.18	25	0.12	21	0.06
Non-Embedded—Read Aloud	93	0.42	77	0.37	55	0.16
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	6	0.03	0	0.00	1	0.00
Non-Embedded—Scribe	7	0.03	5	0.02	9	0.03
Non-Embedded—Separate Setting	224	1.02	160	0.76	256	0.76
Non-Embedded—Translated Test Directions	9	0.04	4	0.02	9	0.03
Other						
Unlisted Resources	0	0.00	0	0.00	1	0.00
Designated support or accommodation is in IEP	352	1.60	290	1.38	398	1.18
Designated support or accommodation is in Section 504 plan	13	0.06	19	0.09	16	0.05

Table 2.B.25 Special Services Summary for Mathematics, PT, Grades Three through Six—EL Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	37	0.03	39	0.03	44	0.04	44	0.05
Embedded—Braille	5	0.00	1	0.00	5	0.01	3	0.00
Embedded—Streamlining	399	0.30	493	0.40	500	0.51	468	0.58
Non-Embedded—Abacus	73	0.05	85	0.07	69	0.07	53	0.07
Non-Embedded—Alternate Response Options	58	0.04	88	0.07	56	0.06	73	0.09
Non-Embedded—Calculator	460	0.34	1,072	0.86	1,478	1.50	2,977	3.66
Non-Embedded—Multiplication Table	N/A	N/A	5,618	4.51	7,015	7.11	6,178	7.60
Non-Embedded—Print on Demand	65	0.05	93	0.07	105	0.11	85	0.10
Non-Embedded—Speech-to-Text	612	0.45	766	0.62	857	0.87	706	0.87
Designated Supports								
Embedded—Color Contrast	479	0.35	487	0.39	356	0.36	403	0.50
Embedded—Masking	2,524	1.87	2,825	2.27	2,474	2.51	2,220	2.73
Embedded—Permissive Mode	547	0.41	651	0.52	572	0.58	511	0.63
Embedded—Print Size	668	0.49	629	0.51	601	0.61	387	0.48
Embedded—Text-to-Speech	22,814	16.90	22,981	18.45	19,179	19.43	15,400	18.94
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	2,756	2.04	2,152	1.73	1,803	1.83	1,807	2.22
Embedded—Translations (glossary)	9,736	7.21	8,454	6.79	6,834	6.92	6,004	7.38
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.00	0	0.00
Non-Embedded—Color Contrast	256	0.19	352	0.28	264	0.27	284	0.35
Non-Embedded—Color Overlay	340	0.25	322	0.26	235	0.24	214	0.26
Non-Embedded—Magnification	567	0.42	583	0.47	401	0.41	386	0.47
Non-Embedded—Noise Buffers	1,533	1.14	1,620	1.30	1,521	1.54	1,016	1.25
Non-Embedded—Read Aloud	5,441	4.03	5,982	4.80	5,751	5.83	4,431	5.45
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	887	0.66	644	0.52	490	0.50	542	0.67
Non-Embedded—Scribe	593	0.44	577	0.46	408	0.41	247	0.30
Non-Embedded—Separate Setting	5,533	4.10	7,011	5.63	7,266	7.36	6,160	7.58
Non-Embedded—Translated Test Directions	3,367	2.49	2,680	2.15	2,031	2.06	2,064	2.54
Other								
Unlisted Resources	5	0.00	6	0.00	8	0.01	5	0.01
Designated support or accommodation is in IEP	10,428	7.73	13,495	10.84	14,255	14.44	12,914	15.88
Designated support or accommodation is in Section 504 plan	191	0.14	196	0.16	186	0.19	125	0.15

Table 2.B.26 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	42	0.06	50	0.09	48	0.12
Embedded—Braille	3	0.00	3	0.01	2	0.01
Embedded—Streamlining	315	0.48	312	0.55	109	0.27
Non-Embedded—Abacus	24	0.04	13	0.02	17	0.04
Non-Embedded—Alternate Response Options	53	0.08	36	0.06	21	0.05
Non-Embedded—Calculator	3,117	4.74	2,811	4.98	1,450	3.64
Non-Embedded—Multiplication Table	4,436	6.75	3,346	5.93	680	1.71
Non-Embedded—Print on Demand	73	0.11	40	0.07	32	0.08
Non-Embedded—Speech-to-Text	669	1.02	555	0.98	205	0.51
Designated Supports						
Embedded—Color Contrast	231	0.35	183	0.32	286	0.72
Embedded—Masking	2,063	3.14	1,622	2.88	1,326	3.33
Embedded—Permissive Mode	414	0.63	322	0.57	50	0.13
Embedded—Print Size	364	0.55	265	0.47	138	0.35
Embedded—Text-to-Speech	11,109	16.90	8,972	15.91	3,652	9.16
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	1,861	2.83	1,872	3.32	1,798	4.51
Embedded—Translations (glossary)	4,906	7.46	4,251	7.54	4,666	11.71
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	193	0.29	183	0.32	48	0.12
Non-Embedded—Color Overlay	89	0.14	80	0.14	40	0.10
Non-Embedded—Magnification	435	0.66	318	0.56	109	0.27
Non-Embedded—Noise Buffers	757	1.15	493	0.87	116	0.29
Non-Embedded—Read Aloud	3,294	5.01	2,763	4.90	1,197	3.00
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	509	0.77	459	0.81	307	0.77
Non-Embedded—Scribe	174	0.26	130	0.23	57	0.14
Non-Embedded—Separate Setting	5,029	7.65	4,268	7.57	2,647	6.64
Non-Embedded—Translated Test Directions	1,813	2.76	1,758	3.12	1,681	4.22
Other						
Unlisted Resources	5	0.01	1	0.00	7	0.02
Designated support or accommodation is in IEP	10,715	16.30	9,180	16.28	4,355	10.93
Designated support or accommodation is in Section 504 plan	88	0.13	84	0.15	46	0.12

Table 2.B.27 Special Services Summary for Mathematics, PT, Grades Three through Six—RFEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	3	0.01	2	0.00	9	0.01	7	0.01
Embedded—Braille	0	0.00	0	0.00	1	0.00	2	0.00
Embedded—Streamlining	5	0.01	22	0.04	32	0.04	55	0.05
Non-Embedded—Abacus	3	0.01	4	0.01	6	0.01	4	0.00
Non-Embedded—Alternate Response Options	3	0.01	6	0.01	8	0.01	6	0.01
Non-Embedded—Calculator	9	0.02	28	0.05	76	0.09	275	0.27
Non-Embedded—Multiplication Table	N/A	N/A	171	0.28	411	0.47	652	0.63
Non-Embedded—Print on Demand	3	0.01	3	0.00	14	0.02	10	0.01
Non-Embedded—Speech-to-Text	15	0.04	23	0.04	37	0.04	69	0.07
Designated Supports								
Embedded—Color Contrast	35	0.09	97	0.16	124	0.14	181	0.18
Embedded—Masking	282	0.70	384	0.63	620	0.71	580	0.56
Embedded—Permissive Mode	196	0.49	255	0.42	368	0.42	341	0.33
Embedded—Print Size	88	0.22	57	0.09	183	0.21	97	0.09
Embedded—Text-to-Speech	2,217	5.54	3,358	5.47	4,675	5.37	4,870	4.73
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	131	0.33	164	0.27	235	0.27	126	0.12
Embedded—Translations (glossary)	761	1.90	1,292	2.11	1,221	1.40	1,288	1.25
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.00	0	0.00
Non-Embedded—Color Contrast	24	0.06	54	0.09	91	0.10	121	0.12
Non-Embedded—Color Overlay	63	0.16	107	0.17	142	0.16	164	0.16
Non-Embedded—Magnification	42	0.10	71	0.12	111	0.13	143	0.14
Non-Embedded—Noise Buffers	109	0.27	154	0.25	250	0.29	273	0.27
Non-Embedded—Read Aloud	294	0.73	373	0.61	575	0.66	720	0.70
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	28	0.07	43	0.07	61	0.07	58	0.06
Non-Embedded—Scribe	46	0.11	54	0.09	92	0.11	91	0.09
Non-Embedded—Separate Setting	203	0.51	375	0.61	688	0.79	959	0.93
Non-Embedded—Translated Test Directions	90	0.22	102	0.17	186	0.21	201	0.20
Other								
Unlisted Resources	0	0.00	1	0.00	0	0.00	3	0.00
Designated support or accommodation is in IEP	245	0.61	541	0.88	1,050	1.21	1,656	1.61
Designated support or accommodation is in Section 504 plan	23	0.06	27	0.04	51	0.06	46	0.04

Table 2.B.28 Special Services Summary for Mathematics, PT, Grades Seven, Eight, and Eleven—RFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	8	0.01	6	0.00	6	0.00
Embedded—Braille	1	0.00	5	0.00	0	0.00
Embedded—Streamlining	57	0.05	83	0.06	51	0.04
Non-Embedded—Abacus	3	0.00	14	0.01	8	0.01
Non-Embedded—Alternate Response Options	18	0.02	16	0.01	12	0.01
Non-Embedded—Calculator	539	0.46	719	0.56	598	0.50
Non-Embedded—Multiplication Table	777	0.66	896	0.70	248	0.21
Non-Embedded—Print on Demand	18	0.02	20	0.02	23	0.02
Non-Embedded—Speech-to-Text	102	0.09	111	0.09	60	0.05
Designated Supports						
Embedded—Color Contrast	91	0.08	86	0.07	666	0.55
Embedded—Masking	746	0.63	740	0.58	1,941	1.61
Embedded—Permissive Mode	435	0.37	430	0.34	18	0.01
Embedded—Print Size	122	0.10	104	0.08	118	0.10
Embedded—Text-to-Speech	4,670	3.95	5,388	4.20	3,981	3.30
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	121	0.10	119	0.09	110	0.09
Embedded—Translations (glossary)	1,139	0.96	1,101	0.86	985	0.82
Embedded—Turn off any Universal Tool	1	0.00	1	0.00	0	0.00
Non-Embedded—Color Contrast	106	0.09	124	0.10	118	0.10
Non-Embedded—Color Overlay	81	0.07	90	0.07	109	0.09
Non-Embedded—Magnification	169	0.14	171	0.13	133	0.11
Non-Embedded—Noise Buffers	295	0.25	271	0.21	161	0.13
Non-Embedded—Read Aloud	619	0.52	734	0.57	416	0.35
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	85	0.07	88	0.07	93	0.08
Non-Embedded—Scribe	99	0.08	103	0.08	114	0.09
Non-Embedded—Separate Setting	1,217	1.03	1,526	1.19	1,327	1.10
Non-Embedded—Translated Test Directions	134	0.11	160	0.12	322	0.27
Other						
Unlisted Resources	0	0.00	3	0.00	3	0.00
Designated support or accommodation is in IEP	2,201	1.86	2,784	2.17	1,906	1.58
Designated support or accommodation is in Section 504 plan	63	0.05	74	0.06	48	0.04

Table 2.B.29 Special Services Summary for ELA, Computer Adaptive Test (CAT), Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	146	0.03	148	0.03	171	0.04	152	0.03
Embedded—Braille	11	0.00	6	0.00	11	0.00	16	0.00
Embedded—Closed Captioning	463	0.10	619	0.13	705	0.15	660	0.14
Embedded—Streamlining	984	0.22	1,227	0.26	1,311	0.28	1,245	0.27
Embedded—Text-to-Speech (for Reading Passages only)	7,456	1.63	8,595	1.82	9,180	1.98	11,998	2.61
Non-Embedded—Alternate Response Options	169	0.04	228	0.05	194	0.04	202	0.04
Non-Embedded—Print on Demand	177	0.04	235	0.05	305	0.07	219	0.05
Non-Embedded—Read Aloud (for ELA Reading Passages)	3,076	0.67	3,552	0.75	3,971	0.86	4,369	0.95
Non-Embedded—Scribe (for ELA Writing)	1,115	0.24	1,116	0.24	989	0.21	635	0.14
Non-Embedded—Speech-to-Text	1,563	0.34	1,961	0.41	2,139	0.46	1,858	0.40
Designated Supports								
Embedded—Color Contrast	1,428	0.31	1,510	0.32	1,419	0.31	1,382	0.30
Embedded—Masking	5,483	1.20	6,522	1.38	6,437	1.39	5,894	1.28
Embedded—Permissive Mode	2,478	0.54	2,899	0.61	2,871	0.62	2,862	0.62
Embedded—Print Size	1,640	0.36	1,619	0.34	1,774	0.38	1,300	0.28
Embedded—Text-to-Speech (for ELA except for Reading Passages)	46,569	10.19	49,676	10.50	45,972	9.91	39,514	8.61
Embedded—Turn off any Universal Tool	5	0.00	6	0.00	6	0.00	8	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	519	0.11	702	0.15	783	0.17	876	0.19
Non-Embedded—Color Overlay	688	0.15	709	0.15	730	0.16	760	0.17
Non-Embedded—Magnification	1,018	0.22	1,195	0.25	1,106	0.24	1,100	0.24
Non-Embedded—Noise Buffers	3,563	0.78	3,779	0.80	3,963	0.85	2,925	0.64
Non-Embedded—Read Aloud (for ELA except Reading Passages)	11,957	2.62	13,452	2.84	13,365	2.88	10,553	2.30
Non-Embedded—Scribe (for Reading and Listening)	1,426	0.31	1,480	0.31	1,312	0.28	948	0.21
Non-Embedded—Separate Setting	15,043	3.29	18,656	3.94	20,024	4.32	17,497	3.81
Non-Embedded—Translated Test Directions	3,440	0.75	2,751	0.58	2,198	0.47	2,296	0.50
Other								
Unlisted Resources	99	0.02	118	0.02	113	0.02	43	0.01
Designated support or accommodation is in IEP	25,939	5.68	32,598	6.89	34,723	7.48	32,597	7.10
Designated support or accommodation is in Section 504 plan	711	0.16	868	0.18	1,064	0.23	845	0.18

Table 2.B.30 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	193	0.04	166	0.04	207	0.05
Embedded—Braille	14	0.00	15	0.00	10	0.00
Embedded—Closed Captioning	702	0.15	681	0.15	465	0.11
Embedded—Streamlining	990	0.22	967	0.21	383	0.09
Embedded—Text-to-Speech (for Reading Passages only)	13,457	2.94	11,641	2.58	4,200	0.97
Non-Embedded—Alternate Response Options	195	0.04	155	0.03	120	0.03
Non-Embedded—Print on Demand	177	0.04	144	0.03	129	0.03
Non-Embedded—Read Aloud (for ELA Reading Passages)	3,837	0.84	3,360	0.75	1,521	0.35
Non-Embedded—Scribe (for ELA Writing)	378	0.08	287	0.06	155	0.04
Non-Embedded—Speech-to-Text	1,791	0.39	1,486	0.33	679	0.16
Designated Supports						
Embedded—Color Contrast	980	0.21	941	0.21	1,870	0.43
Embedded—Masking	5,585	1.22	4,844	1.08	6,806	1.57
Embedded—Permissive Mode	2,770	0.61	2,605	0.58	293	0.07
Embedded—Print Size	1,165	0.25	1,032	0.23	598	0.14
Embedded—Text-to-Speech (for ELA except for Reading Passages)	32,138	7.03	28,469	6.32	15,340	3.53
Embedded—Turn off any Universal Tool	10	0.00	10	0.00	5	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	672	0.15	655	0.15	363	0.08
Non-Embedded—Color Overlay	414	0.09	362	0.08	287	0.07
Non-Embedded—Magnification	1,097	0.24	921	0.20	541	0.12
Non-Embedded—Noise Buffers	2,224	0.49	1,713	0.38	750	0.17
Non-Embedded—Read Aloud (for ELA except Reading Passages)	7,682	1.68	6,671	1.48	3,129	0.72
Non-Embedded—Scribe (for Reading and Listening)	724	0.16	616	0.14	375	0.09
Non-Embedded—Separate Setting	15,316	3.35	14,316	3.18	10,203	2.35
Non-Embedded—Translated Test Directions	1,850	0.40	1,816	0.40	2,100	0.48
Other						
Unlisted Resources	72	0.02	52	0.01	31	0.01
Designated support or accommodation is in IEP	29,438	6.44	26,863	5.96	14,327	3.30
Designated support or accommodation is in Section 504 plan	702	0.15	706	0.16	473	0.11

Table 2.B.31 Special Services Summary for ELA, CAT, Grades Three through Six—Students with No Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.00	0	0.00	1	0.00	5	0.00
Embedded—Braille	0	0.00	1	0.00	0	0.00	0	0.00
Embedded—Closed Captioning	10	0.00	13	0.00	12	0.00	24	0.01
Embedded—Streamlining	20	0.00	49	0.01	48	0.01	46	0.01
Embedded—Text-to-Speech (for Reading Passages only)	145	0.04	175	0.04	180	0.04	214	0.05
Non-Embedded—Alternate Response Options	4	0.00	10	0.00	2	0.00	8	0.00
Non-Embedded—Print on Demand	5	0.00	2	0.00	3	0.00	3	0.00
Non-Embedded—Read Aloud (for ELA Reading Passages)	63	0.02	91	0.02	64	0.02	71	0.02
Non-Embedded—Scribe (for ELA Writing)	22	0.01	37	0.01	34	0.01	16	0.00
Non-Embedded—Speech-to-Text	28	0.01	49	0.01	43	0.01	54	0.01
Designated Supports								
Embedded—Color Contrast	697	0.17	669	0.16	523	0.13	581	0.14
Embedded—Masking	2,447	0.60	2,468	0.59	2,135	0.52	1,632	0.40
Embedded—Permissive Mode	1,679	0.41	1,868	0.44	1,829	0.45	1,846	0.45
Embedded—Print Size	805	0.20	436	0.10	557	0.14	263	0.06
Embedded—Text-to-Speech (for ELA except for Reading Passages)	28,681	7.01	27,327	6.50	22,305	5.44	17,776	4.35
Embedded—Turn off any Universal Tool	0	0.00	1	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	174	0.04	167	0.04	213	0.05	252	0.06
Non-Embedded—Color Overlay	429	0.10	388	0.09	399	0.10	440	0.11
Non-Embedded—Magnification	430	0.11	358	0.09	265	0.06	296	0.07
Non-Embedded—Noise Buffers	999	0.24	900	0.21	799	0.19	646	0.16
Non-Embedded—Read Aloud (for ELA except Reading Passages)	2,887	0.71	2,351	0.56	1,613	0.39	1,623	0.40
Non-Embedded—Scribe (for Reading and Listening)	344	0.08	233	0.06	222	0.05	240	0.06
Non-Embedded—Separate Setting	1,665	0.41	1,748	0.42	1,655	0.40	1,543	0.38
Non-Embedded—Translated Test Directions	2,905	0.71	2,183	0.52	1,671	0.41	1,781	0.44
Other								
Unlisted Resources	1	0.00	2	0.00	5	0.00	5	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	538	0.13	644	0.15	832	0.20	638	0.16

Table 2.B.32 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—Students with No Special Education Services

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	2	0.00	1	0.00	1	0.00
Embedded—Braille	1	0.00	0	0.00	1	0.00
Embedded—Closed Captioning	23	0.01	22	0.01	7	0.00
Embedded—Streamlining	41	0.01	39	0.01	9	0.00
Embedded—Text-to-Speech (for Reading Passages only)	227	0.06	226	0.06	70	0.02
Non-Embedded—Alternate Response Options	3	0.00	2	0.00	4	0.00
Non-Embedded—Print on Demand	3	0.00	7	0.00	6	0.00
Non-Embedded—Read Aloud (for ELA Reading Passages)	52	0.01	42	0.01	33	0.01
Non-Embedded—Scribe (for ELA Writing)	18	0.00	12	0.00	7	0.00
Non-Embedded—Speech-to-Text	37	0.01	31	0.01	7	0.00
Designated Supports						
Embedded—Color Contrast	309	0.08	266	0.07	1,502	0.38
Embedded—Masking	1,847	0.45	1,433	0.35	5,122	1.29
Embedded—Permissive Mode	1,850	0.45	1,788	0.44	29	0.01
Embedded—Print Size	322	0.08	235	0.06	174	0.04
Embedded—Text-to-Speech (for ELA except for Reading Passages)	13,741	3.37	12,995	3.22	10,569	2.67
Embedded—Turn off any Universal Tool	1	0.00	0	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	210	0.05	180	0.04	216	0.05
Non-Embedded—Color Overlay	197	0.05	162	0.04	171	0.04
Non-Embedded—Magnification	438	0.11	336	0.08	214	0.05
Non-Embedded—Noise Buffers	700	0.17	447	0.11	314	0.08
Non-Embedded—Read Aloud (for ELA except Reading Passages)	1,081	0.26	877	0.22	581	0.15
Non-Embedded—Scribe (for Reading and Listening)	258	0.06	223	0.06	178	0.04
Non-Embedded—Separate Setting	1,219	0.30	1,134	0.28	942	0.24
Non-Embedded—Translated Test Directions	1,398	0.34	1,465	0.36	1,774	0.45
Other						
Unlisted Resources	1	0.00	0	0.00	2	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	567	0.14	543	0.13	392	0.10

Table 2.B.33 Special Services Summary for ELA, CAT, Grades Three through Six—Students with Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	144	0.30	148	0.28	170	0.32	147	0.29
Embedded—Braille	11	0.02	5	0.01	11	0.02	16	0.03
Embedded—Closed Captioning	453	0.95	606	1.15	693	1.29	636	1.25
Embedded—Streamlining	964	2.03	1,178	2.24	1,263	2.35	1,199	2.36
Embedded—Text-to-Speech (for Reading Passages only)	7,311	15.38	8,420	16.00	9,000	16.76	11,784	23.15
Non-Embedded—Alternate Response Options	165	0.35	218	0.41	192	0.36	194	0.38
Non-Embedded—Print on Demand	172	0.36	233	0.44	302	0.56	216	0.42
Non-Embedded—Read Aloud (for ELA Reading Passages)	3,013	6.34	3,461	6.58	3,907	7.28	4,298	8.45
Non-Embedded—Scribe (for ELA Writing)	1,093	2.30	1,079	2.05	955	1.78	619	1.22
Non-Embedded—Speech-to-Text	1,535	3.23	1,912	3.63	2,096	3.90	1,804	3.54
Designated Supports								
Embedded—Color Contrast	731	1.54	841	1.60	896	1.67	801	1.57
Embedded—Masking	3,036	6.39	4,054	7.70	4,302	8.01	4,262	8.37
Embedded—Permissive Mode	799	1.68	1,031	1.96	1,042	1.94	1,016	2.00
Embedded—Print Size	835	1.76	1,183	2.25	1,217	2.27	1,037	2.04
Embedded—Text-to-Speech (for ELA except for Reading Passages)	17,888	37.63	22,349	42.46	23,667	44.08	21,738	42.71
Embedded—Turn off any Universal Tool	5	0.01	5	0.01	6	0.01	8	0.02
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	345	0.73	535	1.02	570	1.06	624	1.23
Non-Embedded—Color Overlay	259	0.54	321	0.61	331	0.62	320	0.63
Non-Embedded—Magnification	588	1.24	837	1.59	841	1.57	804	1.58
Non-Embedded—Noise Buffers	2,564	5.39	2,879	5.47	3,164	5.89	2,279	4.48
Non-Embedded—Read Aloud (for ELA except Reading Passages)	9,070	19.08	11,101	21.09	11,752	21.89	8,930	17.55
Non-Embedded—Scribe (for Reading and Listening)	1,082	2.28	1,247	2.37	1,090	2.03	708	1.39
Non-Embedded—Separate Setting	13,378	28.14	16,908	32.12	18,369	34.21	15,954	31.35
Non-Embedded—Translated Test Directions	535	1.13	568	1.08	527	0.98	515	1.01
Other								
Unlisted Resources	98	0.21	116	0.22	108	0.20	38	0.07
Designated support or accommodation is in IEP	25,939	54.56	32,598	61.93	34,723	64.67	32,597	64.05
Designated support or accommodation is in Section 504 plan	173	0.36	224	0.43	232	0.43	207	0.41

Table 2.B.34 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—Students with Special Education Services

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	191	0.39	165	0.36	206	0.54
Embedded—Braille	13	0.03	15	0.03	9	0.02
Embedded—Closed Captioning	679	1.39	659	1.42	458	1.21
Embedded—Streamlining	949	1.94	928	2.00	374	0.99
Embedded—Text-to-Speech (for Reading Passages only)	13,230	27.11	11,415	24.66	4,130	10.92
Non-Embedded—Alternate Response Options	192	0.39	153	0.33	116	0.31
Non-Embedded—Print on Demand	174	0.36	137	0.30	123	0.33
Non-Embedded—Read Aloud (for ELA Reading Passages)	3,785	7.76	3,318	7.17	1,488	3.93
Non-Embedded—Scribe (for ELA Writing)	360	0.74	275	0.59	148	0.39
Non-Embedded—Speech-to-Text	1,754	3.59	1,455	3.14	672	1.78
Designated Supports						
Embedded—Color Contrast	671	1.37	675	1.46	368	0.97
Embedded—Masking	3,738	7.66	3,411	7.37	1,684	4.45
Embedded—Permissive Mode	920	1.89	817	1.76	264	0.70
Embedded—Print Size	843	1.73	797	1.72	424	1.12
Embedded—Text-to-Speech (for ELA except for Reading Passages)	18,397	37.70	15,474	33.43	4,771	12.61
Embedded—Turn off any Universal Tool	9	0.02	10	0.02	5	0.01
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	462	0.95	475	1.03	147	0.39
Non-Embedded—Color Overlay	217	0.44	200	0.43	116	0.31
Non-Embedded—Magnification	659	1.35	585	1.26	327	0.86
Non-Embedded—Noise Buffers	1,524	3.12	1,266	2.73	436	1.15
Non-Embedded—Read Aloud (for ELA except Reading Passages)	6,601	13.53	5,794	12.52	2,548	6.73
Non-Embedded—Scribe (for Reading and Listening)	466	0.95	393	0.85	197	0.52
Non-Embedded—Separate Setting	14,097	28.89	13,182	28.48	9,261	24.48
Non-Embedded—Translated Test Directions	452	0.93	351	0.76	326	0.86
Other						
Unlisted Resources	71	0.15	52	0.11	29	0.08
Designated support or accommodation is in IEP	29,438	60.32	26,863	58.03	14,327	37.87
Designated support or accommodation is in Section 504 plan	135	0.28	163	0.35	81	0.21

Table 2.B.35 Special Services Summary for ELA, CAT, Grades Three through Six—EO Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	106	0.04	99	0.04	110	0.04	98	0.04
Embedded—Braille	6	0.00	4	0.00	3	0.00	11	0.00
Embedded—Closed Captioning	280	0.11	331	0.12	383	0.15	374	0.15
Embedded—Streamlining	579	0.22	704	0.26	764	0.29	713	0.28
Embedded—Text-to-Speech (for Reading Passages only)	4,295	1.61	4,720	1.75	4,907	1.88	6,419	2.52
Non-Embedded—Alternate Response Options	108	0.04	136	0.05	126	0.05	118	0.05
Non-Embedded—Print on Demand	110	0.04	145	0.05	183	0.07	127	0.05
Non-Embedded—Read Aloud (for ELA Reading Passages)	1,764	0.66	2,037	0.76	2,200	0.84	2,291	0.90
Non-Embedded—Scribe (for ELA Writing)	678	0.25	705	0.26	647	0.25	437	0.17
Non-Embedded—Speech-to-Text	921	0.35	1,139	0.42	1,239	0.48	1,065	0.42
Designated Supports								
Embedded—Color Contrast	753	0.28	796	0.30	783	0.30	679	0.27
Embedded—Masking	2,666	1.00	3,339	1.24	3,364	1.29	3,033	1.19
Embedded—Permissive Mode	1,718	0.64	1,946	0.72	1,896	0.73	1,948	0.76
Embedded—Print Size	878	0.33	913	0.34	961	0.37	791	0.31
Embedded—Text-to-Speech (for ELA except for Reading Passages)	21,103	7.92	22,830	8.47	21,478	8.24	18,615	7.29
Embedded—Turn off any Universal Tool	4	0.00	4	0.00	1	0.00	6	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	275	0.10	366	0.14	451	0.17	462	0.18
Non-Embedded—Color Overlay	323	0.12	340	0.13	371	0.14	368	0.14
Non-Embedded—Magnification	448	0.17	580	0.22	615	0.24	556	0.22
Non-Embedded—Noise Buffers	1,932	0.73	2,051	0.76	2,179	0.84	1,589	0.62
Non-Embedded—Read Aloud (for ELA except Reading Passages)	6,228	2.34	7,121	2.64	7,039	2.70	5,349	2.10
Non-Embedded—Scribe (for Reading and Listening)	854	0.32	922	0.34	845	0.32	593	0.23
Non-Embedded—Separate Setting	9,240	3.47	11,195	4.15	11,951	4.58	10,226	4.01
Non-Embedded—Translated Test Directions	160	0.06	181	0.07	207	0.08	197	0.08
Other								
Unlisted Resources	45	0.02	67	0.02	54	0.02	24	0.01
Designated support or accommodation is in IEP	15,231	5.72	18,633	6.91	19,522	7.49	18,204	7.13
Designated support or accommodation is in Section 504 plan	508	0.19	654	0.24	831	0.32	670	0.26

Table 2.B.36 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—EO Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	135	0.05	106	0.04	147	0.06
Embedded—Braille	9	0.00	7	0.00	4	0.00
Embedded—Closed Captioning	390	0.15	364	0.15	291	0.12
Embedded—Streamlining	603	0.24	581	0.24	212	0.09
Embedded—Text-to-Speech (for Reading Passages only)	7,424	2.95	6,318	2.57	2,273	0.95
Non-Embedded—Alternate Response Options	119	0.05	104	0.04	81	0.03
Non-Embedded—Print on Demand	92	0.04	81	0.03	68	0.03
Non-Embedded—Read Aloud (for ELA Reading Passages)	2,047	0.81	1,790	0.73	820	0.34
Non-Embedded—Scribe (for ELA Writing)	266	0.11	202	0.08	97	0.04
Non-Embedded—Speech-to-Text	1,011	0.40	827	0.34	395	0.17
Designated Supports						
Embedded—Color Contrast	574	0.23	594	0.24	719	0.30
Embedded—Masking	2,743	1.09	2,434	0.99	3,064	1.28
Embedded—Permissive Mode	1,816	0.72	1,756	0.72	211	0.09
Embedded—Print Size	653	0.26	646	0.26	318	0.13
Embedded—Text-to-Speech (for ELA except for Reading Passages)	15,461	6.14	13,567	5.53	6,106	2.56
Embedded—Turn off any Universal Tool	7	0.00	4	0.00	2	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	366	0.15	340	0.14	197	0.08
Non-Embedded—Color Overlay	238	0.09	190	0.08	136	0.06
Non-Embedded—Magnification	483	0.19	422	0.17	287	0.12
Non-Embedded—Noise Buffers	1,143	0.45	929	0.38	453	0.19
Non-Embedded—Read Aloud (for ELA except Reading Passages)	3,781	1.50	3,225	1.31	1,485	0.62
Non-Embedded—Scribe (for Reading and Listening)	447	0.18	381	0.16	200	0.08
Non-Embedded—Separate Setting	8,910	3.54	8,431	3.44	6,086	2.55
Non-Embedded—Translated Test Directions	194	0.08	156	0.06	226	0.09
Other						
Unlisted Resources	46	0.02	22	0.01	17	0.01
Designated support or accommodation is in IEP	16,572	6.58	15,041	6.13	8,340	3.49
Designated support or accommodation is in Section 504 plan	566	0.22	552	0.22	390	0.16

Table 2.B.37 Special Services Summary for ELA, CAT, Grades Three through Six—IFEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.01	6	0.03	7	0.04	3	0.01
Embedded—Braille	0	0.00	0	0.00	2	0.01	0	0.00
Embedded—Closed Captioning	5	0.03	18	0.10	13	0.07	9	0.04
Embedded—Streamlining	7	0.04	12	0.06	17	0.09	18	0.09
Embedded—Text-to-Speech (for Reading Passages only)	49	0.30	58	0.31	75	0.40	112	0.55
Non-Embedded—Alternate Response Options	1	0.01	1	0.01	2	0.01	0	0.00
Non-Embedded—Print on Demand	0	0.00	5	0.03	3	0.02	3	0.01
Non-Embedded—Read Aloud (for ELA Reading Passages)	22	0.13	23	0.12	37	0.20	42	0.20
Non-Embedded—Scribe (for ELA Writing)	14	0.08	8	0.04	10	0.05	12	0.06
Non-Embedded—Speech-to-Text	15	0.09	25	0.13	16	0.09	17	0.08
Designated Supports								
Embedded—Color Contrast	18	0.11	23	0.12	19	0.10	21	0.10
Embedded—Masking	81	0.49	87	0.47	66	0.35	74	0.36
Embedded—Permissive Mode	38	0.23	53	0.29	60	0.32	56	0.27
Embedded—Print Size	30	0.18	17	0.09	31	0.17	12	0.06
Embedded—Text-to-Speech (for ELA except for Reading Passages)	592	3.58	630	3.39	605	3.25	533	2.60
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.01	0	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	5	0.03	4	0.02	10	0.05	9	0.04
Non-Embedded—Color Overlay	5	0.03	9	0.05	8	0.04	12	0.06
Non-Embedded—Magnification	9	0.05	11	0.06	11	0.06	13	0.06
Non-Embedded—Noise Buffers	46	0.28	38	0.20	58	0.31	40	0.19
Non-Embedded—Read Aloud (for ELA except Reading Passages)	118	0.71	139	0.75	128	0.69	113	0.55
Non-Embedded—Scribe (for Reading and Listening)	14	0.08	11	0.06	15	0.08	12	0.06
Non-Embedded—Separate Setting	146	0.88	202	1.09	215	1.15	203	0.99
Non-Embedded—Translated Test Directions	14	0.08	21	0.11	13	0.07	11	0.05
Other								
Unlisted Resources	1	0.01	2	0.01	1	0.01	1	0.00
Designated support or accommodation is in IEP	202	1.22	287	1.54	321	1.72	356	1.74
Designated support or accommodation is in Section 504 plan	1	0.01	15	0.08	18	0.10	19	0.09

Table 2.B.38 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—IFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	8	0.04	4	0.02	5	0.01
Embedded—Braille	0	0.00	0	0.00	4	0.01
Embedded—Closed Captioning	18	0.08	9	0.04	15	0.04
Embedded—Streamlining	17	0.08	8	0.04	14	0.04
Embedded—Text-to-Speech (for Reading Passages only)	134	0.61	104	0.49	94	0.28
Non-Embedded—Alternate Response Options	5	0.02	0	0.00	6	0.02
Non-Embedded—Print on Demand	1	0.00	1	0.00	7	0.02
Non-Embedded—Read Aloud (for ELA Reading Passages)	47	0.21	36	0.17	34	0.10
Non-Embedded—Scribe (for ELA Writing)	3	0.01	3	0.01	11	0.03
Non-Embedded—Speech-to-Text	16	0.07	9	0.04	15	0.04
Designated Supports						
Embedded—Color Contrast	14	0.06	21	0.10	109	0.32
Embedded—Masking	68	0.31	71	0.34	503	1.48
Embedded—Permissive Mode	100	0.45	78	0.37	10	0.03
Embedded—Print Size	23	0.10	14	0.07	31	0.09
Embedded—Text-to-Speech (for ELA except for Reading Passages)	548	2.49	462	2.19	820	2.42
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	2	0.01
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	10	0.05	6	0.03	3	0.01
Non-Embedded—Color Overlay	7	0.03	3	0.01	3	0.01
Non-Embedded—Magnification	17	0.08	9	0.04	14	0.04
Non-Embedded—Noise Buffers	40	0.18	26	0.12	21	0.06
Non-Embedded—Read Aloud (for ELA except Reading Passages)	90	0.41	79	0.37	55	0.16
Non-Embedded—Scribe (for Reading and Listening)	7	0.03	5	0.02	9	0.03
Non-Embedded—Separate Setting	224	1.02	160	0.76	254	0.75
Non-Embedded—Translated Test Directions	9	0.04	4	0.02	8	0.02
Other						
Unlisted Resources	2	0.01	0	0.00	0	0.00
Designated support or accommodation is in IEP	344	1.56	281	1.33	380	1.12
Designated support or accommodation is in Section 504 plan	14	0.06	15	0.07	16	0.05

Table 2.B.39 Special Services Summary for ELA, CAT, Grades Three through Six—EL Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	35	0.03	41	0.03	44	0.05	44	0.06
Embedded—Braille	5	0.00	1	0.00	5	0.01	3	0.00
Embedded—Closed Captioning	170	0.13	252	0.21	269	0.28	235	0.30
Embedded—Streamlining	391	0.29	486	0.40	497	0.51	461	0.58
Embedded—Text-to-Speech (for Reading Passages only)	3,047	2.29	3,700	3.02	3,961	4.09	4,990	6.27
Non-Embedded—Alternate Response Options	57	0.04	85	0.07	57	0.06	77	0.10
Non-Embedded—Print on Demand	63	0.05	83	0.07	105	0.11	82	0.10
Non-Embedded—Read Aloud (for ELA Reading Passages)	1,257	0.95	1,451	1.18	1,657	1.71	1,891	2.38
Non-Embedded—Scribe (for ELA Writing)	409	0.31	384	0.31	308	0.32	163	0.20
Non-Embedded—Speech-to-Text	611	0.46	774	0.63	847	0.87	706	0.89
Designated Supports								
Embedded—Color Contrast	596	0.45	575	0.47	458	0.47	476	0.60
Embedded—Masking	2,456	1.85	2,726	2.22	2,411	2.49	2,198	2.76
Embedded—Permissive Mode	525	0.39	642	0.52	553	0.57	515	0.65
Embedded—Print Size	642	0.48	631	0.51	603	0.62	400	0.50
Embedded—Text-to-Speech (for ELA except for Reading Passages)	22,611	17.00	22,834	18.62	19,197	19.80	15,501	19.47
Embedded—Turn off any Universal Tool	1	0.00	1	0.00	3	0.00	1	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	224	0.17	296	0.24	247	0.25	285	0.36
Non-Embedded—Color Overlay	307	0.23	272	0.22	222	0.23	216	0.27
Non-Embedded—Magnification	527	0.40	549	0.45	385	0.40	387	0.49
Non-Embedded—Noise Buffers	1,482	1.11	1,553	1.27	1,492	1.54	1,021	1.28
Non-Embedded—Read Aloud (for ELA except Reading Passages)	5,304	3.99	5,837	4.76	5,630	5.81	4,357	5.47
Non-Embedded—Scribe (for Reading and Listening)	522	0.39	513	0.42	379	0.39	252	0.32
Non-Embedded—Separate Setting	5,436	4.09	6,886	5.61	7,175	7.40	6,094	7.65
Non-Embedded—Translated Test Directions	3,172	2.38	2,446	1.99	1,790	1.85	1,869	2.35
Other								
Unlisted Resources	53	0.04	48	0.04	56	0.06	15	0.02
Designated support or accommodation is in IEP	10,238	7.70	13,123	10.70	13,838	14.27	12,430	15.61
Designated support or accommodation is in Section 504 plan	180	0.14	173	0.14	172	0.18	111	0.14

Table 2.B.40 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	41	0.06	50	0.09	48	0.12
Embedded—Braille	3	0.00	3	0.01	2	0.01
Embedded—Closed Captioning	229	0.36	219	0.40	112	0.28
Embedded—Streamlining	310	0.48	297	0.54	107	0.27
Embedded—Text-to-Speech (for Reading Passages only)	5,018	7.83	4,151	7.55	1,332	3.38
Non-Embedded—Alternate Response Options	54	0.08	36	0.07	19	0.05
Non-Embedded—Print on Demand	67	0.10	41	0.07	32	0.08
Non-Embedded—Read Aloud (for ELA Reading Passages)	1,516	2.36	1,253	2.28	505	1.28
Non-Embedded—Scribe (for ELA Writing)	91	0.14	64	0.12	29	0.07
Non-Embedded—Speech-to-Text	660	1.03	541	0.98	205	0.52
Designated Supports						
Embedded—Color Contrast	288	0.45	222	0.40	316	0.80
Embedded—Masking	2,032	3.17	1,599	2.91	1,299	3.30
Embedded—Permissive Mode	417	0.65	333	0.61	51	0.13
Embedded—Print Size	376	0.59	268	0.49	131	0.33
Embedded—Text-to-Speech (for ELA except for Reading Passages)	11,365	17.73	9,126	16.61	4,362	11.07
Embedded—Turn off any Universal Tool	2	0.00	2	0.00	1	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	191	0.30	181	0.33	48	0.12
Non-Embedded—Color Overlay	89	0.14	79	0.14	41	0.10
Non-Embedded—Magnification	431	0.67	316	0.58	108	0.27
Non-Embedded—Noise Buffers	749	1.17	491	0.89	117	0.30
Non-Embedded—Read Aloud (for ELA except Reading Passages)	3,187	4.97	2,639	4.80	1,177	2.99
Non-Embedded—Scribe (for Reading and Listening)	171	0.27	127	0.23	56	0.14
Non-Embedded—Separate Setting	4,960	7.74	4,199	7.64	2,566	6.51
Non-Embedded—Translated Test Directions	1,491	2.33	1,469	2.67	1,535	3.90
Other						
Unlisted Resources	23	0.04	24	0.04	10	0.03
Designated support or accommodation is in IEP	10,384	16.20	8,848	16.10	3,814	9.68
Designated support or accommodation is in Section 504 plan	68	0.11	68	0.12	19	0.05

Table 2.B.41 Special Services Summary for ELA, CAT, Grades Three through Six—RFEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	3	0.01	2	0.00	9	0.01	7	0.01
Embedded—Braille	0	0.00	1	0.00	1	0.00	2	0.00
Embedded—Closed Captioning	7	0.02	18	0.03	39	0.04	41	0.04
Embedded—Streamlining	5	0.01	23	0.04	32	0.04	53	0.05
Embedded—Text-to-Speech (for Reading Passages only)	60	0.15	112	0.18	232	0.27	470	0.46
Non-Embedded—Alternate Response Options	3	0.01	6	0.01	9	0.01	7	0.01
Non-Embedded—Print on Demand	3	0.01	2	0.00	14	0.02	7	0.01
Non-Embedded—Read Aloud (for ELA Reading Passages)	26	0.06	39	0.06	77	0.09	141	0.14
Non-Embedded—Scribe (for ELA Writing)	13	0.03	18	0.03	23	0.03	23	0.02
Non-Embedded—Speech-to-Text	15	0.04	22	0.04	37	0.04	68	0.07
Designated Supports								
Embedded—Color Contrast	58	0.14	110	0.18	159	0.18	206	0.20
Embedded—Masking	269	0.67	363	0.59	594	0.68	579	0.56
Embedded—Permissive Mode	196	0.49	255	0.42	360	0.41	340	0.33
Embedded—Print Size	88	0.22	55	0.09	179	0.21	97	0.09
Embedded—Text-to-Speech (for ELA except for Reading Passages)	2,193	5.48	3,338	5.44	4,640	5.33	4,821	4.68
Embedded—Turn off any Universal Tool	0	0.00	1	0.00	1	0.00	1	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	13	0.03	34	0.06	75	0.09	120	0.12
Non-Embedded—Color Overlay	52	0.13	86	0.14	128	0.15	164	0.16
Non-Embedded—Magnification	31	0.08	52	0.08	95	0.11	144	0.14
Non-Embedded—Noise Buffers	98	0.24	131	0.21	234	0.27	273	0.27
Non-Embedded—Read Aloud (for ELA except Reading Passages)	284	0.71	346	0.56	557	0.64	725	0.70
Non-Embedded—Scribe (for Reading and Listening)	33	0.08	33	0.05	71	0.08	91	0.09
Non-Embedded—Separate Setting	193	0.48	353	0.58	664	0.76	960	0.93
Non-Embedded—Translated Test Directions	87	0.22	92	0.15	179	0.21	210	0.20
Other								
Unlisted Resources	0	0.00	1	0.00	2	0.00	3	0.00
Designated support or accommodation is in IEP	242	0.60	534	0.87	1,020	1.17	1,591	1.55
Designated support or accommodation is in Section 504 plan	21	0.05	26	0.04	43	0.05	44	0.04

Table 2.B.42 Special Services Summary for ELA, CAT, Grades Seven, Eight, and Eleven—RFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	9	0.01	6	0.00	6	0.00
Embedded—Braille	1	0.00	5	0.00	0	0.00
Embedded—Closed Captioning	65	0.05	89	0.07	46	0.04
Embedded—Streamlining	56	0.05	81	0.06	50	0.04
Embedded—Text-to-Speech (for Reading Passages only)	872	0.74	1,062	0.83	499	0.41
Non-Embedded—Alternate Response Options	17	0.01	15	0.01	14	0.01
Non-Embedded—Print on Demand	17	0.01	21	0.02	22	0.02
Non-Embedded—Read Aloud (for ELA Reading Passages)	224	0.19	279	0.22	160	0.13
Non-Embedded—Scribe (for ELA Writing)	17	0.01	18	0.01	17	0.01
Non-Embedded—Speech-to-Text	102	0.09	109	0.08	62	0.05
Designated Supports						
Embedded—Color Contrast	103	0.09	104	0.08	725	0.60
Embedded—Masking	739	0.62	735	0.57	1,927	1.59
Embedded—Permissive Mode	435	0.37	433	0.34	21	0.02
Embedded—Print Size	112	0.09	104	0.08	117	0.10
Embedded—Text-to-Speech (for ELA except for Reading Passages)	4,725	3.99	5,268	4.10	4,035	3.33
Embedded—Turn off any Universal Tool	1	0.00	4	0.00	0	0.00
Non-Embedded—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	105	0.09	127	0.10	115	0.10
Non-Embedded—Color Overlay	80	0.07	90	0.07	106	0.09
Non-Embedded—Magnification	165	0.14	174	0.14	131	0.11
Non-Embedded—Noise Buffers	292	0.25	266	0.21	158	0.13
Non-Embedded—Read Aloud (for ELA except Reading Passages)	620	0.52	718	0.56	404	0.33
Non-Embedded—Scribe (for Reading and Listening)	97	0.08	103	0.08	109	0.09
Non-Embedded—Separate Setting	1,204	1.02	1,512	1.18	1,287	1.06
Non-Embedded—Translated Test Directions	140	0.12	163	0.13	316	0.26
Other						
Unlisted Resources	1	0.00	6	0.00	4	0.00
Designated support or accommodation is in IEP	2,117	1.79	2,676	2.09	1,786	1.48
Designated support or accommodation is in Section 504 plan	53	0.04	70	0.05	47	0.04

Table 2.B.43 Special Services Summary for Mathematics, CAT, Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	150	0.03	148	0.03	177	0.04	151	0.03
Embedded—Braille	10	0.00	3	0.00	10	0.00	15	0.00
Embedded—Streamlining	996	0.22	1,238	0.26	1,310	0.28	1,252	0.27
Non-Embedded—Abacus	182	0.04	181	0.04	172	0.04	112	0.02
Non-Embedded—Alternate Response Options	172	0.04	230	0.05	195	0.04	194	0.04
Non-Embedded—Calculator	1,204	0.26	2,676	0.56	3,813	0.82	7,972	1.73
Non-Embedded—Multiplication Table	N/A	N/A	13,596	2.86	17,167	3.69	15,632	3.39
Non-Embedded—Print on Demand	173	0.04	246	0.05	312	0.07	225	0.05
Non-Embedded—Speech-to-Text	1,569	0.34	1,957	0.41	2,156	0.46	1,846	0.40
Designated Supports								
Embedded—Color Contrast	1,440	0.31	1,519	0.32	1,421	0.31	1,385	0.30
Embedded—Masking	5,638	1.23	6,725	1.42	6,589	1.41	5,954	1.29
Embedded—Permissive Mode	2,495	0.54	2,906	0.61	2,883	0.62	2,859	0.62
Embedded—Print Size	1,670	0.36	1,612	0.34	1,754	0.38	1,281	0.28
Embedded—Text-to-Speech	47,332	10.31	50,266	10.58	46,218	9.92	39,738	8.63
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	3,545	0.77	2,900	0.61	2,558	0.55	2,279	0.49
Embedded—Translations (glossary)	10,858	2.37	10,099	2.13	8,256	1.77	7,415	1.61
Embedded—Turn off any Universal Tool	2	0.00	2	0.00	7	0.00	0	0.00
Non-Embedded—Color Contrast	604	0.13	865	0.18	842	0.18	877	0.19
Non-Embedded—Color Overlay	774	0.17	867	0.18	783	0.17	760	0.16
Non-Embedded—Magnification	1,103	0.24	1,334	0.28	1,158	0.25	1,092	0.24
Non-Embedded—Noise Buffers	3,677	0.80	3,964	0.83	4,025	0.86	2,941	0.64
Non-Embedded—Read Aloud	12,156	2.65	13,775	2.90	13,573	2.91	10,681	2.32
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	1,071	0.23	924	0.19	755	0.16	811	0.18
Non-Embedded—Scribe	1,547	0.34	1,649	0.35	1,398	0.30	939	0.20
Non-Embedded—Separate Setting	15,226	3.32	18,890	3.98	20,196	4.34	17,626	3.83
Non-Embedded—Translated Test Directions	3,663	0.80	3,110	0.65	2,542	0.55	2,562	0.56
Other								
Unlisted Resources	18	0.00	27	0.01	30	0.01	19	0.00
Designated support or accommodation is in IEP	26,020	5.67	33,270	7.01	35,777	7.68	33,823	7.34
Designated support or accommodation is in Section 504 plan	742	0.16	919	0.19	1,129	0.24	879	0.19

Table 2.B.44 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	198	0.04	165	0.04	203	0.05
Embedded—Braille	15	0.00	15	0.00	10	0.00
Embedded—Streamlining	1,002	0.22	992	0.22	378	0.09
Non-Embedded—Abacus	69	0.02	59	0.01	65	0.02
Non-Embedded—Alternate Response Options	195	0.04	158	0.03	121	0.03
Non-Embedded—Calculator	9,124	1.99	8,886	1.97	5,547	1.28
Non-Embedded—Multiplication Table	12,310	2.69	9,972	2.21	2,177	0.50
Non-Embedded—Print on Demand	179	0.04	146	0.03	127	0.03
Non-Embedded—Speech-to-Text	1,798	0.39	1,507	0.33	665	0.15
Designated Supports						
Embedded—Color Contrast	952	0.21	909	0.20	1,864	0.43
Embedded—Masking	5,640	1.23	4,915	1.09	6,861	1.59
Embedded—Permissive Mode	2,757	0.60	2,560	0.57	274	0.06
Embedded—Print Size	1,139	0.25	1,011	0.22	610	0.14
Embedded—Text-to-Speech	32,295	7.05	28,922	6.40	14,281	3.30
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	2,164	0.47	2,226	0.49	2,033	0.47
Embedded—Translations (glossary)	6,285	1.37	5,569	1.23	5,612	1.30
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.00
Non-Embedded—Color Contrast	705	0.15	659	0.15	369	0.09
Non-Embedded—Color Overlay	439	0.10	375	0.08	293	0.07
Non-Embedded—Magnification	1,126	0.25	924	0.20	572	0.13
Non-Embedded—Noise Buffers	2,257	0.49	1,733	0.38	761	0.18
Non-Embedded—Read Aloud	7,796	1.70	6,807	1.51	3,211	0.74
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	745	0.16	668	0.15	537	0.12
Non-Embedded—Scribe	728	0.16	625	0.14	381	0.09
Non-Embedded—Separate Setting	15,423	3.36	14,391	3.19	10,359	2.40
Non-Embedded—Translated Test Directions	2,252	0.49	2,162	0.48	2,294	0.53
Other						
Unlisted Resources	19	0.00	12	0.00	18	0.00
Designated support or accommodation is in IEP	30,366	6.62	27,754	6.15	15,437	3.57
Designated support or accommodation is in Section 504 plan	729	0.16	755	0.17	511	0.12

Table 2.B.45 Special Services Summary for Mathematics, CAT, Grades Three through Six—Students with No Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.00	0	0.00	1	0.00	5	0.00
Embedded—Braille	0	0.00	1	0.00	0	0.00	0	0.00
Embedded—Streamlining	22	0.01	49	0.01	49	0.01	47	0.01
Non-Embedded—Abacus	4	0.00	6	0.00	1	0.00	2	0.00
Non-Embedded—Alternate Response Options	4	0.00	10	0.00	2	0.00	7	0.00
Non-Embedded—Calculator	22	0.01	53	0.01	62	0.02	125	0.03
Non-Embedded—Multiplication Table	N/A	N/A	209	0.05	290	0.07	239	0.06
Non-Embedded—Print on Demand	5	0.00	2	0.00	3	0.00	3	0.00
Non-Embedded—Speech-to-Text	26	0.01	51	0.01	45	0.01	52	0.01
Designated Supports								
Embedded—Color Contrast	704	0.17	675	0.16	528	0.13	594	0.14
Embedded—Masking	2,557	0.62	2,628	0.62	2,243	0.54	1,695	0.41
Embedded—Permissive Mode	1,698	0.41	1,887	0.45	1,852	0.45	1,852	0.45
Embedded—Print Size	829	0.20	438	0.10	565	0.14	264	0.06
Embedded—Text-to-Speech	28,886	7.02	27,300	6.46	22,118	5.37	17,467	4.26
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	3,316	0.81	2,714	0.64	2,355	0.57	2,063	0.50
Embedded—Translations (glossary)	10,033	2.44	9,184	2.17	7,361	1.79	6,495	1.58
Embedded—Turn off any Universal Tool	0	0.00	1	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	239	0.06	312	0.07	259	0.06	255	0.06
Non-Embedded—Color Overlay	498	0.12	523	0.12	444	0.11	443	0.11
Non-Embedded—Magnification	503	0.12	493	0.12	311	0.08	299	0.07
Non-Embedded—Noise Buffers	1,084	0.26	1,053	0.25	854	0.21	648	0.16
Non-Embedded—Read Aloud	3,030	0.74	2,594	0.61	1,745	0.42	1,678	0.41
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	873	0.21	657	0.16	507	0.12	569	0.14
Non-Embedded—Scribe	440	0.11	385	0.09	279	0.07	244	0.06
Non-Embedded—Separate Setting	1,789	0.43	1,909	0.45	1,730	0.42	1,563	0.38
Non-Embedded—Translated Test Directions	3,145	0.76	2,541	0.60	2,011	0.49	2,068	0.50
Other								
Unlisted Resources	1	0.00	1	0.00	5	0.00	4	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	571	0.14	690	0.16	889	0.22	667	0.16

**Table 2.B.46 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—
Students with No Special Education Services**

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	2	0.00	1	0.00	1	0.00
Embedded—Braille	1	0.00	0	0.00	1	0.00
Embedded—Streamlining	43	0.01	37	0.01	8	0.00
Non-Embedded—Abacus	0	0.00	1	0.00	0	0.00
Non-Embedded—Alternate Response Options	3	0.00	3	0.00	4	0.00
Non-Embedded—Calculator	133	0.03	146	0.04	90	0.02
Non-Embedded—Multiplication Table	175	0.04	141	0.03	49	0.01
Non-Embedded—Print on Demand	3	0.00	7	0.00	5	0.00
Non-Embedded—Speech-to-Text	36	0.01	31	0.01	8	0.00
Designated Supports						
Embedded—Color Contrast	300	0.07	262	0.06	1,497	0.38
Embedded—Masking	1,881	0.46	1,472	0.36	5,174	1.31
Embedded—Permissive Mode	1,861	0.45	1,784	0.44	31	0.01
Embedded—Print Size	326	0.08	246	0.06	174	0.04
Embedded—Text-to-Speech	13,030	3.18	12,644	3.12	9,470	2.40
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	1,969	0.48	2,031	0.50	1,873	0.47
Embedded—Translations (glossary)	5,532	1.35	4,864	1.20	4,901	1.24
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	214	0.05	179	0.04	220	0.06
Non-Embedded—Color Overlay	197	0.05	160	0.04	173	0.04
Non-Embedded—Magnification	441	0.11	336	0.08	242	0.06
Non-Embedded—Noise Buffers	708	0.17	452	0.11	315	0.08
Non-Embedded—Read Aloud	1,161	0.28	978	0.24	640	0.16
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	564	0.14	537	0.13	471	0.12
Non-Embedded—Scribe	262	0.06	230	0.06	183	0.05
Non-Embedded—Separate Setting	1,245	0.30	1,152	0.28	1,000	0.25
Non-Embedded—Translated Test Directions	1,819	0.44	1,813	0.45	1,961	0.50
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	585	0.14	583	0.14	425	0.11

Table 2.B.47 Special Services Summary for Mathematics, CAT, Grades Three through Six—Students with Special Education Services

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	148	0.31	148	0.28	176	0.33	146	0.29
Embedded—Braille	10	0.02	2	0.00	10	0.02	15	0.03
Embedded—Streamlining	974	2.06	1,189	2.27	1,261	2.36	1,205	2.37
Non-Embedded—Abacus	178	0.38	175	0.33	171	0.32	110	0.22
Non-Embedded—Alternate Response Options	168	0.35	220	0.42	193	0.36	187	0.37
Non-Embedded—Calculator	1,182	2.50	2,623	5.00	3,751	7.01	7,847	15.46
Non-Embedded—Multiplication Table	N/A	N/A	13,387	25.52	16,877	31.55	15,393	30.33
Non-Embedded—Print on Demand	168	0.35	244	0.47	309	0.58	222	0.44
Non-Embedded—Speech-to-Text	1,543	3.26	1,906	3.63	2,111	3.95	1,794	3.53
Designated Supports								
Embedded—Color Contrast	736	1.55	844	1.61	893	1.67	791	1.56
Embedded—Masking	3,081	6.51	4,097	7.81	4,346	8.12	4,259	8.39
Embedded—Permissive Mode	797	1.68	1,019	1.94	1,031	1.93	1,007	1.98
Embedded—Print Size	841	1.78	1,174	2.24	1,189	2.22	1,017	2.00
Embedded—Text-to-Speech	18,446	38.95	22,966	43.79	24,100	45.05	22,271	43.88
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	229	0.48	186	0.35	203	0.38	216	0.43
Embedded—Translations (glossary)	825	1.74	915	1.74	895	1.67	920	1.81
Embedded—Turn off any Universal Tool	2	0.00	1	0.00	7	0.01	0	0.00
Non-Embedded—Color Contrast	365	0.77	553	1.05	583	1.09	622	1.23
Non-Embedded—Color Overlay	276	0.58	344	0.66	339	0.63	317	0.62
Non-Embedded—Magnification	600	1.27	841	1.60	847	1.58	793	1.56
Non-Embedded—Noise Buffers	2,593	5.48	2,911	5.55	3,171	5.93	2,293	4.52
Non-Embedded—Read Aloud	9,126	19.27	11,181	21.32	11,828	22.11	9,003	17.74
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	198	0.42	267	0.51	248	0.46	242	0.48
Non-Embedded—Scribe	1,107	2.34	1,264	2.41	1,119	2.09	695	1.37
Non-Embedded—Separate Setting	13,437	28.37	16,981	32.37	18,466	34.52	16,063	31.65
Non-Embedded—Translated Test Directions	518	1.09	569	1.08	531	0.99	494	0.97
Other								
Unlisted Resources	17	0.04	26	0.05	25	0.05	15	0.03
Designated support or accommodation is in IEP	26,020	54.95	33,270	63.43	35,777	66.87	33,823	66.64
Designated support or accommodation is in Section 504 plan	171	0.36	229	0.44	240	0.45	212	0.42

**Table 2.B.48 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—
Students with Special Education Services**

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	196	0.40	164	0.36	202	0.54
Embedded—Braille	14	0.03	15	0.03	9	0.02
Embedded—Streamlining	959	1.97	955	2.07	370	0.99
Non-Embedded—Abacus	69	0.14	58	0.13	65	0.17
Non-Embedded—Alternate Response Options	192	0.40	155	0.34	117	0.31
Non-Embedded—Calculator	8,991	18.50	8,740	18.96	5,457	14.59
Non-Embedded—Multiplication Table	12,135	24.97	9,831	21.33	2,128	5.69
Non-Embedded—Print on Demand	176	0.36	139	0.30	122	0.33
Non-Embedded—Speech-to-Text	1,762	3.63	1,476	3.20	657	1.76
Designated Supports						
Embedded—Color Contrast	652	1.34	647	1.40	367	0.98
Embedded—Masking	3,759	7.74	3,443	7.47	1,687	4.51
Embedded—Permissive Mode	896	1.84	776	1.68	243	0.65
Embedded—Print Size	813	1.67	765	1.66	436	1.17
Embedded—Text-to-Speech	19,265	39.65	16,278	35.31	4,811	12.87
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	195	0.40	195	0.42	160	0.43
Embedded—Translations (glossary)	753	1.55	705	1.53	711	1.90
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.00
Non-Embedded—Color Contrast	491	1.01	480	1.04	149	0.40
Non-Embedded—Color Overlay	242	0.50	215	0.47	120	0.32
Non-Embedded—Magnification	685	1.41	588	1.28	330	0.88
Non-Embedded—Noise Buffers	1,549	3.19	1,281	2.78	446	1.19
Non-Embedded—Read Aloud	6,635	13.66	5,829	12.65	2,571	6.88
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	181	0.37	131	0.28	66	0.18
Non-Embedded—Scribe	466	0.96	395	0.86	198	0.53
Non-Embedded—Separate Setting	14,178	29.18	13,239	28.72	9,359	25.03
Non-Embedded—Translated Test Directions	433	0.89	349	0.76	333	0.89
Other						
Unlisted Resources	19	0.04	12	0.03	18	0.05
Designated support or accommodation is in IEP	30,366	62.50	27,754	60.21	15,437	41.28
Designated support or accommodation is in Section 504 plan	144	0.30	172	0.37	86	0.23

Table 2.B.49 Special Services Summary for Mathematics, CAT, Grades Three through Six—EO Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	108	0.04	99	0.04	117	0.04	97	0.04
Embedded—Braille	5	0.00	1	0.00	2	0.00	10	0.00
Embedded—Streamlining	586	0.22	710	0.26	762	0.29	718	0.28
Non-Embedded—Abacus	105	0.04	87	0.03	96	0.04	54	0.02
Non-Embedded—Alternate Response Options	110	0.04	135	0.05	127	0.05	115	0.05
Non-Embedded—Calculator	719	0.27	1,578	0.59	2,244	0.86	4,667	1.83
Non-Embedded—Multiplication Table	N/A	N/A	7,695	2.86	9,596	3.69	8,665	3.40
Non-Embedded—Print on Demand	107	0.04	149	0.06	190	0.07	130	0.05
Non-Embedded—Speech-to-Text	928	0.35	1,145	0.43	1,244	0.48	1,058	0.42
Designated Supports								
Embedded—Color Contrast	770	0.29	809	0.30	778	0.30	669	0.26
Embedded—Masking	2,744	1.03	3,429	1.27	3,423	1.31	3,043	1.19
Embedded—Permissive Mode	1,717	0.65	1,940	0.72	1,886	0.72	1,939	0.76
Embedded—Print Size	880	0.33	905	0.34	944	0.36	781	0.31
Embedded—Text-to-Speech	21,774	8.18	23,320	8.67	21,852	8.39	18,979	7.45
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	467	0.18	405	0.15	274	0.11	95	0.04
Embedded—Translations (glossary)	251	0.09	226	0.08	165	0.06	134	0.05
Embedded—Turn off any Universal Tool	2	0.00	0	0.00	2	0.00	0	0.00
Non-Embedded—Color Contrast	319	0.12	448	0.17	478	0.18	461	0.18
Non-Embedded—Color Overlay	365	0.14	423	0.16	395	0.15	367	0.14
Non-Embedded—Magnification	486	0.18	659	0.24	636	0.24	551	0.22
Non-Embedded—Noise Buffers	1,993	0.75	2,136	0.79	2,201	0.85	1,605	0.63
Non-Embedded—Read Aloud	6,313	2.37	7,237	2.69	7,113	2.73	5,389	2.11
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	126	0.05	182	0.07	167	0.06	157	0.06
Non-Embedded—Scribe	898	0.34	1,000	0.37	884	0.34	587	0.23
Non-Embedded—Separate Setting	9,344	3.51	11,290	4.20	12,021	4.62	10,292	4.04
Non-Embedded—Translated Test Directions	179	0.07	246	0.09	235	0.09	197	0.08
Other								
Unlisted Resources	13	0.00	20	0.01	21	0.01	12	0.00
Designated support or accommodation is in IEP	15,169	5.70	18,953	7.04	20,143	7.74	18,887	7.41
Designated support or accommodation is in Section 504 plan	523	0.20	683	0.25	875	0.34	691	0.27

Table 2.B.50 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—EO Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	140	0.06	105	0.04	144	0.06
Embedded—Braille	9	0.00	7	0.00	4	0.00
Embedded—Streamlining	608	0.24	590	0.24	207	0.09
Non-Embedded—Abacus	39	0.02	31	0.01	39	0.02
Non-Embedded—Alternate Response Options	119	0.05	106	0.04	83	0.03
Non-Embedded—Calculator	5,389	2.15	5,283	2.16	3,366	1.42
Non-Embedded—Multiplication Table	6,981	2.78	5,639	2.30	1,208	0.51
Non-Embedded—Print on Demand	91	0.04	85	0.03	65	0.03
Non-Embedded—Speech-to-Text	1,010	0.40	837	0.34	388	0.16
Designated Supports						
Embedded—Color Contrast	565	0.22	579	0.24	716	0.30
Embedded—Masking	2,759	1.10	2,472	1.01	3,077	1.30
Embedded—Permissive Mode	1,801	0.72	1,717	0.70	197	0.08
Embedded—Print Size	628	0.25	625	0.26	322	0.14
Embedded—Text-to-Speech	15,902	6.33	14,081	5.75	6,117	2.58
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	61	0.02	60	0.02	8	0.00
Embedded—Translations (glossary)	81	0.03	100	0.04	92	0.04
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	396	0.16	345	0.14	201	0.08
Non-Embedded—Color Overlay	267	0.11	202	0.08	140	0.06
Non-Embedded—Magnification	502	0.20	424	0.17	298	0.13
Non-Embedded—Noise Buffers	1,167	0.46	947	0.39	462	0.19
Non-Embedded—Read Aloud	3,806	1.51	3,262	1.33	1,509	0.64
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	135	0.05	93	0.04	92	0.04
Non-Embedded—Scribe	445	0.18	385	0.16	198	0.08
Non-Embedded—Separate Setting	8,962	3.57	8,459	3.46	6,138	2.59
Non-Embedded—Translated Test Directions	192	0.08	158	0.06	234	0.10
Other						
Unlisted Resources	15	0.01	8	0.00	7	0.00
Designated support or accommodation is in IEP	17,110	6.81	15,513	6.34	8,803	3.71
Designated support or accommodation is in Section 504 plan	564	0.22	582	0.24	403	0.17

Table 2.B.51 Special Services Summary for Mathematics, CAT, Grades Three through Six—IFEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	2	0.01	6	0.03	7	0.04	3	0.01
Embedded—Braille	0	0.00	0	0.00	2	0.01	0	0.00
Embedded—Streamlining	6	0.04	12	0.06	17	0.09	18	0.09
Non-Embedded—Abacus	1	0.01	2	0.01	1	0.01	1	0.00
Non-Embedded—Alternate Response Options	1	0.01	1	0.01	2	0.01	0	0.00
Non-Embedded—Calculator	10	0.06	12	0.06	23	0.12	66	0.32
Non-Embedded—Multiplication Table	N/A	N/A	113	0.61	139	0.75	152	0.74
Non-Embedded—Print on Demand	0	0.00	5	0.03	3	0.02	2	0.01
Non-Embedded—Speech-to-Text	14	0.08	25	0.13	16	0.09	17	0.08
Designated Supports								
Embedded—Color Contrast	17	0.10	24	0.13	20	0.11	22	0.11
Embedded—Masking	81	0.49	85	0.46	66	0.35	75	0.37
Embedded—Permissive Mode	38	0.23	53	0.29	59	0.32	57	0.28
Embedded—Print Size	29	0.18	17	0.09	30	0.16	14	0.07
Embedded—Text-to-Speech	606	3.66	644	3.46	615	3.30	547	2.67
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	55	0.33	42	0.23	29	0.16	18	0.09
Embedded—Translations (glossary)	44	0.27	43	0.23	38	0.20	27	0.13
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.01	0	0.00
Non-Embedded—Color Contrast	5	0.03	5	0.03	10	0.05	9	0.04
Non-Embedded—Color Overlay	5	0.03	10	0.05	8	0.04	12	0.06
Non-Embedded—Magnification	8	0.05	12	0.06	11	0.06	12	0.06
Non-Embedded—Noise Buffers	48	0.29	42	0.23	58	0.31	42	0.20
Non-Embedded—Read Aloud	116	0.70	142	0.76	126	0.68	115	0.56
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	11	0.07	8	0.04	7	0.04	1	0.00
Non-Embedded—Scribe	13	0.08	12	0.06	14	0.08	11	0.05
Non-Embedded—Separate Setting	142	0.86	202	1.09	219	1.18	208	1.01
Non-Embedded—Translated Test Directions	12	0.07	21	0.11	14	0.08	11	0.05
Other								
Unlisted Resources	0	0.00	0	0.00	1	0.01	0	0.00
Designated support or accommodation is in IEP	195	1.18	289	1.55	333	1.79	378	1.84
Designated support or accommodation is in Section 504 plan	1	0.01	14	0.08	16	0.09	17	0.08

Table 2.B.52 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—IFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	8	0.04	4	0.02	4	0.01
Embedded—Braille	1	0.00	0	0.00	4	0.01
Embedded—Streamlining	18	0.08	9	0.04	14	0.04
Non-Embedded—Abacus	2	0.01	1	0.00	1	0.00
Non-Embedded—Alternate Response Options	5	0.02	0	0.00	6	0.02
Non-Embedded—Calculator	91	0.41	86	0.41	134	0.40
Non-Embedded—Multiplication Table	126	0.57	97	0.46	47	0.14
Non-Embedded—Print on Demand	1	0.00	1	0.00	7	0.02
Non-Embedded—Speech-to-Text	16	0.07	7	0.03	14	0.04
Designated Supports						
Embedded—Color Contrast	12	0.05	19	0.09	108	0.32
Embedded—Masking	69	0.31	71	0.34	508	1.51
Embedded—Permissive Mode	100	0.45	76	0.36	8	0.02
Embedded—Print Size	23	0.10	13	0.06	30	0.09
Embedded—Text-to-Speech	540	2.45	460	2.19	788	2.34
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	10	0.05	7	0.03	4	0.01
Embedded—Translations (glossary)	13	0.06	14	0.07	25	0.07
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	11	0.05	6	0.03	3	0.01
Non-Embedded—Color Overlay	7	0.03	3	0.01	3	0.01
Non-Embedded—Magnification	17	0.08	8	0.04	13	0.04
Non-Embedded—Noise Buffers	40	0.18	25	0.12	21	0.06
Non-Embedded—Read Aloud	91	0.41	77	0.37	55	0.16
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	6	0.03	0	0.00	1	0.00
Non-Embedded—Scribe	7	0.03	5	0.02	9	0.03
Non-Embedded—Separate Setting	223	1.01	156	0.74	253	0.75
Non-Embedded—Translated Test Directions	9	0.04	4	0.02	9	0.03
Other						
Unlisted Resources	0	0.00	0	0.00	1	0.00
Designated support or accommodation is in IEP	351	1.60	286	1.36	396	1.17
Designated support or accommodation is in Section 504 plan	13	0.06	17	0.08	16	0.05

Table 2.B.53 Special Services Summary for Mathematics, CAT, Grades Three through Six—EL Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	37	0.03	41	0.03	43	0.04	44	0.05
Embedded—Braille	5	0.00	1	0.00	5	0.01	3	0.00
Embedded—Streamlining	397	0.29	490	0.39	497	0.50	462	0.57
Non-Embedded—Abacus	73	0.05	87	0.07	69	0.07	53	0.07
Non-Embedded—Alternate Response Options	58	0.04	88	0.07	57	0.06	73	0.09
Non-Embedded—Calculator	465	0.34	1,058	0.85	1,470	1.49	2,960	3.64
Non-Embedded—Multiplication Table	N/A	N/A	5,610	4.50	7,012	7.10	6,154	7.57
Non-Embedded—Print on Demand	62	0.05	90	0.07	105	0.11	83	0.10
Non-Embedded—Speech-to-Text	611	0.45	763	0.61	859	0.87	700	0.86
Designated Supports								
Embedded—Color Contrast	592	0.44	570	0.46	463	0.47	485	0.60
Embedded—Masking	2,517	1.86	2,814	2.26	2,474	2.51	2,228	2.74
Embedded—Permissive Mode	543	0.40	654	0.53	571	0.58	519	0.64
Embedded—Print Size	669	0.50	631	0.51	597	0.60	389	0.48
Embedded—Text-to-Speech	22,624	16.76	22,861	18.36	19,022	19.27	15,314	18.83
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	2,762	2.05	2,137	1.72	1,872	1.90	1,890	2.32
Embedded—Translations (glossary)	9,723	7.20	8,466	6.80	6,780	6.87	5,913	7.27
Embedded—Turn off any Universal Tool	0	0.00	1	0.00	3	0.00	0	0.00
Non-Embedded—Color Contrast	255	0.19	352	0.28	263	0.27	285	0.35
Non-Embedded—Color Overlay	341	0.25	322	0.26	235	0.24	216	0.27
Non-Embedded—Magnification	564	0.42	585	0.47	400	0.41	387	0.48
Non-Embedded—Noise Buffers	1,523	1.13	1,619	1.30	1,517	1.54	1,017	1.25
Non-Embedded—Read Aloud	5,399	4.00	5,988	4.81	5,740	5.82	4,441	5.46
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	881	0.65	645	0.52	492	0.50	567	0.70
Non-Embedded—Scribe	587	0.43	578	0.46	407	0.41	250	0.31
Non-Embedded—Separate Setting	5,506	4.08	6,993	5.62	7,247	7.34	6,153	7.57
Non-Embedded—Translated Test Directions	3,333	2.47	2,683	2.15	2,058	2.09	2,084	2.56
Other								
Unlisted Resources	5	0.00	6	0.00	8	0.01	4	0.00
Designated support or accommodation is in IEP	10,382	7.69	13,461	10.81	14,228	14.42	12,893	15.86
Designated support or accommodation is in Section 504 plan	194	0.14	195	0.16	188	0.19	125	0.15

Table 2.B.54 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	42	0.06	50	0.09	48	0.12
Embedded—Braille	3	0.00	3	0.01	2	0.01
Embedded—Streamlining	315	0.48	311	0.55	106	0.27
Non-Embedded—Abacus	24	0.04	13	0.02	17	0.04
Non-Embedded—Alternate Response Options	53	0.08	36	0.06	20	0.05
Non-Embedded—Calculator	3,101	4.72	2,789	4.95	1,448	3.63
Non-Embedded—Multiplication Table	4,420	6.72	3,326	5.90	672	1.69
Non-Embedded—Print on Demand	70	0.11	40	0.07	32	0.08
Non-Embedded—Speech-to-Text	671	1.02	552	0.98	202	0.51
Designated Supports						
Embedded—Color Contrast	274	0.42	213	0.38	315	0.79
Embedded—Masking	2,059	3.13	1,613	2.86	1,318	3.31
Embedded—Permissive Mode	419	0.64	333	0.59	50	0.13
Embedded—Print Size	367	0.56	267	0.47	140	0.35
Embedded—Text-to-Speech	11,130	16.93	8,934	15.84	3,553	8.91
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	1,828	2.78	1,879	3.33	1,823	4.57
Embedded—Translations (glossary)	4,974	7.57	4,287	7.60	4,629	11.61
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	1	0.00
Non-Embedded—Color Contrast	192	0.29	182	0.32	47	0.12
Non-Embedded—Color Overlay	86	0.13	80	0.14	40	0.10
Non-Embedded—Magnification	437	0.66	318	0.56	111	0.28
Non-Embedded—Noise Buffers	755	1.15	493	0.87	116	0.29
Non-Embedded—Read Aloud	3,260	4.96	2,708	4.80	1,205	3.02
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	484	0.74	440	0.78	318	0.80
Non-Embedded—Scribe	174	0.26	131	0.23	60	0.15
Non-Embedded—Separate Setting	5,007	7.62	4,237	7.51	2,640	6.62
Non-Embedded—Translated Test Directions	1,824	2.77	1,745	3.09	1,696	4.26
Other						
Unlisted Resources	4	0.01	1	0.00	7	0.02
Designated support or accommodation is in IEP	10,691	16.26	9,155	16.24	4,335	10.88
Designated support or accommodation is in Section 504 plan	89	0.14	82	0.15	44	0.11

Table 2.B.55 Special Services Summary for Mathematics, CAT, Grades Three through Six—RFEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded—American Sign Language	3	0.01	2	0.00	9	0.01	7	0.01
Embedded—Braille	0	0.00	1	0.00	1	0.00	2	0.00
Embedded—Streamlining	5	0.01	23	0.04	32	0.04	54	0.05
Non-Embedded—Abacus	3	0.01	4	0.01	6	0.01	4	0.00
Non-Embedded—Alternate Response Options	3	0.01	6	0.01	9	0.01	6	0.01
Non-Embedded—Calculator	9	0.02	28	0.05	75	0.09	274	0.27
Non-Embedded—Multiplication Table	N/A	N/A	171	0.28	408	0.47	651	0.63
Non-Embedded—Print on Demand	3	0.01	2	0.00	14	0.02	10	0.01
Non-Embedded—Speech-to-Text	15	0.04	23	0.04	37	0.04	68	0.07
Designated Supports								
Embedded—Color Contrast	57	0.14	109	0.18	160	0.18	208	0.20
Embedded—Masking	282	0.70	383	0.62	622	0.72	594	0.58
Embedded—Permissive Mode	196	0.49	255	0.42	365	0.42	341	0.33
Embedded—Print Size	88	0.22	55	0.09	181	0.21	97	0.09
Embedded—Text-to-Speech	2,202	5.50	3,359	5.48	4,648	5.34	4,826	4.69
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	133	0.33	165	0.27	253	0.29	144	0.14
Embedded—Translations (glossary)	762	1.90	1,291	2.10	1,218	1.40	1,266	1.23
Embedded—Turn off any Universal Tool	0	0.00	1	0.00	1	0.00	0	0.00
Non-Embedded—Color Contrast	24	0.06	54	0.09	91	0.10	122	0.12
Non-Embedded—Color Overlay	63	0.16	107	0.17	144	0.17	165	0.16
Non-Embedded—Magnification	42	0.10	71	0.12	111	0.13	142	0.14
Non-Embedded—Noise Buffers	108	0.27	154	0.25	249	0.29	275	0.27
Non-Embedded—Read Aloud	293	0.73	373	0.61	572	0.66	723	0.70
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	28	0.07	43	0.07	61	0.07	61	0.06
Non-Embedded—Scribe	45	0.11	54	0.09	91	0.10	91	0.09
Non-Embedded—Separate Setting	201	0.50	376	0.61	685	0.79	959	0.93
Non-Embedded—Translated Test Directions	88	0.22	103	0.17	192	0.22	206	0.20
Other								
Unlisted Resources	0	0.00	1	0.00	0	0.00	3	0.00
Designated support or accommodation is in IEP	246	0.61	542	0.88	1,050	1.21	1,649	1.60
Designated support or accommodation is in Section 504 plan	23	0.06	27	0.04	50	0.06	46	0.04

Table 2.B.56 Special Services Summary for Mathematics, CAT, Grades Seven, Eight, and Eleven—RFEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded—American Sign Language	8	0.01	6	0.00	6	0.00
Embedded—Braille	1	0.00	5	0.00	0	0.00
Embedded—Streamlining	57	0.05	82	0.06	51	0.04
Non-Embedded—Abacus	3	0.00	14	0.01	8	0.01
Non-Embedded—Alternate Response Options	18	0.02	16	0.01	12	0.01
Non-Embedded—Calculator	536	0.45	723	0.56	596	0.49
Non-Embedded—Multiplication Table	777	0.66	903	0.70	247	0.21
Non-Embedded—Print on Demand	17	0.01	20	0.02	23	0.02
Non-Embedded—Speech-to-Text	99	0.08	111	0.09	59	0.05
Designated Supports						
Embedded—Color Contrast	99	0.08	98	0.08	724	0.60
Embedded—Masking	743	0.63	751	0.59	1,938	1.61
Embedded—Permissive Mode	435	0.37	429	0.33	18	0.01
Embedded—Print Size	119	0.10	106	0.08	117	0.10
Embedded—Text-to-Speech	4,666	3.95	5,391	4.20	3,809	3.16
Embedded—Translated Test Directions (with Spanish Stacked Translation only)	109	0.09	125	0.10	119	0.10
Embedded—Translations (glossary)	1,138	0.96	1,098	0.86	814	0.68
Embedded—Turn off any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded—Color Contrast	105	0.09	125	0.10	118	0.10
Non-Embedded—Color Overlay	79	0.07	90	0.07	109	0.09
Non-Embedded—Magnification	169	0.14	174	0.14	149	0.12
Non-Embedded—Noise Buffers	295	0.25	267	0.21	161	0.13
Non-Embedded—Read Aloud	618	0.52	739	0.58	432	0.36
Non-Embedded—Read Aloud (also for Spanish Stacked Translation)	84	0.07	90	0.07	93	0.08
Non-Embedded—Scribe	98	0.08	102	0.08	114	0.09
Non-Embedded—Separate Setting	1,210	1.02	1,519	1.18	1,317	1.09
Non-Embedded—Translated Test Directions	133	0.11	162	0.13	322	0.27
Other						
Unlisted Resources	0	0.00	3	0.00	3	0.00
Designated support or accommodation is in IEP	2,192	1.85	2,781	2.17	1,896	1.57
Designated support or accommodation is in Section 504 plan	61	0.05	73	0.06	47	0.04

Chapter 3: Item Development

3.1. Background

The Smarter Balanced Assessment Consortium, in coordination with its member states, developed innovative item types and authored items based on the Common Core State Standards. The Consortium used an iterative process involving higher education and kindergarten–grade twelve educators who were trained in item development, as well as state partners, professional item writers, and assessment vendors at various stages in the item development process.

3.2. Additional Information

More information regarding the item development process (including the qualifications of those involved), item development specifications, and content alignment studies undertaken by Smarter Balanced to produce item types and items for the assessment can be found in Chapter 3 of the *2013–14 Technical Report* (Smarter Balanced, 2016).

Reference

Smarter Balanced Assessment Consortium. (2016). *Smarter Balanced Assessment Consortium: 2013–14 technical report*. Los Angeles, CA: Smarter Balanced Assessment Consortium. Retrieved from <https://portal.smarterbalanced.org/library/en/2013-14-technical-report.pdf>

Chapter 4: Test Assembly

The Smarter Balanced Summative Assessments were administered operationally as part of the California Assessment of Student Performance and Progress for the first time during the 2014–15 school year. The summative assessments each consist of two parts: a computer adaptive test (CAT) and performance tasks (PTs). The Smarter Balanced Summative Assessments are constructed to measure students’ performance relative to Common Core State Standards (CCSS). The assessments also are constructed to produce scores that meet professional standards for reliability and validity of test score interpretation. The content standards and desired psychometric attributes are used as the basis for assembling the test forms.

4.1. Smarter Balanced Adaptive Item Selection Algorithm

This subsection describes the algorithm and the design for implementation of adaptive item selection for the Smarter Balanced test delivery system. The implementation builds extensively on the algorithm implemented in American Institutes for Research’s (AIR’s) test delivery system.

The general item selection approach is that the next item to be administered to a specific student is chosen on the basis of a function of three variables. The first variable is an index of the importance of the item for meeting the content requirements of the test. The other two variables are values of the item response theory (IRT) item information function in the region of the student’s current ability estimate. One of these information functions is for the student’s total score; the other is for the student’s claim score.

More information about how each of these three measures is defined can be found in the *Smarter Balanced Adaptive Item Selection Algorithm* document (AIR, 2014).

Values for these three measures are calculated to guide and support item selection. A value is computed for whether the item will be selected based on how well that item matches the target content, contributes to overall score information, and contributes to claim score information.

$$\begin{aligned}
 & \textit{Item Selection} \\
 & = w_1 \textit{Content Match} + w_2 \textit{Overall Information} \\
 & + w_3 \textit{Claim Information}
 \end{aligned}
 \tag{4.1}$$

This objective function is used to measure an item’s contribution to each of these objectives. A higher value for “Content Match” means that an item is more important for meeting the content requirements. A higher value for “Overall Information” means that an item contributes more information to the estimation of the student’s current overall ability. A higher value for “Claim Information” means that an item contributes more information for estimating the student’s current claim ability. Weights of these objectives can be adjusted to achieve the desired balance and optimize performance for a given item pool. This algorithm enables users to maximize information subject to the constraint that the blueprint is almost always met, with minimal exceptions.

4.1.1 Content Match

Each item or item group is characterized by its contribution to meeting the blueprint, given the items that have already been administered at any point. The contribution is based on the presence or absence of features specified in the blueprint.

The Smarter Balanced summative test blueprints describe the content of the English language arts/literacy (ELA) and mathematics summative assessments for all grades tested and the means by which that content is assessed. The summative online test blueprints reflect the depth and breadth of the performance expectations of the CCSS.

The test blueprints have information about the number of items and depth of knowledge for items associated with each assessment target. Each test is described by a single blueprint for each claim of the test.

Each blueprint has features referred to as *constraints*. Constraints define features such as the minimum and maximum number of items required in a specific content area. For example, a constraint might require a minimum of four and a maximum of six algebra items. The value of content match is highest for items with content that has not met its minimum constraint, decreases for items representing content for which the minimum number of items has been reached but the maximum has not, and becomes negative for items representing content that has met the maximum.

See the blueprints for the Smarter Balanced ELA and mathematics assessments provided in Appendix 2.A starting on page 23 for additional details.

4.1.2 Information

Every item has an overall information value within the CAT algorithm and an information value for each claim. Details on how information is calculated is provided in equations 7.7 through 7.11 in *7.4.3 Theta Scores Standard Error* starting on page 154.

Items with higher discrimination parameters offer more information and therefore are generally given preference in item selection. Because the overexposure of highly discriminating items is a test security risk, the item selection algorithm includes additional rules to control the exposure of the items that provide the highest measurement information (AIR, 2014).

4.2. Simulation Study

For the CAT, prior to opening the operational testing window, AIR conducts simulations to evaluate and ensure the appropriate implementation and quality of the adaptive item-selection algorithm and the scoring algorithm. The simulation tool allows manipulation of key blueprint and configuration settings to match the blueprint of the test and minimize measurement error. In this simulation study, the adaptive tests are administered in one segment (section) in ELA and mathematics grades three through five and in two segments in mathematics grades six through eight and grade eleven, including calculator and no-calculator segments. Each segment is simulated separately.

In *Smarter Balanced Summative Assessments Testing Procedures for Adaptive Item-Selection Algorithm*, AIR (2015) presents the results of an examination of the robustness of the item-selection algorithm of the Smarter Balanced CAT administrations in ELA and mathematics for grades three through eight and grade eleven. The information provided by the simulations includes:

- evaluation of the simulation step,
- the percentage of tests aligned with the test blueprints (blueprint match rates),
- the number of targets (subclaims) covered in the simulated forms,

- accuracy of ability estimates indicated by bias and precision of ability estimates indicated by standard error,
- item exposure rates,
- selection of off-grade items and corresponding psychometric properties, and
- exposure rates of embedded field-test items.

The results of AIR's simulation study show the following:

- Across content areas and grade levels, 98 percent or more of the simulated tests covered the test blueprint.
- Scale scores were estimated precisely across the entire scale with the exception of scores near the highest obtainable scale score and the lowest obtainable scale score.
- The vast majority of items were exposed to students less than 20 percent of the time.
- The embedded field-test item exposure rates were below one percent.

Table 4.1 contains characteristics of items students received particular to the content area tests.

Table 4.1 Item Distribution Characteristics

Characteristic	ELA	Mathematics
Received off-grade items	11–55% of students in grades 3–8 only	16–54% of students in grades 4–8 and grade 11
Scored above standard, received above-grade items	4–18% of the students for grades 3–8 only	N/A
Scored as not meeting the standard, received below-grade items	38–50% of students in grades 4, 6, and 7 only	19–54% of students in grades 4–8 and grade 11

AIR concluded that content domain scores were comparable across the grades within the content area with respect to a certain content domain and that scores at various ranges of the score distribution were measured with good precision. The results also demonstrated that global item exposure was controlled to the extent that no items were used too often, off-grade items were administered according to criteria in the test specifications to students who were performing very well or very poorly on the test, and the field-test items were distributed equally across multiple blocks within a test as intended for that grade and content area.

References

American Institutes for Research. (2014). *Smarter Balanced adaptive item selection algorithm design report*. Washington, DC: American Institutes for Research. Retrieved from <http://www.smarterapp.org/documents/AdaptiveAlgorithm-Preview-v3.pdf>

American Institutes for Research. (2015). *Smarter Balanced Summative Assessments testing procedures for adaptive item-selection algorithm*. Washington, DC: American Institutes for Research. Retrieved from <https://portal.smarterbalanced.org/library/en/testing-procedures-for-adaptive-item-selection-algorithm.pdf>

Chapter 5: Test Administration

This chapter provides an overview of the Smarter Balanced California Assessment of Student Performance and Progress (CAASPP) test administration and includes descriptions of the measures to ensure test security, procedures to maintain standardization, and procedures for implementation of test accommodations based on Standard 7.8 of the *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014).

5.1. Test Administration

The window for 2015–16 testing was January 19, 2016, through the end of July 2016. Specific test administration schedules within that window were determined locally pursuant to the *California Code of Regulations*, Title 5 (5 CCR), Sections 855 (b) (1) and 855 (b) (2) and proposed emergency regulations 5 CCR, Sections 855 (a) (1), 855 (a) (2), 855 (b), and 855 (c).

Educational Testing Service (ETS) conducted on-site test administration workshops in various locations throughout California in January and February and produced Webcasts and videos on helpful topics. In addition, ETS provided a number of test administration resources to schools and local educational agencies (LEAs). These resources included detailed information on topics such as technology readiness, test administration, test security, accommodations, using the test delivery system, and general testing rules. These resources are discussed in more detail in the section *Procedures to Maintain Standardization*.

5.1.1 Test Delivery Sections

The test delivery sections correspond to the computer adaptive tests (CATs) and performance task (PT) portions of the assessments. CAT items are delivered dynamically based on the students' performance on the previous items; students typically see many different items, and items seen by any two students may appear in different locations within the test. For a given PT, students see the same items in the same order of presentation and associated test length (see Table 5.A.1 and Table 5.A.2 for the numbers of items in each PT). Since PT items have a classroom-based activity and were organized thematically, they were randomly assigned at the school level.

The distributions of the number of items presented to students for the total test and the CAT and the PT components are presented in Table 5.B.1 through Table 5.B.3. Table 5.B.4 presents the counts and percentages of students administered items who meet the criteria specified in the blueprints, students who do not meet the criteria, and students who exceed the criteria. Criteria for the minimum number of items for each claim that are required in the blueprints are provided in Table 8.1 on page 311.

5.1.1.1 Computer Adaptive Testing (CAT) Administration

CAT-delivered assessments are assembled dynamically to obtain a unique test for each student from a defined item pool so that each student obtains a unique, content-conforming test form. Item statistics based on item response theory (IRT) are used to determine the administration and adaptation of test items based on student responses/ability; this information is incorporated into the delivery algorithm. The item selection algorithm is described in more detail in *4.1 Smarter Balanced Adaptive Item Selection Algorithm*, which

starts on page 108. Item exposure control (e.g., Sympson & Hetter, 1985) can be used to ensure that uniform rates of item administration are achieved—that is, it is not desirable to have some items presented to many students while other items are presented to relatively few students.

5.1.1.2 Performance Task (PT) Administration

Delivery of Classroom Activities

LEAs are requested to administer an optional Classroom Activity before administering PT items in order to introduce students to the context of a PT so they are not disadvantaged in demonstrating the skills the task intends to assess (California Department of Education [CDE], 2016e). A Classroom Activity is assigned by school and grade, and all the grades within a school are assigned to the same grade-level Classroom Activity.

Four to six separate PTs are associated with each Classroom Activity. Activities are assigned by ETS prior to testing. LEA CAASPP coordinators are directed to obtain Classroom Activity assignments and the nonsecure PDFs of the Classroom Activities from the program resource Web site at <http://www.caaspp.org/>.

The Classroom Activity and teacher directions on how to form and monitor groups for the classroom component of the PTs help to ensure that no students are disadvantaged simply because of the group to which they are assigned. Group work is not scored but is designed as a means to accomplish such ends as the generation of data, discussion and sharing of information, or role-playing for the purposes of the task. To avoid the possibility of small-group discussions potentially serving to advantage some groups, the teacher directions require the use of standardized scripts to summarize key points that should have come out of the group discussions. Procedures for standardizing the group-work component may vary depending on the task type. Some task steps require teachers to play more than a monitoring role and/or students to perform small-group work.

Teachers and administrators are directed not to assist students during the tests. The permitted types of teacher and peer/student interactions for a task are standardized (i.e., carefully scripted and explicitly described in task directions) for the purposes of both fairness and security. Although small-group work may be involved in some part of a Classroom Activity, this work is not scored. Students are informed about the nature of the final product(s) at the beginning of the Classroom Activity task. The task directions include information for the students on what parts of their work are scored.

Delivery of PT Items

Smarter Balanced Assessment Consortium item and task specifications assume online delivery of the items and tasks. Most tasks are long enough to warrant several administration sessions. Such sessions could be same-day, back-to-back sessions with short breaks between sessions. All tasks are administered in controlled classroom settings. Expected time requirements for completing PTs and administration time are provided in subject-specific documentation.

Student directions for all tasks begin with an overview of the entire task that briefly describes the necessary steps. The overview gives students advanced knowledge of the scorable products or performances to be created (Khattri, Reeve, & Kane, 1998). Allowable teacher-student interactions for a task are standardized (i.e., carefully scripted or described in task directions for purposes of comparability, fairness, and security). Teachers are directed not to assist students in the production of their scorable products or presentations.

Table 5.A.1 and Table 5.A.2 in Appendix 5.A starting on page 128 present the assignment proportions of each PT and the number of items in each PT.

5.2. Test Security and Confidentiality

All tests within the CAASPP System, as well as the confidentiality of student information, should be protected to ensure the validity, reliability, and fairness of the results. As stated in *Standard 7.9* (AERA, APA, & NCME, 2014), “The documentation should explain the steps necessary to protect test materials and to prevent inappropriate exchange of information during the test administration session” (p. 128). This section describes the measures intended to prevent potential test security incidents prior to testing and the actions that were taken to handle actual security incidents during or after testing using the Security and Test Administration Incident Reporting System (STAIRS) process.

For the Smarter Balanced Online Summative Assessment administration, every person who works with the assessments, communicates test results, and/or receives testing information is responsible for maintaining the security and confidentiality of the tests, including CDE staff, ETS staff, ETS subcontractors, LEA assessment coordinators, school assessment coordinators, students, parents, teachers, and cooperative educational service agency staff. ETS’s Code of Ethics requires that all test information, including tangible materials (such as test items), confidential files (such as those containing personally identifiable student information), processes related to test administration (such as the configurations of secure servers), and activities are kept secure. ETS has systems in place that maintain tight security for test items and test results, as well as for student data. To ensure security for all the tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI), which is described in the next subsection.

5.2.1 ETS’s Office of Testing Integrity (OTI)

The OTI is a division of ETS that provides quality assurance services for all testing programs managed by ETS; this division resides in the ETS legal department. The Office of Professional Standards Compliance at ETS publishes and maintains *ETS Standards for Quality and Fairness* (2014), which supports the OTI’s goals and activities. The *ETS Standards for Quality and Fairness* provides guidelines to help ETS staff design, develop, and deliver technically sound, fair, and beneficial products and services and help the public and auditors evaluate those products and services.

The OTI’s mission is to:

- minimize any testing security violations that can impact the fairness of testing,
- minimize and investigate any security breach that threatens the validity of the interpretation of test scores, and
- report on security activities.

The OTI helps prevent misconduct on the part of students and administrators, detects potential misconduct through empirically established indicators, and resolves situations involving misconduct in a fair and balanced way that reflects the laws and professional standards governing the integrity of testing. In its pursuit of enforcing secure practices, the OTI strives to safeguard the various processes involved in a test development and administration cycle.

5.2.2 Test Delivery

Test security requires accounting for all secure materials—including online summative test items, paper-pencil tests, and student data—before, during, and after each test administration. The LEA CAASPP coordinator is responsible for keeping all electronic and paper-pencil test materials secure, keeping student information confidential, and making sure the CAASPP test site coordinators and test administrators are properly trained regarding security policies and procedures.

The CAASPP test site coordinator is responsible for mitigating test security incidents at the test site and for reporting incidents to the LEA CAASPP coordinator. If the test site administered paper-pencil tests, the CAASPP test site coordinator is also responsible for the return of any secure materials to the LEA CAASPP coordinator, who, in turn, is responsible for returning any materials to the Scoring and Processing Center.

The test administrator is responsible for reporting testing incidents to the CAASPP test site coordinator and securely destroying printed and digital media for items and/or passages generated by the print-on-demand feature of the test delivery system (TDS) (CDE, 2016e and 2016d).

The following measures ensure the security of CAASPP System assessments:

- LEA CAASPP coordinators and test site coordinators must sign and submit a “CAASPP Test Security Agreement for LEA CAASPP coordinators and CAASPP test site coordinators” form to the California Technical Assistance Center before ETS can grant the coordinators access to the Test Operations Management System (TOMS). (5 CCR, Section 859 [a])
- Anyone having access to the testing materials must sign and submit a “Test Security Affidavit for Test Examiners, Test Administrators, Proctors, Translators, Scribes, and Any Other Person Having Access to CAASPP Tests, 2015–16 School Year” form to the CAASPP test site coordinator before receiving access to any testing materials. (5 CCR, Section 859 [c])

In addition, it is the responsibility of every participant in the CAASPP System to immediately report any violation or suspected violation of test security or confidentiality. The test site coordinator must report to the LEA CAASPP coordinator. The LEA CAASPP coordinator must report to the CDE within 24 hours of the incident. (5 CCR, Section 859 [e])

5.2.3 Security of Electronic Files Using a Firewall

A firewall is software that prevents unauthorized entry to files, e-mail, and other organization-specific information. All ETS data exchanges and internal e-mail remain within the ETS firewall at all ETS locations, ranging from Princeton, New Jersey, to San Antonio, Texas, to Concord and Sacramento, California.

All electronic applications that are included in TOMS remain protected by the ETS firewall software at all times. Due to the sensitive nature of the student information processed by TOMS, the firewall plays a significant role in maintaining an assurance of confidentiality among the users of this information.

See the subsection on Systems Overview and Functionality on page 8 in Chapter 1 for more information on TOMS.

5.2.4 Transfer of Scores via Secure Data Exchange

Due to the confidential nature of test results, ETS uses secure file transfer protocol (SFTP) and encryption for all data file transfers, including student data files. SFTP is a method for reliable and exclusive routing of files. Files reside on a password-protected server that can be accessed only by authorized users. ETS shares an SFTP server with the CDE. On that site, ETS posts Microsoft Word and Excel files, Adobe Acrobat PDFs, or other document files for the CDE to review; the CDE returns reviewed materials in the same manner.

ETS enters information about the deliverable in a Web form on a SharePoint Web site when a file has been posted; a CDE staff member checks this log throughout the day to check the status of deliverables and downloads the file from the SFTP server when its status shows it has been posted.

Data are always transmitted to the SFTP server in an encrypted format; test data are never sent via e-mail. The SFTP server is used as a conduit for the transfer of files; secure test data are stored only temporarily on the shared SFTP server.

5.2.5 Data Management

ETS maintains a secure database to house all student demographic data and assessment results. Information associated with each student has a database relationship to the LEA, school, and grade codes as these data are collected during the operational chain of events. Only individuals with the appropriate credentials can access these data. ETS builds all interfaces with the most stringent security considerations, including interfaces with data encryption for databases that store test items and student data. ETS applies best security practices, including system-to-system authentication and authorization, in all solution designs.

In TOMS, staff at LEAs and test sites have different levels of access appropriate to the role assigned to them.

All stored test content and student data are encrypted. Industry-standard secure protocols are used to transfer test content and student data from the ETS internal data center to any external systems. ETS complies with the Family Educational Rights and Privacy Act (20 *United States Code [USC]* § 1232g; 34 *Code of Federal Regulations* Part 99) and the Children's Online Privacy Protection Act (15 *USC* §§ 6501–6506, P.L. No. 105–277, 112 Stat. 2681–1728).

5.2.6 Statistical Analysis

The information technology staff at ETS retrieves data files from the American Institutes for Research and loads them into a database. The ETS Data Quality Services staff extract the data from the database and perform quality control procedures before passing files to the ETS statistical analysis group. The statistical analysis staff store the files on secure servers. All staff members involved with the data adhere to the ETS Code of Ethics and the ETS Information Protection Policies to prevent any unauthorized access to data.

5.2.7 Student Confidentiality

To meet the requirements of the Every Student Succeeds Act as well as state requirements, LEAs must collect demographic data about students' ethnicity, disabilities, parent/guardian education, and so forth. ETS takes every precaution to prevent any of this information from becoming public or being used for anything other than testing purposes. These procedures are applied to all documents in which student demographic data appears, including the Pre-ID files, reports, and response booklets.

5.2.8 Student Test Results

5.2.8.1 Types of Results

The following deliverables are produced for reporting of the CAASPP Smarter Balanced Summative Assessments:

- Preliminary student reports for online assessments in the Online Reporting System (ORS)
- Preliminary student reports for paper-pencil tests in the ORS
- Individual student score reports (printed)
- Internet reports aggregated by content area and state, county, LEA, or test site

5.2.8.2 Security of Results Files

ETS takes measures to protect files and reports that show students' scores and achievement levels. ETS is committed to safeguarding all secure information in its possession from unauthorized access, disclosure, modification, or destruction. ETS has strict information security policies in place to protect the confidentiality of both student and client data. ETS staff access to production databases is limited to personnel with a business need to access the data. User IDs for production systems must be person-specific or for systems use only.

ETS has implemented network controls for routers, gateways, switches, firewalls, network tier management, and network connectivity. Routers, gateways, and switches represent points of access between networks. However, these do not contain mass storage or represent points of vulnerability, particularly for unauthorized access or denial of service.

ETS has many facilities, policies, and procedures to protect computer files. Software and procedures such as firewalls, intrusion detection, and virus control are in place to provide for physical security, data security, and disaster recovery. ETS is certified in the BS 25999-2 standard for business continuity and conducts disaster recovery exercises annually. ETS routinely backs up all data to either disks through deduplication or to tapes, all of which are stored off site.

Access to the ETS Computer Processing Center is controlled by employee and visitor identification badges. The Center is secured by doors that can only be unlocked by the badges of personnel who have functional responsibilities within its secure perimeter. Authorized personnel accompany visitors to the ETS Computer Processing Center at all times. Extensive smoke detection and alarm systems, as well as a pre-action fire-control system, are installed in the Center.

5.2.8.3 Security of Individual Results

ETS protects individual students' results on both electronic files and paper reports during the following events:

- Scoring
- Transfer of scores by means of secure data exchange
- Reporting
- Analysis and reporting of erasure marks
- Posting of aggregate data
- Storage

In addition to protecting the confidentiality of testing materials, ETS's Code of Ethics further prohibits ETS employees from financial misuse, conflicts of interest, and unauthorized appropriation of ETS property and resources. Specific rules are also given to ETS employees and their immediate families who may take a test developed by ETS (e.g., a CAASPP assessment). The ETS OTI verifies that these standards are followed throughout ETS. This verification is conducted, in part, by periodic onsite security audits of departments, with follow-up reports containing recommendations for improvement.

5.2.9 Security and Test Administration Incident Reporting System (STAIRS) Process

Test security incidents, such as improprieties, irregularities, and breaches, are prohibited behaviors that give a student an unfair advantage or compromise the secure administration of the tests, which, in turn, compromises the reliability and validity of test results (CDE, 2016e). Whether intentional or unintentional, failure by staff or students to comply with security rules constitutes a test security incident. Test security incidents have impacts on scoring and affect students' performance on the test.

LEA CAASPP coordinators and CAASPP test site coordinators must ensure that all test security and summative administration incidents are documented by filling out the secure STAIRS form for reporting, which contains selectable options to guide coordinators in their submittal. Incidents are then resolved when the LEA CAASPP coordinator or CAASPP test site coordinator either files an appeal to reset, re-open, invalidate, restore, or grant a grace period extension to a student's test, or by following other instructions in a system-generated e-mail in response to the STAIRS form submittal.

The following types of STAIRS reports are also forwarded to the CDE:

- Student cheating
- Security breach (where either a student or an adult exposed secure materials)
- Accidental access to a summative assessment
- Incorrect SSID used (intentionally switched)
- Restoring a test that had been reset
- Student unable to review previous answers (20-minute pause rule for the CAT was exceeded)

Appeals requests are reviewed by the CDE. Appeals cannot be requested without a STAIRS case number. (CDE, 2016d)

Types of appeals available during the 2015–16 CAASPP administration are described in Table 5.1, on the next page.

5.2.9.1 Impropriety

A testing impropriety is an unusual circumstance that has a low impact on the individual or group of students who are testing and has a low risk of potentially affecting student performance on the test, test security, or test validity. An impropriety can be corrected and contained at a local level. An impropriety should be reported to the LEA CAASPP coordinator and CAASPP test site coordinator immediately. The coordinator will report the incident within 24 hours, using the online CAASPP STAIRS form.

5.2.9.2 Irregularity

A testing irregularity is an unusual circumstance that impacts an individual or a group of students who are testing and may potentially affect student performance on the test or impact test security or test validity. In many cases, these circumstances can be corrected and contained at the local level; however, some cases may need to be submitted in the online Appeals System for resolution. An irregularity must be reported to the LEA CAASPP coordinator and CAASPP test site coordinator immediately. The coordinator will report the irregularity within 24 hours, using the online CAASPP STAIRS form.

5.2.9.3 Breach

A testing breach is an event that poses the greatest threat to the validity of the test. Breaches require immediate attention and escalation to the CDE via telephone. Following the call, the CAASPP test site coordinator or LEA CAASPP coordinator must complete the online CAASPP STAIRS form within 24 hours. Examples may include such situations as a release of secure materials or a security/system risk. These circumstances have external implications for the Consortium and may result in a Consortium decision to remove the test item(s) from the available secure bank. A breach incident must be reported to the LEA CAASPP coordinator immediately.

5.2.10 Appeals

For incidents that result in a need to reset, re-open, invalidate, or restore individual online student assessments, the request must be approved by the CDE. In most instances, an appeal will be submitted to address a test security breach or irregularity. The LEA CAASPP coordinator or CAASPP test site coordinator may submit appeals in TOMS. All submitted appeals are available for retrieval and review by the appropriate credentialed users within a given organization. However, the view of appeals will be restricted according to the user role as established in TOMS. An appeal can be requested only by the LEA CAASPP coordinator or CAASPP test site coordinator if directed in the e-mail response to the STAIRS form (CDE, 2016d).

Types of appeals available during the 2015–16 CAASPP administration are described in Table 5.1.

Table 5.1 Types of Appeals

Type of Appeal	Description
Reset	Resetting a student’s summative test removes that test from the system and enables the student to start a new test from the beginning.
Invalidation	Invalidated summative tests will be scored and scores will be provided on the Student Score Report with a note that an irregularity occurred. The student(s) will be counted as participating in the calculation of the school’s participation rate for federal accountability purposes. The score will be counted as “not proficient” in the 2015–16 Adequate Yearly Progress determination.
Re-open	Reopening a summative test allows a student to access a test that has already been submitted or has expired.
Restore	Restoring a summative test returns a test from the Reset status to its prior status. This action can only be performed on tests that have been reset.
Grace Period Extension	Permitting a grace period extension allows the student to review previously answered questions upon logging back on to the assessment after expiration of the pause rule. Note that for a PT, having the test administrator open a new testing session may be all that is needed to continue testing.

5.3. Processing and Scoring

The constructed-response (CR) data and the TDS-scored data for tests completed by students in a given day flow from the TDS to ETS. The TDS is capable of scoring a variety of item types referred to as “machine-scored” items, which are described in the subsection *Approach to Scoring Item Responses*. Outcomes of CR items are scored by artificial intelligence or by human scoring.

Targeted efforts are made to recruit California educators for participation as raters in the human scoring portion of the Smarter Balanced assessments. Raters are certified based on their ability to use a rubric and accurately score sample responses. Once approved, raters are trained to access the MI and ETS scoring interfaces and Smarter Balanced-specific scoring policies and procedures and are provided interactive training to practice scoring sample responses with feedback from the scoring leader.

Raters work in shifts and are supervised by a scoring leader who has received special training in scoring and monitoring. Raters are provided Smarter Balanced materials to aid scoring; these materials include anchor sets, scoring rubrics, validity samples, qualifying sets, and condition codes (See the subsection *7.3 Rater Training* on page 139 for the definitions of these materials). A scoring leader gives direct feedback to raters for additional content support. Scoring of California student responses is given priority routing to raters who are California-based educators.

5.4. Procedures to Maintain Standardization

The procedures are designed so that the tests are administered and scored in a standardized manner. ETS takes all necessary measures to ensure the standardization of test administration, as described in this section. See also subsection *11.4 Test Administration* on page 675 for additional information about administration of the CAASPP Smarter Balanced paper-pencil tests.

5.4.1 LEA CAASPP Coordinator

An LEA CAASPP coordinator is designated by the district superintendent at the beginning of the 2015–16 school year. LEAs include public school districts, statewide benefit charter schools, State Board of Education–authorized charter schools, county office of education programs, and charter schools testing independently from their home district.

LEA CAASPP coordinators are responsible for ensuring the proper and consistent administration of the CAASPP assessments. In addition to the responsibilities set forth in 5 CCR Section 857, their responsibilities include:

- add CAASPP test site coordinators and test administrators into TOMS;
- train CAASPP test site coordinators and test administrators regarding the state and Smarter Balanced assessment administration as well as security policies and procedures;
- report test security incidents (including testing irregularities) to the CDE;
- oversee test administration activities;
- print out checklists for CAASPP test site coordinators and test administrators to review in preparation for administering the summative assessments;
- distribute and collect scorable and nonscorable materials for students who take paper-pencil tests;

- file a report of a testing incident in STAIRS; and
- request an appeal (if the STAIRS response e-mail indicates that an appeal is warranted).

5.4.2 CAASPP Test Site Coordinator

A CAASPP test site coordinator is designated by the LEA CAASPP coordinator or district superintendent for each test site (5 CCR Section 858 [a]). A test site coordinator must be an employee of the LEA and must sign a security agreement.

A test site coordinator is responsible for identifying test administrators and ensuring that they have signed CAASPP Test Security Affidavits (5 CCR Section 850 [w]). CAASPP test site coordinators' duties may include:

- add test administrators into TOMS;
- enter test settings for students;
- create testing schedules and procedures for a school consistent with state and LEA policies;
- work with technology staff to ensure secure browsers are installed and any technical issues are resolved;
- monitor testing progress during the testing window and ensure all students participate, as appropriate;
- coordinate and verify the correction of student data errors in the California Longitudinal Pupil Achievement Data System;
- ensure a student's test session is rescheduled, if necessary;
- address testing problems;
- report security incidents;
- oversee administration activities at a school site;
- file a report of a testing incident in STAIRS; and
- request an appeal (if the STAIRS response e-mail indicates that an appeal is warranted).

5.4.3 Test Administrators

Test administrators are identified by CAASPP test site coordinators as individuals who will administer the Smarter Balanced Summative Assessments.

A test administrator must sign a security affidavit (5 CCR Section 850 [w]). A test administrator's duties may include:

- ensure the physical conditions of the testing room meet the criteria for a secure test environment;
- administer the CAASPP assessments;
- report all test security incidents to the test site coordinator and LEA CAASPP coordinator in a manner consistent with Smarter Balanced, state, and LEA policies;
- view student information prior to testing to ensure that the correct student receives the proper test with appropriate supports and report potential data errors to test site coordinators and LEA CAASPP coordinators;
- monitor student progress throughout the test session using the Test Administrator Interface; and

- fully comply with all directions provided in the *Directions for Administration for the Smarter Balanced Online Summative Assessments* (CDE, 2016j).

5.4.4 Instructions for Test Administrators

5.4.4.1 Test Administrator Directions for Administration

The *Test Administrator Directions for Administration for the Smarter Balanced Online Summative Assessments* are used by test administrators to administer the Smarter Balanced assessments to students (CDE, 2016g). Test administrators must follow all directions and guidelines and read, word-for-word, the instructions to students in the “SAY” boxes to ensure standardization of test administration. (Note that the “SAY” boxes are also included in the *CAASPP Smarter Balanced Online Test Administration Manual* [CDE, 2016e].)

5.4.4.2 Additional Information

The *Test Administrator Reference Guide* provides additional information to test administrators regarding the systems involved in testing, including sections on the TDS so they may become familiar with the testing application used by their students (CDE, 2016d).

5.4.4.3 CAASPP Smarter Balanced Online Test Administration Manual

The *CAASPP Smarter Balanced Online Test Administration Manual* (CDE, 2016e) contains information and instructions on overall procedures and guidelines for all LEA and test site staff involved in the administration of online assessments. Sections include the following topics:

- Resources
- Test security
- Responding to testing incidents
- Filing appeals
- Technology infrastructure
- Accessibility supports
- General test administration
- Instructions for steps to take before, during, and after testing

Appendixes include definitions of common terms, descriptions of different aspects of the test and systems associated with the test, and checklists of activities for LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators.

5.4.4.4 Test Operations Management System (TOMS) Manuals

TOMS is a Web-based application that allows LEA CAASPP coordinators to set up test administrations, add and manage users, submit online student test settings, and order paper-pencil tests. Each functionality has its own user manual with detailed instructions on how to use TOMS. These manuals include:

- **Test Administration Setup Guide**—Allows LEAs to determine and calculate dates for the LEA’s 2016–16 administration of the CAASPP assessments (CDE, 2016k).
- **Adding and Managing Users Guide**—Allows LEA CAASPP coordinators to add CAASPP test site coordinators, test administrators, and other staff to TOMS so that the designated user can administer, monitor, and manage the online Smarter Balanced summative and interim assessments according to the level of access granted (CDE, 2016h).

- **Online Student Test Settings User Guide**—Allows LEA CAASPP coordinators and CAASPP test site coordinators to configure online test settings so that students receive the assigned accessibility tools and accommodations for the online Smarter Balanced assessments (CDE, 2016i).
- **Student Paper-Pencil Test Registration Guide**—Allows LEA CAASPP coordinators to configure CAASPP paper-pencil test assignments, including paper-pencil versions of the Smarter Balanced assessments for LEAs that are unable to administer the online assessments and which have received prior approval from the CDE (CDE, 2016j).

5.4.4.5 Other System Manuals

Other manuals were created to assist LEA CAASPP coordinators with the other technological components of the CAASPP System and are listed below.

- **Secure Browser Installation Manual**—Provides instructions for installing secure browsers on computers and devices running a supported operating system (CDE, 2016i).
- **Technical Specifications for Online Testing Manual**—Provides information, tools, and recommended configuration details to help technology staff prepare computers to be used for the online CAASPP assessments (CDE, 2016f).
- **Security Incidents and Appeals Procedure Guide**—Provides information on how to report and submit an appeal to the CDE to reset, reopen, invalidate, or restore individual online student assessments within TOMS (CDE, 2016d).
- **Online Testing Manual: Requirements for Testing Students with Visual Impairments**—Provides information about supported hardware and software requirements for administering a test to a student with a braille accommodation using the software Job Access With Speech (JAWS®) tool or a braille embosser (hardware). Students with a braille accommodation are able to take advantage of the adaptive algorithm using the TDS's Enhanced Accessibility Mode and JAWS (CDE, 2016b).

5.5. LEA Training

ETS established and implemented a training plan for LEA assessment staff on all aspects of the assessment program. The CDE and ETS, in collaboration with the CDE Senior Assessment Fellows and other stakeholders as needed, determined the audience, topics, frequency, and mode (in-person, Webcast, videos, modules, etc.) of the training, including such elements as format, participants, and logistics.

ETS conducted 24 workshops and presented 13 Webcasts for the 2015–16 administration.

Following approval by the CDE, the ancillary materials were posted for each Webcast on the CAASPP Web site at <http://www.caaspp.org/> so the LEAs could download the training materials.

5.5.1 In-person Training

ETS also provided a series of in-person trainings. Beginning in January 2016, the first in-person trainings provided were the pretest CAASPP workshops, which focused on training LEA CAASPP coordinators on how to prepare for administering the Smarter Balanced Summative Assessments. At the conclusion of the 2015–16 summative assessment window, in-person post-test training on testing results and reporting were provided. ETS provided in-person trainings at 16 locations throughout California for the pretest workshops and 8 locations for the post-test workshops.

5.5.2 Webcasts

ETS provided a series of live Webcasts throughout the school year that were archived and made available for training LEA and test site staff as well as test administrators. Webcast viewers were provided with a method of electronically submitting questions to the presenters during the Webcast. The Webcasts were recorded and archived for on-demand viewing on the CAASPP Training Videos and Webcasts Web page at <http://www.caaspp.org/training/caaspp/>. CAASPP Webcasts are available to everyone and require neither preregistration nor a logon account.

5.5.3 Videos and Narrated PowerPoint Presentations

To supplement the live Webcasts and in-person workshops, ETS also produced short “how-to” videos and narrated PowerPoint presentations that were available on the CAASPP Training Videos and Resources Web page. In total, 13 recorded Webcasts and tutorials were produced for the 2015–16 administration year.

5.6. Universal Tools, Designated Supports, and Accommodations for Students with Disabilities

The purpose of universal tools, designated supports, and accommodations in testing is to allow *all* students the opportunity to demonstrate what they know and what they are able to do, rather than giving students with disabilities an advantage over other students or artificially inflating their scores. Universal tools, designated supports, and accommodations minimize or remove barriers that could otherwise prevent students from demonstrating their knowledge, skills, and achievement in a specific content area.

5.6.1 Identification

All public school students participate in the CAASPP System, including students with disabilities and English learners. The Smarter Balanced Assessment Consortium’s *Usability, Accessibility, and Accommodations Guidelines* (Smarter Balanced, 2015) and the CDE’s Matrix One (CDE, 2016a) are intended for school-level personnel and individualized education program (IEP) and Section 504 plan teams to select and administer the appropriate universal tools, designated supports, and accommodations as deemed necessary for individual students. The *Guidelines* apply to all students and promote an individualized approach to the implementation of assessment practices.

Another manual, the *Smarter Balanced Usability, Accessibility, and Accommodations Implementation Guide* (Smarter Balanced, 2014), provides suggestions for implementation of these supports. Test administrators are given the opportunity to participate in the Smarter Balanced practice and training tests so that students have the opportunity to familiarize themselves with a support or accommodation prior to testing.

5.6.2 Assignment

Once the student’s IEP or Section 504 plan team has decided which accessibility support(s) the student shall use, LEA CAASPP coordinators and CAASPP test site coordinators use TOMS to assign designated supports and accommodations to students prior to the start of a test session.

There are three ways the student’s accessibility support(s) can be assigned:

1. Using the Individual Student Assessment Accessibility Profile Tool to identify the accessibility resource(s) and then uploading the spreadsheet it creates into TOMS;
2. Using the Online Student Test Settings template to enter students' assignments and then uploading the spreadsheet into TOMS; and
3. Entering assignments for each student individually in TOMS.

If a student's IEP or Section 504 plan team identifies and designates a resource not identified in Matrix One, the LEA CAASPP coordinator or CAASPP test site coordinator needs to submit a request for an unlisted resource to be approved by the CDE. The CDE then determines if the requested unlisted resource changes the construct being measured after all testing has been completed.

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Appendix 5.A: Performance Task Test Length

Table 5.A.1 Assignment Proportions for English Language Arts/Literacy

Grade	Proportion	Performance task name	# of items
3	0.36	HEATWAVES	5
3	0.35	LAND FORMATIONS	5
3	0.29	TREES	4
4	0.22	CLASSIFYING VERTEBRATES	4
4	0.28	DESERTS	5
4	0.27	SPIDERS AND INSECTS	5
4	0.23	THUNDERSTORMS	4
5	0.25	POWER OF WATER	5
5	0.25	THE AMERICAN WEST IN THE 1800S	5
5	0.25	VIEW THROUGH A TELESCOPE	5
5	0.25	ZOOS	5
6	0.36	AZTEC EMPIRE	5
6	0.36	GROWTH AND EXPANSION OF AMERICA	5
6	0.28	INVENTIONS	4
7	0.25	EXPLORING THE WORLD	5
7	0.21	INVASIVE SPECIES	4
7	0.28	MONUMENTS	5
7	0.27	RENEWABLE ENERGY SOURCES	5
8	0.24	ADVERTISING	5
8	0.22	FOOD WASTE	5
8	0.23	HOW THE BRAIN WORKS	5
8	0.21	SPACE EXPLORATION	4
8	0.10	THE INTERNET	2
11	0.20	A NEW KIND OF NEWS	5
11	0.17	COMMUNICABLE DISEASES	4
11	0.20	ENVIRONMENTAL AWARENESS	5
11	0.21	INTELLECTUAL PROPERTY	5
11	0.22	POETRY	5

Table 5.A.2 Assignment Proportions for Mathematics

Grade	Proportion	Performance task name	# of items
3	0.29	FITNESS CHALLENGE	4
3	0.43	MAKING SANDWICHES	6
3	0.29	SCHOOL LIBRARY	4
4	0.32	CLASSPET	6
4	0.26	COMMUNITY GARDEN	5
4	0.21	FIELD TRIP	4
4	0.22	SOCCER	4
5	0.26	CABINET ORGANIZATION	4
5	0.20	SANDBOX	3
5	0.26	SCHOOL FAIR	4
5	0.27	SPACE MUSEUM	4
6	0.50	AMUSEMENT PARK	6
6	0.50	TALENT SHOW	6
7	0.37	DONUTS	6
7	0.39	MINIATURE GOLF	6
7	0.24	WALKING PATH	4
8	0.50	SIGNS	6
8	0.50	SOUTH POLE	6
11	0.15	GREAT COFFEE CUP	2
11	0.35	ROOFTRUSS	4
11	0.50	ZIP LINE	6

Appendix 5.B: Item Distributions

Table 5.B.1 Summary of Items Presented for the Total Test

Content Area	Grade	No. Examinees		Min	25%	50%	75%	Max	Mean	Mode
		Total								
English Language Arts/Literacy (ELA)	3	456,912		12	42	43	43	45	42.98	43
	4	472,940		12	44	45	45	45	44.54	45
	5	463,908		13	44	44	45	46	44.11	44
	6	459,061		12	43	43	44	46	43.07	43
	7	457,084		12	43	44	44	46	43.98	44
	8	450,483		12	44	45	45	46	44.57	44
	11	434,061		12	43	43	44	46	43.51	43
Mathematics	3	459,050		15	39	40	40	40	39.71	40
	4	474,903		14	38	39	40	40	38.99	40
	5	465,699		12	39	40	40	41	39.66	40
	6	460,676		16	39	39	39	40	38.99	39
	7	458,402		15	39	40	40	41	39.42	40
	8	451,601		14	39	39	39	40	38.82	39
	11	432,348		14	41	41	42	43	41.08	41

Table 5.B.2 Summary of Items Presented in the Computer Adaptive Testing Component of the Test

Content Area	Grade	No. Examinees		Min	25%	50%	75%	Max	Mean	Mode
		Total								
ELA	3	456,912		10	38	39	39	40	38.55	39
	4	472,940		10	40	40	40	40	39.99	40
	5	463,908		10	39	39	40	41	39.36	39
	6	459,061		10	38	39	39	41	38.71	39
	7	457,084		10	39	40	40	41	39.82	40
	8	450,483		10	40	40	40	41	40.12	40
	11	434,061		10	39	39	39	41	39.14	39
Mathematics	3	459,050		10	34	34	34	34	33.99	34
	4	474,903		10	34	34	34	34	34.00	34
	5	465,699		10	34	34	34	35	34.00	34
	6	460,676		10	33	33	33	34	32.99	33
	7	458,402		10	34	34	34	35	33.99	34
	8	451,601		10	34	34	34	35	33.99	34
	11	432,348		10	36	36	36	37	35.98	36

Table 5.B.3 Summary of Items Presented in the Performance Task Component of the Test

Content Area	Grade	No. Examinees							
		Total	Min	25%	50%	75%	Max	Mean	Mode
ELA	3	456,912	1	4	4	5	5	4.42	4
	4	472,940	1	4	5	5	5	4.55	5
	5	463,908	1	4	5	5	5	4.75	5
	6	459,061	1	4	4	5	5	4.35	4
	7	457,084	1	4	4	4	5	4.15	4
	8	450,483	1	4	4	5	5	4.45	4
	11	434,061	1	4	4	5	5	4.37	4
Mathematics	3	459,050	1	5	6	6	6	5.72	6
	4	474,903	1	4	5	6	6	4.99	6
	5	465,699	1	5	6	6	6	5.67	6
	6	460,676	1	6	6	6	6	6.00	6
	7	458,402	1	5	6	6	6	5.43	6
	8	451,601	1	5	5	5	5	4.83	5
	11	432,348	1	5	5	6	6	5.10	5

Table 5.B.4 Percent of Students Meeting Blueprint

Content Area	Grade	N	Overall	Claim 1			Claim 2			Claim 3			Claim 4		
			Percent of students meeting blue prints	Not meeting	Meeting	Exceeding	Not meeting	Meeting	Exceeding	Not meeting	Meeting	Exceeding	Not meeting	Meeting	Exceeding
ELA	3	456,912	99.79	0.06	99.94	0.00	0.21	99.79	0.00	0.05	99.95	0.00	0.08	99.92	0.00
	4	472,940	99.83	0.04	99.96	0.00	0.17	99.83	0.00	0.04	99.96	0.00	0.05	99.95	0.00
	5	463,908	99.86	0.05	99.95	0.00	0.13	99.87	0.00	0.04	99.96	0.00	0.00	100.00	0.00
	6	459,061	99.80	0.07	99.93	0.00	0.19	99.81	0.00	0.06	99.94	0.00	0.05	99.95	0.00
	7	457,084	99.70	0.12	99.88	0.00	0.25	99.75	0.00	0.09	99.91	0.00	0.12	99.88	0.00
	8	450,483	99.68	0.11	99.89	0.00	0.31	99.69	0.00	0.08	99.92	0.00	0.14	99.86	0.00
	11	434,061	99.46	0.21	99.79	0.00	0.48	99.52	0.00	0.17	99.83	0.00	0.26	99.74	0.00
Mathematics	3	459,050	99.96	0.03	99.97	0.00	0.02	78.42	21.56	0.04	92.67	7.30			
	4	474,903	99.97	0.02	99.98	0.00	0.02	99.98	0.00	0.03	99.97	0.00			
	5	465,699	99.96	0.03	99.97	0.00	0.02	99.98	0.00	0.04	99.96	0.00			
	6	460,676	99.94	0.06	99.94	0.00	0.00	100.00	0.00	0.02	91.76	8.22			
	7	458,402	99.92	0.08	99.92	0.00	0.02	99.98	0.00	0.05	99.95	0.00			
	8	451,601	99.89	0.11	99.89	0.00	0.04	99.95	0.00	0.08	99.92	0.00			
	11	432,348	99.86	0.10	99.90	0.00	0.14	99.86	0.00	0.04	99.96	0.00			

Chapter 6: Standard Setting

6.1. Description

Standard setting, which also is referred to as achievement level setting, refers to a class of methodologies by which one or more cut scores are used to determine achievement levels. The Smarter Balanced Assessment Consortium set four achievement levels—*Standard Not Met*, *Standard Nearly Met*, *Standard Met* and *Standard Exceeded*—with three threshold cuts for each grade and content area.

In coordination with its member states, the Smarter Balanced Assessment Consortium implemented an extensive achievement-level-setting process involving software development, item mapping, review panels, committees, workshops, and extensive validity research to set the final cut scores and achievement level descriptors. For detailed information regarding this process, refer to Chapter 10 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016).

Reference

Smarter Balanced Assessment Consortium. (2016). *Smarter Balanced Assessment Consortium: 2013–14 technical report*. Los Angeles, CA: Smarter Balanced Assessment Consortium. Retrieved from <https://portal.smarterbalanced.org/library/en/2013-14-technical-report.pdf>

Chapter 7: Scoring and Reporting

In order to determine individual students' scores for the California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Online Summative Assessments, student item responses are scored and individual student scores (i.e., overall scale scores and claims/subscores) are calculated based on the item responses. In addition, student test scores must be aggregated to produce information for schools and local educational agencies (LEAs). This chapter describes how various types of student responses are scored for the CAASPP online assessments, as well as the various types of scores that are generated. This chapter also presents information on the concept of measurement error and how measurement error should be considered when interpreting student test scores.

7.1. Approach to Scoring Item Responses

7.1.1 Structure of the Assessments

In order to understand the basis of the scoring approach, an understanding of the structure of the CAASPP online summative assessments is necessary. These assessments are designed to gather evidence that can be used to make inferences about student mastery of the Common Core State Standards (CCSS). The assessments are based on claims and targets. Claims are inferences made about a student based on his or her test score. They are broad statements about learning outcomes. These statements require evidence that articulates the types of data/observations that support interpretations of progress toward the achievement of the claim. Claims identify the set of knowledge and skills being measured. Here is an example of a mathematics claim:

Claim 1: Concepts and Procedures—Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

Targets describe the evidence that can be used to support a claim about a student. Targets are specific to claims. Here is a target associated with the previous claim:

Target C—Understand the connections between proportional relationships, lines, and linear equations.

The items are designed based on a variety of task models that define item characteristics such as item type, allowable stimuli, prompt feature, and item interactions.

7.1.2 Certification of the Scoring System

Educational Testing Service (ETS) staff from Assessment Development, Research and Statistical Analysis, Performance Assessment Scoring Service, and Information Technology divisions participated in the certification of the scoring system. Each team followed procedures required by the ETS Office of Quality for operational readiness and Standard 7.8 of the *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014).

ETS staff reviewed operational answer keys and scoring rubrics provided by Smarter Balanced staff. In addition, item parameter estimates for items were loaded into the ETS operational scoring system. Central aspects of the validity of the CAASPP online summative test scores are the degree to which scoring rubrics are related to the appropriate assessment targets and claims based on Smarter Balanced assessments. A key facet of

validity is the degree to which scoring rules are applied accurately throughout the scoring sessions.

7.1.3 Types of Item Responses

In accordance with the Smarter Balanced Online Summative Assessment specifications, students are administered a computer adaptive test (CAT) component and a selected performance task (PT) (Smarter Balanced, 2015a and 2015c through 2015h, and 2016a through 2016c [English language arts/literacy {ELA}]; and 2014c, 2015b, and 2015i through 2015r [mathematics]). The combination of the CAT and the PT components fulfills the content requirements for the test blueprint (see Appendix 2.A on page 23).

CAASPP online summative assessments include traditional selected-response items, short constructed-response (CR) items, writing extended-response (WER) items, and technology-enhanced items. Some items are machine-scored, which means that they can be scored by the test delivery system (TDS). Other items are scored with the artificial intelligence (AI) scoring engine; still others are human-scored by a trained rater. The scoring approach used depends on the item type and scoring requirements provided by the Smarter Balanced item specifications. Table 7.1 lists the types of items that are machine-scored.

Table 7.1 Machine-scored Online Item Types

Item Type	Description	Content Area
Equation items	Students select buttons representing numbers and mathematic symbols to create an equation.	Mathematics only
Evidence-based selected response	A traditional selected-response question is combined with a second selected-response question that asks students to show evidence from the text that supports the answer they provided to the first question.	ELA only
Graphic interaction	Students plot points, lines, and multisegment lines on a graph. Items can be answered by looking at a graph. For some items, students must manipulate the elements in the graph to respond.	Mathematics only
Hot text multiple select	Students are presented with a stem that contains multiple underlined words or phrases from which students select the answer(s) to the question.	ELA only
Match interaction	Students respond by dragging and dropping a single choice (“source”) into the appropriate location (“target”). The scoring key is a set of numeric identifiers that specifies which source needs to be placed in which target to answer the item correctly.	ELA and mathematics
Multiple-selection selected response	Five to eight answer choices are provided, and students are instructed to select one or more choices to respond. These item types can have multiple keys; students may be awarded partial credit for partially correct answers or may need to select all correct answers to receive credit.	ELA and mathematics
Single-selection selected response	Three to five answer choices are provided, and students can select only one choice to respond.	ELA and mathematics
Table interaction	Students are required to respond by marking one or more cells in a table grid. The response can be restricted to one selection of row, column, or table, or no restrictions.	Mathematics only

Item types that require students to provide a response by writing words or numbers are called “constructed-response” items. Both the CAT and the PT include CR items. The CAT section contains both machine-scored items as well as short-text items worth 0–2 points. The PT section contains machine-scored items; short-text, 0–2 point, items; and WER items worth 0–6 points. A small number of mathematics PTs include CR items with a 0–4 point range. CR items for CAASPP include the following item types:

- *Short-answer items* require students to respond with words, phrases, short sentences, or mathematical expressions. These items have a value of 0–2 points, with a small number of mathematics short-answer items having values ranging from 0 to 4 points. These items are scored holistically based on a rubric. Holistic scoring gives students a single, overall assessment score for the response as a whole.
- *WER items (full-write response)* require students to write one or more paragraphs. The WER is scored for three dimensions of writing (purpose/focus/organization, evidence/elaboration, and conventions); these items are scored analytically based on rubrics, for which readers assign a score for each criterion.

7.1.4 Scoring the Item Types

The specifications regarding which CR items are eligible for machine scoring are described in an ETS memorandum (ETS, 2015a).

ETS staff review operational answer keys and scoring rubrics provided by the Smarter Balanced Assessment Consortium and follow scoring specifications to enter scores into the ETS operational scoring system. The target of the scoring specifications is to optimize the validity, reliability, and efficiency of scoring. A central aspect of the validity of the test scores is the degree to which scoring rubrics are related to the appropriate assessment targets, depth of knowledge, and claims based on Smarter Balanced assessments. A key facet of reliability is whether the scoring rules are applied accurately during the scoring sessions. The validity and reliability of the scoring of CR items are evaluated in *Chapter 8: Analyses*.

The scoring specifications include details on the type of training provided to raters, the rater screening and qualification process, and the metrics used to evaluate rater accuracy that apply to the human scoring of CR items. ETS’s subcontractor, Measurement Incorporated (MI), scores the machine-scorable CR items utilizing AI scoring engines.

The scoring rubrics for the short answer items are holistic with the exception of the rubrics used to score the ELA PT full-write response, which are analytic. The full-write response item is also referred to as a writing extended-response (WER) item. An example of scoring rubrics of the WER items is available in the *Smarter Balanced Scoring Guide* (Smarter Balanced, 2014d).

7.2. Quality Control of Scoring

7.2.1 Human Scoring

7.2.1.1 Quality Control in the Scoring Process

In general, the scoring model is based on scoring one item at a time (i.e., raters score responses to a single prompt until there are no more responses to that prompt during the shift). However, some mathematics PT items have scoring dependencies, which means that students base their calculations and responses on the answers to previous items associated with the PT. When these items are human-scored, all of the items in the PT, along with the

student responses, are provided to the rater. This allows the rater to evaluate dependent items based on the previous items that serve as the basis for the dependent item.

Additionally, the three traits that make up the extended writing tasks (full write responses)—Organization/Purpose, Evidence/Elaboration or Development/Elaboration, and Conventions—are evaluated together by a single rater. The rater assigns the separate trait scores for each of the traits being evaluated for the extended writing task.

Items are scored by a team of five to ten raters under the direction of a scoring leader. Scoring leaders are supervised by chief scoring leaders. Each chief scoring leader is responsible for multiple teams in a specific content area and grade band. Responses to individual prompts are assigned to teams of no fewer than three raters. If there is not a sufficient number of responses during a shift to occupy at least three raters, the responses are held until a sufficient number is reached to occupy at least three raters. Each rater works individually on his or her own device to read each student response and enter a score for each item.

7.2.1.2 Quality Control Related to Raters

ETS has developed a variety of procedures to control the quality of ratings and monitor the consistency of scores provided by raters. These procedures specify rater qualifications, rater certification, and daily rater calibration. Raters are required to demonstrate their accuracy by passing a certification test before ETS assigns them to score a specific assessment and passing a shorter, more focused calibration test before each scheduled scoring session. Rater certification and calibration are key components in maintaining quality and consistency.

Scoring leaders monitor raters' performance by reading their responses to see if the rater assigned the correct rating. Some scoring leaders choose to read the response before finding out what score the rater has assigned; others choose to know what score the rater has assigned before reading the response. See the *Monitoring Raters* subsection on page 138 for more information on this process.

Rater Qualification

Raters should meet the following requirements:

- Bachelor's degree in any field
- Teaching experience strongly preferred
- Graduate students and substitute teachers encouraged to apply
- Bilingual English/Spanish speakers encouraged to apply
- Eligible to work in the United States (and are e-verified prior to hire)

Among all the raters of CAASPP Smarter Balanced Summative Assessments, many of them are California educators. Qualifications California educators should meet the following qualifications:

- Must have a current California teaching credential (although California charter school teachers may or may not have a teaching credential)
- May be retired educators and other administrative staff with a teaching credential who are not current classroom teachers
- Must have achieved, at minimum, a bachelor's degree

All team leaders and raters are required to qualify before scoring and are informed of what they are expected to achieve in order to qualify (see *7.3 Rater Training* on page 139 for a

more complete description of this training). The standards, provided in Table 7.2, are qualification expectations for the various score point ranges and the qualification standard in terms of the percent of exact agreement. A rater is required to meet the qualification standards on one qualification set in order to score student responses. This qualification set, like the validity papers discussed in the next subsection (*Monitoring Raters*), has been previously scored by scoring experts. Raters must score the papers in the same manner according to the percentage of agreements listed in Table 7.2.

Table 7.2 Rater Qualification Standard for Agreement with Correct Scores

Score Point Range	Qualification Standard (Exact Agreement)
0–1	90%
0–2	80%
0–3	70%
0–4	60%

The qualification process is conducted through an online system so that the results can be captured electronically for each individual trainee.

Monitoring Raters

ETS staff created performance scoring reports so that scoring leaders can monitor the daily human-scoring process and plan any retraining activities, if needed. For monitoring interrater reliability, 10 percent of the student responses that have already been scored by the raters are randomly selected and assigned to raters by the scoring system; this process is referred to as back-reading. The second rater is unaware of the first rater's score. The evaluation of the response from the second rater is compared to that of the first rater. Scoring leaders and chief scoring leaders provide second reads during their shifts for additional quality review.

Validity papers also are used to monitor rater performance. They are randomly inserted into each rater's scoring queue at a rate of nine percent of the total papers scored by a rater during his or her shift. These papers are carefully selected and prescored by scoring experts. Validity papers serve as another real-time evaluation of rater accuracy.

Real-time management tools allow everyone, from scoring leaders to content specialists, access to:

- the overall interrater reliability rate, which measures the percentage of agreement when the scores assigned by raters are compared to the scores assigned by other raters, including scoring managers;
- the read rate, which is defined as the number of response read per hour;
- the individual and overall percentage of agreement for validity paper ratings; and
- the projected date for completion of the scoring for a specific prompt or task.

7.2.2. Quality Control of Artificial Intelligence Scoring

The responses to some of the short-answer (SA) items on CAASPP Smarter Balanced Online Summative Assessments are scored by MI's AI scoring engine. MI's AI scoring engine analyzes a training set of papers and calculates features that pertain to the content in question for each individual item. The scoring engine then sends the features to dozens of different algorithms that compete to see which ones can best associate the features with the corresponding human-assigned scores. The strongest models then are automatically

blended to create a final model that retains the best elements from the various algorithms. After the model is built, the model elements are selected to maximize scoring accuracy for the response data.

The goal of MI's AI scoring is to provide scores that are statistically comparable to those obtained from human raters. To ensure that this continues to be true after the initial model development, MI conducts ongoing quality checks to ensure that the scoring models consistently perform as expected. Statistics such as perfect/adjacent agreement, the Pearson product-moment correlation coefficient, or the quadratic weighted kappa are used for comparing the accuracy of AI scoring with respect to human scoring. MI meets with the California Department of Education (CDE) to specify the evaluation metric and the expected level of accuracy for AI scoring. If an analysis of the human/AI agreement for an item indicates that the scoring engine needs to be adjusted, MI recalibrates the scoring model for that item. Using a new set of training papers (500–1,000, depending on the item type and complexity), MI retrains and recalibrates the scoring model until it meets or exceeds the agreement level established by the CDE, using agreed-upon evaluation metrics.

ETS and MI have developed and documented a proprietary standardized system for addressing the complexities inherent in monitoring and maintaining quality throughout large-scale, human-scoring projects. ETS processes ensure that both organizations maintain a quality assurance system through 10 percent of AI-scored items being scored by a human rater and used for agreement sample analysis. The results of the agreement analysis are presented in *8.6.4.8 Interrater Agreement* on page 328.

7.2.3 Score Verification Process

Various measures are taken to ascertain that the scoring keys are applied to the student responses as intended and the student overall and claim scores are accurately computed. ETS's Enterprise Score Key Management (eSKM) system utilizes scoring procedures specified by psychometricians to provide scoring services. A series of quality control checks are carried out by ETS psychometricians to ensure the accuracy of each score. The details are described in *9.4 Quality Control of Psychometric Processes* on page 541.

7.3. Rater Training

7.3.1 Training Overview

7.3.1.1 ELA

In order to score ELA items, raters receive training based on the task model that is used to design a group of items with similar characteristics. Raters are first trained by grade band, claim, and target. For example, raters are trained to score Claim 1 Target 5 responses for grade band three through five. They are trained to score this type of prompt and then apply generic rubrics to score the responses. The training is further focused based on the item type—short answer or WER—as well as the grade span (grades three through five, six through eight, or grade eleven).

“Baseline” anchor and training sets of papers, as well as scoring rubrics, are provided to raters based on writing purpose (e.g., informational or explanatory writing) for the WER items. For baseline anchor and training sets of papers, student responses have been scored and then reviewed by scoring experts. Responses are then selected that are deemed to be exemplars of each score point. Often, these are annotated to provide a specific explanation of how the paper exemplifies a response that should earn that particular

score. Raters can refer to these sets to increase their understanding of how to accurately apply the scoring rubric.

Additional anchor and training sets are created for the purpose of periodic qualification, a process by which raters engage in a brief training and then score a prescored set of papers to ensure they are scoring accurately before their shift begins.

Qualification and validity sets are provided for each essay type of the WER items. Anchor and training sets are also provided for the task models associated with the ELA short-answer items in the CAT and PT sections. For the ELA short-answer items in the CAT and the PT sections, raters receive training for a grade span (grades three through five, six through eight, or grade eleven) instead of a grade level.

Although training is provided at the task-model level, rater qualification occurs on an item-type and grade-span basis for all ELA human-scored items. Qualification and validity papers are provided for each ELA CR item. Raters must qualify for each item type within a specific grade span before being assigned to score that item type (AIR, 2014).

7.3.1.2 Mathematics

In order to score mathematics items, raters receive training and qualify on task models for all items. Similar to the training procedures for ELA, for mathematics, the Smarter Balanced Assessment Consortium provides anchor papers and training sets for the task models. The consortium also provides item-specific rubrics and item-specific validation sets for all mathematics items (AIR, 2014).

7.3.2 Training Process: ELA Performance Task Extended Writing Tasks

Baseline anchor sets for each writing purpose (e.g., informational writing or explanatory writing) are used to train raters on each of the writing traits—Organization/Purpose, Evidence/Elaboration or Development/Elaboration, and Conventions—within a particular grade span. The writing purposes are narrative, informational, and opinion at grades three through five; narrative, informational, and argumentative at grades six through eight; and explanatory and argumentative at grade eleven.

For all writing purposes, Organization/Purpose is the first trait and Conventions is the third trait. Evidence/Elaboration is the second trait for the opinion, argumentative, informational, and explanatory writing purposes. Development/Elaboration is the second trait for the narrative writing purpose.

Writing traits for opinion, argumentative, informational, or explanatory writing are:

- Organization/Purpose,
- Evidence/Elaboration, and
- Conventions.

Writing traits for narrative writing are:

- Organization/Purpose,
- Development/Elaboration, and
- Conventions.

A chart that presents the traits to their purposes is shown in Figure 7.1.

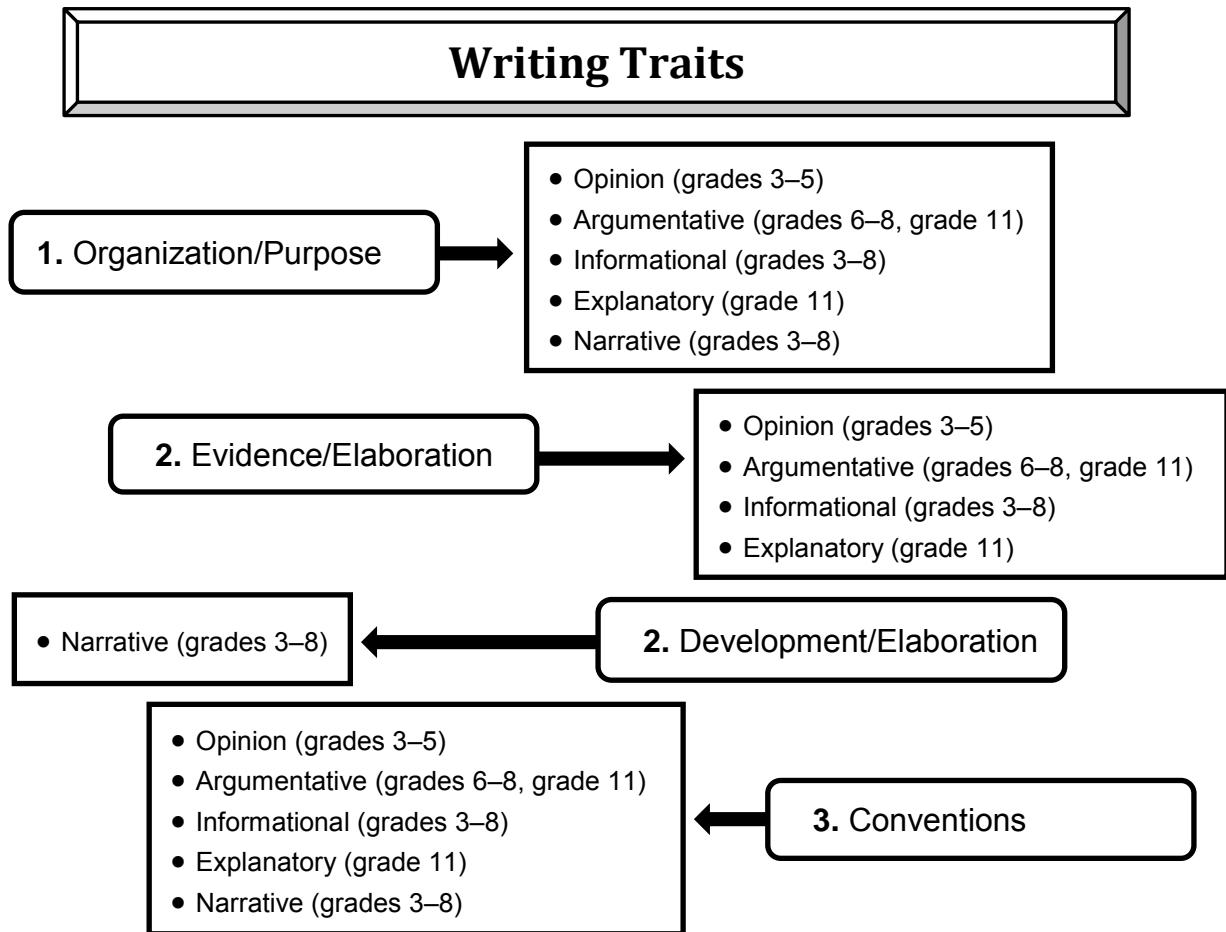


Figure 7.1 Writing Traits

The training steps are described in the top panel of Figure 7.2, and the training materials are described in the bottom panel.

Training steps:

1. Trainees read the task, rubrics, and source materials for the WER items in a particular grade span and writing purpose (for example, Grade Three through Five Informational). Trainees read sample responses and annotations.
2. Trainees read a training set of five responses to the same item (Essay 1) and score those responses for Conventions.
3. Trainees review the correct scores and the scoring rationale for the Conventions scores for those responses.
4. Trainees read another training set of five responses to that item (Essay 1) and score those responses for Organization/Purpose. They then review the correct scores and the scoring rationale for the Organization/Purpose scores for those responses.

5. Trainees read another training set of five responses to that item (Essay 1) and score those responses for Evidence/Elaboration. They then review the correct scores and the scoring rationale for the Evidence/Elaboration scores for those responses.
6. Trainees read another training set of five responses to that item (Essay 1) and score each of those responses for all three traits.
7. Trainees review the scoring rationale for the training responses and answer training questions.
8. Trainees score a qualification round (10 papers) for all three traits for Essay 1.
9. Qualified raters begin scoring.
10. Trainees who do not meet the qualification standard on round 1 have an opportunity to review with a scoring leader before scoring round 2.

Materials for training raters of WER items, at each grade level:

1. Baseline anchor sets approved during Smarter Balanced Pre-Range-Finding¹
2. Field test prompt and stimulus materials
3. Purpose/task specific rubrics
4. Conventions charts (approved by Smarter Balanced Assessment Consortium)
5. Supplemental scoring guidelines (approved by Smarter Balanced Assessment Consortium)
6. Training sets (specific to the first WER task for each grade/purpose)
7. Qualification sets (generally administered in two rounds of approximately 10 responses per WER task)

Figure 7.2 Training Process for Extended Writing Tasks

¹ Range finding activities include the review of student responses against item rubrics, the validation of rubric effectiveness, and the selection of anchor papers used by human scoring for the larger population of responses.

7.3.3 Training Process: ELA Short-Answer Items

The process for training raters to score short-answer items is also organized by grade band (three through five, six through eight, or grade eleven). These training steps are described in the top panel of Figure 7.3, and the training materials are described in the bottom panel.

<p>Training steps:</p> <ol style="list-style-type: none"> 1. Trainees read the rubrics and scoring notes for the short-answer items in a particular grade span and purpose category (for example, Grade Three through Five Evidence). Trainees read sample responses to a prompt and the associated annotations. 2. Trainees review the scoring rationale for each of the anchors (i.e., anchor sets for the claim/target/subclaim). 3. Trainees score the training set (5–10 papers) for the short answer claim/target/subclaim. 4. Trainees review the correct scores and scoring rationale for the training set. 5. Trainees read the prompt, source materials, or stimuli for the first short answer item in the claim/target/subclaim (e.g., Grade 6, Claim 1, Reading Item 1). 6. Trainees score a qualification round. 7. Qualified raters begin scoring. 8. Trainees who do not meet the qualification standard on round 1 have an opportunity to review with a scoring leader before then scoring round 2.
<p>Materials for short answer item training:</p> <ol style="list-style-type: none"> 1. Anchors and training sets (by grade band/claim/target/subcategory) 2. Prompts and source materials or stimuli 3. Item-specific rubrics 4. One qualification set (10 responses per item)

Figure 7.3 Training Process for ELA Short Answer Items

7.3.4 Training Process: Mathematics Items

The training steps for scoring mathematics items are described in the top panel of Figure 7.4, and the training materials are described in the bottom panel.

<p>Training Steps:</p> <ol style="list-style-type: none"> 1. Trainees review the items that are represented in the anchor and training sets, any associated source materials or stimuli, and the item-specific rubrics. 2. Trainees read the associated source materials or stimuli, as appropriate. 3. Trainees score the training set for the item category, as described in the next step. 4. Trainees review the correct scores and scoring rationale for the training set. 5. Trainees score a qualification round.
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<ol style="list-style-type: none"> 6. Trainees who do not meet the qualification standard on round 1 have an opportunity to review with a scoring leader before then scoring round 2. 7. Qualified raters begin scoring.
<p>Material for mathematics training:</p> <ol style="list-style-type: none"> 1. Anchors and training sets (by performance task grade/family/item category or by CAT item) 2. Prompts and source materials or stimuli 3. Item specific rubrics 4. One or two qualification rounds per item category, depending on item complexity (10 responses per round)

Figure 7.4 Training Process for Mathematics Items

Unlike ELA performance tasks, mathematics performance tasks may contain interdependencies among the items within a task. Each mathematics performance task is made up of six items. Items may be dependent on any of the previous items within the performance task. For example, if item 6 is dependent on items 3 and 5, the rubric for item 6 specifies the correct response based on prior correct responses to items 3 and 5. Raters are responsible for determining the appropriate response to item 6 and awarding credit accordingly, even when the student's responses to items 3 and 5 are incorrect. The first two of the six items are generally AI-scored items. Two or more of the remaining four items are human-scored.

The proper handling of tasks with dependencies is addressed in the training process. Raters have practice working through PT responses and recognizing correct work based on previous incorrect values. PTs are composed of items based on several different task models. In general, training materials are organized so that raters train on a task model rather than on a complete performance task. However, when performance task items that are dependent on previous items in the set are presented in training, the entire set of items and responses is included. This allows raters to see the previous responses that serve as the basis for the item that is being scored.

7.3.5 Supplemental Training for Scoring Supervisors

Scoring condition codes allow raters to categorize certain responses as unscorable. The code indicates the reason that the response cannot be scored. Responses with condition codes are routed to scoring supervisors for final code assignment. Supervisors require detailed training on the Smarter Balanced condition codes and definitions (Smarter Balanced, 2014a).

Table 7.3 presents the valid condition codes used for scoring along with descriptions of the responses that would warrant the assignment of the different codes.

Table 7.3 Scoring Condition Codes

Condition Code	Reasons for assigning this condition code
B	Blank —no response
I	<p>Insufficient</p> <p>a. Use the “I” code when a student has not provided a meaningful response; for example:</p> <ul style="list-style-type: none"> • Random keystrokes • Undecipherable text • “I hate this test” • “I don’t know, IDK” • “I don’t care” • “I like pizza!” (in response to a reading passage about helicopters) • Response consisting entirely of profanity <p>b. For ELA WER items, use the “I” code (Insufficient) for responses described above and also if:</p> <ul style="list-style-type: none"> • The student’s original work is insufficient for rater to determine whether the student is able to organize, cite evidence/elaborate, and use conventions as defined in the rubrics, or • The response is too brief to make a determination regarding whether it is on purpose or on topic.
L	<p>Nonscorable Language</p> <p>ELA: Language other than English Mathematics: Language other than English or Spanish</p>
T	<p>Off-Topic for ELA WER Items Only</p> <ul style="list-style-type: none"> • The response is unrelated to the task or the sources or shows no evidence that the student has read the task or the sources (especially for informational/explanatory and opinion/argumentative), or • “Off topic” responses are generally substantial responses.
M	<p>Off-Purpose for ELA WER Items Only</p> <p>The student has clearly not written to the purpose designated in the task.</p> <ul style="list-style-type: none"> • An off-purpose response addresses the topic of the task but not the purpose of the task. • Students may use narrative techniques in an explanatory essay or use argumentative/persuasive techniques to explain, for example, and still be on purpose. • Off-purpose responses are generally developed responses (essays, poems, etc.) clearly not written to the designated purpose.

7.3.6 Human-Scoring Alerts

Raters are also trained to watch for indications of a “crisis paper” and/or cheating. Such information can require urgent attention. Any student response of a sensitive nature to any human-scored test item is assigned a score and identified as an “alert.” Raters receive a process document as part of their training materials that describes the steps to follow should they determine that a response should be classified as an alert response. The different types of crisis paper alerts are as follows:

- Suicide
- Criminal activity
- Alcohol or drug use
- Extreme depression
- Violence
- Rape, sexual, or physical abuse

- Self-harm or intent to harm others
- Neglect

For crisis paper alerts, the LEA’s superintendent and LEA CAASPP coordinator in the LEA for the flagged student are sent a copy of the response and the student Statewide Student Identifier via tracked delivery.

7.4. Student Test Scores

ETS developed two parallel scoring systems to produce students’ scores: the eSKM scoring system, which scores and delivers individual students’ scores to the ETS reporting system; and the parallel scoring system developed by ETS Technology and Information Processing Services (TIPS), which computes individual students’ scores. The two scoring systems independently apply the same scoring algorithms and specifications. ETS psychometricians verify the eSKM scoring by comparing all individual student scores from TIPS and resolving any discrepancies. This process redundancy is an internal quality control step that is in place to verify the accuracy of scoring. Students’ scores are reported only when the two parallel systems produce identical results.

When scores do not match, the mismatch is investigated by ETS’s Statistical Analysis and eSKM teams and resolved. (For example, the mismatch could be a result of a Smarter Balanced and CDE decision to not score an item as a problem was identified in a particular item or rubric.) ETS applies a problem item notification (PIN) not to score the item through the systematic process in eSKM, which might result in a mismatch if TIPS is still in the process of applying the PIN in the parallel system when the student score is being compared. This real-time scoring check is designed to continually detect mismatches and track remediation.

All scores must comply with the ETS scoring specifications and the parallel scoring process to ensure the quality and accuracy of scoring and to support the transfer of scores into the database of the student records scoring system, the Test Operations Management System (TOMS).

7.4.1 Total Test Scores

7.4.1.1 Theta Scores

For all of the tests, theta scores are obtained through maximum likelihood estimation (MLE) applied to item responses (Birnbaum, 1968). Items scored as one (correct) or zero (incorrect) are referred to as dichotomous items. Items scored from zero to some number of points greater than one are called polytomous items. The generalized partial credit (GPC) model is applied to both types of items. The GPC model (Muraki, 1992) is

$$P_{ih}(\theta_j) = \begin{cases} \frac{\exp(\sum_{v=1}^h Da_i(\theta_j - b_i + d_{iv}))}{1 + \sum_{c=1}^{n_i} \frac{\exp(\sum_{v=1}^c Da_i(\theta_j - b_i + d_{iv}))}{c}}, & \text{if score } h = 1, 2, \dots, n_i \\ \frac{1}{1 + \sum_{c=1}^{n_i} \frac{\exp[\sum_{v=1}^c Da_i(\theta_j - b_i + d_{iv})]}{c}}, & \text{if score } h = 0 \end{cases}, \quad (7.1)$$

where,

$P_{ih}(\theta_j)$ is the probability of student with proficiency θ_j obtaining score h on item i ;

n_i is the maximum number of score points for item i ;

α_i is the discrimination parameter for item i ;

b_i is the location parameter for item i ;

d_{iv} is the category parameter for item i on score v ; and

D is a scaling constant of 1.7 that makes the logistic model approximate the normal ogive model.

When $n_i = 1$, Equation 7.1 becomes an expression of the 2-parameter logistic model for dichotomous items.

The log-likelihood of a student with proficiency θ_j , given the observed response vector U , is:

$$L(\theta_j | U) = \ln\left(\prod_{i=1}^I \prod_{v=0}^{n_i} P_{ih}(\theta_j)^{u_{iv}}\right) \quad (7.2)$$

$$u_{iv} = \begin{cases} 1, & \text{if the score } h \text{ on polytomous item } i \text{ is equal to } v, \\ 0, & \text{otherwise} \end{cases}$$

where,

I is the total number of items in the response vector,

n_i is the maximum number of score points for item i , and

P_{ih} is the probability of the score h observed on item i , as expressed in Equation 7.1.

The theta that is associated with the largest log-likelihood for a particular pattern of scores is the maximum likelihood theta estimate. The MLE cannot generally be solved explicitly as it is nonlinear in nature (Hambleton & Swaminathan, 1985, p. 79). As a result, an iterative process such as the Newton-Raphson procedure is employed. In each Newton-Raphson iteration t , the ability is estimated seen in Equation 7.3:

$$\theta_t = \theta_{t-1} - \frac{L'_{t-1}}{L''_{t-1}} \quad (7.3)$$

where

L'_{t-1} is for the first derivative, and

L''_{t-1} is the second derivative of the log-likelihood at iteration $t-1$.

When the difference between the estimates in successive iterations becomes acceptably small (i.e., difference is less than .0001), the process is said to converge. As the convergence criterion is set, the level of accuracy of estimation can be obtained, provided the process converges. Theta scores are the basis for scale scores but are not reported. Scale scores

and the transformation from theta scores to scale scores are described in the *Scale Scores for the Total Assessment* subsection on page 150.

Inverse Test Characteristic Curve Method

There are some special cases in which the score reported for a student is not based on the MLE approach described previously:

- The student got the lowest possible score on the total test, which would lead to an MLE of $-\infty$.
- The student got the highest possible score on the total test, which would lead to an MLE of $+\infty$.
- The student's response pattern did not lead to a single most likely MLE of the student's ability.

In these cases, the student's score was computed by the inverse test characteristic curve (TCC) method (Stocking, 1996). This method transforms the sum of the student's item scores into an ability estimate. That estimate is the ability level at which the sum of the expected scores on the items the student took is equal to the sum of the scores that the student actually earned on those items.

The item characteristic curve for an item shows the probability of a correct answer to the item as a function of the student's ability. The test characteristic curve for a set of items shows the expected total score on those items as a function of the student's ability. Because information is lost by not utilizing each student's unique pattern of responses, this method was used only when the response pattern does not lead to one clear MLE of the student's ability or the likelihood function is so flat that although it has a maximum, that maximum is not much greater than the likelihood over a wide range of theta values.

The lowest obtainable theta (LOT) and the highest obtainable theta (HOT) are presented in Table 7.4 for each grade, as defined by the Smarter Balanced Consortium. All the theta scores across grades are on a common vertical scale.

Table 7.4 Lowest and Highest Obtainable Scores

Content Area	Grade	θ	
		LOT	HOT
ELA	3	-4.5941	1.3374
	4	-4.3962	1.8014
	5	-3.5763	2.2498
	6	-3.4785	2.5140
	7	-2.9114	2.7547
	8	-2.5677	3.0430
	11	-2.4375	3.3392
Mathematics	3	-4.1132	1.3335
	4	-3.9204	1.8191
	5	-3.7276	2.3290
	6	-3.5348	2.9455
	7	-3.3420	3.3238
	8	-3.1492	3.6254
	11	-2.9564	4.3804

Scoring of Incomplete Cases

Sometimes students fail to complete their tests. Depending on the nature of the missing data, different actions are taken. This section covers three specifications:

1. Attemptedness/participation rules: when a test is considered attempted or participated;
2. When a test is scored, and
3. How and when incomplete tests are scored.

As defined in the Smarter Balanced scoring specifications, tests are considered “complete” if students respond to the minimum number of operational items specified in the blueprint (see Table 8.1 for the minimum number of operational items in each claim). Otherwise, the tests are “incomplete.” In a fixed-form (i.e., not CAT) assessment, unanswered items are treated as incorrect. However, in a CAT environment, the specific unanswered items are not known because the test administration terminates when a student stops responding to items. ETS implemented several procedures that score an incomplete test in a CAT environment; these options are presented in Table 7.5.

The number and the percent of students who participated the tests are presented in the tables of Appendix 7.A for all students in each test and for the selected demographic groups by grade and content area. In addition, the numbers of students in the selected demographic groups with different test completion conditions are presented in the tables of Appendix 7.F.

Table 7.5 Treatment of Incomplete Tests

If the student	Classify the student as participating?	Include the data in the student file?	Score the student's responses?	Classify the student as attempting the test?	Report a score for the student?
Logged on to both the CAT and PT, but answered no items	Yes	Yes	No	No	No
Logged on to both the CAT and PT, and answered at least one item for only CAT or PT	Yes	Yes	Lowest obtainable score for the test	No (Participating)	No
Logged on to both the CAT and PT and answered at least one item for both CAT and PT	Yes	Yes	Lowest obtainable score for the test	Yes	No
Logged on to both the CAT and PT and answered at least one PT item but fewer than 10 CAT items	Yes	Yes	Lowest obtainable score for the test	Yes	No
Logged on to both the CAT and PT, answered at least one PT item and at least 10 CAT items, but did not answer specified minimum number of items	Yes	Yes	MLE (unanswered items in the middle of the test scored treated as incorrect), or for an incomplete test, estimate from Equation 7.4	Yes	Yes

Sometimes a student stops answering items before the test delivery system has administered all the items the student is supposed to answer. When that happens, the student's test is considered complete if the student has answered at least a specified minimum number of items (less than the number of items in the full test). Otherwise, the student's score is based on an adjusted ability estimate calculated by the formula in Equation 7.4.

$$\theta_{Adj.} = \theta_{\min} + (\theta_{achieved} - \theta_{\min}) * PropAdj, \quad (7.4)$$

where,

θ_{adj} is a student's incomplete theta score,

$\theta_{achieved}$ is the theta estimate based on the incomplete test,

θ_{\min} is a predetermined theta estimate (–3.5), with –3.5 being the average of the lowest obtainable theta value across all tests on a vertical scale, and

$PropAdj$ is the proportion of the test completed by the student.

7.4.1.2 Scale Scores for the Total Assessment

After MLE scoring is performed on the theta scale and the scoring rules are implemented, the scaling constants are applied. Scale scores (SS) are on the Smarter Balanced vertical scale, formed by linking across grades using common items in adjacent grades. The vertical scale score is the linear transformation of the post-vertically scaled item response theory (IRT) ability estimate. The student's estimated theta score is converted to a scale score by the following formulas:

$$\text{For ELA: } SS = 85.8 \theta + 2508.2 \quad (7.5)$$

$$\text{For mathematics: } SS = 79.3 \theta + 2514.9 \quad (7.6)$$

There is a restriction that the scale score cannot be higher or lower than the specified highest and lowest possible scores for that content area and grade level. The lowest obtainable scale score (LOSS) and the highest obtainable scale score (HOSS) for each test are displayed in Table 7.6.

Scale scores are rounded to the nearest integer.

Detailed information regarding the establishment of scale scores for the Smarter Balanced Summative Assessments can be found in Chapter 10 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016d) and the *Smarter Balanced Scoring Specification: 2014–2015 Administration* (AIR, 2015b).

Table 7.6 Lowest and Highest Obtainable Scale Scores

Content Area	Grade	Scale Score	
		LOSS	HOSS
ELA	3	2114	2623
	4	2131	2663
	5	2201	2701
	6	2210	2724
	7	2258	2745
	8	2288	2769
	11	2299	2795

Content Area	Grade	Scale Score	
		LOSS	HOSS
Mathematics	3	2189	2621
	4	2204	2659
	5	2219	2700
	6	2235	2748
	7	2250	2778
	8	2265	2802
	11	2280	2862

7.4.1.3 Achievement Levels

Standard settings were performed by the Smarter Balanced Assessment Consortium, which defined four achievement levels based on overall scale scores. These achievement level categories were labeled “Standard Not Met,” “Standard Nearly Met,” “Standard Met,” and “Standard Exceeded.” The combined categories of “Standard Met” or “Standard Exceeded” are used to define students meeting the proficiency criterion for accountability purposes. See *Chapter 10 Achievement Level Setting of the 2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016d) for details related to the standard setting procedure; *Reporting Achievement Level Descriptors* (Smarter Balanced, 2015s) for the descriptors used to describe Smarter Balanced achievement levels; and *Interpretation and Use of Scores and Achievement Levels* (Smarter Balanced, 2014b) for more information about using achievement levels.

- **Level 1—Standard Not Met.** Student demonstrates minimal understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.
- **Level 2—Standard Nearly Met.** Student demonstrates partial understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.
- **Level 3—Standard Met.** Student demonstrates adequate understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.
- **Level 4—Standard Exceeded.** Student demonstrates thorough understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.

The cut scores for the achievement levels vary by grade and content area. Table 7.7 provides the theta cut scores for Standard Nearly Met, Met, and Exceeded at each grade. For example, the cut score of -0.888 for “Standard Met” in grade three ELA means that a student must earn a theta score (θ) of -0.888 or higher to achieve that classification.

Table 7.7 Theta Cut Scores

Content Area	Grade	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	-1.646	-0.888	-0.212
	4	-1.075	-0.410	0.289
	5	-0.772	-0.072	0.860
	6	-0.597	0.266	1.280
	7	-0.340	0.510	1.641
	8	-0.247	0.685	1.862
	11	-0.177	0.872	2.026
Mathematics	3	-1.689	-0.995	-0.175
	4	-1.310	-0.377	0.430
	5	-0.755	0.165	0.808
	6	-0.528	0.468	1.199
	7	-0.390	0.657	1.515
	8	-0.137	0.897	1.741
	11	0.354	1.426	2.561

Table 7.8 shows the scale score range of each achievement level for the ELA tests and the mathematics tests, respectively.

Table 7.8 Scale Score Ranges for Achievement Levels

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	2114–2366	2367–2431	2432–2489	2490–2623
	4	2131–2415	2416–2472	2473–2532	2533–2663
	5	2201–2441	2442–2501	2502–2581	2582–2701
	6	2210–2456	2457–2530	2531–2617	2618–2724
	7	2258–2478	2479–2551	2552–2648	2649–2745
	8	2288–2486	2487–2566	2567–2667	2668–2769
	11	2299–2492	2493–2582	2583–2681	2682–2795
Mathematics	3	2189–2380	2381–2435	2436–2500	2501–2621
	4	2204–2410	2411–2484	2485–2548	2549–2659
	5	2219–2454	2455–2527	2528–2578	2579–2700
	6	2235–2472	2473–2551	2552–2609	2610–2748
	7	2250–2483	2484–2566	2567–2634	2635–2778
	8	2265–2503	2504–2585	2586–2652	2653–2802
	11	2280–2542	2543–2627	2628–2717	2718–2862

7.4.2 Claim Scores (Subscores)

Claims identify the set of knowledge and skills being measured. Groups of items in each combination of grade and content area are formed based on related content standards; outcomes for these groups of items are called claim scores. A claim score is a measure of a student's performance on the items in that claim. There are four claims for ELA tests and three claims for mathematics tests. Claims 2 and 4 of mathematics scores are combined because of content similarity and to provide flexibility for item development. Consequently, only three claim scores are reported with the overall mathematics score. Like the overall test, results of each claim are reported as a theta score, a scale score, and a claim

strength/weakness. The claims are identified in Table 7.9 and are also available in the blueprints, which are provided in Appendix 2.A on page 23.

Table 7.9 Claims Identified for ELA and Mathematics

Content Area	Claim	Description
ELA	1. Reading	Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.
	2. Writing	Students can produce effective and well-grounded writing for a range of purposes and audiences.
	3. Listening/Speaking	Students can employ effective listening skills for a range of purposes and audiences.
	4. Research	Students can engage in research and inquiry to investigate topics and to analyze, integrate, and present information.
Mathematics	1. Concepts and Procedures	Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.
	2. Problem Solving	Students can solve a range of complex, well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.
	4. Model and Data Analysis	Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.
	3. Communicating/Reasoning	Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
	<i>Note: In mathematics, claims 2 and 4 are reported together, so there are only three reporting categories with four claims.</i>	

7.4.2.1 Scale Scores for Claims

Claim scores are calculated by applying the MLE approach to the items contained in a particular claim. The claim scale scores are obtained by applying Equation 7.5 for ELA assessments and Equation 7.6 for mathematics assessments. ELA scores are computed for each claim. Mathematics scores are computed for Claim 1, Claims 2 and 4 combined, and Claim 3.

Claim scores are associated with fewer items and score points relative to total test scores; this means that the number of students whose claim scores cannot be estimated by the MLE approach is larger than what is observed for the total score. Therefore, ETS uses the inverse TCC approach when MLE derived theta estimates are not available for a claim.

7.4.2.2 Performance Levels for Claims

The relative strengths and weaknesses for each student are reported for each claim. The three performance levels for each claim are as follows:

- **Above standard**—Student clearly understands and can successfully apply his or her knowledge to the standards tested in this content area for his or her grade.
- **At/Near standard**—Student shows understanding and can apply his or her knowledge to the standards tested in this content area for his or her grade.
- **Below standard**—Student has limited understanding and difficulty applying his or her knowledge to the standards tested in this content area for his or her grade.

Because claim scores are based on fewer items than overall test scores, the standard error of the claim scale scores is included in the determination of the student's performance level on a claim. SS_{claim} is a student's estimated scale score on a claim. A range of possible student scale scores is calculated for each student from $SS_{claim} - 1.5 \times SE_{SS_{claim}}$ to $SS_{claim} + 1.5 \times SE_{SS_{claim}}$, each of which is converted to a scale score and rounded to an integer.

If the value at the high end of the score range is less than the minimum scale score associated with the overall "Standard Met" achievement classification, the claim performance level is reported as "Below Standard." This achievement classification is also assigned when all student responses to items associated with a claim are incorrect.

If the value at the low end of the range is greater than the minimum scale score associated with the overall "Standard Met" achievement classification, the claim performance level is reported as "Above Standard." This claim performance level is also reported when all student responses are correct.

Scale score ranges that do not meet either of these classifications are reported as "At/Near Standard."

7.4.3 Theta Scores Standard Error

A student's true ability level or theta score and standard error of theta are not known. The standard error of measurement (SEM) is the standard deviation of the distribution of theta scores that the student would earn under different testing conditions. In IRT, the only differences taken into account in the SEM are those associated with different sets of items that could be presented to the student. An error band can be calculated from the student's theta score minus one SEM to the student's theta score plus one SEM, which should contain the student's true score 68 percent of the time. The error band is transformed to the scale score metric and reported for the CAASPP online summative assessments. It is useful to take into account the size of measurement errors because no assessment measures student ability with perfect accuracy or consistency. (Error bands are also discussed in subsection 7.4.5 *Error Band*.)

In the framework of IRT, the SEM is the reciprocal of the square root of the test information function (TIF) based on the items taken by each student. It is also the estimate of standard error for the estimate of theta. The TIF is the sum of information from each item on the test. With MLE, the SEM for a student with proficiency θ_j is:

$$SEM(\theta_j) = \frac{1}{\sqrt{I(\theta_j)}} \quad (7.7)$$

where,

$I(\theta_j)$ is the test information for student j , calculated as:

$$I(\theta_j) = \sum_{i=1}^n I_i(\theta_j) \quad (7.8)$$

and $I_i(\theta_j)$ is the item information of item i for student j .

When item information is based on the generalized partial credit model for both dichotomous and polytomous items, it is calculated as:

$$I_i(\theta_j) = (Da_i)^2 [s_{i2}(\theta_j) - s_i^2(\theta_j)], \quad (7.9)$$

where,

$s_i(\theta_j)$ is the expected item score for item i on a theta scale score θ_j , calculated as

$$s_i(\theta_j) = \sum_{h=0}^{n_i} hp_{ih}(\theta_j), \quad (7.10)$$

and

$$s_{i2}(\theta_j) = \sum_{h=0}^{n_i} h^2 p_{ih}(\theta_j) \quad (7.11)$$

where,

$p_{ih}(\theta_j)$ is the probability of an examinee with θ_j getting score h on item i , the computation of which is shown in Equation 7.1, and

n_i is the maximum number of score points for item i .

The SEM is calculated based only on the answered item(s) for both complete and incomplete tests. The upper bound of the SEM is set to 2.5 on the theta metric, and any value larger than 2.5 is truncated at 2.5, as is required by the Smarter Balanced Assessment Consortium (AIR, 2015a).

7.4.4 Scale Score Standard Errors

Standard errors of the maximum likelihood theta estimates are also transformed onto the reporting scale. This transformation is:

$$SE_{scaled} = a * SE_{\theta_j} \quad (7.12)$$

where,

SE_{θ} is the standard error of the ability estimate on the θ scale, and

a is the slope of the scaling constants that transform θ to the reporting scale.

The value of a is 85.8 for ELA and 79.3 for mathematics.

7.4.5 Error Band

A band of scale scores showing the measurement error associated with each scale score is reported. The error band indicates the extent to which a student's score might have been different had the student taken the test again. It is generated by developing a band of indeterminacy surrounding the scale score

$$\text{error band} = (SS - SE_{scaled}, SS + SE_{scaled}), \quad (7.13)$$

where,

SS is the scale score, and

SE_{scaled} is the standard error of measurement associated with this scale score.

$SS - SE_{scaled}$ is the lower boundary of the error band and $SS + SE_{scaled}$ is the upper boundary of the error band.

7.4.6 Assessment Target Reports

7.4.6.1 Overview of Assessment Target Reports

Assessment target standards are specific to each content domain and linked to Common Core State Standards (CCSS) that are associated with claim areas. For Smarter Balanced tests, assessment targets are intended to support the development of high-quality items and tasks that contribute evidence to the claims. The relationship between assessment targets and CCSS elements is made explicit in the Smarter Balanced content specifications (ETS, 2015a; 2015b).

Assessment target scores, which are reported only at the group level, provide insight into strengths and weaknesses for a group of students relative to the test performance of the group. For a selected group of students (for example, a classroom), if their performance on an assessment target is better than the test as a whole, it is an area of relative strength. Conversely, if the group of students did not perform as well on an assessment target in relation to the test as a whole, it would be an area of relative weakness.

Assessment target scores are derived from item *residuals*, which are the differences between a student's observed score and expected score for a particular item. For the selected group of students, the assessment target scores for each student are calculated by summing the differences between the observed and expected scores for each student for all items that he or she attempted within a particular assessment target. The sum of these differences is then averaged by dividing the total number of points possible for items within a particular target. Then, the mean assessment target scores as well as the standard error for all students in the selected student group are calculated. Finally, strengths and weaknesses thresholds for each assessment target are established based on the size of the mean assessment target score value in relation to assessment target standard error. More details on the calculation of the assessment targets and the establishment of the strengths and weaknesses thresholds are described in an ETS memorandum, *Target Score Reporting* (ETS, 2015b).

Note, however, that assessment targets are based on target standards but not all claim areas support assessment target reporting. For example, assessment targets are reported for all claims in ELA but only for Claim 1 in mathematics.

7.4.6.2 Limitations

Caution should be used when reporting or interpreting assessment targets. First, assessment targets can only be meaningfully reported at the group level because they are neither reliable nor generalizable enough to support inferences for individual students. Second, because residuals are sensitive to model fit, student strengths and weaknesses evaluated this way are sometimes the result of a misfit in item calibration. Therefore, it is necessary to compute the average residuals across all students within each assessment target to determine whether the average residuals are uniformly close to zero. Finally, assessment targets that are based on ten or fewer items in the item bank should not be reported. The extent to which the scores are *generalizable* depends on the total number of items administered from that domain across all students. A small number of items is not sufficient to broadly represent the target domain or to support the general conclusions required of actionable information.

7.4.6.3 Reporting

The distribution of the average assessment target scores depends both on the number of students in the defined group and on the number of items in a target that these students answered. As both numbers grow large, the average residuals increasingly cluster symmetrically around zero. To support California schools in making valid inferences based on the assessment target information, the number of items per target standard is considered when reporting the assessment target. A criterion that there are at least 10 items within the item pool for a target standard is recommended. Table 7.10 summarizes the number of reportable assessment targets for the 2015–16 CAASPP Smarter Balanced administration.

Table 7.10 Number of Targets Eligible for Reporting for Targets with 10 Items or More

Grade	English Language Arts/Literacy				Subtotal	Mathematics Claim 1
	Claim 1	Claim 2	Claim 3	Claim 4		
3	11	7	1	3	22	11
4	9	7	1	3	20	10
5	10	7	1	3	21	10
6	7	6	1	3	17	10
7	6	7	1	3	17	9
8	6	7	1	3	17	10
11	14	7	1	3	25	16

7.5. Overview of Score Aggregation Procedures

To provide meaningful results to the stakeholders, test scores for a given grade and content area are aggregated at the school, LEA or direct funded charter school, county, and state levels. The aggregated scores are generated both for selected groups and for the population. The next section contains a description of the types of aggregation performed on CAASPP Smarter Balanced online summary assessment scores.

7.5.1 Score Distributions and Summary Statistics

Summary statistics that describe student performance on each test are presented in Table 7.11. Included in the table are the number of students for each test and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. The mean thetas and corresponding scale scores increase as expected as grade level increases.

Table 7.11 Mean and Standard Deviation of Theta and Scale Scores

Content Area	Grade	Number of Students	Scale Score		Theta Score	
			Mean	SD	Mean	SD
ELA	3	456,912	2414	90	-1.10	1.05
	4	472,940	2454	96	-0.63	1.12
	5	463,908	2496	97	-0.15	1.13
	6	459,061	2519	97	0.13	1.13
	7	457,084	2542	100	0.39	1.16
	8	450,483	2559	99	0.60	1.16
	11	434,061	2600	111	1.07	1.29

Content Area	Grade	Number of Students	Scale Score		Theta Score	
			Mean	SD	Mean	SD
Mathematics	3	459,050	2425	82	-1.14	1.03
	4	474,903	2460	83	-0.69	1.05
	5	465,699	2485	92	-0.37	1.16
	6	460,676	2509	107	-0.08	1.35
	7	458,402	2525	112	0.13	1.41
	8	451,601	2541	120	0.33	1.51
	11	432,348	2568	125	0.67	1.58

The number and the percentage of students in each achievement level and the number and the percentage who meet or exceed the standard are shown in Table 7.12.

Table 7.12 Percentages and Counts of Students in Achievement Levels for CAASPP Online Summative Assessments

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded*	
		n	%	n	%	n	%	n	%	n	%
ELA	3	147,788	32	115,294	25	93,772	21	100,058	22	193,830	42
	4	169,133	36	96,766	20	100,285	21	106,756	23	207,041	44
	5	142,539	31	95,569	21	130,589	28	95,211	21	225,800	49
	6	121,329	26	120,874	26	140,976	31	75,882	17	216,858	47
	7	127,213	28	111,379	24	148,693	33	69,799	15	218,492	48
	8	110,563	25	120,023	27	154,672	34	65,225	14	219,897	49
	11	80,696	19	97,467	22	144,798	33	111,100	26	255,898	59
Mathematics	3	132,635	29	117,560	26	127,965	28	80,890	18	208,855	45
	4	134,958	28	158,337	33	108,872	23	72,736	15	181,608	38
	5	181,506	39	130,377	28	74,958	16	78,858	17	153,816	33
	6	161,477	35	136,029	30	83,742	18	79,428	17	163,170	35
	7	156,371	34	135,626	30	88,644	19	77,761	17	166,405	36
	8	175,320	39	115,125	25	76,152	17	85,004	19	161,156	36
	11	185,947	43	106,625	25	85,534	20	54,242	13	139,776	32

* May not exactly match the sum of Level 3 and Level 4 percentages due to rounding.

Figure 7.5 presents a graphical representation of the percentage of students at each achievement level by grade for ELA.

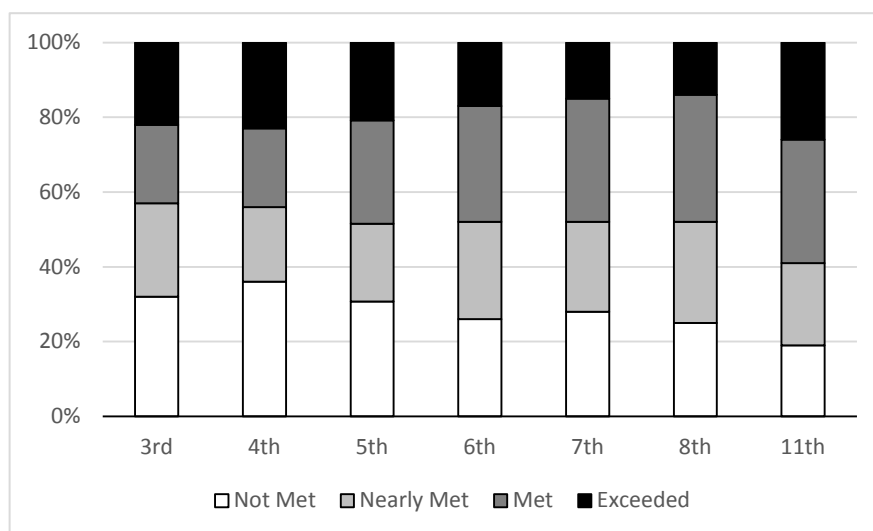


Figure 7.5 Percentages of Achievement Levels in ELA

Figure 7.6 presents a graphical representation of the percentage of students at each achievement level by grade for mathematics.

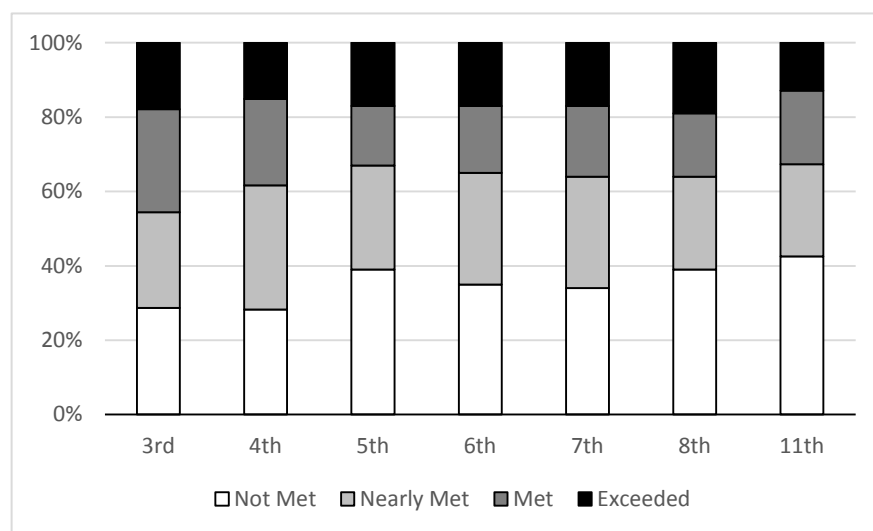


Figure 7.6 Percentages of Achievement Levels in Mathematics

Detailed score distribution information is available in Appendix 7. Table 7.B.1 and Table 7.B.2 in Appendix 7.B on page 183 show the estimated distributions of theta scores for each test. Table 7.C.1 and Table 7.C.2 present the selected percentiles of the scale score distributions. Table 7.C.3 through Table 7.C.16 present the frequency distributions of scale scores for each test.

Table 7.B.3 through Table 7.B.16 contain the distributions of theta scores for each claim. Table 7.D.1 through Table 7.D.4 show the range of the number of items presented within each test, number of students with valid score in each claim, and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. “Valid score” means the student records were not flagged as “not scored” or the students

were enrolled in the same grade as they were tested. The number of students in each claim performance level as well as the percentage of students in that claim performance level are reported in Table 7.D.5 through Table 7.D.8.

7.5.2 Group Scores

Statistics summarizing student performance by content area and grade for selected groups of students are provided starting on page 222 in Table 7.E.1 through Table 7.E.14 for each test, and for each test claim in Table 7.E.15 through Table 7.E.28.

In the tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, economic status (disadvantaged or not), special education services status, migrant status, and ethnicity by economic status. The tables show, for each demographic group, the numbers of students with a valid scale score, scale score means and standard deviations, and the percentage of students in each achievement level and claim performance level.

Table 7.13 provides definitions of the demographic subgroups included in the tables. Students' economic status was determined by the education level of their parents and whether or not the student participated in the National School Lunch Program (NSLP). To protect privacy when the number of students in a subgroup is 10 or fewer, the summary statistics at the achievement and claim level are not reported and are presented as hyphens.

Table 7.13 Demographic Groups to Be Reported

Value	Subgroups
Gender	<ul style="list-style-type: none"> • Male • Female
Ethnicity	<ul style="list-style-type: none"> • American Indian or Alaska Native • Asian • Black or African American • Filipino • Hispanic or Latino • Native Hawaiian or Other Pacific Islander • White • Two or more races
English-language Fluency	<ul style="list-style-type: none"> • English only • Initially fluent English proficient • English learner • Reclassified fluent English proficient • To be determined • English proficiency unknown
Economic Status	<ul style="list-style-type: none"> • Not economically disadvantaged • Economically disadvantaged
Special Education Services Status	<ul style="list-style-type: none"> • No special education services • Special education services
Migrant Status	<ul style="list-style-type: none"> • Eligible for the Title I Part C Migrant Program • Not eligible for the Title I Part C Migrant Program

7.6. Reports Produced and Scores for Each Report

The tests that make up the CAASPP online summative assessments provide results or score summaries that are reported for different purposes. The four major purposes are to:

1. Help facilitate conversations between parents/guardians and teachers about student performance;
2. Serve as a tool to help parents/guardians and teachers work together to improve student learning;
3. Help schools and school districts identify strengths and areas that need improvement in their educational programs; and
4. Provide the public and policymakers with information about student achievement.

This subsection provides detailed descriptions of the uses and applications of CAASPP reporting for students.

7.6.1 Online Reporting

TOMS is a secure Web site hosted by ETS that permits LEA users to manage the CAASPP online summative assessments to inform the test delivery system. This system uses a role-specific design to restrict access to certain tools and applications based on the user's designated role. Specific functions of TOMS include the following:

- Manage user access privileges
- Manage test administration calendars and testing windows
- Manage student test assignments
- Manage and confirm the accuracy of students' test settings (i.e., designated supports and accommodations) prior to testing
- Run and download various reports

In addition, TOMS communicates with the Online Reporting System (ORS) that provides authorized users with interactive and cumulative online reports for ELA and mathematics at the student, school, and LEA levels. The ORS provides access to two CAASPP functions: Score Reports, which provide preliminary score data for each administered test available in the reporting system; and the Completion Status Reports, which provide completion data for students taking the test in the reporting system.

Based on the Smarter Balanced reporting requirements for ELA and mathematics, the ORS provides the preliminary summative reports containing information outlining student knowledge and skills, as well as performance levels aligned to the assessment-specific claims. The online aggregate reports provide functionality at the student, classroom, school, and LEA levels. The online aggregate reports are available to be downloaded in PDF, Excel, and CSV formats.

7.6.2 Special Cases

Student scores are not reported for the following cases:

- Student was absent from the test
- Student whose answer document was blank or because the student moved or had a medical emergency
- Student's parent/guardian requested exemption from testing

- Student was tested but marked no answers
- Student did not log on to both CAT and PT portions
- Student logged on to two parts (PT and CAT) without any recorded answers
- Student logged on to one part (PT or CAT) but not both parts, and had no recorded answers
- Student attempted fewer than 10 CAT items and fewer than 1 PT item
- Student was invalidated in the system

7.6.3 Types of Score Reports

There are three categories of CAASPP reports. The categories and the specific reports within each category are as follows:

- Student Score Report
 - The Student Score Report is the official score report for the parents or guardians and describes the student’s results.
 - Results presented for the CAASPP online summative assessments include the following metrics:
 - Scale score for each content area assessment reported (The ranges of scale scores for both ELA and mathematics are provided in Table 7.4.)
 - Error band for each scale score
 - Achievement level for each content area assessment reported (Smarter Balanced achievement levels for both ELA and mathematics are “Standard Exceeded,” “Standard Met,” “Standard Nearly Met,” and “Standard Not Met.”)
 - Performance levels for all claims in each content area assessment reported (Smarter Balanced performance levels for claims are “Above Standard,” “At or Near Standard,” and “Below Standard.”)
 - Scores for students who use accommodations or designated supports are reported in the same way as for students without accommodations or designated supports. (See *Universal Tools, Designated Supports, and Accommodations* for more information about accessibility supports.)
 - LEAs receive printed Student Score Reports to distribute to parents/guardians and students’ schools. This report is also provided as a printable PDF that the LEA CAASPP coordinator may download from TOMS.
 - Further information about the CAASPP online summative assessments Student Score Report and the other reports is provided at <http://caaspp.cde.ca.gov/>.
- School Reports
 - The school performance report provides group information by content area, including the school average scale score and percentage of students at or above “Standard Met.”
 - This report provides a list of students’ scale scores, achievement levels, and performance levels for claims.
 - The school scale score report is presented as a dashboard to provide group information by content area. It includes a histogram showing the distribution of students’ scale scores.

- District Reports
 - The district performance report provides school-level information by content area, including the school average scale score and percentage of students at or above “Standard Met.”
 - This report lists all the proficiency information for each school, including the testing status, number of students who completed testing, average scale score, and percentage of students in each achievement level.
 - The district scale score report is presented as a dashboard to provide cumulative information. The histogram shows the frequency of schools with mean scores in each score interval.

The CAASPP aggregate reports and student data files for the LEA are available for the LEA CAASPP coordinator to download from TOMS. The LEA CAASPP coordinator forwards the appropriate reports to test sites. In the case of the CAASPP Student Score Report, the LEA sends the printed report(s) to the child’s parent or guardian and forwards a copy to the student’s school or test site. Downloaded Student Score Reports are forwarded to the test site. CAASPP Student Score Reports that include individual student results are not distributed beyond the student’s school.

Internet reports are described on the CDE Web site and are accessible to the public online at <http://caaspp.cde.ca.gov/>.

Preliminary individual student scores are also available to LEAs prior to the release of final reports via electronic reporting, accessed using the Online Reporting System. This application permits LEAs to view preliminary results data for all tests taken.

7.6.4 Score Report Applications

CAASPP online summative assessments results provide parents and guardians with information about their child’s progress. The results are a tool for increasing communication and collaboration between parents or guardians and teachers. Along with the results from the Smarter Balanced Interim Assessments, the Student Score Report can be used by parents and guardians while talking with teachers about ways to improve their child’s achievement of the CCSS.

Schools may use the CAASPP online summative assessments results to help make decisions about how best to support student achievement. CAASPP online summative assessments results, however, should never be used as the only source of information to make important decisions about a child’s education.

CAASPP online summative assessments results help schools and LEAs identify strengths and weaknesses in their instructional programs. Each year, staff from schools and LEAs examine CAASPP test results at each grade level and content area tested. Their findings are used to help determine:

- The extent to which students are learning the academic standards,
- Instructional areas that can be improved,
- Teaching strategies that can be developed to address needs of students, and
- Decisions about how to use funds to ensure that students achieve the standards.

CAASPP online summative assessments results are used to rank the academic performance of schools, compare schools with similar characteristics (e.g., size and ethnic

composition), identify low-performing and high-performing schools, and set yearly targets for academic progress.

7.6.5 Criteria for Interpreting Test Scores

An LEA may use CAASPP online summative assessment results to help make decisions about student placement, promotion, retention, or other considerations related to student achievement. However, it is important to remember that a single test can provide only limited information. Other relevant information should be considered as well. It is advisable for parents to evaluate their child's strengths and weaknesses in the relevant topics by reviewing classroom work and progress reports in addition to the child's CAASPP online summative assessment results. It is also important to note that a student's score in a content area contains measurement error and could vary somewhat if the student were retested.

7.6.6 Criteria for Interpreting Score Reports

The information presented in various reports must be interpreted with caution when making performance comparisons. When comparing scale score and performance-level results, the user is limited to comparisons within a content area. The scale scores are on a vertical scale across grades for each content area (ELA or mathematics), but the score scales for ELA and mathematics are not comparable to each other. The user may compare scale scores for the same content area and grade, within a school, between schools, or between a school and its district, its county, or the state. For more details on the criteria for interpreting information provided on the score reports, see the *2015–16 CAASPP Post-Test Guide* (CDE, 2016).

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Appendix 7.A: Participation Rates

Notes:

- The number of students is derived from the 2015–16 data that were received on October 5, 2016.
- A student is considered a participant if a student logged on to both the computer adaptive test and the performance task portions of the test, even if no items are answered.

Table 7.A.1 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Participation Rates for English Language Arts/Literacy (ELA), Grade Three

	Gender			English-Language Fluency					
	All	Male	Female	English Learner (EL)	English Only (EO)	Reclassified Fluent English Proficient (RFEP)	Initially Fluent English Proficient (IFEP)	To Be Determined (TBD)	No Response
Number of students	473,451	242,459	230,992	138,219	275,809	40,442	16,941	658	1,382
Number of participants	458,658	234,473	224,185	133,345	267,648	40,101	16,584	257	723
Percent of participation	96.88	96.71	97.05	96.47	97.04	99.16	97.89	39.06	52.32

Table 7.A.2 CAASPP Smarter Balanced Participation Rates for ELA, Grade Three

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	291,227	182,224	2,461	41,873	2,256	9,832	259,596	26,641	110,307	16,872	3,613
Number of participants	283,926	174,732	2,367	40,167	2,171	9,593	253,723	25,436	105,914	16,314	2,973
Percent of participation	97.49	95.89	96.18	95.93	96.23	97.57	97.74	95.48	96.02	96.69	82.29

Table 7.A.3 CAASPP Smarter Balanced Participation Rates for ELA, Grade Four

	Gender			English-Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	488,406	249,787	238,619	127,234	278,377	61,950	18,947	561	1,337
Number of participants	474,588	242,526	232,062	122,961	270,663	61,466	18,612	209	677
Percent of participation	97.17	97.09	97.25	96.64	97.23	99.22	98.23	37.25	50.64

Table 7.A.4 Spring 2015 CAASPP Smarter Balanced Participation Rates for ELA, Grade Four

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	301,081	187,325	2,568	43,154	2,296	11,011	268,576	27,270	113,615	16,527	3,389
Number of participants	294,333	180,255	2,471	41,642	2,201	10,795	263,084	26,164	109,413	16,027	2,791
Percent of participation	97.76	96.23	96.22	96.50	95.86	98.04	97.96	95.94	96.30	96.97	82.35

Table 7.A.5 CAASPP Smarter Balanced Participation Rates for ELA, Grade Five

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	478,203	243,626	234,577	101,090	268,946	87,623	18,944	480	1,120
Number of participants	465,458	236,844	228,614	97,215	261,737	87,124	18,661	188	533
Percent of participation	97.33	97.22	97.46	96.17	97.32	99.43	98.51	39.17	47.59

Table 7.A.6 CAASPP Smarter Balanced Participation Rates for ELA, Grade Five

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	291,972	186,231	2,523	43,162	2,373	11,384	259,902	26,852	113,798	15,339	2,870
Number of participants	285,688	179,770	2,422	41,840	2,302	11,202	254,884	25,817	109,801	14,872	2,318
Percent of participation	97.85	96.53	96.00	96.94	97.01	98.40	98.07	96.15	96.49	96.96	80.77

Table 7.A.7 CAASPP Smarter Balanced Participation Rates for ELA, Grade Six

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	472,957	242,000	230,957	83,401	263,276	103,789	20,871	525	1,095
Number of participants	460,569	235,401	225,168	79,917	256,182	103,115	20,547	249	559
Percent of participation	97.38	97.27	97.49	95.82	97.31	99.35	98.45	47.43	51.05

Table 7.A.8 CAASPP Smarter Balanced Participation Rates for ELA, Grade Six

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	284,318	188,639	2,567	43,909	2,437	11,959	252,663	27,079	114,785	14,113	3,445
Number of participants	278,171	182,398	2,462	42,622	2,349	11,784	247,928	25,985	110,832	13,700	2,907
Percent of participation	97.84	96.69	95.91	97.07	96.39	98.54	98.13	95.96	96.56	97.07	84.38

Table 7.A.9 CAASPP Smarter Balanced Participation Rates for ELA, Grade Seven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	472,784	241,849	230,935	68,082	261,079	119,446	22,394	518	1,265
Number of participants	458,910	234,511	224,399	64,457	253,012	118,504	22,042	250	645
Percent of participation	97.07	96.97	97.17	94.68	96.91	99.21	98.43	48.26	50.99

Table 7.A.10 CAASPP Smarter Balanced Participation Rates for ELA, Grade Seven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	280,656	192,128	2,609	43,546	2,322	12,631	251,391	27,385	116,313	13,153	3,434
Number of participants	273,416	185,494	2,484	42,372	2,227	12,452	245,587	26,186	112,020	12,704	2,878
Percent of participation	97.42	96.55	95.21	97.30	95.91	98.58	97.69	95.62	96.31	96.59	83.81

Table 7.A.11 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eight

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEF	IFEF	TBD	No Response
Number of students	467,793	238,868	228,925	58,775	255,976	129,928	21,527	448	1,139
Number of participants	452,784	230,869	221,915	55,418	246,783	128,659	21,130	199	595
Percent of participation	96.79	96.65	96.94	94.29	96.41	99.02	98.16	44.42	52.24

Table 7.A.12 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eight

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	276,494	191,299	2,748	42,235	2,449	12,697	249,067	28,335	115,013	12,215	3,034
Number of participants	268,624	184,160	2,593	41,192	2,353	12,508	242,721	26,941	110,236	11,702	2,538
Percent of participation	97.15	96.27	94.36	97.53	96.08	98.51	97.45	95.08	95.85	95.80	83.65

Table 7.A.13 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eleven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	476,352	243,837	232,515	47,227	263,973	127,592	35,966	385	1,209
Number of participants	439,660	224,139	215,521	40,350	242,229	122,107	34,182	223	569
Percent of participation	92.30	91.92	92.69	85.44	91.76	95.70	95.04	57.92	47.06

Table 7.A.14 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eleven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	262,857	213,495	2,951	42,019	2,533	14,033	247,982	29,937	121,821	12,458	2,618
Number of participants	242,056	197,604	2,601	40,256	2,328	13,616	229,706	26,388	111,603	11,336	1,826
Percent of participation	92.09	92.56	88.14	95.80	91.91	97.03	92.63	88.15	91.61	90.99	69.75

Table 7.A.15 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Three

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	473,447	242,460	230,987	138,217	275,805	40,442	16,941	660	1,382
Number of participants	461,013	235,752	225,261	135,425	267,427	40,093	16,584	480	1,004
Percent of participation	97.37	97.23	97.52	97.98	96.96	99.14	97.89	72.73	72.65

Table 7.A.16 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Three

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	291,223	182,224	2,461	41,872	2,256	9,832	259,590	26,641	110,308	16,872	3,615
Number of participants	285,301	175,712	2,370	40,862	2,173	9,649	254,889	25,426	106,103	16,325	3,216
Percent of participation	97.97	96.43	96.30	97.59	96.32	98.14	98.19	95.44	96.19	96.76	88.96

Table 7.A.17 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Four

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	488,399	249,785	238,614	127,235	278,370	61,949	18,947	561	1,337
Number of participants	476,795	243,637	233,158	124,901	270,427	61,455	18,623	403	986
Percent of participation	97.62	97.54	97.71	98.17	97.15	99.2	98.29	71.84	73.75

Table 7.A.18 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Four

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	301,075	187,324	2,568	43,154	2,296	11,009	268,573	27,269	113,612	16,527	3,391
Number of participants	295,659	181,136	2,472	42,262	2,210	10,855	264,248	26,134	109,573	16,016	3,025
Percent of participation	98.20	96.70	96.26	97.93	96.25	98.60	98.39	95.84	96.44	96.91	89.21

Table 7.A.19 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Five

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	478,203	243,626	234,577	101,090	268,946	87,623	18,944	480	1,120
Number of participants	467,426	237,886	229,540	99,048	261,500	87,108	18,668	339	763
Percent of participation	97.75	97.64	97.85	97.98	97.23	99.41	98.54	70.63	68.13

Table 7.A.20 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Five

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	291,972	186,231	2,523	43,162	2,373	11,384	259,902	26,852	113,798	15,339	2,870
Number of participants	286,931	180,495	2,418	42,385	2,305	11,262	255,946	25,784	109,919	14,875	2,532
Percent of participation	98.27	96.92	95.84	98.20	97.13	98.93	98.48	96.02	96.59	96.98	88.22

Table 7.A.21 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Six

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	472,954	241,999	230,955	83,402	263,273	103,788	20,871	525	1,095
Number of participants	462,433	236,436	225,997	81,693	255,916	103,081	20,554	402	787
Percent of participation	97.78	97.70	97.85	97.95	97.21	99.32	98.48	76.57	71.87

Table 7.A.22 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Six

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	284,317	188,637	2,567	43,909	2,437	11,958	252,664	27,079	114,783	14,112	3,445
Number of participants	279,323	183,110	2,466	43,175	2,355	11,827	248,895	25,953	110,936	13,699	3,127
Percent of participation	98.24	97.07	96.07	98.33	96.64	98.90	98.51	95.84	96.65	97.07	90.77

Table 7.A.23 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Seven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	472,771	241,842	230,929	68,081	261,068	119,445	22,394	518	1,265
Number of participants	460,645	235,483	225,162	66,214	252,615	118,441	22,047	416	912
Percent of participation	97.44	97.37	97.50	97.26	96.76	99.16	98.45	80.31	72.09

Table 7.A.24 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Seven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	280,644	192,127	2,608	43,546	2,322	12,631	251,385	27,383	116,310	13,152	3,434
Number of participants	274,559	186,086	2,482	42,859	2,239	12,490	246,604	26,143	112,044	12,690	3,094
Percent of participation	97.83	96.86	95.17	98.42	96.43	98.88	98.10	95.47	96.33	96.49	90.10

Table 7.A.25 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eight

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEF	IFEP	TBD	No Response
Number of students	467,794	238,868	228,926	58,775	255,977	129,928	21,527	448	1,139
Number of participants	454,150	231,687	222,463	56,899	246,338	128,600	21,130	326	857
Percent of participation	97.08	96.99	97.18	96.81	96.23	98.98	98.16	72.77	75.24

Table 7.A.26 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eight

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	276,494	191,300	2,748	42,235	2,449	12,697	249,067	28,335	115,014	12,215	3,034
Number of participants	269,482	184,668	2,589	41,604	2,355	12,553	243,526	26,872	110,233	11,688	2,730
Percent of participation	97.46	96.53	94.21	98.51	96.16	98.87	97.78	94.84	95.84	95.69	89.98

Table 7.A.27 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eleven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	RFEP	IFEP	TBD	No Response
Number of students	476,321	243,819	232,502	47,227	263,957	127,581	35,962	385	1,209
Number of participants	438,518	223,706	214,812	40,876	240,872	121,729	34,066	250	725
Percent of participation	92.06	91.75	92.39	86.55	91.25	95.41	94.73	64.94	59.97

Table 7.A.28 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eleven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Filipino	Hispanic or Latino	Black or African American	White	Two or More Races	Unknown
Number of students	262,829	213,492	2,951	42,017	2,531	14,033	247,961	29,936	121,817	12,457	2,618
Number of participants	241,324	197,194	2,581	40,414	2,311	13,608	229,071	26,155	111,203	11,295	1,880
Percent of participation	91.82	92.37	87.46	96.18	91.31	96.97	92.38	87.37	91.29	90.67	71.81

Appendix 7.B: Theta Scores of Tests and Claims

Note: An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 7.B.1 Frequency Distribution of Theta for Overall Scores—ELA

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-5.0,-4.5]	89						
(-4.5,-4.0]	265	175					
(-4.0,-3.5]	1,622	676	435				
(-3.5,-3.0]	9,019	3,886	1,318	1,140			
(-3.0,-2.5]	31,184	15,471	5,467	3,536	1,693	1,059	
(-2.5,-2.0]	56,791	37,168	16,200	10,498	5,913	3,570	3,890
(-2.0,-1.5]	71,142	56,401	34,854	23,197	17,964	11,700	8,945
(-1.5,-1.0]	76,879	66,737	55,994	39,689	35,031	25,933	18,546
(-1.0,-0.5]	73,530	73,019	65,384	55,769	49,002	42,070	27,657
(-0.5,0.0]	60,903	73,611	69,797	69,079	60,157	56,455	36,029
(0.0,0.5]	42,717	65,339	72,837	76,042	68,146	65,456	44,646
(0.5,1.0]	22,532	44,691	63,349	70,857	70,812	68,882	53,946
(1.0,1.5]	10,239	23,640	44,029	56,463	64,032	68,947	62,544
(1.5,2.0]		12,126	23,141	33,626	46,192	54,556	64,258
(2.0,2.5]			11,103	13,707	24,780	31,862	53,639
(2.5,3.0]				5,458	13,362	13,785	35,399
(3.0,3.5]						6,208	24,562

Table 7.B.2 Frequency Distribution of Theta for Overall Scores—Mathematics

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-4.5,-4.0]	3,147						
(-4.0,-3.5]	5,149	1,450	1,418	4,750			
(-3.5,-3.0]	10,839	3,937	3,009	5,725	6,435	5,732	
(-3.0,-2.5]	22,732	12,057	8,720	11,425	10,268	7,106	7,903
(-2.5,-2.0]	47,214	31,158	21,628	19,706	19,314	14,664	10,024
(-2.0,-1.5]	75,011	58,779	44,626	28,422	27,909	25,342	19,182
(-1.5,-1.0]	86,336	80,340	67,350	40,186	35,090	36,209	29,801
(-1.0,-0.5]	84,779	86,108	72,923	55,656	46,620	47,097	39,974
(-0.5,0.0]	62,706	78,299	71,186	68,249	58,911	55,791	45,801
(0.0,0.5]	35,569	57,362	63,326	68,335	68,544	57,347	47,661
(0.5,1.0]	16,892	36,929	51,229	59,148	58,958	52,158	49,974
(1.0,1.5]	8,676	18,385	34,207	44,239	47,919	46,386	49,828
(1.5,2.0]		10,099	16,436	27,863	35,443	37,689	41,432
(2.0,2.5]			9,641	15,455	23,614	28,256	33,502
(2.5,3.0]				11,517	11,813	18,107	24,464
(3.0,3.5]					7,564	10,294	16,056
(3.5,4.0]						9,423	9,372
(4.0,4.5]							7,374

Table 7.B.3 Frequency Distribution of Theta for Claim Scores—ELA, Grade Three

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -4.5]	5,566	3,683	21,166	17,122	1%	1%	5%	4%
(-4.5, -4]	792	3,403	0	364	0%	1%	0%	0%
(-4, -3.5]	4,457	7,309	2,118	8,402	1%	2%	0%	2%
(-3.5, -3]	12,803	16,432	16,836	20,505	3%	4%	4%	4%
(-3, -2.5]	29,313	31,904	21,856	33,087	6%	7%	5%	7%
(-2.5, -2]	58,160	49,720	37,671	50,988	13%	11%	8%	11%
(-2, -1.5]	75,880	63,980	53,926	56,215	17%	14%	12%	12%
(-1.5, -1]	73,278	73,455	67,810	57,911	16%	16%	15%	13%
(-1, -0.5]	64,262	72,016	68,267	57,646	14%	16%	15%	13%
(-0.5, 0]	51,470	57,907	61,181	55,428	11%	13%	13%	12%
(0, 0.5]	37,003	38,319	45,390	46,196	8%	8%	10%	10%
(0.5, 1]	22,372	21,831	28,139	30,154	5%	5%	6%	7%
(1, HOT]	21,555	16,953	32,552	22,883	5%	4%	7%	5%

Table 7.B.4 Frequency Distribution of Theta for Claim Scores—ELA, Grade Four

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -4]	5,613	3,644	8,659	16,419	1%	1%	2%	3%
(-4, -3.5]	2,830	3,711	7,860	2,903	1%	1%	2%	1%
(-3.5, -3]	6,680	7,688	12,862	11,279	1%	2%	3%	2%
(-3, -2.5]	20,831	16,358	18,237	29,275	4%	3%	4%	6%
(-2.5, -2]	40,620	30,959	28,727	35,290	9%	7%	6%	7%
(-2, -1.5]	60,899	48,988	41,954	47,395	13%	10%	9%	10%
(-1.5, -1]	66,532	64,751	54,520	53,697	14%	14%	12%	11%
(-1, -0.5]	64,256	73,558	61,887	56,049	14%	16%	13%	12%
(-0.5, 0]	63,194	72,826	65,535	59,320	13%	15%	14%	13%
(0, 0.5]	57,089	59,994	55,039	58,726	12%	13%	12%	12%
(0.5, 1]	42,445	41,234	41,898	47,579	9%	9%	9%	10%
(1, 1.5]	24,555	24,296	29,424	29,900	5%	5%	6%	6%
(1.5, HOT]	17,391	24,933	46,338	25,103	4%	5%	10%	5%

Table 7.B.5 Frequency Distribution of Theta for Claim Scores—ELA, Grade Five

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -3.5]	7,582	3,389	16,372	13,569	2%	1%	4%	3%
(-3.5, -3]	3,855	3,562	11,616	44	1%	1%	3%	0%
(-3, -2.5]	9,349	8,530	20,080	4,992	2%	2%	4%	1%
(-2.5, -2]	22,871	17,686	21,964	12,473	5%	4%	5%	3%
(-2, -1.5]	43,423	33,495	36,099	25,541	9%	7%	8%	6%
(-1.5, -1]	60,674	52,139	48,163	39,057	13%	11%	10%	8%
(-1, -0.5]	63,516	60,452	52,211	51,095	14%	13%	11%	11%
(-0.5, 0]	63,570	65,799	54,750	61,601	14%	14%	12%	13%
(0, 0.5]	62,803	66,805	54,519	68,556	14%	14%	12%	15%
(0.5, 1]	53,404	58,334	51,633	66,421	12%	13%	11%	14%
(1, 1.5]	37,269	42,116	39,615	53,446	8%	9%	9%	12%
(1.5, 2]	20,779	25,704	27,136	33,823	4%	6%	6%	7%
(2, HOT]	14,762	25,897	29,732	33,290	3%	6%	6%	7%

Table 7.B.6 Frequency Distribution of Theta for Claim Scores—ELA, Grade Six

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -3]	11,071	6,548	13,517	10,586	2%	1%	3%	2%
(-3, -2.5]	15,158	5,837	8,022	7,786	3%	1%	2%	2%
(-2.5, -2]	18,437	11,526	16,884	12,146	4%	3%	4%	3%
(-2, -1.5]	34,530	21,306	19,307	20,992	8%	5%	4%	5%
(-1.5, -1]	50,737	35,633	29,381	30,477	11%	8%	6%	7%
(-1, -0.5]	58,468	51,163	47,863	41,868	13%	11%	10%	9%
(-0.5, 0]	61,623	67,641	51,390	51,822	13%	15%	11%	11%
(0, 0.5]	61,296	77,924	58,854	62,158	13%	17%	13%	14%
(0.5, 1]	54,875	68,575	62,703	68,922	12%	15%	14%	15%
(1, 1.5]	43,220	50,885	51,859	65,885	9%	11%	11%	14%
(1.5, 2]	27,100	32,762	35,428	46,370	6%	7%	8%	10%
(2, 2.5]	13,281	16,727	26,751	23,512	3%	4%	6%	5%
(2.5, HOT]	9,249	12,534	37,081	16,537	2%	3%	8%	4%

Table 7.B.7 Frequency Distribution of Theta for Claim Scores—ELA, Grade Seven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -2.5]	11,151	9,743	13,846	21,423	2%	2%	3%	5%
(-2.5, -2]	13,654	9,025	14,742	13,384	3%	2%	3%	3%
(-2, -1.5]	21,730	16,738	22,150	23,041	5%	4%	5%	5%
(-1.5, -1]	40,564	26,599	29,826	32,802	9%	6%	7%	7%
(-1, -0.5]	55,543	37,730	44,189	39,768	12%	8%	10%	9%
(-0.5, 0]	60,192	53,553	51,317	46,888	13%	12%	11%	10%
(0, 0.5]	59,673	69,023	57,917	53,527	13%	15%	13%	12%
(0.5, 1]	57,766	72,394	58,413	61,633	13%	16%	13%	13%
(1, 1.5]	51,453	63,446	50,463	62,691	11%	14%	11%	14%
(1.5, 2]	38,705	45,613	43,018	49,403	8%	10%	9%	11%
(2, 2.5]	23,629	27,431	29,119	28,813	5%	6%	6%	6%
(2.5, HOT]	23,009	25,789	42,084	23,702	5%	6%	9%	5%

Table 7.B.8 Frequency Distribution of Theta for Claim Scores—ELA, Grade Eight

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -2.5]	7,857	8,280	11,553	16,016	2%	2%	3%	4%
(-2.5, -2]	7,896	7,175	9,545	11,258	2%	2%	2%	2%
(-2, -1.5]	13,571	13,027	13,595	19,099	3%	3%	3%	4%
(-1.5, -1]	28,469	21,908	24,010	28,982	6%	5%	5%	6%
(-1, -0.5]	44,576	34,484	35,683	37,472	10%	8%	8%	8%
(-0.5, 0]	55,916	51,015	49,601	43,321	12%	11%	11%	10%
(0, 0.5]	61,375	63,328	61,069	49,297	14%	14%	14%	11%
(0.5, 1]	63,701	68,888	64,974	57,331	14%	15%	14%	13%
(1, 1.5]	61,655	63,900	57,783	61,302	14%	14%	13%	14%
(1.5, 2]	48,736	49,577	45,432	54,747	11%	11%	10%	12%
(2, 2.5]	31,144	33,045	31,224	36,671	7%	7%	7%	8%
(2.5, 3]	15,530	18,655	19,863	19,348	3%	4%	4%	4%
(3, HOT]	10,057	17,201	26,151	15,624	2%	4%	6%	3%

Table 7.B.9 Frequency Distribution of Theta for Claim Scores—ELA, Grade Eleven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -2]	11,081	17,319	17,468	23,264	3%	4%	4%	5%
(-2, -1.5]	9,495	11,165	12,107	9,905	2%	3%	3%	2%
(-1.5, -1]	17,382	16,971	19,695	16,675	4%	4%	5%	4%
(-1, -0.5]	27,824	24,783	28,387	21,950	6%	6%	7%	5%
(-0.5, 0]	39,153	33,010	36,940	29,593	9%	8%	9%	7%
(0, 0.5]	49,034	43,375	45,103	35,326	11%	10%	10%	8%
(0.5, 1]	57,218	51,488	50,145	42,576	13%	12%	12%	10%
(1, 1.5]	60,910	56,619	51,109	51,355	14%	13%	12%	12%
(1.5, 2]	57,290	53,970	48,266	58,769	13%	12%	11%	14%
(2, 2.5]	44,813	45,390	41,440	55,934	10%	10%	10%	13%
(2.5, 3]	29,632	33,332	31,753	41,575	7%	8%	7%	10%
(3, HOT]	30,225	46,639	51,629	47,096	7%	11%	12%	11%

Table 7.B.10 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Three

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -4]	5,595	29,522	22,897	1%	6%	5%
(-4, -3.5]	5,630	1,842	2,889	1%	0%	1%
(-3.5, -3]	10,583	10,532	14,509	2%	2%	3%
(-3, -2.5]	21,229	28,667	27,446	5%	6%	6%
(-2.5, -2]	42,706	48,739	44,305	9%	11%	10%
(-2, -1.5]	71,546	66,501	63,059	16%	14%	14%
(-1.5, -1]	86,773	77,407	75,186	19%	17%	16%
(-1, -0.5]	82,822	75,534	76,752	18%	16%	17%
(-0.5, 0]	61,327	59,312	61,701	13%	13%	13%
(0, 0.5]	37,312	34,534	38,124	8%	8%	8%
(0.5, 1]	19,101	15,491	18,530	4%	3%	4%
(1, HOT]	14,426	10,969	13,652	3%	2%	3%

Table 7.B.11 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Four

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3.5]	4,008	29,953	11,454	1%	6%	2%
(-3.5, -3]	5,117	1,707	8,791	1%	0%	2%
(-3, -2.5]	12,254	13,354	17,501	3%	3%	4%
(-2.5, -2]	28,583	33,678	31,830	6%	7%	7%
(-2, -1.5]	54,644	50,917	53,764	12%	11%	11%
(-1.5, -1]	79,200	69,126	71,323	17%	15%	15%
(-1, -0.5]	86,675	79,403	77,608	18%	17%	16%
(-0.5, 0]	76,108	75,120	73,900	16%	16%	16%
(0, 0.5]	55,484	56,911	58,927	12%	12%	12%
(0.5, 1]	36,618	34,680	37,917	8%	7%	8%
(1, 1.5]	20,497	17,348	18,814	4%	4%	4%
(1.5, HOT]	15,715	12,706	13,074	3%	3%	3%

Table 7.B.12 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Five

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3.5]	3,252	57,941	21,821	1%	12%	5%
(-3.5, -3]	4,489	9	867	1%	0%	0%
(-3, -2.5]	9,918	787	10,877	2%	0%	2%
(-2.5, -2]	20,978	11,555	31,709	5%	2%	7%
(-2, -1.5]	40,490	36,931	40,707	9%	8%	9%
(-1.5, -1]	61,825	54,073	57,641	13%	12%	12%
(-1, -0.5]	71,966	64,828	66,755	15%	14%	14%
(-0.5, 0]	71,310	67,285	64,831	15%	14%	14%
(0, 0.5]	63,016	61,960	57,574	14%	13%	12%
(0.5, 1]	50,665	50,372	47,401	11%	11%	10%
(1, 1.5]	34,861	33,478	33,613	7%	7%	7%
(1.5, 2]	18,164	16,561	18,000	4%	4%	4%
(2, HOT]	14,765	9,919	13,903	3%	2%	3%

Table 7.B.13 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Six

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3.5]	8,181	48,264	19,815	2%	10%	4%
(-3.5, -3]	6,749	0	1,236	1%	0%	0%
(-3, -2.5]	11,974	299	9,440	3%	0%	2%
(-2.5, -2]	19,220	11,391	20,858	4%	2%	5%
(-2, -1.5]	27,836	30,928	31,908	6%	7%	7%
(-1.5, -1]	37,807	36,282	44,333	8%	8%	10%
(-1, -0.5]	51,954	50,817	54,572	11%	11%	12%
(-0.5, 0]	65,268	62,705	60,041	14%	14%	13%
(0, 0.5]	65,618	66,183	59,394	14%	14%	13%
(0.5, 1]	56,918	58,268	54,696	12%	13%	12%
(1, 1.5]	44,169	42,497	44,046	10%	9%	10%
(1.5, 2]	29,001	26,441	29,700	6%	6%	6%
(2, 2.5]	17,568	14,321	16,390	4%	3%	4%
(2.5, HOT]	18,413	12,280	14,247	4%	3%	3%

Table 7.B.14 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Seven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3]	10,245	43,631	21,760	2%	10%	5%
(-3, -2.5]	9,677	4,101	15,399	2%	1%	3%
(-2.5, -2]	16,934	17,379	16,781	4%	4%	4%
(-2, -1.5]	24,594	28,466	29,322	5%	6%	6%
(-1.5, -1]	34,188	38,333	33,723	7%	8%	7%
(-1, -0.5]	46,605	43,501	42,325	10%	9%	9%
(-0.5, 0]	58,331	52,929	47,819	13%	12%	10%
(0, 0.5]	67,698	54,492	56,162	15%	12%	12%
(0.5, 1]	57,785	51,872	60,871	13%	11%	13%
(1, 1.5]	45,878	44,327	52,211	10%	10%	11%
(1.5, 2]	36,366	35,647	36,671	8%	8%	8%
(2, 2.5]	24,304	23,246	23,176	5%	5%	5%
(2.5, 3]	13,757	11,929	12,381	3%	3%	3%
(3, HOT]	12,040	8,549	9,801	3%	2%	2%

Table 7.B.15 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Eight

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3]	9,622	96,413	27,336	2%	21%	6%
(-3, -2.5]	7,981	322	6,283	2%	0%	1%
(-2.5, -2]	14,939	4,714	12,586	3%	1%	3%
(-2, -1.5]	24,974	7,054	21,636	6%	2%	5%
(-1.5, -1]	36,240	12,810	30,762	8%	3%	7%
(-1, -0.5]	45,656	44,115	41,234	10%	10%	9%
(-0.5, 0]	51,865	45,558	51,666	11%	10%	11%
(0, 0.5]	52,783	49,175	56,650	12%	11%	13%
(0.5, 1]	50,164	47,287	53,008	11%	10%	12%
(1, 1.5]	44,921	43,592	44,562	10%	10%	10%
(1.5, 2]	37,596	37,201	35,378	8%	8%	8%
(2, 2.5]	28,942	27,840	27,463	6%	6%	6%
(2.5, 3]	18,962	17,696	18,968	4%	4%	4%
(3, 3.5]	11,945	9,307	10,815	3%	2%	2%
(3.5, HOT]	15,011	8,517	13,254	3%	2%	3%

Table 7.B.16 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Eleven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -2.5]	11,942	66,513	30,446	3%	15%	7%
(-2.5, -2]	10,463	8,116	12,256	2%	2%	3%
(-2, -1.5]	18,413	10,831	15,466	4%	3%	4%
(-1.5, -1]	28,025	18,730	21,572	6%	4%	5%
(-1, -0.5]	36,371	34,254	33,106	8%	8%	8%
(-0.5, 0]	43,141	42,761	41,429	10%	10%	10%
(0, 0.5]	46,914	41,046	46,283	11%	9%	11%
(0.5, 1]	49,222	41,905	46,369	11%	10%	11%
(1, 1.5]	50,067	41,994	44,088	12%	10%	10%
(1.5, 2]	42,616	38,066	40,052	10%	9%	9%
(2, 2.5]	33,823	31,926	34,829	8%	7%	8%
(2.5, 3]	24,856	23,556	26,199	6%	5%	6%
(3, 3.5]	16,546	15,557	17,393	4%	4%	4%
(3.5, 4]	10,111	9,140	10,356	2%	2%	2%
(4, HOT]	9,838	7,940	12,504	2%	2%	3%

Appendix 7.C: Scale Scores of Tests and Claims

Table 7.C.1 Percentiles of Scale Scores in ELA

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2228	2251	2280	2293	2321	2336	2340
p10	2297	2327	2368	2389	2406	2426	2443
p20	2332	2366	2407	2434	2451	2470	2499
p30	2360	2398	2439	2468	2486	2504	2543
p40	2387	2428	2469	2497	2517	2534	2579
p50	2412	2456	2498	2523	2545	2563	2611
p60	2438	2483	2525	2549	2573	2591	2640
p70	2465	2510	2553	2576	2601	2618	2668
p80	2496	2541	2583	2606	2632	2648	2700
p90	2536	2581	2623	2644	2671	2687	2740
p99	2619	2663	2701	2724	2745	2769	2795

Table 7.C.2 Percentiles of Scale Scores in Mathematics

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2212	2273	2279	2236	2263	2265	2288
p10	2321	2355	2369	2364	2372	2386	2405
p20	2358	2389	2405	2419	2428	2437	2456
p30	2383	2414	2432	2457	2469	2475	2495
p40	2405	2437	2457	2486	2502	2507	2532
p50	2426	2458	2482	2513	2529	2538	2567
p60	2447	2481	2508	2539	2556	2571	2601
p70	2468	2504	2536	2567	2586	2606	2636
p80	2494	2532	2567	2599	2622	2647	2678
p90	2529	2571	2608	2644	2670	2701	2734
p99	2613	2659	2699	2748	2772	2802	2855

Table 7.C.3 Frequency Distribution of Overall Scale Scores—ELA, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2114, 2119]	83	83	0%	0%
[2120, 2129]	30	113	0%	0%
[2130, 2139]	47	160	0%	0%
[2140, 2149]	56	216	0%	0%
[2150, 2159]	75	291	0%	0%
[2160, 2169]	138	429	0%	0%
[2170, 2179]	202	631	0%	0%
[2180, 2189]	306	937	0%	0%
[2190, 2199]	479	1,416	0%	0%
[2200, 2209]	709	2,125	0%	0%
[2210, 2219]	1,142	3,267	0%	1%
[2220, 2229]	1,565	4,832	0%	1%
[2230, 2239]	2,334	7,166	1%	2%
[2240, 2249]	3,313	10,479	1%	2%
[2250, 2259]	4,543	15,022	1%	3%
[2260, 2269]	5,880	20,902	1%	5%
[2270, 2279]	7,618	28,520	2%	6%
[2280, 2289]	9,333	37,853	2%	8%
[2290, 2299]	10,813	48,666	2%	11%
[2300, 2309]	12,026	60,692	3%	13%
[2310, 2319]	13,413	74,105	3%	16%
[2320, 2329]	14,291	88,396	3%	19%
[2330, 2339]	15,083	103,479	3%	23%
[2340, 2349]	16,041	119,520	4%	26%
[2350, 2359]	16,516	136,036	4%	30%
[2360, 2369]	16,894	152,930	4%	33%
[2370, 2379]	17,175	170,105	4%	37%
[2380, 2389]	17,495	187,600	4%	41%
[2390, 2399]	17,723	205,323	4%	45%
[2400, 2409]	18,322	223,645	4%	49%
[2410, 2419]	18,211	241,856	4%	53%
[2420, 2429]	17,685	259,541	4%	57%
[2430, 2439]	17,481	277,022	4%	61%
[2440, 2449]	17,402	294,424	4%	64%
[2450, 2459]	16,799	311,223	4%	68%
[2460, 2469]	15,751	326,974	3%	72%
[2470, 2479]	15,304	342,278	3%	75%
[2480, 2489]	14,576	356,854	3%	78%
[2490, 2499]	13,674	370,528	3%	81%
[2500, 2509]	12,423	382,951	3%	84%
[2510, 2519]	11,572	394,523	3%	86%
[2520, 2529]	10,637	405,160	2%	89%
[2530, 2539]	9,448	414,608	2%	91%
[2540, 2549]	8,370	422,978	2%	93%
[2550, 2559]	7,118	430,096	2%	94%
[2560, 2569]	6,090	436,186	1%	95%
[2570, 2579]	4,976	441,162	1%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2580, 2589]	4,044	445,206	1%	97%
[2590, 2599]	3,027	448,233	1%	98%
[2600, 2609]	2,396	450,629	1%	99%
[2610, 2619]	1,857	452,486	0%	99%
[2620, 2623]	4,426	456,912	1%	100%

Table 7.C.4 Frequency Distribution of Overall Scale Scores—ELA, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2131, 2139]	71	71	0%	0%
[2140, 2149]	35	106	0%	0%
[2150, 2159]	40	146	0%	0%
[2160, 2169]	61	207	0%	0%
[2170, 2179]	85	292	0%	0%
[2180, 2189]	126	418	0%	0%
[2190, 2199]	204	622	0%	0%
[2200, 2209]	294	916	0%	0%
[2210, 2219]	487	1,403	0%	0%
[2220, 2229]	682	2,085	0%	0%
[2230, 2239]	965	3,050	0%	1%
[2240, 2249]	1,440	4,490	0%	1%
[2250, 2259]	2,006	6,496	0%	1%
[2260, 2269]	2,660	9,156	1%	2%
[2270, 2279]	3,724	12,880	1%	3%
[2280, 2289]	4,942	17,822	1%	4%
[2290, 2299]	6,182	24,004	1%	5%
[2300, 2309]	7,285	31,289	2%	7%
[2310, 2319]	8,525	39,814	2%	8%
[2320, 2329]	9,749	49,563	2%	10%
[2330, 2339]	11,140	60,703	2%	13%
[2340, 2349]	12,082	72,785	3%	15%
[2350, 2359]	13,056	85,841	3%	18%
[2360, 2369]	13,697	99,538	3%	21%
[2370, 2379]	14,235	113,773	3%	24%
[2380, 2389]	14,712	128,485	3%	27%
[2390, 2399]	15,438	143,923	3%	30%
[2400, 2409]	15,668	159,591	3%	34%
[2410, 2419]	16,166	175,757	3%	37%
[2420, 2429]	16,460	192,217	3%	41%
[2430, 2439]	16,706	208,923	4%	44%
[2440, 2449]	16,984	225,907	4%	48%
[2450, 2459]	17,452	243,359	4%	51%
[2460, 2469]	17,367	260,726	4%	55%
[2470, 2479]	17,287	278,013	4%	59%
[2480, 2489]	17,441	295,454	4%	62%
[2490, 2499]	16,983	312,437	4%	66%
[2500, 2509]	16,910	329,347	4%	70%
[2510, 2519]	16,405	345,752	3%	73%
[2520, 2529]	15,784	361,536	3%	76%
[2530, 2539]	14,973	376,509	3%	80%
[2540, 2549]	13,910	390,419	3%	83%
[2550, 2559]	12,580	402,999	3%	85%
[2560, 2569]	11,348	414,347	2%	88%
[2570, 2579]	10,186	424,533	2%	90%
[2580, 2589]	9,055	433,588	2%	92%
[2590, 2599]	7,557	441,145	2%	93%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2600, 2609]	6,708	447,853	1%	95%
[2610, 2619]	5,610	453,463	1%	96%
[2620, 2629]	4,624	458,087	1%	97%
[2630, 2639]	3,577	461,664	1%	98%
[2640, 2649]	2,918	464,582	1%	98%
[2650, 2659]	2,141	466,723	0%	99%
[2660, 2663]	6,217	472,940	1%	100%

Table 7.C.5 Frequency Distribution of Overall Scale Scores—ELA, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2201, 2209]	457	457	0%	0%
[2210, 2219]	184	641	0%	0%
[2220, 2229]	226	867	0%	0%
[2230, 2239]	297	1,164	0%	0%
[2240, 2249]	499	1,663	0%	0%
[2250, 2259]	734	2,397	0%	1%
[2260, 2269]	962	3,359	0%	1%
[2270, 2279]	1,253	4,612	0%	1%
[2280, 2289]	1,701	6,313	0%	1%
[2290, 2299]	2,274	8,587	0%	2%
[2300, 2309]	2,967	11,554	1%	2%
[2310, 2319]	3,634	15,188	1%	3%
[2320, 2329]	4,547	19,735	1%	4%
[2330, 2339]	5,300	25,035	1%	5%
[2340, 2349]	6,509	31,544	1%	7%
[2350, 2359]	7,501	39,045	2%	8%
[2360, 2369]	8,948	47,993	2%	10%
[2370, 2379]	10,273	58,266	2%	13%
[2380, 2389]	11,401	69,667	2%	15%
[2390, 2399]	12,638	82,305	3%	18%
[2400, 2409]	13,529	95,834	3%	21%
[2410, 2419]	14,080	109,914	3%	24%
[2420, 2429]	14,686	124,600	3%	27%
[2430, 2439]	15,002	139,602	3%	30%
[2440, 2449]	15,241	154,843	3%	33%
[2450, 2459]	15,641	170,484	3%	37%
[2460, 2469]	15,790	186,274	3%	40%
[2470, 2479]	15,830	202,104	3%	44%
[2480, 2489]	16,114	218,218	3%	47%
[2490, 2499]	16,616	234,834	4%	51%
[2500, 2509]	16,800	251,634	4%	54%
[2510, 2519]	16,966	268,600	4%	58%
[2520, 2529]	17,182	285,782	4%	62%
[2530, 2539]	17,153	302,935	4%	65%
[2540, 2549]	16,668	319,603	4%	69%
[2550, 2559]	16,204	335,807	3%	72%
[2560, 2569]	15,534	351,341	3%	76%
[2570, 2579]	14,533	365,874	3%	79%
[2580, 2589]	13,845	379,719	3%	82%
[2590, 2599]	12,980	392,699	3%	85%
[2600, 2609]	11,511	404,210	2%	87%
[2610, 2619]	10,308	414,518	2%	89%
[2620, 2629]	9,129	423,647	2%	91%
[2630, 2639]	8,000	431,647	2%	93%
[2640, 2649]	6,737	438,384	1%	94%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2650, 2659]	5,672	444,056	1%	96%
[2660, 2669]	4,742	448,798	1%	97%
[2670, 2679]	3,889	452,687	1%	98%
[2680, 2689]	2,948	455,635	1%	98%
[2690, 2699]	2,273	457,908	0%	99%
[2700, 2701]	6,000	463,908	1%	100%

Table 7.C.6 Frequency Distribution of Overall Scale Scores—ELA, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2210, 2219]	393	393	0%	0%
[2220, 2229]	168	561	0%	0%
[2230, 2239]	232	793	0%	0%
[2240, 2249]	298	1,091	0%	0%
[2250, 2259]	446	1,537	0%	0%
[2260, 2269]	637	2,174	0%	0%
[2270, 2279]	841	3,015	0%	1%
[2280, 2289]	1,090	4,105	0%	1%
[2290, 2299]	1,474	5,579	0%	1%
[2300, 2309]	1,917	7,496	0%	2%
[2310, 2319]	2,341	9,837	1%	2%
[2320, 2329]	2,913	12,750	1%	3%
[2330, 2339]	3,526	16,276	1%	4%
[2340, 2349]	4,206	20,482	1%	4%
[2350, 2359]	5,193	25,675	1%	6%
[2360, 2369]	5,875	31,550	1%	7%
[2370, 2379]	6,815	38,365	1%	8%
[2380, 2389]	7,734	46,099	2%	10%
[2390, 2399]	8,766	54,865	2%	12%
[2400, 2409]	9,607	64,472	2%	14%
[2410, 2419]	10,371	74,843	2%	16%
[2420, 2429]	11,228	86,071	2%	19%
[2430, 2439]	12,320	98,391	3%	21%
[2440, 2449]	13,225	111,616	3%	24%
[2450, 2459]	14,015	125,631	3%	27%
[2460, 2469]	14,397	140,028	3%	31%
[2470, 2479]	15,297	155,325	3%	34%
[2480, 2489]	16,082	171,407	4%	37%
[2490, 2499]	16,647	188,054	4%	41%
[2500, 2509]	17,148	205,202	4%	45%
[2510, 2519]	17,377	222,579	4%	48%
[2520, 2529]	17,798	240,377	4%	52%
[2530, 2539]	17,905	258,282	4%	56%
[2540, 2549]	17,830	276,112	4%	60%
[2550, 2559]	17,417	293,529	4%	64%
[2560, 2569]	16,928	310,457	4%	68%
[2570, 2579]	16,459	326,916	4%	71%
[2580, 2589]	16,000	342,916	3%	75%
[2590, 2599]	15,168	358,084	3%	78%
[2600, 2609]	14,326	372,410	3%	81%
[2610, 2619]	13,392	385,802	3%	84%
[2620, 2629]	12,288	398,090	3%	87%
[2630, 2639]	10,956	409,046	2%	89%
[2640, 2649]	9,589	418,635	2%	91%
[2650, 2659]	8,448	427,083	2%	93%
[2660, 2669]	6,927	434,010	2%	95%
[2670, 2679]	5,753	439,763	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2680, 2689]	4,602	444,365	1%	97%
[2690, 2699]	3,695	448,060	1%	98%
[2700, 2709]	2,801	450,861	1%	98%
[2710, 2719]	2,160	453,021	0%	99%
[2720, 2724]	6,040	459,061	1%	100%

Table 7.C.7 Frequency Distribution of Overall Scale Scores—ELA, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2258, 2259]	471	471	0%	0%
[2260, 2269]	231	702	0%	0%
[2270, 2279]	321	1,023	0%	0%
[2280, 2289]	431	1,454	0%	0%
[2290, 2299]	651	2,105	0%	0%
[2300, 2309]	886	2,991	0%	1%
[2310, 2319]	1,289	4,280	0%	1%
[2320, 2329]	1,757	6,037	0%	1%
[2330, 2339]	2,322	8,359	1%	2%
[2340, 2349]	3,044	11,403	1%	2%
[2350, 2359]	3,768	15,171	1%	3%
[2360, 2369]	4,674	19,845	1%	4%
[2370, 2379]	5,723	25,568	1%	6%
[2380, 2389]	6,670	32,238	1%	7%
[2390, 2399]	7,582	39,820	2%	9%
[2400, 2409]	8,554	48,374	2%	11%
[2410, 2419]	9,309	57,683	2%	13%
[2420, 2429]	10,081	67,764	2%	15%
[2430, 2439]	10,838	78,602	2%	17%
[2440, 2449]	11,441	90,043	3%	20%
[2450, 2459]	12,225	102,268	3%	22%
[2460, 2469]	12,796	115,064	3%	25%
[2470, 2479]	13,571	128,635	3%	28%
[2480, 2489]	13,740	142,375	3%	31%
[2490, 2499]	14,395	156,770	3%	34%
[2500, 2509]	14,983	171,753	3%	38%
[2510, 2519]	15,123	186,876	3%	41%
[2520, 2529]	15,901	202,777	3%	44%
[2530, 2539]	16,371	219,148	4%	48%
[2540, 2549]	16,120	235,268	4%	51%
[2550, 2559]	16,551	251,819	4%	55%
[2560, 2569]	16,686	268,505	4%	59%
[2570, 2579]	16,537	285,042	4%	62%
[2580, 2589]	16,298	301,340	4%	66%
[2590, 2599]	16,236	317,576	4%	69%
[2600, 2609]	15,826	333,402	3%	73%
[2610, 2619]	15,114	348,516	3%	76%
[2620, 2629]	14,183	362,699	3%	79%
[2630, 2639]	13,438	376,137	3%	82%
[2640, 2649]	12,324	388,461	3%	85%
[2650, 2659]	11,185	399,646	2%	87%
[2660, 2669]	10,139	409,785	2%	90%
[2670, 2679]	8,903	418,688	2%	92%
[2680, 2689]	7,741	426,429	2%	93%
[2690, 2699]	6,409	432,838	1%	95%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2700, 2709]	5,294	438,132	1%	96%
[2710, 2719]	4,352	442,484	1%	97%
[2720, 2729]	3,498	445,982	1%	98%
[2730, 2739]	2,797	448,779	1%	98%
[2740, 2745]	8,305	457,084	2%	100%

Table 7.C.8 Frequency Distribution of Overall Scale Scores—ELA, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2288, 2289]	890	890	0%	0%
[2290, 2299]	399	1,289	0%	0%
[2300, 2309]	558	1,847	0%	0%
[2310, 2319]	814	2,661	0%	1%
[2320, 2329]	1,068	3,729	0%	1%
[2330, 2339]	1,356	5,085	0%	1%
[2340, 2349]	1,861	6,946	0%	2%
[2350, 2359]	2,410	9,356	1%	2%
[2360, 2369]	3,132	12,488	1%	3%
[2370, 2379]	3,840	16,328	1%	4%
[2380, 2389]	4,709	21,037	1%	5%
[2390, 2399]	5,478	26,515	1%	6%
[2400, 2409]	6,458	32,973	1%	7%
[2410, 2419]	7,005	39,978	2%	9%
[2420, 2429]	8,039	48,017	2%	11%
[2430, 2439]	8,832	56,849	2%	13%
[2440, 2449]	10,020	66,869	2%	15%
[2450, 2459]	10,843	77,712	2%	17%
[2460, 2469]	11,549	89,261	3%	20%
[2470, 2479]	12,176	101,437	3%	23%
[2480, 2489]	13,234	114,671	3%	25%
[2490, 2499]	13,696	128,367	3%	28%
[2500, 2509]	14,303	142,670	3%	32%
[2510, 2519]	14,805	157,475	3%	35%
[2520, 2529]	15,232	172,707	3%	38%
[2530, 2539]	15,454	188,161	3%	42%
[2540, 2549]	15,630	203,791	3%	45%
[2550, 2559]	15,736	219,527	3%	49%
[2560, 2569]	15,899	235,426	4%	52%
[2570, 2579]	16,030	251,456	4%	56%
[2580, 2589]	16,241	267,697	4%	59%
[2590, 2599]	16,565	284,262	4%	63%
[2600, 2609]	16,627	300,889	4%	67%
[2610, 2619]	16,179	317,068	4%	70%
[2620, 2629]	15,802	332,870	4%	74%
[2630, 2639]	15,089	347,959	3%	77%
[2640, 2649]	14,351	362,310	3%	80%
[2650, 2659]	13,212	375,522	3%	83%
[2660, 2669]	12,059	387,581	3%	86%
[2670, 2679]	10,747	398,328	2%	88%
[2680, 2689]	9,592	407,920	2%	91%
[2690, 2699]	8,253	416,173	2%	92%
[2700, 2709]	6,905	423,078	2%	94%
[2710, 2719]	5,753	428,831	1%	95%
[2720, 2729]	4,735	433,566	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2730, 2739]	3,829	437,395	1%	97%
[2740, 2749]	3,111	440,506	1%	98%
[2750, 2759]	2,503	443,009	1%	98%
[2760, 2769]	7,474	450,483	2%	100%

Table 7.C.9 Frequency Distribution of Overall Scale Scores—ELA, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2299, 2299]	1,232	1,232	0%	0%
[2300, 2309]	441	1,673	0%	0%
[2310, 2319]	591	2,264	0%	1%
[2320, 2329]	842	3,106	0%	1%
[2330, 2339]	1,144	4,250	0%	1%
[2340, 2349]	1,526	5,776	0%	1%
[2350, 2359]	1,823	7,599	0%	2%
[2360, 2369]	2,329	9,928	1%	2%
[2370, 2379]	2,904	12,832	1%	3%
[2380, 2389]	3,376	16,208	1%	4%
[2390, 2399]	3,913	20,121	1%	5%
[2400, 2409]	4,662	24,783	1%	6%
[2410, 2419]	5,033	29,816	1%	7%
[2420, 2429]	5,615	35,431	1%	8%
[2430, 2439]	5,999	41,430	1%	10%
[2440, 2449]	6,543	47,973	2%	11%
[2450, 2459]	6,874	54,847	2%	13%
[2460, 2469]	7,309	62,156	2%	14%
[2470, 2479]	7,746	69,902	2%	16%
[2480, 2489]	8,280	78,182	2%	18%
[2490, 2499]	8,772	86,954	2%	20%
[2500, 2509]	9,290	96,244	2%	22%
[2510, 2519]	9,702	105,946	2%	24%
[2520, 2529]	10,007	115,953	2%	27%
[2530, 2539]	10,726	126,679	2%	29%
[2540, 2549]	11,178	137,857	3%	32%
[2550, 2559]	11,698	149,555	3%	34%
[2560, 2569]	11,972	161,527	3%	37%
[2570, 2579]	12,783	174,310	3%	40%
[2580, 2589]	13,102	187,412	3%	43%
[2590, 2599]	13,857	201,269	3%	46%
[2600, 2609]	14,209	215,478	3%	50%
[2610, 2619]	14,668	230,146	3%	53%
[2620, 2629]	14,770	244,916	3%	56%
[2630, 2639]	15,323	260,239	4%	60%
[2640, 2649]	15,268	275,507	4%	63%
[2650, 2659]	15,475	290,982	4%	67%
[2660, 2669]	14,675	305,657	3%	70%
[2670, 2679]	14,376	320,033	3%	74%
[2680, 2689]	13,784	333,817	3%	77%
[2690, 2699]	13,012	346,829	3%	80%
[2700, 2709]	12,220	359,049	3%	83%
[2710, 2719]	11,579	370,628	3%	85%
[2720, 2729]	10,450	381,078	2%	88%
[2730, 2739]	9,515	390,593	2%	90%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2740, 2749]	8,022	398,615	2%	92%
[2750, 2759]	7,156	405,771	2%	93%
[2760, 2769]	5,839	411,610	1%	95%
[2770, 2779]	4,862	416,472	1%	96%
[2780, 2789]	4,035	420,507	1%	97%
[2790, 2795]	13,554	434,061	3%	100%

Table 7.C.10 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2189, 2189]	2,514	2,514	1%	1%
[2190, 2199]	789	3,303	0%	1%
[2200, 2209]	972	4,275	0%	1%
[2210, 2219]	1,208	5,483	0%	1%
[2220, 2229]	1,413	6,896	0%	2%
[2230, 2239]	1,801	8,697	0%	2%
[2240, 2249]	2,145	10,842	0%	2%
[2250, 2259]	2,528	13,370	1%	3%
[2260, 2269]	3,053	16,423	1%	4%
[2270, 2279]	3,699	20,122	1%	4%
[2280, 2289]	4,400	24,522	1%	5%
[2290, 2299]	5,402	29,924	1%	7%
[2300, 2309]	6,379	36,303	1%	8%
[2310, 2319]	8,067	44,370	2%	10%
[2320, 2329]	9,585	53,955	2%	12%
[2330, 2339]	11,565	65,520	3%	14%
[2340, 2349]	13,171	78,691	3%	17%
[2350, 2359]	15,533	94,224	3%	21%
[2360, 2369]	17,531	111,755	4%	24%
[2370, 2379]	18,894	130,649	4%	28%
[2380, 2389]	20,029	150,678	4%	33%
[2390, 2399]	20,858	171,536	5%	37%
[2400, 2409]	21,454	192,990	5%	42%
[2410, 2419]	21,672	214,662	5%	47%
[2420, 2429]	22,104	236,766	5%	52%
[2430, 2439]	22,388	259,154	5%	56%
[2440, 2449]	22,329	281,483	5%	61%
[2450, 2459]	21,760	303,243	5%	66%
[2460, 2469]	20,764	324,007	5%	71%
[2470, 2479]	19,096	343,103	4%	75%
[2480, 2489]	17,335	360,438	4%	79%
[2490, 2499]	16,122	376,560	4%	82%
[2500, 2509]	14,419	390,979	3%	85%
[2510, 2519]	12,334	403,313	3%	88%
[2520, 2529]	10,643	413,956	2%	90%
[2530, 2539]	8,964	422,920	2%	92%
[2540, 2549]	7,247	430,167	2%	94%
[2550, 2559]	6,071	436,238	1%	95%
[2560, 2569]	5,110	441,348	1%	96%
[2570, 2579]	4,197	445,545	1%	97%
[2580, 2589]	3,434	448,979	1%	98%
[2590, 2599]	2,805	451,784	1%	98%
[2600, 2609]	2,036	453,820	0%	99%
[2610, 2619]	1,532	455,352	0%	99%
[2620, 2621]	3,698	459,050	1%	100%

Table 7.C.11 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2204, 2209]	572	572	0%	0%
[2210, 2219]	221	793	0%	0%
[2220, 2229]	325	1,118	0%	0%
[2230, 2239]	443	1,561	0%	0%
[2240, 2249]	619	2,180	0%	0%
[2250, 2259]	859	3,039	0%	1%
[2260, 2269]	1,202	4,241	0%	1%
[2270, 2279]	1,565	5,806	0%	1%
[2280, 2289]	2,090	7,896	0%	2%
[2290, 2299]	2,641	10,537	1%	2%
[2300, 2309]	3,702	14,239	1%	3%
[2310, 2319]	4,608	18,847	1%	4%
[2320, 2329]	5,927	24,774	1%	5%
[2330, 2339]	7,221	31,995	2%	7%
[2340, 2349]	9,238	41,233	2%	9%
[2350, 2359]	11,086	52,319	2%	11%
[2360, 2369]	12,673	64,992	3%	14%
[2370, 2379]	14,753	79,745	3%	17%
[2380, 2389]	16,332	96,077	3%	20%
[2390, 2399]	17,769	113,846	4%	24%
[2400, 2409]	19,125	132,971	4%	28%
[2410, 2419]	20,437	153,408	4%	32%
[2420, 2429]	21,201	174,609	4%	37%
[2430, 2439]	21,506	196,115	5%	41%
[2440, 2449]	21,855	217,970	5%	46%
[2450, 2459]	21,830	239,800	5%	50%
[2460, 2469]	21,741	261,541	5%	55%
[2470, 2479]	21,239	282,780	4%	60%
[2480, 2489]	20,771	303,551	4%	64%
[2490, 2499]	20,142	323,693	4%	68%
[2500, 2509]	18,789	342,482	4%	72%
[2510, 2519]	17,521	360,003	4%	76%
[2520, 2529]	15,852	375,855	3%	79%
[2530, 2539]	14,302	390,157	3%	82%
[2540, 2549]	13,245	403,402	3%	85%
[2550, 2559]	11,632	415,034	2%	87%
[2560, 2569]	10,716	425,750	2%	90%
[2570, 2579]	9,356	435,106	2%	92%
[2580, 2589]	7,944	443,050	2%	93%
[2590, 2599]	6,776	449,826	1%	95%
[2600, 2609]	5,676	455,502	1%	96%
[2610, 2619]	4,470	459,972	1%	97%
[2620, 2629]	3,606	463,578	1%	98%
[2630, 2639]	2,616	466,194	1%	98%
[2640, 2649]	2,036	468,230	0%	99%
[2650, 2659]	6,673	474,903	1%	100%

Table 7.C.12 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2219, 2219]	844	844	0%	0%
[2220, 2229]	285	1,129	0%	0%
[2230, 2239]	378	1,507	0%	0%
[2240, 2249]	509	2,016	0%	0%
[2250, 2259]	642	2,658	0%	1%
[2260, 2269]	926	3,584	0%	1%
[2270, 2279]	1,145	4,729	0%	1%
[2280, 2289]	1,554	6,283	0%	1%
[2290, 2299]	1,988	8,271	0%	2%
[2300, 2309]	2,617	10,888	1%	2%
[2310, 2319]	3,302	14,190	1%	3%
[2320, 2329]	4,128	18,318	1%	4%
[2330, 2339]	5,166	23,484	1%	5%
[2340, 2349]	6,308	29,792	1%	6%
[2350, 2359]	7,634	37,426	2%	8%
[2360, 2369]	9,181	46,607	2%	10%
[2370, 2379]	11,061	57,668	2%	12%
[2380, 2389]	12,680	70,348	3%	15%
[2390, 2399]	14,281	84,629	3%	18%
[2400, 2409]	15,882	100,511	3%	22%
[2410, 2419]	17,057	117,568	4%	25%
[2420, 2429]	17,985	135,553	4%	29%
[2430, 2439]	18,284	153,837	4%	33%
[2440, 2449]	18,481	172,318	4%	37%
[2450, 2459]	18,446	190,764	4%	41%
[2460, 2469]	18,445	209,209	4%	45%
[2470, 2479]	18,126	227,335	4%	49%
[2480, 2489]	18,219	245,554	4%	53%
[2490, 2499]	18,076	263,630	4%	57%
[2500, 2509]	17,819	281,449	4%	60%
[2510, 2519]	17,225	298,674	4%	64%
[2520, 2529]	16,512	315,186	4%	68%
[2530, 2539]	16,028	331,214	3%	71%
[2540, 2549]	15,462	346,676	3%	74%
[2550, 2559]	14,714	361,390	3%	78%
[2560, 2569]	13,919	375,309	3%	81%
[2570, 2579]	12,840	388,149	3%	83%
[2580, 2589]	11,925	400,074	3%	86%
[2590, 2599]	11,113	411,187	2%	88%
[2600, 2609]	9,719	420,906	2%	90%
[2610, 2619]	8,598	429,504	2%	92%
[2620, 2629]	7,333	436,837	2%	94%
[2630, 2639]	5,956	442,793	1%	95%
[2640, 2649]	4,946	447,739	1%	96%
[2650, 2659]	4,106	451,845	1%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2660, 2669]	3,125	454,970	1%	98%
[2670, 2679]	2,537	457,507	1%	98%
[2680, 2689]	1,998	459,505	0%	99%
[2690, 2699]	1,550	461,055	0%	99%
[2700, 2700]	4,644	465,699	1%	100%

Table 7.C.13 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2235, 2239]	4,949	4,949	1%	1%
[2240, 2249]	1,069	6,018	0%	1%
[2250, 2259]	1,392	7,410	0%	2%
[2260, 2269]	1,610	9,020	0%	2%
[2270, 2279]	1,974	10,994	0%	2%
[2280, 2289]	2,257	13,251	0%	3%
[2290, 2299]	2,783	16,034	1%	3%
[2300, 2309]	3,339	19,373	1%	4%
[2310, 2319]	3,601	22,974	1%	5%
[2320, 2329]	4,230	27,204	1%	6%
[2330, 2339]	4,899	32,103	1%	7%
[2340, 2349]	5,436	37,539	1%	8%
[2350, 2359]	5,932	43,471	1%	9%
[2360, 2369]	6,463	49,934	1%	11%
[2370, 2379]	7,025	56,959	2%	12%
[2380, 2389]	7,817	64,776	2%	14%
[2390, 2399]	8,277	73,053	2%	16%
[2400, 2409]	9,115	82,168	2%	18%
[2410, 2419]	10,118	92,286	2%	20%
[2420, 2429]	10,836	103,122	2%	22%
[2430, 2439]	11,923	115,045	3%	25%
[2440, 2449]	12,881	127,926	3%	28%
[2450, 2459]	13,890	141,816	3%	31%
[2460, 2469]	14,962	156,778	3%	34%
[2470, 2479]	16,050	172,828	3%	38%
[2480, 2489]	16,795	189,623	4%	41%
[2490, 2499]	17,227	206,850	4%	45%
[2500, 2509]	17,717	224,567	4%	49%
[2510, 2519]	17,693	242,260	4%	53%
[2520, 2529]	17,683	259,943	4%	56%
[2530, 2539]	17,255	277,198	4%	60%
[2540, 2549]	17,035	294,233	4%	64%
[2550, 2559]	16,229	310,462	4%	67%
[2560, 2569]	15,576	326,038	3%	71%
[2570, 2579]	14,890	340,928	3%	74%
[2580, 2589]	14,280	355,208	3%	77%
[2590, 2599]	13,611	368,819	3%	80%
[2600, 2609]	12,429	381,248	3%	83%
[2610, 2619]	11,126	392,374	2%	85%
[2620, 2629]	9,642	402,016	2%	87%
[2630, 2639]	8,636	410,652	2%	89%
[2640, 2649]	7,824	418,476	2%	91%
[2650, 2659]	6,833	425,309	1%	92%
[2660, 2669]	6,111	431,420	1%	94%
[2670, 2679]	5,400	436,820	1%	95%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2680, 2689]	4,528	441,348	1%	96%
[2690, 2699]	3,820	445,168	1%	97%
[2700, 2709]	3,011	448,179	1%	97%
[2710, 2719]	2,527	450,706	1%	98%
[2720, 2729]	2,000	452,706	0%	98%
[2730, 2739]	1,719	454,425	0%	99%
[2740, 2748]	6,251	460,676	1%	100%

Table 7.C.14 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2250, 2259]	4,164	4,164	1%	1%
[2260, 2269]	1,182	5,346	0%	1%
[2270, 2279]	1,531	6,877	0%	2%
[2280, 2289]	1,947	8,824	0%	2%
[2290, 2299]	2,468	11,292	1%	2%
[2300, 2309]	2,963	14,255	1%	3%
[2310, 2319]	3,528	17,783	1%	4%
[2320, 2329]	4,162	21,945	1%	5%
[2330, 2339]	4,761	26,706	1%	6%
[2340, 2349]	5,319	32,025	1%	7%
[2350, 2359]	6,038	38,063	1%	8%
[2360, 2369]	6,439	44,502	1%	10%
[2370, 2379]	6,860	51,362	1%	11%
[2380, 2389]	7,524	58,886	2%	13%
[2390, 2399]	7,851	66,737	2%	15%
[2400, 2409]	8,186	74,923	2%	16%
[2410, 2419]	8,790	83,713	2%	18%
[2420, 2429]	9,270	92,983	2%	20%
[2430, 2439]	10,190	103,173	2%	23%
[2440, 2449]	10,889	114,062	2%	25%
[2450, 2459]	12,027	126,089	3%	28%
[2460, 2469]	12,305	138,394	3%	30%
[2470, 2479]	12,698	151,092	3%	33%
[2480, 2489]	13,719	164,811	3%	36%
[2490, 2499]	14,798	179,609	3%	39%
[2500, 2509]	15,747	195,356	3%	43%
[2510, 2519]	17,324	212,680	4%	46%
[2520, 2529]	17,767	230,447	4%	50%
[2530, 2539]	17,705	248,152	4%	54%
[2540, 2549]	16,842	264,994	4%	58%
[2550, 2559]	15,930	280,924	3%	61%
[2560, 2569]	15,562	296,486	3%	65%
[2570, 2579]	15,031	311,517	3%	68%
[2580, 2589]	14,194	325,711	3%	71%
[2590, 2599]	13,226	338,937	3%	74%
[2600, 2609]	12,771	351,708	3%	77%
[2610, 2619]	12,228	363,936	3%	79%
[2620, 2629]	11,282	375,218	2%	82%
[2630, 2639]	10,603	385,821	2%	84%
[2640, 2649]	9,499	395,320	2%	86%
[2650, 2659]	8,869	404,189	2%	88%
[2660, 2669]	8,144	412,333	2%	90%
[2670, 2679]	7,414	419,747	2%	92%
[2680, 2689]	6,506	426,253	1%	93%
[2690, 2699]	5,995	432,248	1%	94%
[2700, 2709]	5,153	437,401	1%	95%
[2710, 2719]	4,238	441,639	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2720, 2729]	3,451	445,090	1%	97%
[2730, 2739]	2,841	447,931	1%	98%
[2740, 2749]	2,237	450,168	0%	98%
[2750, 2759]	1,897	452,065	0%	99%
[2760, 2769]	1,421	453,486	0%	99%
[2770, 2778]	4,916	458,402	1%	100%

Table 7.C.15 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2265, 2269]	4,933	4,933	1%	1%
[2270, 2279]	1,089	6,022	0%	1%
[2280, 2289]	1,335	7,357	0%	2%
[2290, 2299]	1,574	8,931	0%	2%
[2300, 2309]	2,111	11,042	0%	2%
[2310, 2319]	2,588	13,630	1%	3%
[2320, 2329]	2,959	16,589	1%	4%
[2330, 2339]	3,472	20,061	1%	4%
[2340, 2349]	4,154	24,215	1%	5%
[2350, 2359]	4,917	29,132	1%	6%
[2360, 2369]	5,541	34,673	1%	8%
[2370, 2379]	6,209	40,882	1%	9%
[2380, 2389]	7,055	47,937	2%	11%
[2390, 2399]	7,763	55,700	2%	12%
[2400, 2409]	8,248	63,948	2%	14%
[2410, 2419]	9,074	73,022	2%	16%
[2420, 2429]	9,655	82,677	2%	18%
[2430, 2439]	10,598	93,275	2%	21%
[2440, 2449]	11,126	104,401	2%	23%
[2450, 2459]	11,764	116,165	3%	26%
[2460, 2469]	12,465	128,630	3%	28%
[2470, 2479]	13,136	141,766	3%	31%
[2480, 2489]	13,565	155,331	3%	34%
[2490, 2499]	14,100	169,431	3%	38%
[2500, 2509]	14,660	184,091	3%	41%
[2510, 2519]	14,581	198,672	3%	44%
[2520, 2529]	14,743	213,415	3%	47%
[2530, 2539]	14,716	228,131	3%	51%
[2540, 2549]	14,126	242,257	3%	54%
[2550, 2559]	13,804	256,061	3%	57%
[2560, 2569]	13,470	269,531	3%	60%
[2570, 2579]	13,251	282,782	3%	63%
[2580, 2589]	12,800	295,582	3%	65%
[2590, 2599]	12,297	307,879	3%	68%
[2600, 2609]	12,165	320,044	3%	71%
[2610, 2619]	11,894	331,938	3%	74%
[2620, 2629]	11,223	343,161	2%	76%
[2630, 2639]	10,598	353,759	2%	78%
[2640, 2649]	9,988	363,747	2%	81%
[2650, 2659]	9,423	373,170	2%	83%
[2660, 2669]	8,965	382,135	2%	85%
[2670, 2679]	8,232	390,367	2%	86%
[2680, 2689]	7,583	397,950	2%	88%
[2690, 2699]	7,176	405,126	2%	90%
[2700, 2709]	6,404	411,530	1%	91%
[2710, 2719]	5,785	417,315	1%	92%
[2720, 2729]	5,050	422,365	1%	94%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2730, 2739]	4,494	426,859	1%	95%
[2740, 2749]	3,827	430,686	1%	95%
[2750, 2759]	3,433	434,119	1%	96%
[2760, 2769]	2,854	436,973	1%	97%
[2770, 2779]	2,461	439,434	1%	97%
[2780, 2789]	2,146	441,580	0%	98%
[2790, 2799]	1,889	443,469	0%	98%
[2800, 2802]	8,132	451,601	2%	100%

Table 7.C.16 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2280, 2289]	4,482	4,482	1%	1%
[2290, 2299]	1,045	5,527	0%	1%
[2300, 2309]	1,291	6,818	0%	2%
[2310, 2319]	1,581	8,399	0%	2%
[2320, 2329]	1,962	10,361	0%	2%
[2330, 2339]	2,343	12,704	1%	3%
[2340, 2349]	2,909	15,613	1%	4%
[2350, 2359]	3,448	19,061	1%	4%
[2360, 2369]	3,997	23,058	1%	5%
[2370, 2379]	4,726	27,784	1%	6%
[2380, 2389]	5,395	33,179	1%	8%
[2390, 2399]	6,186	39,365	1%	9%
[2400, 2409]	6,674	46,039	2%	11%
[2410, 2419]	7,409	53,448	2%	12%
[2420, 2429]	8,202	61,650	2%	14%
[2430, 2439]	8,819	70,469	2%	16%
[2440, 2449]	9,700	80,169	2%	19%
[2450, 2459]	10,064	90,233	2%	21%
[2460, 2469]	10,426	100,659	2%	23%
[2470, 2479]	10,860	111,519	3%	26%
[2480, 2489]	11,264	122,783	3%	28%
[2490, 2499]	11,829	134,612	3%	31%
[2500, 2509]	11,784	146,396	3%	34%
[2510, 2519]	11,698	158,094	3%	37%
[2520, 2529]	12,141	170,235	3%	39%
[2530, 2539]	12,095	182,330	3%	42%
[2540, 2549]	12,058	194,388	3%	45%
[2550, 2559]	11,912	206,300	3%	48%
[2560, 2569]	12,384	218,684	3%	51%
[2570, 2579]	12,619	231,303	3%	53%
[2580, 2589]	12,837	244,140	3%	56%
[2590, 2599]	12,969	257,109	3%	59%
[2600, 2609]	12,866	269,975	3%	62%
[2610, 2619]	12,771	282,746	3%	65%
[2620, 2629]	12,314	295,060	3%	68%
[2630, 2639]	11,545	306,605	3%	71%
[2640, 2649]	10,998	317,603	3%	73%
[2650, 2659]	10,203	327,806	2%	76%
[2660, 2669]	9,999	337,805	2%	78%
[2670, 2679]	9,402	347,207	2%	80%
[2680, 2689]	9,050	356,257	2%	82%
[2690, 2699]	8,476	364,733	2%	84%
[2700, 2709]	7,697	372,430	2%	86%
[2710, 2719]	7,087	379,517	2%	88%
[2720, 2729]	6,619	386,136	2%	89%
[2730, 2739]	6,211	392,347	1%	91%
[2740, 2749]	5,489	397,836	1%	92%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2750, 2759]	5,007	402,843	1%	93%
[2760, 2769]	4,561	407,404	1%	94%
[2770, 2779]	3,834	411,238	1%	95%
[2780, 2789]	3,382	414,620	1%	96%
[2790, 2799]	3,127	417,747	1%	97%
[2800, 2809]	2,615	420,362	1%	97%
[2810, 2819]	2,193	422,555	1%	98%
[2820, 2829]	1,999	424,554	0%	98%
[2830, 2839]	1,604	426,158	0%	99%
[2840, 2849]	1,267	427,425	0%	99%
[2850, 2859]	1,079	428,504	0%	99%
[2860, 2862]	3,844	432,348	1%	100%

Appendix 7.D: Summary Statistics and Performance Levels of Claims

Table 7.D.1 Mean and Standard Deviation of Theta and Scale Scores for Claim 1 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	14–16	456,628	2409	103	–1.16	1.20
	4	14–16	472,729	2444	109	–0.74	1.27
	5	14–16	463,676	2479	110	–0.35	1.28
	6	13–17	458,732	2491	116	–0.20	1.36
	7	13–17	456,709	2527	115	0.22	1.34
	8	13–17	450,113	2551	110	0.50	1.28
	11	15–16	433,135	2591	117	0.96	1.37
Mathematics	3	17–20	458,933	2428	87	–1.09	1.09
	4	17–20	474,825	2463	88	–0.66	1.11
	5	17–20	465,592	2488	97	–0.34	1.22
	6	16–20	460,403	2511	115	–0.05	1.45
	7	16–20	458,064	2529	116	0.17	1.46
	8	16–20	451,139	2543	127	0.36	1.60
	11	19–22	431,999	2570	130	0.70	1.63

Table 7.D.2 Mean and Standard Deviation of Theta and Scale Scores for Claim 2 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	12	456,068	2408	104	–1.17	1.21
	4	12	472,252	2456	107	–0.61	1.25
	5	12	463,320	2498	109	–0.12	1.27
	6	12	458,241	2520	106	0.13	1.24
	7	12	455,978	2548	110	0.46	1.28
	8	12	449,347	2563	112	0.64	1.30
	11	12	432,188	2598	128	1.05	1.49
Mathematics	3	8–10	459,006	2411	98	–1.31	1.24
	4	8–10	474,842	2447	103	–0.85	1.30
	5	8–10	465,684	2465	122	–0.63	1.54
	6	8–10	460,674	2494	126	–0.27	1.59
	7	8–10	458,353	2505	133	–0.13	1.67
	8	8–10	451,468	2506	156	–0.11	1.96
	11	8–10	431,844	2538	155	0.29	1.95

Table 7.D.3 Mean and Standard Deviation of Theta and Scale Scores for Claim 3 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	8–9	456,694	2419	120	-1.04	1.40
	4	8–9	472,788	2460	125	-0.56	1.46
	5	8–9	463,724	2478	131	-0.35	1.52
	6	8–9	458,781	2530	127	0.26	1.48
	7	8–9	456,707	2542	125	0.40	1.45
	8	8–9	450,187	2561	119	0.61	1.39
	11	8–9	433,424	2594	131	0.99	1.53
Mathematics	3	8–10	458,901	2418	98	-1.23	1.24
	4	8–10	474,787	2454	96	-0.76	1.21
	5	8–10	465,546	2474	110	-0.51	1.38
	6	8–10	460,605	2502	117	-0.16	1.48
	7	8–10	458,219	2518	125	0.04	1.58
	8	8–10	451,297	2535	133	0.26	1.68
	11	8–10	432,217	2564	143	0.62	1.81

Table 7.D.4 Mean and Standard Deviation of Theta and Scale Scores for Claim 4 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	8–9	456,587	2405	120	-1.20	1.40
	4	8–9	472,714	2444	126	-0.75	1.47
	5	8–9	463,908	2514	115	0.06	1.34
	6	8–9	458,958	2531	117	0.26	1.37
	7	8–9	456,581	2535	124	0.31	1.44
	8	8–9	449,932	2553	124	0.52	1.44
	11	8–9	433,005	2604	133	1.12	1.55

Table 7.D.5 Percentages of Students in Performance Levels for Claim 1 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	167,587	198,467	90,574	37%	43%	20%
	4	175,930	197,615	99,184	37%	42%	21%
	5	167,129	194,940	101,607	36%	42%	22%
	6	166,586	212,728	79,418	36%	46%	17%
	7	153,657	204,509	98,543	34%	45%	22%
	8	139,701	201,162	109,250	31%	45%	24%
	11	86,140	221,992	125,003	20%	51%	29%
Mathematics	3	161,280	161,321	136,332	35%	35%	30%
	4	207,299	152,288	115,238	44%	32%	24%
	5	229,509	133,874	102,209	49%	29%	22%
	6	212,153	144,543	103,707	46%	31%	23%
	7	203,998	144,866	109,200	45%	32%	24%
	8	203,638	136,749	110,752	45%	30%	25%
	11	210,119	129,147	92,733	49%	30%	21%

Table 7.D.6 Percentages of Students in Performance Levels for Claim 2 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	154,392	203,710	97,966	34%	45%	21%
	4	151,657	216,532	104,063	32%	46%	22%
	5	141,380	196,294	125,646	31%	42%	27%
	6	141,640	208,430	108,171	31%	45%	24%
	7	121,033	210,906	124,039	27%	46%	27%
	8	124,657	212,541	112,149	28%	47%	25%
	11	93,140	188,732	150,316	22%	44%	35%
Mathematics	3	144,946	207,752	106,308	32%	45%	23%
	4	171,097	215,980	87,765	36%	45%	18%
	5	212,324	171,518	81,842	46%	37%	18%
	6	183,479	195,790	81,405	40%	43%	18%
	7	170,437	196,012	91,904	37%	43%	20%
	8	140,017	222,562	88,889	31%	49%	20%
	11	151,747	212,927	67,170	35%	49%	16%

Table 7.D.7 Percentages of Students in Performance Levels for Claim 3 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	92,996	285,498	78,200	20%	63%	17%
	4	89,925	307,141	75,722	19%	65%	16%
	5	101,881	284,394	77,449	22%	61%	17%
	6	76,911	311,098	70,772	17%	68%	15%
	7	91,304	295,782	69,621	20%	65%	15%
	8	84,444	300,191	65,552	19%	67%	15%
	11	71,603	270,884	90,937	17%	62%	21%
Mathematics	3	100,361	243,971	114,569	22%	53%	25%
	4	162,468	211,195	101,124	34%	44%	21%
	5	186,058	204,829	74,659	40%	44%	16%
	6	143,269	234,958	82,378	31%	51%	18%
	7	130,737	234,140	93,342	29%	51%	20%
	8	128,482	237,306	85,509	28%	53%	19%
	11	119,268	240,868	72,081	28%	56%	17%

Table 7.D.8 Percentages of Students in Performance Levels for Claim 4 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	131,182	223,717	101,688	29%	49%	22%
	4	131,688	237,751	103,275	28%	50%	22%
	5	83,248	234,905	145,755	18%	51%	31%
	6	79,875	244,772	134,311	17%	53%	29%
	7	109,880	230,482	116,219	24%	50%	25%
	8	105,682	230,364	113,886	23%	51%	25%
	11	63,619	209,948	159,438	15%	48%	37%

Appendix 7.E: Demographic Summaries

Table 7.E.1 Demographic Summary for ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	456,912	2414	90	32%	25%	21%	22%	42%
Male	233,566	2405	90	36%	25%	19%	19%	39%
Female	223,346	2423	89	28%	26%	22%	25%	46%
American Indian or Alaska Native	2,347	2390	84	41%	28%	19%	12%	32%
Asian	40,098	2472	88	13%	18%	23%	46%	69%
Native Hawaiian or Other Pacific Islander	2,160	2401	84	36%	29%	20%	16%	36%
Filipino	9,574	2459	81	14%	22%	26%	38%	64%
Hispanic or Latino	253,019	2390	82	41%	28%	18%	12%	31%
Black or African American	25,266	2379	84	47%	26%	16%	11%	27%
White	105,287	2450	87	18%	22%	25%	35%	60%
Two or more races	19,161	2444	91	22%	22%	23%	33%	57%
English only	266,391	2428	90	27%	24%	23%	27%	49%
Initially fluent English proficient	16,549	2479	83	10%	18%	24%	48%	72%
English learner	133,000	2364	73	54%	28%	12%	5%	18%
Reclassified fluent English proficient	40,017	2460	68	8%	26%	32%	34%	66%
To be determined	248	2393	108	46%	19%	13%	23%	35%
English proficiency unknown	707	2407	100	35%	22%	21%	22%	43%
No special education services	409,372	2422	88	28%	26%	22%	24%	45%
Special education services	47,540	2347	85	66%	18%	9%	7%	17%
Not economically disadvantaged	165,789	2462	85	14%	20%	25%	40%	66%
Economically disadvantaged	291,123	2387	81	43%	28%	18%	11%	29%
Migrant	4,434	2361	75	56%	26%	13%	6%	18%
Not migrant	452,478	2415	90	32%	25%	21%	22%	43%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	699	2429	85	24%	26%	26%	24%	51%
Asian	25,915	2495	79	7%	14%	23%	57%	80%
Native Hawaiian or Other Pacific Islander	621	2434	86	22%	26%	25%	27%	52%
Filipino	6,170	2471	79	10%	20%	27%	43%	70%
Hispanic or Latino	43,183	2433	83	22%	26%	26%	26%	52%
Black or African American	5,404	2420	87	28%	26%	24%	22%	46%
White	72,333	2469	81	12%	19%	26%	43%	69%
Two or more races	11,464	2473	84	12%	18%	25%	45%	70%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,648	2374	79	48%	28%	16%	7%	24%
Asian	14,183	2429	87	25%	25%	24%	26%	50%
Native Hawaiian or Other Pacific Islander	1,539	2388	79	41%	30%	18%	11%	29%
Filipino	3,404	2437	81	20%	26%	25%	28%	53%
Hispanic or Latino	209,836	2381	79	45%	29%	17%	9%	26%
Black or African American	19,862	2368	79	53%	26%	14%	8%	22%
White	32,954	2407	84	33%	27%	22%	17%	39%
Two or more races	7,697	2400	85	37%	27%	20%	16%	36%

Table 7.E.2 Demographic Summary for ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded
All valid scores	472,940	2454	96	36%	20%	21%	23%	44%
Male	241,625	2444	96	40%	20%	20%	19%	40%
Female	231,315	2465	94	31%	21%	22%	26%	48%
American Indian or Alaska Native	2,457	2427	91	46%	22%	19%	13%	32%
Asian	41,577	2517	92	15%	14%	23%	48%	71%
Native Hawaiian or Other Pacific Islander	2,195	2446	88	37%	25%	22%	17%	38%
Filipino	10,781	2504	84	16%	17%	27%	39%	67%
Hispanic or Latino	262,425	2429	88	45%	23%	19%	13%	32%
Black or African American	25,989	2415	90	52%	21%	16%	11%	27%
White	108,827	2492	91	21%	18%	25%	36%	61%
Two or more races	18,689	2486	96	24%	18%	24%	34%	58%
English only	269,477	2469	95	30%	20%	23%	27%	50%
Initially fluent English proficient	18,584	2523	86	12%	14%	24%	49%	73%
English learner	122,642	2391	75	64%	21%	11%	4%	15%
Reclassified fluent English proficient	61,381	2497	71	13%	24%	33%	31%	64%
To be determined	197	2434	111	46%	18%	13%	23%	36%
English proficiency unknown	659	2452	103	36%	19%	21%	24%	45%
No special education services	420,304	2465	92	31%	21%	23%	25%	47%
Special education services	52,636	2373	90	72%	13%	9%	6%	15%
Not economically disadvantaged	171,165	2506	88	16%	17%	26%	41%	67%
Economically disadvantaged	301,775	2425	87	47%	23%	19%	12%	31%
Migrant	4,609	2398	83	60%	21%	14%	6%	20%
Not migrant	468,331	2455	96	36%	20%	21%	23%	44%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	721	2470	90	28%	23%	25%	25%	50%
Asian	26,470	2543	82	8%	11%	22%	60%	82%
Native Hawaiian or Other Pacific Islander	699	2481	87	22%	22%	26%	29%	55%
Filipino	6,881	2517	81	12%	16%	27%	46%	73%
Hispanic or Latino	43,934	2475	88	25%	21%	26%	27%	53%
Black or African American	5,882	2457	92	33%	21%	24%	22%	46%
White	75,285	2513	84	13%	16%	27%	44%	70%
Two or more races	11,293	2517	86	13%	15%	25%	46%	72%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,736	2409	85	54%	22%	17%	7%	25%
Asian	15,107	2472	92	27%	20%	24%	28%	52%
Native Hawaiian or Other Pacific Islander	1,496	2429	83	44%	26%	20%	11%	31%
Filipino	3,900	2479	85	23%	20%	28%	28%	57%
Hispanic or Latino	218,491	2420	85	49%	23%	18%	10%	28%
Black or African American	20,107	2403	86	57%	21%	14%	8%	22%
White	33,542	2445	89	38%	22%	23%	17%	40%
Two or more races	7,396	2440	91	41%	22%	21%	16%	38%

Table 7.E.3 Demographic Summary for ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	463,908	2496	97	31%	21%	28%	21%	49%
Male	235,979	2482	98	36%	21%	26%	17%	43%
Female	227,929	2509	95	25%	20%	30%	24%	54%
American Indian or Alaska Native	2,409	2466	94	42%	22%	23%	12%	36%
Asian	41,776	2561	93	12%	13%	29%	47%	75%
Native Hawaiian or Other Pacific Islander	2,293	2482	91	34%	22%	29%	14%	43%
Filipino	11,182	2543	85	13%	17%	35%	35%	70%
Hispanic or Latino	254,218	2470	89	39%	24%	26%	11%	37%
Black or African American	25,649	2452	93	48%	22%	22%	9%	31%
White	109,284	2531	92	18%	17%	33%	32%	65%
Two or more races	17,097	2526	97	20%	17%	31%	31%	63%
English only	260,661	2509	97	26%	19%	30%	25%	55%
Initially fluent English proficient	18,627	2564	86	9%	14%	31%	46%	77%
English learner	96,940	2419	74	64%	23%	12%	2%	13%
Reclassified fluent English proficient	86,989	2526	74	13%	24%	40%	23%	63%
To be determined	179	2463	116	46%	13%	23%	18%	41%
English proficiency unknown	512	2483	108	36%	18%	26%	20%	46%
No special education services	410,213	2508	92	25%	21%	31%	23%	53%
Special education services	53,695	2404	89	71%	14%	10%	4%	15%
Not economically disadvantaged	171,214	2546	89	14%	15%	33%	38%	71%
Economically disadvantaged	292,694	2466	89	41%	24%	25%	10%	36%
Migrant	4,522	2441	86	51%	23%	21%	5%	26%
Not migrant	459,386	2496	97	31%	21%	28%	21%	49%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	755	2512	96	23%	21%	30%	27%	56%
Asian	26,445	2587	82	6%	9%	27%	58%	85%
Native Hawaiian or Other Pacific Islander	710	2518	88	21%	19%	34%	26%	60%
Filipino	7,096	2557	82	9%	14%	36%	41%	77%
Hispanic or Latino	43,340	2514	89	22%	20%	34%	24%	58%
Black or African American	5,842	2496	93	29%	21%	30%	19%	50%
White	76,521	2552	84	11%	15%	35%	40%	74%
Two or more races	10,505	2556	87	11%	14%	33%	42%	76%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,654	2444	86	51%	23%	21%	6%	26%
Asian	15,331	2516	94	22%	19%	32%	27%	58%
Native Hawaiian or Other Pacific Islander	1,583	2466	87	40%	24%	27%	9%	36%
Filipino	4,086	2518	86	20%	21%	35%	24%	59%
Hispanic or Latino	210,878	2461	86	43%	24%	25%	8%	33%
Black or African American	19,807	2440	89	53%	22%	19%	6%	25%
White	32,763	2483	91	33%	23%	29%	15%	44%
Two or more races	6,592	2479	92	35%	23%	28%	14%	42%

Table 7.E.4 Demographic Summary for ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded
All valid scores	459,061	2519	97	26%	26%	31%	17%	47%
Male	234,565	2505	98	32%	27%	28%	13%	41%
Female	224,496	2534	93	21%	26%	34%	20%	53%
American Indian or Alaska Native	2,446	2484	94	38%	29%	24%	8%	32%
Asian	42,584	2586	91	10%	15%	34%	41%	76%
Native Hawaiian or Other Pacific Islander	2,337	2508	90	29%	29%	30%	11%	41%
Filipino	11,767	2568	84	10%	20%	39%	31%	69%
Hispanic or Latino	247,216	2494	89	34%	31%	27%	8%	36%
Black or African American	25,781	2476	94	43%	28%	23%	7%	30%
White	110,423	2553	90	15%	22%	37%	26%	63%
Two or more races	16,507	2548	95	18%	22%	34%	26%	60%
English only	255,191	2532	96	22%	25%	33%	20%	53%
Initially fluent English proficient	20,516	2578	88	9%	19%	36%	36%	72%
English learner	79,620	2434	76	62%	28%	9%	1%	10%
Reclassified fluent English proficient	102,956	2542	76	13%	31%	40%	16%	56%
To be determined	239	2490	128	41%	16%	23%	19%	43%
English proficiency unknown	539	2484	110	39%	23%	27%	11%	38%
No special education services	408,171	2532	91	21%	27%	33%	18%	52%
Special education services	50,890	2419	87	69%	20%	9%	2%	11%
Not economically disadvantaged	173,320	2568	88	11%	20%	38%	31%	69%
Economically disadvantaged	285,741	2490	90	36%	30%	26%	8%	34%
Migrant	3,976	2465	87	45%	31%	20%	3%	24%
Not migrant	455,085	2520	97	26%	26%	31%	17%	47%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	750	2524	92	23%	28%	34%	15%	49%
Asian	26,811	2611	79	5%	10%	33%	52%	86%
Native Hawaiian or Other Pacific Islander	742	2538	86	18%	26%	37%	18%	55%
Filipino	7,470	2581	81	7%	17%	40%	36%	75%
Hispanic or Latino	42,869	2537	88	18%	26%	37%	18%	56%
Black or African American	6,367	2516	96	26%	27%	32%	15%	47%
White	78,204	2572	83	9%	19%	40%	32%	72%
Two or more races	10,107	2577	87	9%	18%	37%	35%	73%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	1,696	2466	90	45%	30%	20%	5%	25%	
Asian	15,773	2544	94	18%	23%	36%	23%	59%	
Native Hawaiian or Other Pacific Islander	1,595	2494	88	34%	31%	26%	8%	35%	
Filipino	4,297	2545	85	16%	25%	38%	21%	59%	
Hispanic or Latino	204,347	2485	87	37%	32%	25%	6%	31%	
Black or African American	19,414	2463	90	48%	28%	20%	4%	24%	
White	32,219	2506	91	29%	29%	31%	11%	42%	
Two or more races	6,400	2502	91	31%	29%	29%	10%	39%	

Table 7.E.5 Demographic Summary for ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	457,084	2542	100	28%	24%	33%	15%	48%	
Male	233,491	2527	101	33%	25%	30%	12%	42%	
Female	223,593	2557	96	22%	24%	36%	18%	54%	
American Indian or Alaska Native	2,459	2512	95	39%	26%	28%	8%	36%	
Asian	42,333	2612	93	10%	14%	36%	40%	76%	
Native Hawaiian or Other Pacific Islander	2,207	2529	92	30%	28%	31%	10%	41%	
Filipino	12,438	2588	87	12%	19%	43%	26%	69%	
Hispanic or Latino	244,680	2513	92	36%	28%	28%	7%	35%	
Black or African American	25,949	2499	96	44%	26%	24%	6%	30%	
White	111,549	2579	92	15%	20%	41%	24%	65%	
Two or more races	15,469	2570	99	19%	20%	37%	23%	61%	
English only	251,788	2556	98	23%	23%	36%	19%	54%	
Initially fluent English proficient	22,015	2599	92	11%	18%	38%	33%	71%	
English learner	64,103	2443	72	71%	22%	7%	1%	7%	
Reclassified fluent English proficient	118,319	2554	82	18%	30%	39%	13%	51%	
To be determined	234	2488	116	50%	19%	23%	9%	32%	
English proficiency unknown	625	2495	110	45%	23%	23%	9%	32%	
No special education services	408,281	2554	94	23%	25%	35%	17%	52%	
Special education services	48,803	2441	84	71%	18%	9%	2%	11%	
Not economically disadvantaged	175,996	2591	91	12%	18%	41%	29%	70%	
Economically disadvantaged	281,088	2511	92	38%	28%	27%	7%	34%	
Migrant	3,703	2485	88	48%	28%	21%	3%	24%	
Not migrant	453,381	2542	100	28%	24%	33%	15%	48%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	826	2548	95	25%	24%	36%	15%	51%	
Asian	26,326	2638	80	5%	9%	35%	51%	86%	
Native Hawaiian or Other Pacific Islander	753	2559	94	21%	23%	38%	18%	55%	
Filipino	7,959	2603	83	8%	16%	45%	31%	76%	
Hispanic or Latino	44,287	2558	91	20%	25%	39%	16%	55%	
Black or African American	6,706	2542	97	27%	24%	35%	14%	49%	
White	79,618	2598	85	10%	17%	44%	29%	73%	
Two or more races	9,521	2599	89	10%	17%	41%	32%	73%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,633	2494	90	45%	27%	24%	4%	28%
Asian	16,007	2570	97	19%	21%	37%	23%	60%
Native Hawaiian or Other Pacific Islander	1,454	2514	87	35%	31%	28%	6%	34%
Filipino	4,479	2561	89	19%	24%	40%	17%	57%
Hispanic or Latino	200,393	2504	89	40%	29%	26%	5%	31%
Black or African American	19,243	2484	91	50%	26%	20%	4%	24%
White	31,931	2531	92	29%	27%	33%	10%	43%
Two or more races	5,948	2523	95	33%	26%	32%	9%	41%

Table 7.E.6 Demographic Summary for ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded
All valid scores	450,483	2559	99	25%	27%	34%	14%	49%
Male	229,516	2543	101	30%	27%	31%	12%	42%
Female	220,967	2576	95	18%	26%	38%	18%	56%
American Indian or Alaska Native	2,559	2531	96	34%	29%	29%	8%	37%
Asian	41,115	2630	93	8%	14%	39%	38%	77%
Native Hawaiian or Other Pacific Islander	2,335	2547	90	27%	30%	34%	9%	43%
Filipino	12,490	2605	86	10%	20%	45%	25%	70%
Hispanic or Latino	241,501	2533	91	31%	31%	30%	7%	37%
Black or African American	26,629	2517	96	40%	28%	26%	6%	32%
White	109,734	2594	94	14%	22%	42%	23%	64%
Two or more races	14,120	2585	99	17%	23%	39%	21%	60%
English only	245,367	2573	99	21%	25%	37%	18%	55%
Initially fluent English proficient	21,068	2615	91	9%	19%	41%	30%	72%
English learner	54,951	2457	71	68%	26%	6%	0%	7%
Reclassified fluent English proficient	128,332	2569	83	16%	32%	40%	12%	51%
To be determined	188	2501	122	49%	18%	21%	12%	34%
English proficiency unknown	577	2518	112	40%	22%	28%	10%	38%
No special education services	404,192	2571	94	20%	27%	37%	16%	53%
Special education services	46,291	2457	84	68%	21%	9%	2%	11%
Not economically disadvantaged	174,508	2605	92	11%	20%	42%	27%	69%
Economically disadvantaged	275,975	2530	92	33%	31%	29%	7%	36%
Migrant	3,821	2504	90	43%	31%	23%	4%	26%
Not migrant	446,662	2560	99	24%	27%	34%	15%	49%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	898	2568	96	21%	26%	37%	16%	53%
Asian	25,601	2654	82	4%	10%	38%	48%	86%
Native Hawaiian or Other Pacific Islander	820	2575	87	16%	28%	41%	14%	55%
Filipino	8,043	2619	82	7%	17%	46%	30%	76%
Hispanic or Latino	44,711	2572	91	18%	27%	40%	15%	55%
Black or African American	7,078	2553	98	26%	26%	36%	12%	48%
White	78,703	2612	87	9%	19%	45%	28%	72%
Two or more races	8,654	2613	91	10%	18%	43%	29%	72%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,661	2511	90	40%	31%	25%	4%	29%
Asian	15,514	2589	96	16%	22%	41%	22%	62%
Native Hawaiian or Other Pacific Islander	1,515	2532	88	32%	32%	30%	6%	36%
Filipino	4,447	2580	88	15%	26%	43%	16%	59%
Hispanic or Latino	196,790	2524	89	35%	32%	28%	5%	33%
Black or African American	19,551	2504	91	45%	29%	23%	4%	26%
White	31,031	2548	94	26%	29%	35%	10%	45%
Two or more races	5,466	2542	95	29%	29%	34%	9%	42%

Table 7.E.7 Demographic Summary for ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded	
All valid scores	434,061	2600	111	19%	22%	33%	26%	59%	
Male	221,104	2585	115	23%	23%	31%	22%	53%	
Female	212,957	2616	104	14%	22%	36%	29%	65%	
American Indian or Alaska Native	2,562	2573	109	25%	26%	33%	17%	50%	
Asian	40,041	2668	103	8%	11%	29%	52%	81%	
Native Hawaiian or Other Pacific Islander	2,291	2577	106	23%	25%	34%	17%	51%	
Filipino	13,547	2648	91	7%	15%	39%	39%	78%	
Hispanic or Latino	226,582	2574	105	23%	27%	34%	16%	50%	
Black or African American	25,714	2549	110	32%	27%	28%	13%	40%	
White	110,343	2632	106	12%	17%	35%	36%	71%	
Two or more races	12,981	2624	110	14%	18%	34%	34%	68%	
English only	238,969	2612	110	16%	21%	34%	30%	64%	
Initially fluent English proficient	33,905	2646	100	8%	16%	36%	40%	76%	
English learner	39,407	2471	80	62%	28%	8%	1%	9%	
Reclassified fluent English proficient	121,017	2606	94	12%	26%	40%	22%	62%	
To be determined	220	2538	125	37%	23%	25%	15%	40%	
English proficiency unknown	543	2528	122	43%	23%	22%	12%	35%	
No special education services	396,227	2611	106	15%	22%	35%	28%	63%	
Special education services	37,834	2484	96	58%	26%	13%	3%	16%	
Not economically disadvantaged	184,477	2639	104	10%	17%	34%	39%	73%	
Economically disadvantaged	249,584	2571	107	25%	27%	33%	16%	49%	
Migrant	3,255	2545	104	32%	29%	28%	10%	38%	
Not migrant	430,806	2600	111	18%	22%	33%	26%	59%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	1,166	2602	104	16%	22%	39%	23%	61%	
Asian	23,568	2692	92	4%	8%	26%	62%	88%	
Native Hawaiian or Other Pacific Islander	982	2606	102	16%	22%	37%	25%	62%	
Filipino	9,067	2660	87	5%	13%	38%	44%	82%	
Hispanic or Latino	50,901	2604	104	16%	23%	37%	25%	61%	
Black or African American	8,255	2583	109	22%	25%	34%	20%	53%	
White	82,193	2648	99	8%	15%	35%	42%	77%	
Two or more races	8,345	2649	102	9%	14%	35%	43%	77%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/ Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,396	2550	107	32%	28%	28%	12%	40%
Asian	16,473	2633	108	12%	17%	34%	37%	71%
Native Hawaiian or Other Pacific Islander	1,309	2555	104	29%	28%	32%	11%	43%
Filipino	4,480	2624	95	10%	20%	41%	30%	70%
Hispanic or Latino	175,681	2566	103	25%	28%	33%	13%	46%
Black or African American	17,459	2534	107	37%	28%	25%	9%	34%
White	28,150	2585	110	22%	24%	33%	21%	54%
Two or more races	4,636	2580	110	23%	26%	33%	19%	52%

Table 7.E.8 Demographic Summary for Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	459,050	2425	82	29%	26%	28%	18%	46%	
Male	234,692	2425	85	29%	25%	28%	19%	46%	
Female	224,358	2424	79	29%	27%	28%	16%	45%	
American Indian or Alaska Native	2,350	2401	78	39%	27%	24%	9%	34%	
Asian	40,779	2488	78	9%	15%	30%	46%	76%	
Native Hawaiian or Other Pacific Islander	2,160	2413	76	32%	29%	27%	12%	39%	
Filipino	9,625	2463	71	12%	21%	37%	30%	67%	
Hispanic or Latino	254,035	2403	74	37%	29%	25%	9%	34%	
Black or African American	25,225	2385	79	46%	28%	20%	7%	26%	
White	105,473	2454	77	16%	22%	35%	28%	62%	
Two or more races	19,403	2447	84	21%	22%	31%	27%	58%	
English only	266,105	2434	82	25%	24%	30%	21%	51%	
Initially fluent English proficient	16,536	2483	76	9%	17%	31%	42%	73%	
English learner	134,964	2387	72	46%	30%	19%	6%	24%	
Reclassified fluent English proficient	40,001	2467	62	7%	23%	41%	28%	69%	
To be determined	465	2393	102	49%	19%	17%	16%	32%	
English proficiency unknown	979	2408	93	38%	23%	22%	17%	39%	
No special education services	411,695	2432	77	25%	26%	30%	19%	48%	
Special education services	47,355	2359	91	61%	19%	14%	7%	20%	
Not economically disadvantaged	166,655	2467	76	12%	20%	35%	33%	68%	
Economically disadvantaged	292,395	2401	75	38%	29%	24%	9%	33%	
Migrant	4,483	2386	70	47%	29%	20%	5%	25%	
Not migrant	454,567	2425	82	29%	26%	28%	18%	46%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	700	2436	75	22%	24%	36%	18%	53%	
Asian	26,306	2509	69	4%	10%	29%	57%	86%	
Native Hawaiian or Other Pacific Islander	623	2441	77	20%	24%	35%	21%	56%	
Filipino	6,185	2473	69	9%	18%	38%	36%	73%	
Hispanic or Latino	43,392	2437	73	21%	27%	34%	19%	53%	
Black or African American	5,404	2422	78	27%	27%	31%	15%	45%	
White	72,402	2472	71	10%	19%	37%	35%	72%	
Two or more races	11,643	2474	77	11%	17%	34%	38%	72%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,650	2385	74	46%	29%	20%	6%	25%
Asian	14,473	2450	78	18%	23%	33%	26%	59%
Native Hawaiian or Other Pacific Islander	1,537	2402	72	37%	31%	24%	8%	33%
Filipino	3,440	2444	69	17%	27%	35%	21%	56%
Hispanic or Latino	210,643	2397	73	40%	30%	23%	7%	30%
Black or African American	19,821	2375	76	51%	28%	17%	4%	21%
White	33,071	2416	76	30%	28%	30%	12%	42%
Two or more races	7,760	2407	78	35%	28%	25%	11%	36%

Table 7.E.9 Demographic Summary for Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	474,903	2460	83	28%	33%	23%	15%	38%
Male	242,581	2462	86	29%	32%	23%	17%	40%
Female	232,322	2459	79	28%	35%	23%	14%	37%
American Indian or Alaska Native	2,456	2436	78	38%	34%	20%	7%	27%
Asian	42,181	2530	81	8%	19%	28%	44%	72%
Native Hawaiian or Other Pacific Islander	2,202	2453	75	29%	37%	24%	10%	34%
Filipino	10,836	2502	73	11%	28%	34%	27%	61%
Hispanic or Latino	263,441	2437	73	37%	38%	19%	7%	26%
Black or African American	25,966	2421	76	46%	34%	15%	5%	20%
White	108,913	2493	79	15%	30%	31%	25%	56%
Two or more races	18,908	2486	85	19%	29%	28%	24%	52%
English only	269,100	2471	83	24%	32%	26%	18%	44%
Initially fluent English proficient	18,588	2521	79	9%	24%	29%	38%	67%
English learner	124,525	2413	68	50%	36%	11%	3%	14%
Reclassified fluent English proficient	61,347	2494	67	10%	36%	33%	21%	54%
To be determined	388	2424	102	51%	21%	14%	14%	28%
English proficiency unknown	955	2443	90	39%	27%	22%	13%	34%
No special education services	422,453	2469	79	24%	35%	25%	17%	41%
Special education services	52,450	2393	84	63%	23%	9%	5%	14%
Not economically disadvantaged	171,868	2506	79	12%	27%	31%	31%	62%
Economically disadvantaged	303,035	2435	74	38%	37%	18%	7%	25%
Migrant	4,660	2418	68	47%	37%	13%	3%	16%
Not migrant	470,243	2461	83	28%	33%	23%	15%	38%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	719	2471	78	23%	32%	28%	17%	45%
Asian	26,778	2554	72	4%	13%	27%	56%	83%
Native Hawaiian or Other Pacific Islander	701	2482	77	18%	32%	32%	19%	50%
Filipino	6,899	2515	70	8%	24%	35%	33%	68%
Hispanic or Latino	44,128	2473	75	20%	36%	29%	16%	44%
Black or African American	5,882	2456	78	27%	37%	25%	11%	36%
White	75,293	2511	73	9%	26%	34%	31%	65%
Two or more races	11,468	2513	79	10%	24%	32%	34%	66%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,737	2421	73	45%	35%	17%	3%	20%
Asian	15,403	2487	79	17%	30%	29%	23%	53%
Native Hawaiian or Other Pacific Islander	1,501	2439	70	34%	39%	21%	6%	27%
Filipino	3,937	2480	72	17%	35%	30%	18%	48%
Hispanic or Latino	219,313	2429	71	40%	38%	17%	5%	22%
Black or African American	20,084	2411	72	51%	34%	12%	3%	15%
White	33,620	2452	76	28%	38%	24%	10%	34%
Two or more races	7,440	2445	77	33%	37%	22%	9%	30%

Table 7.E.10 Demographic Summary for Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	465,699	2485	92	39%	28%	16%	17%	33%	
Male	236,943	2485	96	39%	27%	16%	18%	34%	
Female	228,756	2485	88	39%	29%	16%	16%	32%	
American Indian or Alaska Native	2,401	2460	88	49%	28%	13%	10%	23%	
Asian	42,318	2562	89	13%	19%	21%	47%	68%	
Native Hawaiian or Other Pacific Islander	2,295	2473	83	44%	31%	14%	11%	25%	
Filipino	11,232	2529	81	18%	29%	24%	29%	53%	
Hispanic or Latino	255,193	2458	81	50%	30%	13%	8%	20%	
Black or African American	25,619	2439	83	59%	25%	10%	6%	15%	
White	109,349	2521	87	22%	28%	23%	27%	50%	
Two or more races	17,292	2514	94	27%	26%	20%	27%	47%	
English only	260,328	2497	92	33%	28%	18%	20%	38%	
Initially fluent English proficient	18,627	2550	88	15%	24%	21%	40%	60%	
English learner	98,699	2421	72	71%	22%	5%	2%	8%	
Reclassified fluent English proficient	86,979	2510	76	25%	36%	21%	19%	40%	
To be determined	329	2436	106	62%	17%	8%	13%	21%	
English proficiency unknown	737	2455	103	50%	25%	12%	12%	25%	
No special education services	412,198	2495	87	34%	30%	17%	19%	36%	
Special education services	53,501	2407	88	74%	15%	6%	5%	10%	
Not economically disadvantaged	171,814	2535	87	18%	26%	23%	33%	56%	
Economically disadvantaged	293,885	2456	82	51%	29%	12%	7%	20%	
Migrant	4,589	2439	77	60%	26%	10%	4%	14%	
Not migrant	461,110	2486	92	39%	28%	16%	17%	33%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	753	2502	89	31%	29%	20%	21%	41%	
Asian	26,723	2589	78	6%	14%	20%	60%	80%	
Native Hawaiian or Other Pacific Islander	711	2507	80	28%	31%	20%	21%	41%	
Filipino	7,113	2544	77	13%	26%	26%	35%	61%	
Hispanic or Latino	43,511	2497	83	31%	32%	20%	17%	37%	
Black or African American	5,832	2479	85	39%	32%	16%	13%	29%	
White	76,510	2541	80	14%	26%	25%	34%	59%	
Two or more races	10,661	2544	86	15%	24%	23%	38%	61%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,648	2441	80	58%	27%	11%	4%	15%
Asian	15,595	2516	88	25%	28%	22%	25%	47%
Native Hawaiian or Other Pacific Islander	1,584	2457	79	51%	31%	11%	7%	19%
Filipino	4,119	2503	81	28%	34%	21%	18%	39%
Hispanic or Latino	211,682	2450	78	54%	29%	11%	6%	17%
Black or African American	19,787	2427	79	65%	24%	8%	3%	11%
White	32,839	2476	84	40%	32%	17%	11%	28%
Two or more races	6,631	2467	85	45%	30%	15%	10%	25%

Table 7.E.11 Demographic Summary for Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	460,676	2509	107	35%	30%	18%	17%	35%	
Male	235,427	2505	112	37%	28%	17%	17%	35%	
Female	225,249	2512	102	33%	31%	19%	17%	36%	
American Indian or Alaska Native	2,448	2469	103	49%	30%	13%	8%	21%	
Asian	43,118	2599	100	11%	18%	22%	49%	71%	
Native Hawaiian or Other Pacific Islander	2,345	2495	97	39%	33%	18%	11%	28%	
Filipino	11,804	2559	91	16%	28%	26%	30%	56%	
Hispanic or Latino	248,003	2477	97	45%	32%	15%	8%	22%	
Black or African American	25,715	2454	102	55%	28%	12%	6%	17%	
White	110,492	2548	98	20%	29%	25%	27%	52%	
Two or more races	16,751	2538	107	25%	27%	22%	26%	48%	
English only	254,814	2521	106	30%	29%	21%	20%	41%	
Initially fluent English proficient	20,522	2576	100	15%	25%	22%	38%	61%	
English learner	81,307	2422	89	71%	22%	5%	2%	7%	
Reclassified fluent English proficient	102,884	2532	86	24%	37%	22%	17%	40%	
To be determined	392	2459	136	54%	18%	13%	15%	28%	
English proficiency unknown	757	2459	117	52%	27%	11%	10%	21%	
No special education services	409,921	2522	100	30%	31%	20%	19%	39%	
Special education services	50,755	2398	103	77%	15%	5%	3%	8%	
Not economically disadvantaged	173,932	2564	98	16%	26%	25%	33%	58%	
Economically disadvantaged	286,744	2475	98	47%	32%	14%	8%	22%	
Migrant	4,035	2453	93	56%	29%	11%	4%	15%	
Not migrant	456,641	2509	107	35%	30%	18%	17%	36%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	750	2515	100	30%	33%	20%	16%	37%	
Asian	27,070	2629	87	5%	13%	20%	62%	82%	
Native Hawaiian or Other Pacific Islander	747	2526	95	26%	33%	23%	18%	41%	
Filipino	7,482	2574	87	12%	26%	27%	36%	63%	
Hispanic or Latino	43,015	2522	95	27%	33%	23%	17%	40%	
Black or African American	6,358	2497	103	37%	32%	19%	12%	31%	
White	78,218	2569	90	13%	26%	27%	33%	61%	
Two or more races	10,292	2571	98	14%	24%	25%	37%	62%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,698	2449	98	57%	28%	10%	5%	15%
Asian	16,048	2549	99	21%	27%	24%	28%	52%
Native Hawaiian or Other Pacific Islander	1,598	2480	94	44%	33%	15%	7%	22%
Filipino	4,322	2533	92	23%	33%	24%	20%	44%
Hispanic or Latino	204,988	2468	94	49%	32%	13%	5%	19%
Black or African American	19,357	2440	98	61%	27%	9%	3%	13%
White	32,274	2496	98	37%	34%	19%	11%	30%
Two or more races	6,459	2486	99	41%	33%	17%	9%	26%

Table 7.E.12 Demographic Summary for Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	458,402	2525	112	34%	30%	19%	17%	36%	
Male	234,222	2521	115	36%	28%	19%	17%	36%	
Female	224,180	2529	108	32%	31%	20%	17%	37%	
American Indian or Alaska Native	2,456	2495	107	44%	30%	16%	10%	26%	
Asian	42,791	2623	104	10%	17%	23%	51%	73%	
Native Hawaiian or Other Pacific Islander	2,221	2514	101	36%	32%	20%	11%	31%	
Filipino	12,468	2578	96	15%	27%	28%	29%	58%	
Hispanic or Latino	245,424	2490	100	45%	33%	16%	7%	23%	
Black or African American	25,865	2470	104	53%	29%	12%	6%	18%	
White	111,508	2567	101	19%	28%	26%	26%	53%	
Two or more races	15,669	2554	111	25%	27%	23%	25%	48%	
English only	251,220	2539	109	29%	30%	22%	20%	42%	
Initially fluent English proficient	21,999	2592	107	16%	25%	23%	37%	60%	
English learner	65,731	2423	91	75%	19%	4%	2%	6%	
Reclassified fluent English proficient	118,179	2539	94	26%	37%	22%	15%	37%	
To be determined	392	2455	134	59%	18%	11%	12%	23%	
English proficiency unknown	881	2465	122	55%	22%	14%	9%	23%	
No special education services	409,813	2538	105	29%	31%	21%	19%	40%	
Special education services	48,589	2411	101	77%	15%	5%	3%	8%	
Not economically disadvantaged	176,414	2582	103	16%	26%	26%	32%	58%	
Economically disadvantaged	281,988	2489	102	45%	32%	15%	7%	23%	
Migrant	3,769	2466	98	55%	29%	12%	4%	16%	
Not migrant	454,633	2525	112	34%	30%	19%	17%	36%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	825	2536	109	30%	28%	23%	19%	41%	
Asian	26,545	2655	89	4%	12%	21%	64%	84%	
Native Hawaiian or Other Pacific Islander	758	2548	99	25%	30%	24%	20%	45%	
Filipino	7,968	2595	91	11%	24%	30%	35%	65%	
Hispanic or Latino	44,401	2537	99	27%	33%	24%	16%	40%	
Black or African American	6,694	2516	106	35%	32%	20%	13%	33%	
White	79,539	2588	93	12%	26%	29%	33%	62%	
Two or more races	9,684	2587	103	15%	24%	27%	34%	62%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,631	2474	100	51%	31%	13%	5%	18%
Asian	16,246	2572	106	19%	26%	26%	30%	56%
Native Hawaiian or Other Pacific Islander	1,463	2496	97	42%	33%	18%	7%	24%
Filipino	4,500	2547	97	23%	33%	26%	18%	44%
Hispanic or Latino	201,023	2480	97	49%	32%	14%	5%	19%
Black or African American	19,171	2454	99	59%	28%	10%	3%	13%
White	31,969	2514	100	35%	35%	20%	11%	31%
Two or more races	5,985	2501	104	41%	32%	17%	9%	27%

Table 7.E.13 Demographic Summary for Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	451,601	2541	120	39%	25%	17%	19%	36%	
Male	230,168	2535	124	41%	24%	16%	19%	34%	
Female	221,433	2547	115	36%	27%	18%	19%	37%	
American Indian or Alaska Native	2,559	2505	110	50%	27%	14%	9%	24%	
Asian	41,521	2650	115	12%	15%	19%	54%	73%	
Native Hawaiian or Other Pacific Islander	2,335	2527	107	40%	30%	17%	12%	30%	
Filipino	12,524	2597	106	19%	25%	25%	32%	56%	
Hispanic or Latino	242,153	2506	105	49%	28%	14%	9%	23%	
Black or African American	26,577	2481	106	59%	24%	11%	6%	17%	
White	109,636	2583	112	24%	25%	22%	29%	51%	
Two or more races	14,296	2569	120	30%	25%	20%	26%	46%	
English only	244,794	2554	118	34%	26%	19%	22%	40%	
Initially fluent English proficient	21,049	2610	119	20%	22%	20%	39%	58%	
English learner	56,390	2437	95	78%	15%	4%	2%	7%	
Reclassified fluent English proficient	128,217	2552	105	34%	31%	19%	17%	36%	
To be determined	314	2468	145	64%	14%	9%	13%	22%	
English proficiency unknown	837	2484	128	59%	20%	10%	11%	22%	
No special education services	405,507	2554	114	34%	27%	18%	21%	39%	
Special education services	46,094	2425	100	80%	13%	4%	3%	7%	
Not economically disadvantaged	174,880	2599	115	21%	23%	22%	34%	56%	
Economically disadvantaged	276,721	2505	107	50%	27%	14%	9%	23%	
Migrant	3,878	2488	103	55%	27%	13%	6%	18%	
Not migrant	447,723	2542	120	39%	25%	17%	19%	36%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	899	2549	113	34%	26%	22%	18%	40%	
Asian	25,794	2683	100	6%	10%	17%	67%	84%	
Native Hawaiian or Other Pacific Islander	823	2561	103	28%	31%	22%	19%	41%	
Filipino	8,059	2613	102	14%	22%	26%	38%	63%	
Hispanic or Latino	44,831	2549	108	34%	29%	20%	18%	38%	
Black or African American	7,078	2521	112	43%	28%	17%	13%	29%	
White	78,601	2606	106	17%	24%	24%	35%	60%	
Two or more races	8,795	2602	115	20%	22%	23%	35%	58%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,660	2481	100	58%	27%	10%	5%	15%
Asian	15,727	2597	117	22%	22%	22%	34%	56%
Native Hawaiian or Other Pacific Islander	1,512	2509	105	47%	30%	15%	9%	23%
Filipino	4,465	2566	105	27%	29%	23%	21%	44%
Hispanic or Latino	197,322	2496	102	53%	27%	13%	7%	20%
Black or African American	19,499	2467	100	65%	23%	8%	4%	12%
White	31,035	2526	107	42%	29%	17%	12%	29%
Two or more races	5,501	2516	108	46%	28%	15%	11%	26%

Table 7.E.14 Demographic Summary for Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	432,348	2568	125	43%	25%	20%	13%	32%
Male	220,371	2563	131	45%	23%	18%	14%	32%
Female	211,977	2573	118	41%	27%	21%	12%	33%
American Indian or Alaska Native	2,527	2539	112	53%	24%	16%	7%	22%
Asian	40,143	2681	120	14%	16%	27%	43%	70%
Native Hawaiian or Other Pacific Islander	2,268	2547	115	47%	28%	18%	7%	25%
Filipino	13,528	2623	107	22%	27%	32%	19%	51%
Hispanic or Latino	225,631	2533	110	54%	26%	15%	5%	20%
Black or African American	25,499	2507	111	63%	22%	11%	3%	15%
White	109,797	2604	121	30%	25%	26%	18%	45%
Two or more races	12,955	2593	126	34%	25%	24%	17%	41%
English only	237,378	2578	124	39%	25%	22%	14%	36%
Initially fluent English proficient	33,731	2621	125	27%	24%	25%	23%	48%
English learner	39,857	2451	97	85%	10%	4%	2%	5%
Reclassified fluent English proficient	120,465	2571	111	41%	29%	20%	10%	30%
To be determined	240	2523	132	55%	23%	15%	8%	23%
English proficiency unknown	677	2505	128	65%	17%	11%	7%	18%
No special education services	394,955	2580	121	39%	26%	21%	14%	35%
Special education services	37,393	2444	98	85%	10%	4%	1%	5%
Not economically disadvantaged	183,797	2615	124	28%	24%	26%	22%	48%
Economically disadvantaged	248,551	2533	114	54%	25%	15%	6%	21%
Migrant	3,266	2511	107	62%	23%	12%	3%	15%
Not migrant	429,082	2568	125	43%	25%	20%	13%	32%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	1,151	2568	112	42%	28%	20%	10%	30%
Asian	23,596	2714	109	8%	12%	25%	55%	80%
Native Hawaiian or Other Pacific Islander	976	2575	117	38%	28%	22%	12%	34%
Filipino	9,054	2637	104	18%	25%	34%	22%	57%
Hispanic or Latino	50,720	2563	114	43%	28%	21%	9%	29%
Black or African American	8,180	2542	113	50%	26%	17%	6%	23%
White	81,789	2624	116	24%	25%	29%	22%	51%
Two or more races	8,331	2624	121	24%	25%	28%	23%	51%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1,376	2514	107	63%	21%	13%	3%	16%
Asian	16,547	2634	120	22%	22%	29%	26%	56%
Native Hawaiian or Other Pacific Islander	1,292	2525	108	54%	28%	15%	4%	18%
Filipino	4,474	2594	107	30%	30%	27%	12%	39%
Hispanic or Latino	174,911	2524	107	57%	25%	14%	4%	18%
Black or African American	17,319	2491	106	69%	21%	9%	2%	11%
White	28,008	2546	116	49%	26%	18%	7%	25%
Two or more races	4,624	2538	117	52%	25%	16%	7%	23%

Table 7.E.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	456,912	2414	90	37%	43%	20%	34%	45%	21%	20%	63%	17%	29%	49%	22%
Male	233,566	2405	90	40%	42%	18%	38%	43%	18%	23%	61%	16%	32%	48%	20%
Female	223,346	2423	89	33%	45%	22%	29%	46%	25%	18%	64%	18%	25%	50%	24%
American Indian or Alaska Native	2,347	2390	84	44%	44%	12%	42%	45%	13%	26%	61%	13%	37%	49%	14%
Asian	40,098	2472	88	17%	44%	39%	14%	41%	45%	9%	60%	32%	13%	44%	43%
Native Hawaiian or Other Pacific Islander	2,160	2401	84	43%	43%	14%	34%	48%	17%	23%	66%	11%	32%	51%	17%
Filipino	9,574	2459	81	20%	50%	31%	15%	46%	38%	9%	67%	24%	14%	49%	37%
Hispanic or Latino	253,019	2390	82	46%	43%	11%	42%	45%	13%	26%	64%	11%	35%	50%	15%
Black or African American	25,266	2379	84	50%	39%	10%	47%	41%	12%	31%	60%	9%	42%	46%	12%
White	105,287	2450	87	22%	45%	33%	21%	47%	32%	11%	62%	27%	18%	49%	33%
Two or more races	19,161	2444	91	25%	44%	31%	24%	45%	31%	13%	61%	26%	21%	48%	31%
English only	266,391	2428	90	31%	45%	25%	29%	46%	26%	16%	63%	21%	25%	49%	26%
Initially fluent English proficient	16,549	2479	83	15%	43%	42%	12%	43%	45%	6%	59%	35%	11%	44%	45%
English learner	133,000	2364	73	58%	37%	5%	54%	40%	7%	34%	60%	6%	45%	47%	8%
Reclassified fluent English proficient	40,017	2460	68	16%	57%	28%	11%	55%	34%	6%	70%	24%	10%	55%	35%
To be determined	248	2393	108	47%	34%	19%	50%	27%	23%	28%	54%	17%	39%	39%	22%
English proficiency unknown	707	2407	100	37%	42%	21%	37%	45%	18%	24%	56%	20%	33%	47%	20%
No special education services	409,372	2422	88	34%	45%	21%	30%	47%	23%	17%	64%	18%	26%	50%	24%
Special education services	47,540	2347	85	64%	29%	7%	66%	27%	7%	47%	46%	7%	55%	37%	8%
Not economically disadvantaged	165,789	2462	85	18%	46%	36%	17%	46%	38%	9%	61%	30%	14%	48%	37%
Economically disadvantaged	291,123	2387	81	47%	42%	11%	44%	44%	12%	27%	63%	10%	37%	49%	14%
Migrant	4,434	2361	75	60%	35%	5%	56%	37%	6%	37%	57%	6%	46%	46%	9%
Not migrant	452,478	2415	90	36%	44%	20%	34%	45%	22%	20%	63%	17%	29%	49%	22%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	699	2429	85	28%	49%	24%	27%	50%	23%	14%	63%	23%	22%	52%	26%
Asian	25,915	2495	79	10%	42%	48%	8%	38%	54%	5%	57%	39%	8%	41%	52%
Native Hawaiian or Other Pacific Islander	621	2434	86	28%	47%	25%	21%	52%	28%	14%	68%	18%	23%	52%	25%
Filipino	6,170	2471	79	15%	50%	35%	12%	45%	44%	7%	66%	27%	11%	47%	42%
Hispanic or Latino	43,183	2433	83	28%	49%	24%	25%	50%	26%	13%	66%	21%	21%	52%	27%
Black or African American	5,404	2420	87	33%	46%	21%	29%	48%	22%	18%	64%	18%	27%	51%	22%
White	72,333	2469	81	15%	45%	40%	14%	47%	39%	7%	60%	33%	12%	49%	39%
Two or more races	11,464	2473	84	15%	44%	41%	14%	45%	41%	7%	59%	34%	12%	47%	41%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1,648	2374	79	51%	42%	7%	49%	43%	9%	31%	61%	9%	43%	47%	9%
Asian	14,183	2429	87	31%	48%	22%	26%	46%	27%	16%	66%	19%	22%	51%	27%
Native Hawaiian or Other Pacific Islander	1,539	2388	79	49%	41%	10%	40%	47%	13%	26%	66%	8%	36%	51%	13%
Filipino	3,404	2437	81	28%	50%	22%	22%	49%	29%	13%	70%	17%	19%	53%	28%
Hispanic or Latino	209,836	2381	79	50%	42%	9%	46%	44%	10%	28%	63%	9%	38%	50%	12%
Black or African American	19,862	2368	79	55%	37%	8%	52%	39%	9%	35%	58%	7%	47%	44%	9%
White	32,954	2407	84	37%	46%	17%	36%	47%	17%	20%	65%	15%	30%	51%	18%
Two or more races	7,697	2400	85	41%	44%	15%	39%	45%	16%	22%	64%	13%	34%	49%	17%

Table 7.E.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	472,940	2454	96	37%	42%	21%	32%	46%	22%	19%	65%	16%	28%	50%	22%
Male	241,625	2444	96	41%	41%	18%	37%	45%	18%	20%	64%	16%	31%	50%	19%
Female	231,315	2465	94	33%	43%	24%	27%	47%	26%	18%	66%	16%	25%	51%	24%
American Indian or Alaska Native	2,457	2427	91	46%	40%	13%	42%	44%	14%	25%	65%	10%	37%	48%	15%
Asian	41,577	2517	92	17%	41%	42%	13%	39%	48%	9%	61%	30%	12%	45%	43%
Native Hawaiian or Other Pacific Islander	2,195	2446	88	40%	45%	14%	31%	50%	20%	21%	68%	11%	30%	53%	17%
Filipino	10,781	2504	84	19%	48%	33%	14%	45%	41%	10%	67%	23%	12%	51%	37%
Hispanic or Latino	262,425	2429	88	47%	41%	12%	40%	47%	13%	24%	66%	10%	35%	51%	14%
Black or African American	25,989	2415	90	52%	37%	11%	46%	42%	12%	30%	61%	9%	41%	47%	12%
White	108,827	2492	91	22%	44%	33%	19%	48%	33%	11%	64%	25%	17%	52%	32%
Two or more races	18,689	2486	96	25%	43%	32%	22%	45%	33%	13%	64%	23%	19%	50%	31%
English only	269,477	2469	95	31%	43%	26%	27%	47%	26%	16%	65%	19%	24%	51%	25%
Initially fluent English proficient	18,584	2523	86	14%	42%	43%	11%	43%	46%	6%	62%	32%	10%	46%	45%
English learner	122,642	2391	75	64%	32%	4%	57%	39%	5%	34%	62%	4%	49%	46%	6%
Reclassified fluent English proficient	61,381	2497	71	17%	55%	28%	12%	58%	30%	7%	72%	21%	10%	58%	31%
To be determined	197	2434	111	49%	30%	21%	40%	39%	21%	28%	58%	14%	36%	41%	23%
English proficiency unknown	659	2452	103	36%	41%	23%	31%	45%	24%	21%	64%	15%	29%	49%	23%
No special education services	420,304	2465	92	33%	44%	23%	28%	48%	24%	16%	67%	17%	24%	52%	24%
Special education services	52,636	2373	90	69%	24%	6%	68%	26%	6%	44%	50%	6%	57%	36%	7%
Not economically disadvantaged	171,165	2506	88	18%	44%	38%	15%	46%	39%	9%	64%	28%	13%	50%	37%
Economically disadvantaged	301,775	2425	87	48%	40%	12%	42%	46%	12%	25%	66%	10%	36%	51%	13%
Migrant	4,609	2398	83	60%	34%	6%	54%	39%	7%	31%	63%	5%	46%	46%	8%
Not migrant	468,331	2455	96	37%	42%	21%	32%	46%	22%	19%	65%	16%	28%	50%	22%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	721	2470	90	30%	45%	25%	24%	50%	25%	13%	69%	18%	24%	50%	25%
Asian	26,470	2543	82	10%	38%	52%	7%	35%	58%	5%	58%	37%	7%	41%	52%
Native Hawaiian or Other Pacific Islander	699	2481	87	26%	50%	24%	19%	51%	30%	11%	71%	19%	19%	54%	27%
Filipino	6,881	2517	81	14%	48%	38%	10%	43%	47%	8%	65%	27%	9%	49%	42%
Hispanic or Latino	43,934	2475	88	27%	47%	25%	23%	51%	26%	13%	68%	19%	20%	54%	26%
Black or African American	5,882	2457	92	35%	45%	21%	29%	49%	22%	18%	67%	16%	26%	53%	21%
White	75,285	2513	84	15%	44%	41%	13%	47%	40%	7%	63%	30%	11%	51%	38%
Two or more races	11,293	2517	86	15%	43%	42%	12%	44%	43%	7%	63%	30%	11%	48%	41%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1,736	2409	85	53%	39%	8%	49%	42%	9%	30%	63%	7%	43%	47%	10%
Asian	15,107	2472	92	30%	47%	24%	24%	47%	29%	16%	66%	18%	21%	52%	27%
Native Hawaiian or Other Pacific Islander	1,496	2429	83	47%	43%	10%	37%	49%	14%	25%	67%	7%	36%	52%	13%
Filipino	3,900	2479	85	27%	50%	24%	20%	49%	31%	13%	70%	16%	18%	54%	28%
Hispanic or Latino	218,491	2420	85	50%	40%	10%	44%	46%	10%	26%	66%	8%	38%	50%	12%
Black or African American	20,107	2403	86	58%	35%	8%	51%	41%	9%	33%	60%	7%	46%	45%	9%
White	33,542	2445	89	38%	44%	17%	35%	49%	17%	19%	67%	14%	30%	53%	17%
Two or more races	7,396	2440	91	42%	42%	16%	36%	47%	17%	21%	66%	13%	31%	52%	16%

Table 7.E.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	463,908	2496	97	36%	42%	22%	31%	42%	27%	22%	61%	17%	18%	51%	31%
Male	235,979	2482	98	41%	40%	19%	37%	42%	22%	23%	61%	16%	21%	51%	28%
Female	227,929	2509	95	31%	44%	25%	24%	43%	33%	21%	62%	18%	15%	50%	35%
American Indian or Alaska Native	2,409	2466	94	46%	40%	14%	43%	40%	18%	29%	60%	11%	25%	53%	21%
Asian	41,776	2561	93	16%	40%	45%	13%	34%	54%	10%	56%	34%	7%	37%	56%
Native Hawaiian or Other Pacific Islander	2,293	2482	91	41%	43%	16%	32%	45%	23%	27%	61%	12%	20%	54%	26%
Filipino	11,182	2543	85	19%	48%	33%	14%	40%	46%	12%	63%	25%	7%	44%	49%
Hispanic or Latino	254,218	2470	89	45%	42%	13%	38%	45%	17%	28%	62%	10%	23%	55%	22%
Black or African American	25,649	2452	93	53%	36%	11%	46%	39%	15%	35%	57%	8%	29%	53%	18%
White	109,284	2531	92	22%	44%	34%	19%	41%	39%	12%	62%	26%	10%	47%	43%
Two or more races	17,097	2526	97	26%	42%	33%	21%	40%	39%	15%	60%	25%	12%	46%	42%
English only	260,661	2509	97	31%	43%	26%	26%	42%	32%	18%	62%	20%	15%	49%	36%
Initially fluent English proficient	18,627	2564	86	14%	41%	45%	11%	37%	52%	7%	57%	35%	5%	39%	56%
English learner	96,940	2419	74	68%	29%	3%	60%	36%	5%	45%	53%	3%	39%	54%	7%
Reclassified fluent English proficient	86,989	2526	74	21%	54%	25%	15%	53%	33%	11%	70%	19%	7%	54%	40%
To be determined	179	2463	116	49%	33%	18%	46%	34%	20%	33%	53%	14%	27%	48%	25%
English proficiency unknown	512	2483	108	37%	40%	23%	36%	39%	24%	27%	59%	15%	23%	48%	29%
No special education services	410,213	2508	92	32%	44%	24%	25%	45%	30%	18%	64%	18%	14%	52%	34%
Special education services	53,695	2404	89	70%	24%	6%	70%	24%	6%	51%	45%	5%	48%	43%	9%
Not economically disadvantaged	171,214	2546	89	18%	43%	38%	15%	40%	45%	10%	61%	29%	8%	43%	49%
Economically disadvantaged	292,694	2466	89	46%	41%	12%	40%	44%	16%	29%	62%	9%	24%	55%	21%
Migrant	4,522	2441	86	56%	37%	7%	49%	40%	10%	37%	57%	6%	32%	53%	15%
Not migrant	459,386	2496	97	36%	42%	22%	30%	42%	27%	22%	61%	17%	18%	51%	32%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian or Alaska Native	755	2512	96	28%	45%	28%	25%	43%	32%	15%	64%	20%	15%	46%	39%	
Asian	26,445	2587	82	9%	36%	55%	7%	28%	65%	5%	52%	42%	3%	30%	66%	
Native Hawaiian or Other Pacific Islander	710	2518	88	29%	45%	27%	21%	43%	36%	17%	63%	20%	10%	52%	37%	
Filipino	7,096	2557	82	15%	47%	39%	11%	37%	53%	9%	62%	29%	5%	40%	55%	
Hispanic or Latino	43,340	2514	89	28%	47%	26%	23%	46%	32%	15%	65%	19%	12%	51%	37%	
Black or African American	5,842	2496	93	35%	43%	21%	29%	43%	27%	20%	64%	15%	16%	53%	31%	
White	76,521	2552	84	16%	44%	41%	13%	40%	47%	8%	61%	31%	6%	43%	51%	
Two or more races	10,505	2556	87	16%	42%	43%	12%	38%	50%	8%	58%	33%	6%	41%	53%	
Primary Ethnicity—Economically Disadvantaged																
American Indian or Alaska Native	1,654	2444	86	54%	37%	8%	51%	38%	11%	35%	59%	6%	30%	57%	13%	
Asian	15,331	2516	94	27%	45%	27%	23%	43%	34%	17%	63%	20%	13%	48%	39%	
Native Hawaiian or Other Pacific Islander	1,583	2466	87	47%	42%	11%	37%	46%	17%	31%	61%	8%	24%	55%	22%	
Filipino	4,086	2518	86	27%	49%	24%	19%	46%	35%	16%	65%	18%	11%	50%	39%	
Hispanic or Latino	210,878	2461	86	48%	41%	10%	41%	45%	14%	30%	62%	8%	25%	56%	19%	
Black or African American	19,807	2440	89	58%	34%	8%	51%	38%	11%	39%	55%	6%	32%	53%	15%	
White	32,763	2483	91	38%	44%	18%	34%	44%	21%	22%	64%	13%	20%	55%	25%	
Two or more races	6,592	2479	92	41%	42%	17%	36%	43%	22%	25%	63%	12%	21%	54%	25%	

Table 7.E.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	459,061	2519	97	36%	46%	17%	31%	45%	24%	17%	68%	15%	17%	53%	29%
Male	234,565	2505	98	41%	44%	16%	37%	44%	19%	19%	67%	14%	21%	54%	25%
Female	224,496	2534	93	32%	49%	19%	25%	47%	29%	14%	69%	17%	14%	52%	34%
American Indian or Alaska Native	2,446	2484	94	49%	42%	9%	45%	42%	13%	26%	64%	10%	25%	57%	18%
Asian	42,584	2586	91	16%	47%	37%	12%	37%	51%	7%	64%	29%	6%	38%	56%
Native Hawaiian or Other Pacific Islander	2,337	2508	90	43%	44%	13%	32%	48%	20%	20%	69%	12%	20%	56%	24%
Filipino	11,767	2568	84	20%	52%	27%	13%	44%	43%	8%	70%	23%	7%	46%	48%
Hispanic or Latino	247,216	2494	89	45%	45%	10%	39%	47%	14%	21%	69%	10%	22%	57%	20%
Black or African American	25,781	2476	94	52%	39%	8%	47%	40%	12%	27%	65%	8%	28%	56%	16%
White	110,423	2553	90	23%	50%	27%	20%	46%	34%	9%	68%	23%	10%	51%	39%
Two or more races	16,507	2548	95	26%	48%	26%	22%	44%	34%	11%	67%	22%	12%	51%	38%
English only	255,191	2532	96	31%	48%	21%	27%	46%	28%	14%	68%	18%	15%	53%	33%
Initially fluent English proficient	20,516	2578	88	17%	49%	34%	13%	42%	45%	6%	66%	28%	6%	43%	51%
English learner	79,620	2434	76	71%	28%	1%	65%	33%	2%	40%	58%	2%	41%	54%	6%
Reclassified fluent English proficient	102,956	2542	76	26%	57%	17%	19%	56%	25%	9%	75%	16%	8%	57%	35%
To be determined	239	2490	128	46%	35%	19%	41%	37%	22%	34%	49%	17%	29%	39%	32%
English proficiency unknown	539	2484	110	47%	42%	11%	43%	41%	17%	28%	61%	10%	28%	50%	23%
No special education services	408,171	2532	91	32%	49%	19%	26%	48%	26%	13%	70%	17%	14%	54%	32%
Special education services	50,890	2419	87	72%	25%	3%	73%	23%	4%	48%	49%	4%	48%	46%	6%
Not economically disadvantaged	173,320	2568	88	19%	50%	31%	15%	44%	41%	8%	67%	25%	8%	47%	45%
Economically disadvantaged	285,741	2490	90	47%	44%	9%	41%	46%	13%	22%	68%	9%	23%	57%	19%
Migrant	3,976	2465	87	56%	39%	5%	51%	42%	7%	29%	65%	6%	30%	56%	13%
Not migrant	455,085	2520	97	36%	46%	17%	31%	46%	24%	17%	68%	16%	17%	53%	29%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	750	2524	92	34%	51%	15%	29%	47%	24%	16%	67%	17%	14%	59%	27%
Asian	26,811	2611	79	9%	44%	46%	6%	32%	62%	4%	61%	36%	3%	31%	66%
Native Hawaiian or Other Pacific Islander	742	2538	86	31%	50%	20%	19%	50%	30%	11%	72%	17%	13%	55%	33%
Filipino	7,470	2581	81	16%	53%	32%	10%	42%	49%	6%	69%	25%	5%	42%	53%
Hispanic or Latino	42,869	2537	88	29%	52%	20%	23%	50%	27%	12%	71%	17%	12%	54%	34%
Black or African American	6,367	2516	96	37%	47%	16%	31%	47%	23%	17%	69%	15%	17%	55%	28%
White	78,204	2572	83	17%	51%	33%	13%	46%	41%	6%	67%	27%	6%	48%	46%
Two or more races	10,107	2577	87	17%	49%	35%	13%	42%	45%	6%	65%	29%	6%	46%	48%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1,696	2466	90	56%	38%	7%	52%	40%	8%	30%	63%	7%	30%	56%	14%
Asian	15,773	2544	94	28%	51%	21%	21%	45%	33%	13%	69%	18%	12%	49%	40%
Native Hawaiian or Other Pacific Islander	1,595	2494	88	49%	42%	10%	38%	46%	16%	24%	67%	9%	23%	57%	20%
Filipino	4,297	2545	85	28%	52%	20%	19%	48%	32%	11%	71%	18%	10%	52%	38%
Hispanic or Latino	204,347	2485	87	49%	44%	7%	42%	47%	11%	23%	69%	8%	24%	58%	18%
Black or African American	19,414	2463	90	58%	37%	6%	53%	38%	9%	30%	64%	6%	32%	56%	13%
White	32,219	2506	91	39%	48%	13%	35%	47%	18%	17%	70%	13%	19%	58%	22%
Two or more races	6,400	2502	91	42%	46%	12%	36%	47%	17%	19%	69%	12%	20%	59%	21%

Table 7.E.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	457,084	2542	100	34%	45%	22%	27%	46%	27%	20%	65%	15%	24%	50%	25%
Male	233,491	2527	101	38%	43%	19%	32%	46%	22%	22%	64%	14%	29%	50%	21%
Female	223,593	2557	96	29%	47%	24%	20%	47%	33%	18%	66%	16%	19%	51%	30%
American Indian or Alaska Native	2,459	2512	95	42%	44%	14%	38%	45%	17%	26%	63%	10%	34%	50%	16%
Asian	42,333	2612	93	14%	40%	45%	10%	33%	57%	9%	63%	29%	8%	39%	52%
Native Hawaiian or Other Pacific Islander	2,207	2529	92	40%	45%	16%	26%	51%	23%	24%	66%	10%	27%	52%	21%
Filipino	12,438	2588	87	18%	49%	33%	11%	43%	46%	11%	70%	19%	10%	49%	40%
Hispanic or Latino	244,680	2513	92	43%	45%	12%	34%	50%	16%	26%	65%	9%	31%	53%	17%
Black or African American	25,949	2499	96	48%	41%	11%	41%	44%	15%	31%	61%	9%	38%	48%	13%
White	111,549	2579	92	20%	47%	33%	16%	45%	40%	11%	66%	24%	14%	51%	35%
Two or more races	15,469	2570	99	24%	45%	31%	19%	43%	38%	14%	65%	21%	17%	49%	34%
English only	251,788	2556	98	28%	46%	26%	22%	46%	32%	16%	65%	19%	20%	51%	29%
Initially fluent English proficient	22,015	2599	92	16%	44%	40%	11%	40%	48%	8%	65%	26%	11%	44%	45%
English learner	64,103	2443	72	73%	26%	1%	64%	34%	2%	49%	49%	2%	58%	39%	3%
Reclassified fluent English proficient	118,319	2554	82	27%	53%	20%	18%	56%	26%	14%	72%	14%	16%	57%	27%
To be determined	234	2488	116	53%	33%	14%	49%	33%	18%	37%	53%	10%	42%	39%	19%
English proficiency unknown	625	2495	110	49%	37%	13%	45%	36%	19%	33%	57%	10%	39%	45%	16%
No special education services	408,281	2554	94	29%	47%	24%	22%	48%	30%	16%	67%	17%	20%	52%	28%
Special education services	48,803	2441	84	70%	26%	4%	68%	28%	4%	50%	47%	3%	60%	35%	5%
Not economically disadvantaged	175,996	2591	91	17%	46%	37%	12%	42%	45%	9%	65%	25%	11%	48%	41%
Economically disadvantaged	281,088	2511	92	44%	44%	12%	35%	49%	16%	27%	64%	9%	32%	52%	16%
Migrant	3,703	2485	88	55%	38%	7%	44%	47%	9%	35%	59%	6%	39%	50%	11%
Not migrant	453,381	2542	100	33%	45%	22%	26%	46%	27%	20%	65%	15%	24%	50%	26%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	826	2548	95	30%	45%	24%	26%	46%	28%	17%	66%	17%	23%	51%	25%
Asian	26,326	2638	80	8%	37%	55%	5%	27%	68%	5%	60%	36%	4%	34%	62%
Native Hawaiian or Other Pacific Islander	753	2559	94	30%	45%	26%	18%	48%	35%	15%	70%	15%	19%	51%	29%
Filipino	7,959	2603	83	14%	48%	38%	8%	40%	52%	8%	69%	22%	7%	47%	46%
Hispanic or Latino	44,287	2558	91	27%	49%	24%	20%	50%	31%	15%	68%	17%	18%	54%	28%
Black or African American	6,706	2542	97	33%	46%	21%	25%	47%	27%	19%	66%	15%	24%	53%	23%
White	79,618	2598	85	14%	47%	39%	10%	43%	47%	7%	65%	28%	9%	49%	41%
Two or more races	9,521	2599	89	15%	45%	40%	11%	39%	50%	8%	65%	27%	10%	47%	43%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1,633	2494	90	48%	43%	9%	44%	45%	12%	31%	62%	7%	39%	50%	11%
Asian	16,007	2570	97	25%	46%	29%	18%	44%	38%	15%	67%	18%	15%	48%	37%
Native Hawaiian or Other Pacific Islander	1,454	2514	87	45%	45%	11%	30%	52%	17%	28%	64%	8%	31%	53%	16%
Filipino	4,479	2561	89	27%	50%	23%	17%	49%	34%	15%	71%	14%	16%	54%	30%
Hispanic or Latino	200,393	2504	89	46%	44%	10%	37%	50%	13%	28%	64%	8%	34%	52%	14%
Black or African American	19,243	2484	91	54%	39%	8%	47%	43%	10%	35%	59%	6%	43%	47%	10%
White	31,931	2531	92	35%	48%	18%	29%	50%	21%	20%	67%	13%	26%	55%	19%
Two or more races	5,948	2523	95	38%	46%	16%	31%	49%	20%	23%	65%	12%	29%	52%	19%

Table 7.E.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	450,483	2559	99	31%	45%	24%	28%	47%	25%	19%	67%	15%	23%	51%	25%
Male	229,516	2543	101	36%	43%	21%	34%	47%	19%	22%	65%	13%	29%	51%	21%
Female	220,967	2576	95	26%	47%	27%	21%	48%	31%	15%	69%	16%	18%	52%	30%
American Indian or Alaska Native	2,559	2531	96	40%	44%	16%	37%	47%	15%	24%	65%	11%	32%	51%	17%
Asian	41,115	2630	93	13%	38%	49%	10%	37%	53%	8%	63%	29%	8%	40%	51%
Native Hawaiian or Other Pacific Islander	2,335	2547	90	36%	45%	18%	29%	51%	20%	20%	70%	10%	27%	54%	19%
Filipino	12,490	2605	86	16%	47%	37%	12%	47%	41%	9%	71%	20%	10%	49%	41%
Hispanic or Latino	241,501	2533	91	39%	46%	15%	35%	50%	15%	24%	67%	9%	29%	53%	17%
Black or African American	26,629	2517	96	46%	42%	13%	43%	44%	14%	29%	63%	8%	37%	49%	14%
White	109,734	2594	94	19%	45%	36%	17%	47%	36%	11%	67%	22%	15%	51%	34%
Two or more races	14,120	2585	99	22%	44%	33%	20%	46%	34%	13%	66%	21%	17%	50%	33%
English only	245,367	2573	99	26%	45%	29%	24%	47%	29%	16%	67%	18%	20%	51%	28%
Initially fluent English proficient	21,068	2615	91	15%	42%	43%	12%	44%	44%	7%	66%	26%	10%	47%	43%
English learner	54,951	2457	71	72%	26%	1%	68%	30%	2%	51%	48%	1%	58%	39%	3%
Reclassified fluent English proficient	128,332	2569	83	25%	53%	22%	21%	56%	23%	13%	74%	12%	17%	57%	26%
To be determined	188	2501	122	50%	34%	16%	52%	31%	16%	35%	54%	11%	45%	35%	20%
English proficiency unknown	577	2518	112	45%	37%	18%	44%	40%	16%	33%	56%	10%	33%	47%	20%
No special education services	404,192	2571	94	27%	47%	27%	23%	50%	27%	15%	69%	16%	19%	53%	28%
Special education services	46,291	2457	84	69%	27%	4%	71%	26%	4%	51%	46%	3%	59%	37%	4%
Not economically disadvantaged	174,508	2605	92	17%	44%	40%	14%	45%	41%	9%	67%	24%	12%	49%	39%
Economically disadvantaged	275,975	2530	92	40%	45%	15%	36%	49%	15%	25%	67%	8%	31%	53%	17%
Migrant	3,821	2504	90	51%	39%	10%	46%	45%	9%	34%	61%	5%	39%	49%	12%
Not migrant	446,662	2560	99	31%	45%	24%	28%	47%	25%	19%	67%	15%	23%	51%	25%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	898	2568	96	28%	46%	26%	25%	49%	26%	14%	69%	17%	22%	51%	27%
Asian	25,601	2654	82	7%	34%	59%	5%	31%	64%	4%	59%	36%	5%	35%	60%
Native Hawaiian or Other Pacific Islander	820	2575	87	25%	49%	26%	21%	52%	27%	13%	72%	15%	19%	55%	26%
Filipino	8,043	2619	82	13%	45%	42%	8%	45%	47%	6%	70%	24%	8%	47%	45%
Hispanic or Latino	44,711	2572	91	25%	49%	26%	22%	51%	27%	14%	70%	16%	18%	54%	27%
Black or African American	7,078	2553	98	33%	45%	22%	29%	48%	23%	19%	67%	14%	26%	52%	23%
White	78,703	2612	87	14%	44%	42%	12%	45%	43%	7%	66%	26%	10%	50%	40%
Two or more races	8,654	2613	91	14%	43%	43%	12%	44%	44%	8%	65%	27%	11%	48%	42%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1,661	2511	90	46%	43%	11%	44%	47%	10%	29%	63%	7%	38%	51%	11%
Asian	15,514	2589	96	22%	45%	33%	18%	47%	35%	13%	69%	18%	15%	49%	36%
Native Hawaiian or Other Pacific Islander	1,515	2532	88	42%	44%	14%	33%	51%	16%	24%	69%	7%	32%	53%	15%
Filipino	4,447	2580	88	23%	50%	27%	19%	51%	30%	13%	72%	15%	16%	53%	32%
Hispanic or Latino	196,790	2524	89	42%	45%	12%	38%	49%	12%	26%	67%	7%	32%	53%	15%
Black or African American	19,551	2504	91	50%	40%	9%	48%	42%	10%	32%	62%	6%	41%	49%	10%
White	31,031	2548	94	33%	47%	21%	31%	50%	20%	20%	69%	12%	26%	54%	20%
Two or more races	5,466	2542	95	35%	47%	19%	32%	50%	18%	21%	68%	11%	28%	53%	19%

Table 7.E.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	434,061	2600	111	20%	51%	29%	22%	44%	35%	17%	63%	21%	15%	48%	37%
Male	221,104	2585	115	23%	50%	27%	27%	44%	29%	19%	61%	20%	18%	50%	32%
Female	212,957	2616	104	16%	53%	31%	16%	44%	41%	14%	65%	22%	11%	47%	42%
American Indian or Alaska Native	2,562	2573	109	22%	54%	23%	30%	47%	24%	20%	64%	15%	20%	52%	28%
Asian	40,041	2668	103	10%	41%	49%	8%	28%	64%	8%	55%	37%	5%	33%	61%
Native Hawaiian or Other Pacific Islander	2,291	2577	106	26%	54%	20%	25%	47%	28%	21%	65%	14%	19%	52%	29%
Filipino	13,547	2648	91	10%	53%	37%	8%	37%	56%	8%	64%	28%	6%	41%	54%
Hispanic or Latino	226,582	2574	105	25%	55%	20%	27%	49%	25%	20%	65%	15%	18%	53%	29%
Black or African American	25,714	2549	110	31%	52%	17%	37%	44%	19%	26%	61%	12%	25%	53%	22%
White	110,343	2632	106	13%	46%	41%	14%	40%	45%	11%	60%	29%	10%	44%	45%
Two or more races	12,981	2624	110	14%	47%	38%	17%	40%	43%	12%	61%	27%	12%	44%	44%
English only	238,969	2612	110	17%	50%	34%	19%	42%	39%	14%	62%	24%	13%	47%	40%
Initially fluent English proficient	33,905	2646	100	10%	49%	41%	11%	39%	51%	8%	61%	31%	7%	41%	52%
English learner	39,407	2471	80	59%	39%	2%	64%	34%	2%	50%	48%	1%	42%	53%	5%
Reclassified fluent English proficient	121,017	2606	94	16%	59%	24%	16%	51%	33%	12%	69%	18%	10%	52%	38%
To be determined	220	2538	125	35%	45%	20%	42%	40%	19%	31%	58%	11%	27%	48%	25%
English proficiency unknown	543	2528	122	41%	42%	17%	44%	39%	16%	33%	56%	10%	29%	50%	21%
No special education services	396,227	2611	106	17%	52%	31%	18%	45%	38%	14%	64%	23%	12%	48%	40%
Special education services	37,834	2484	96	52%	42%	6%	62%	33%	5%	45%	50%	4%	41%	52%	8%
Not economically disadvantaged	184,477	2639	104	12%	47%	41%	13%	39%	49%	10%	60%	30%	9%	43%	48%
Economically disadvantaged	249,584	2571	107	26%	55%	20%	28%	47%	24%	21%	64%	14%	19%	53%	28%
Migrant	3,255	2545	104	34%	53%	13%	37%	46%	17%	28%	63%	10%	23%	56%	21%
Not migrant	430,806	2600	111	20%	51%	29%	21%	44%	35%	16%	63%	21%	15%	48%	37%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	1,166	2602	104	15%	55%	30%	20%	47%	32%	14%	67%	19%	15%	49%	37%
Asian	23,568	2692	92	6%	35%	59%	5%	22%	73%	5%	51%	44%	3%	28%	68%
Native Hawaiian or Other Pacific Islander	982	2606	102	19%	54%	27%	18%	46%	36%	12%	68%	20%	14%	48%	38%
Filipino	9,067	2660	87	8%	51%	42%	6%	34%	61%	6%	63%	30%	4%	38%	58%
Hispanic or Latino	50,901	2604	104	17%	54%	28%	19%	47%	35%	15%	64%	21%	13%	50%	37%
Black or African American	8,255	2583	109	23%	53%	24%	26%	46%	28%	19%	63%	18%	18%	52%	30%
White	82,193	2648	99	9%	45%	46%	10%	38%	51%	8%	60%	33%	8%	42%	50%
Two or more races	8,345	2649	102	10%	44%	46%	11%	37%	52%	8%	59%	33%	8%	40%	52%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1,396	2550	107	28%	54%	18%	37%	46%	16%	26%	62%	12%	25%	54%	21%
Asian	16,473	2633	108	15%	49%	35%	13%	37%	50%	13%	60%	27%	9%	41%	51%
Native Hawaiian or Other Pacific Islander	1,309	2555	104	31%	54%	15%	30%	47%	23%	27%	63%	10%	23%	54%	22%
Filipino	4,480	2624	95	14%	57%	28%	12%	43%	45%	12%	66%	22%	8%	46%	46%
Hispanic or Latino	175,681	2566	103	27%	56%	17%	29%	49%	22%	22%	65%	13%	19%	54%	26%
Black or African American	17,459	2534	107	35%	52%	13%	42%	43%	15%	30%	60%	10%	29%	53%	18%
White	28,150	2585	110	21%	52%	27%	26%	45%	29%	19%	63%	18%	18%	51%	31%
Two or more races	4,636	2580	110	23%	53%	24%	28%	45%	27%	19%	64%	16%	19%	51%	29%

Table 7.E.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	459,050	2425	82	35%	35%	30%	32%	45%	23%	22%	53%	25%
Male	234,692	2425	85	35%	34%	31%	31%	45%	24%	23%	52%	25%
Female	224,358	2424	79	35%	36%	28%	32%	46%	22%	21%	55%	25%
American Indian or Alaska Native	2,350	2401	78	47%	34%	19%	40%	46%	15%	30%	55%	15%
Asian	40,779	2488	78	12%	27%	62%	12%	38%	50%	8%	38%	54%
Native Hawaiian or Other Pacific Islander	2,160	2413	76	39%	38%	23%	37%	46%	17%	24%	57%	19%
Filipino	9,625	2463	71	16%	37%	47%	16%	48%	36%	10%	50%	41%
Hispanic or Latino	254,035	2403	74	44%	37%	19%	40%	46%	14%	27%	58%	15%
Black or African American	25,225	2385	79	53%	33%	15%	49%	41%	10%	35%	53%	12%
White	105,473	2454	77	22%	36%	43%	18%	46%	36%	13%	50%	37%
Two or more races	19,403	2447	84	26%	34%	40%	22%	44%	34%	16%	48%	36%
English only	266,105	2434	82	31%	36%	34%	27%	46%	27%	19%	52%	29%
Initially fluent English proficient	16,536	2483	76	13%	30%	57%	12%	41%	48%	8%	42%	50%
English learner	134,964	2387	72	53%	34%	14%	49%	43%	8%	33%	57%	10%
Reclassified fluent English proficient	40,001	2467	62	13%	40%	47%	11%	53%	36%	7%	54%	40%
To be determined	465	2393	102	52%	24%	24%	49%	32%	19%	35%	43%	22%
English proficiency unknown	979	2408	93	42%	31%	26%	41%	39%	20%	31%	49%	20%
No special education services	411,695	2432	77	32%	37%	32%	28%	47%	25%	19%	54%	27%
Special education services	47,355	2359	91	66%	22%	12%	60%	31%	10%	46%	44%	10%
Not economically disadvantaged	166,655	2467	76	17%	34%	49%	15%	44%	41%	10%	47%	43%
Economically disadvantaged	292,395	2401	75	45%	36%	19%	41%	46%	13%	28%	57%	15%
Migrant	4,483	2386	70	54%	34%	13%	49%	42%	8%	33%	56%	10%
Not migrant	454,567	2425	82	35%	35%	30%	31%	45%	23%	22%	53%	25%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	700	2436	75	30%	38%	32%	23%	50%	27%	18%	55%	27%	
Asian	26,306	2509	69	6%	22%	73%	6%	33%	61%	4%	32%	64%	
Native Hawaiian or Other Pacific Islander	623	2441	77	27%	37%	36%	22%	50%	28%	16%	53%	31%	
Filipino	6,185	2473	69	12%	35%	53%	12%	46%	41%	7%	46%	47%	
Hispanic or Latino	43,392	2437	73	27%	40%	33%	24%	50%	26%	16%	56%	28%	
Black or African American	5,404	2422	78	34%	39%	28%	31%	49%	20%	22%	55%	23%	
White	72,402	2472	71	14%	34%	51%	12%	45%	44%	9%	46%	45%	
Two or more races	11,643	2474	77	15%	32%	53%	12%	42%	45%	9%	43%	48%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	1,650	2385	74	55%	32%	13%	47%	44%	10%	34%	56%	10%	
Asian	14,473	2450	78	23%	36%	42%	23%	46%	31%	15%	51%	35%	
Native Hawaiian or Other Pacific Islander	1,537	2402	72	44%	38%	18%	42%	45%	13%	27%	59%	14%	
Filipino	3,440	2444	69	23%	40%	37%	22%	51%	27%	13%	57%	30%	
Hispanic or Latino	210,643	2397	73	48%	36%	17%	43%	46%	11%	30%	58%	13%	
Black or African American	19,821	2375	76	58%	31%	11%	53%	39%	7%	39%	53%	9%	
White	33,071	2416	76	37%	39%	24%	32%	50%	19%	23%	57%	20%	
Two or more races	7,760	2407	78	43%	36%	21%	37%	46%	17%	27%	55%	18%	

Table 7.E.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	474,903	2460	83	44%	32%	24%	36%	45%	18%	34%	44%	21%
Male	242,581	2462	86	43%	31%	26%	36%	44%	20%	35%	43%	22%
Female	232,322	2459	79	45%	33%	22%	36%	47%	17%	34%	46%	20%
American Indian or Alaska Native	2,456	2436	78	54%	32%	14%	45%	43%	11%	44%	44%	12%
Asian	42,181	2530	81	16%	27%	58%	14%	41%	45%	12%	36%	51%
Native Hawaiian or Other Pacific Islander	2,202	2453	75	45%	35%	20%	39%	47%	14%	37%	46%	17%
Filipino	10,836	2502	73	22%	36%	42%	18%	51%	30%	17%	47%	37%
Hispanic or Latino	263,441	2437	73	55%	32%	14%	45%	45%	9%	43%	46%	12%
Black or African American	25,966	2421	76	62%	27%	11%	54%	39%	7%	51%	40%	9%
White	108,913	2493	79	27%	36%	37%	21%	49%	30%	21%	46%	33%
Two or more races	18,908	2486	85	32%	33%	36%	26%	46%	28%	25%	43%	32%
English only	269,100	2471	83	38%	34%	28%	31%	47%	22%	30%	45%	25%
Initially fluent English proficient	18,588	2521	79	19%	31%	51%	14%	45%	41%	14%	40%	46%
English learner	124,525	2413	68	68%	25%	7%	59%	37%	4%	55%	40%	6%
Reclassified fluent English proficient	61,347	2494	67	25%	41%	34%	18%	57%	25%	17%	53%	30%
To be determined	388	2424	102	63%	15%	22%	52%	33%	15%	54%	29%	18%
English proficiency unknown	955	2443	90	52%	27%	22%	45%	40%	15%	43%	39%	19%
No special education services	422,453	2469	79	40%	34%	26%	32%	48%	20%	31%	46%	23%
Special education services	52,450	2393	84	75%	17%	9%	67%	27%	6%	63%	29%	8%
Not economically disadvantaged	171,868	2506	79	22%	34%	44%	18%	47%	35%	17%	44%	39%
Economically disadvantaged	303,035	2435	74	56%	31%	13%	46%	44%	9%	44%	45%	11%
Migrant	4,660	2418	68	66%	27%	7%	55%	40%	5%	51%	42%	7%
Not migrant	470,243	2461	83	43%	32%	24%	36%	46%	19%	34%	45%	21%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged												
American Indian or Alaska Native	719	2471	78	38%	35%	28%	30%	47%	22%	29%	47%	23%
Asian	26,778	2554	72	8%	22%	70%	7%	36%	57%	6%	31%	63%
Native Hawaiian or Other Pacific Islander	701	2482	77	32%	36%	32%	25%	51%	25%	24%	49%	27%
Filipino	6,899	2515	70	16%	35%	49%	14%	50%	36%	12%	45%	43%
Hispanic or Latino	44,128	2473	75	35%	38%	26%	28%	52%	20%	27%	50%	23%
Black or African American	5,882	2456	78	43%	36%	21%	37%	48%	14%	35%	47%	18%
White	75,293	2511	73	19%	36%	45%	14%	49%	37%	14%	46%	40%
Two or more races	11,468	2513	79	20%	32%	48%	16%	46%	39%	15%	42%	43%
Primary Ethnicity—Economically Disadvantaged												
American Indian or Alaska Native	1,737	2421	73	60%	31%	8%	51%	42%	7%	51%	42%	7%
Asian	15,403	2487	79	29%	35%	36%	26%	49%	26%	23%	46%	31%
Native Hawaiian or Other Pacific Islander	1,501	2439	70	52%	35%	14%	46%	45%	9%	43%	45%	12%
Filipino	3,937	2480	72	32%	39%	30%	26%	54%	20%	24%	50%	26%
Hispanic or Latino	219,313	2429	71	59%	30%	11%	49%	44%	7%	46%	45%	9%
Black or African American	20,084	2411	72	68%	24%	8%	59%	36%	5%	56%	38%	6%
White	33,620	2452	76	46%	35%	19%	36%	49%	14%	36%	47%	16%
Two or more races	7,440	2445	77	50%	33%	17%	41%	47%	12%	40%	45%	15%

Table 7.E.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	465,699	2485	92	49%	29%	22%	46%	37%	18%	40%	44%	16%
Male	236,943	2485	96	48%	28%	24%	46%	36%	18%	41%	43%	17%
Female	228,756	2485	88	50%	30%	20%	46%	38%	17%	39%	45%	16%
American Indian or Alaska Native	2,401	2460	88	59%	27%	14%	54%	36%	10%	49%	41%	10%
Asian	42,318	2562	89	19%	27%	54%	19%	36%	45%	15%	42%	43%
Native Hawaiian or Other Pacific Islander	2,295	2473	83	54%	30%	16%	51%	37%	12%	44%	45%	11%
Filipino	11,232	2529	81	28%	36%	36%	26%	45%	29%	22%	52%	27%
Hispanic or Latino	255,193	2458	81	61%	27%	11%	57%	34%	9%	50%	42%	8%
Black or African American	25,619	2439	83	69%	22%	9%	66%	28%	6%	58%	37%	6%
White	109,349	2521	87	32%	33%	34%	28%	44%	28%	25%	49%	26%
Two or more races	17,292	2514	94	37%	30%	33%	32%	41%	27%	29%	45%	25%
English only	260,328	2497	92	44%	30%	26%	39%	40%	21%	35%	46%	19%
Initially fluent English proficient	18,627	2550	88	24%	30%	46%	21%	40%	40%	18%	45%	37%
English learner	98,699	2421	72	78%	18%	4%	77%	20%	2%	67%	30%	2%
Reclassified fluent English proficient	86,979	2510	76	38%	37%	26%	33%	47%	20%	28%	54%	18%
To be determined	329	2436	106	67%	17%	15%	67%	21%	12%	62%	28%	10%
English proficiency unknown	737	2455	103	59%	24%	17%	57%	30%	13%	48%	41%	12%
No special education services	412,198	2495	87	45%	31%	24%	41%	39%	19%	36%	46%	18%
Special education services	53,501	2407	88	80%	13%	6%	77%	18%	5%	71%	25%	4%
Not economically disadvantaged	171,814	2535	87	27%	32%	40%	24%	43%	34%	21%	48%	31%
Economically disadvantaged	293,885	2456	82	62%	27%	11%	58%	33%	8%	51%	42%	7%
Migrant	4,589	2439	77	69%	24%	7%	67%	28%	5%	59%	37%	4%
Not migrant	461,110	2486	92	49%	29%	22%	45%	37%	18%	40%	44%	16%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	753	2502	89	38%	35%	27%	35%	46%	20%	31%	49%	20%	
Asian	26,723	2589	78	10%	24%	67%	10%	33%	57%	8%	38%	54%	
Native Hawaiian or Other Pacific Islander	711	2507	80	37%	36%	27%	35%	44%	20%	30%	51%	19%	
Filipino	7,113	2544	77	21%	36%	43%	19%	46%	35%	16%	52%	32%	
Hispanic or Latino	43,511	2497	83	43%	34%	23%	38%	44%	19%	33%	50%	16%	
Black or African American	5,832	2479	85	51%	31%	18%	46%	40%	13%	41%	47%	13%	
White	76,510	2541	80	24%	34%	42%	20%	45%	35%	18%	50%	32%	
Two or more races	10,661	2544	86	24%	31%	45%	20%	42%	38%	19%	46%	35%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	1,648	2441	80	69%	23%	8%	63%	32%	6%	57%	38%	5%	
Asian	15,595	2516	88	33%	34%	33%	34%	41%	25%	27%	49%	24%	
Native Hawaiian or Other Pacific Islander	1,584	2457	79	62%	27%	11%	59%	34%	8%	50%	43%	7%	
Filipino	4,119	2503	81	39%	37%	24%	36%	45%	19%	31%	51%	18%	
Hispanic or Latino	211,682	2450	78	65%	26%	9%	61%	32%	6%	53%	41%	6%	
Black or African American	19,787	2427	79	75%	20%	6%	71%	25%	4%	63%	34%	4%	
White	32,839	2476	84	52%	31%	16%	47%	41%	12%	42%	46%	11%	
Two or more races	6,631	2467	85	57%	29%	14%	51%	38%	11%	47%	44%	10%	

Table 7.E.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	460,676	2509	107	46%	31%	23%	40%	43%	18%	31%	51%	18%
Male	235,427	2505	112	48%	30%	22%	40%	41%	18%	33%	50%	18%
Female	225,249	2512	102	44%	33%	23%	39%	44%	17%	30%	53%	18%
American Indian or Alaska Native	2,448	2469	103	61%	27%	12%	53%	38%	9%	41%	50%	9%
Asian	43,118	2599	100	16%	27%	56%	14%	38%	48%	11%	42%	47%
Native Hawaiian or Other Pacific Islander	2,345	2495	97	51%	33%	16%	45%	44%	11%	35%	53%	12%
Filipino	11,804	2559	91	25%	37%	38%	21%	50%	29%	16%	54%	30%
Hispanic or Latino	248,003	2477	97	58%	30%	12%	50%	41%	8%	39%	52%	9%
Black or African American	25,715	2454	102	66%	25%	9%	60%	34%	6%	47%	47%	7%
White	110,492	2548	98	30%	37%	33%	25%	48%	27%	19%	53%	28%
Two or more races	16,751	2538	107	34%	34%	32%	30%	44%	26%	23%	50%	27%
English only	254,814	2521	106	40%	33%	26%	35%	44%	21%	27%	52%	21%
Initially fluent English proficient	20,522	2576	100	24%	32%	45%	19%	43%	38%	15%	47%	38%
English learner	81,307	2422	89	81%	16%	3%	73%	24%	2%	58%	40%	2%
Reclassified fluent English proficient	102,884	2532	86	37%	39%	24%	30%	52%	18%	23%	59%	18%
To be determined	392	2459	136	61%	18%	21%	54%	30%	16%	43%	44%	13%
English proficiency unknown	757	2459	117	61%	25%	14%	58%	30%	12%	47%	44%	9%
No special education services	409,921	2522	100	41%	34%	25%	35%	45%	19%	27%	53%	20%
Special education services	50,755	2398	103	83%	12%	4%	78%	18%	3%	64%	32%	3%
Not economically disadvantaged	173,932	2564	98	25%	35%	40%	21%	46%	33%	16%	50%	33%
Economically disadvantaged	286,744	2475	98	59%	29%	12%	51%	40%	8%	40%	51%	9%
Migrant	4,035	2453	93	68%	24%	7%	59%	36%	5%	48%	48%	4%
Not migrant	456,641	2509	107	46%	31%	23%	40%	43%	18%	31%	51%	18%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	750	2515	100	42%	36%	22%	34%	49%	17%	29%	53%	18%	
Asian	27,070	2629	87	8%	23%	69%	8%	32%	60%	6%	35%	59%	
Native Hawaiian or Other Pacific Islander	747	2526	95	39%	36%	25%	33%	49%	18%	26%	54%	20%	
Filipino	7,482	2574	87	19%	36%	45%	16%	49%	34%	12%	52%	36%	
Hispanic or Latino	43,015	2522	95	39%	37%	24%	33%	49%	18%	26%	56%	18%	
Black or African American	6,358	2497	103	48%	34%	18%	43%	44%	13%	33%	53%	14%	
White	78,218	2569	90	21%	38%	41%	18%	49%	34%	14%	52%	34%	
Two or more races	10,292	2571	98	22%	35%	44%	19%	45%	36%	14%	49%	37%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	1,698	2449	98	70%	23%	8%	61%	33%	6%	46%	49%	5%	
Asian	16,048	2549	99	30%	35%	36%	26%	47%	27%	20%	53%	28%	
Native Hawaiian or Other Pacific Islander	1,598	2480	94	57%	32%	11%	51%	42%	7%	39%	53%	8%	
Filipino	4,322	2533	92	35%	38%	27%	29%	50%	20%	22%	57%	20%	
Hispanic or Latino	204,988	2468	94	62%	28%	9%	54%	40%	6%	42%	51%	7%	
Black or African American	19,357	2440	98	71%	22%	6%	65%	31%	4%	51%	45%	4%	
White	32,274	2496	98	50%	34%	16%	42%	46%	12%	33%	54%	13%	
Two or more races	6,459	2486	99	53%	33%	14%	47%	42%	11%	37%	53%	11%	

Table 7.E.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	458,402	2525	112	45%	32%	24%	37%	43%	20%	29%	51%	20%
Male	234,222	2521	115	46%	30%	24%	38%	42%	20%	31%	49%	20%
Female	224,180	2529	108	43%	33%	24%	37%	43%	20%	26%	54%	21%
American Indian or Alaska Native	2,456	2495	107	54%	32%	14%	44%	44%	12%	37%	51%	12%
Asian	42,791	2623	104	15%	25%	60%	13%	34%	53%	8%	38%	54%
Native Hawaiian or Other Pacific Islander	2,221	2514	101	47%	34%	19%	42%	44%	14%	30%	55%	15%
Filipino	12,468	2578	96	24%	37%	39%	20%	47%	34%	13%	53%	34%
Hispanic or Latino	245,424	2490	100	57%	31%	12%	48%	43%	9%	37%	53%	10%
Black or African American	25,865	2470	104	64%	26%	10%	56%	37%	7%	44%	48%	8%
White	111,508	2567	101	28%	37%	36%	22%	47%	31%	17%	52%	31%
Two or more races	15,669	2554	111	33%	33%	34%	28%	43%	29%	21%	50%	29%
English only	251,220	2539	109	39%	34%	28%	32%	45%	24%	25%	51%	24%
Initially fluent English proficient	21,999	2592	107	24%	31%	45%	19%	41%	41%	14%	46%	41%
English learner	65,731	2423	91	84%	13%	3%	74%	23%	2%	59%	39%	3%
Reclassified fluent English proficient	118,179	2539	94	39%	38%	23%	31%	50%	18%	22%	59%	19%
To be determined	392	2455	134	67%	18%	15%	60%	27%	13%	47%	39%	14%
English proficiency unknown	881	2465	122	64%	21%	15%	55%	33%	11%	42%	46%	12%
No special education services	409,813	2538	105	40%	34%	26%	33%	45%	22%	24%	54%	22%
Special education services	48,589	2411	101	83%	12%	4%	75%	21%	4%	66%	31%	4%
Not economically disadvantaged	176,414	2582	103	24%	34%	42%	19%	44%	37%	14%	49%	37%
Economically disadvantaged	281,988	2489	102	58%	30%	13%	49%	42%	10%	37%	52%	10%
Migrant	3,769	2466	98	67%	26%	8%	56%	39%	5%	43%	51%	6%
Not migrant	454,633	2525	112	44%	32%	24%	37%	43%	20%	28%	51%	20%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	825	2536	109	39%	35%	25%	31%	48%	21%	25%	53%	22%	
Asian	26,545	2655	89	7%	20%	73%	6%	28%	65%	4%	30%	66%	
Native Hawaiian or Other Pacific Islander	758	2548	99	35%	35%	30%	31%	44%	25%	22%	54%	24%	
Filipino	7,968	2595	91	18%	36%	46%	15%	45%	40%	10%	50%	40%	
Hispanic or Latino	44,401	2537	99	38%	37%	24%	31%	49%	20%	23%	57%	20%	
Black or African American	6,694	2516	106	46%	34%	20%	39%	45%	16%	30%	54%	17%	
White	79,539	2588	93	20%	37%	43%	15%	47%	38%	12%	50%	38%	
Two or more races	9,684	2587	103	22%	34%	45%	17%	43%	39%	13%	48%	39%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	1,631	2474	100	62%	30%	8%	51%	42%	7%	43%	50%	7%	
Asian	16,246	2572	106	27%	32%	41%	24%	44%	32%	16%	51%	34%	
Native Hawaiian or Other Pacific Islander	1,463	2496	97	54%	34%	13%	47%	44%	9%	34%	55%	11%	
Filipino	4,500	2547	97	35%	38%	28%	29%	49%	22%	19%	57%	24%	
Hispanic or Latino	201,023	2480	97	61%	29%	10%	52%	41%	7%	40%	53%	8%	
Black or African American	19,171	2454	99	71%	23%	6%	62%	34%	4%	49%	46%	5%	
White	31,969	2514	100	47%	36%	17%	37%	49%	14%	30%	55%	14%	
Two or more races	5,985	2501	104	52%	32%	16%	44%	43%	13%	34%	53%	13%	

Table 7.E.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	451,601	2541	120	45%	30%	25%	31%	49%	20%	28%	53%	19%
Male	230,168	2535	124	47%	29%	24%	32%	48%	20%	31%	50%	18%
Female	221,433	2547	115	43%	32%	25%	30%	51%	19%	25%	55%	20%
American Indian or Alaska Native	2,559	2505	110	56%	29%	15%	37%	52%	11%	40%	50%	10%
Asian	41,521	2650	115	15%	24%	61%	11%	36%	52%	9%	38%	53%
Native Hawaiian or Other Pacific Islander	2,335	2527	107	46%	35%	18%	34%	54%	13%	31%	56%	14%
Filipino	12,524	2597	106	24%	35%	41%	18%	50%	32%	14%	54%	31%
Hispanic or Latino	242,153	2506	105	56%	30%	14%	39%	51%	10%	36%	55%	9%
Black or African American	26,577	2481	106	66%	25%	10%	46%	47%	7%	44%	49%	7%
White	109,636	2583	112	30%	34%	36%	19%	50%	31%	19%	53%	28%
Two or more races	14,296	2569	120	36%	32%	32%	23%	49%	28%	22%	52%	26%
English only	244,794	2554	118	40%	32%	28%	27%	50%	23%	26%	53%	22%
Initially fluent English proficient	21,049	2610	119	26%	29%	45%	16%	45%	39%	15%	47%	38%
English learner	56,390	2437	95	81%	15%	4%	61%	36%	2%	56%	41%	3%
Reclassified fluent English proficient	128,217	2552	105	41%	35%	24%	28%	55%	18%	24%	58%	18%
To be determined	314	2468	145	67%	16%	17%	54%	33%	13%	39%	47%	14%
English proficiency unknown	837	2484	128	63%	23%	13%	47%	41%	12%	43%	44%	13%
No special education services	405,507	2554	114	41%	32%	27%	27%	51%	22%	25%	55%	21%
Special education services	46,094	2425	100	83%	12%	4%	63%	34%	3%	63%	34%	3%
Not economically disadvantaged	174,880	2599	115	26%	32%	42%	17%	47%	35%	16%	50%	34%
Economically disadvantaged	276,721	2505	107	57%	29%	14%	40%	51%	10%	36%	54%	10%
Migrant	3,878	2488	103	62%	28%	11%	44%	50%	6%	39%	54%	7%
Not migrant	447,723	2542	120	45%	30%	25%	31%	49%	20%	28%	53%	19%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	899	2549	113	40%	34%	26%	25%	54%	20%	27%	54%	19%	
Asian	25,794	2683	100	8%	19%	73%	6%	30%	64%	5%	31%	64%	
Native Hawaiian or Other Pacific Islander	823	2561	103	35%	39%	26%	25%	56%	20%	21%	59%	20%	
Filipino	8,059	2613	102	19%	34%	47%	14%	49%	37%	11%	52%	37%	
Hispanic or Latino	44,831	2549	108	41%	35%	24%	27%	54%	19%	25%	57%	18%	
Black or African American	7,078	2521	112	50%	31%	19%	35%	51%	14%	33%	54%	13%	
White	78,601	2606	106	23%	35%	43%	14%	49%	37%	13%	52%	34%	
Two or more races	8,795	2602	115	25%	33%	42%	16%	46%	37%	15%	50%	35%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	1,660	2481	100	65%	27%	9%	44%	51%	5%	47%	48%	5%	
Asian	15,727	2597	117	26%	31%	43%	20%	46%	33%	16%	51%	33%	
Native Hawaiian or Other Pacific Islander	1,512	2509	105	52%	33%	14%	38%	53%	9%	36%	54%	10%	
Filipino	4,465	2566	105	34%	37%	29%	25%	54%	21%	20%	58%	22%	
Hispanic or Latino	197,322	2496	102	60%	29%	11%	42%	51%	7%	38%	54%	8%	
Black or African American	19,499	2467	100	71%	22%	7%	50%	46%	4%	48%	47%	5%	
White	31,035	2526	107	49%	33%	18%	32%	54%	14%	31%	56%	13%	
Two or more races	5,501	2516	108	54%	31%	15%	35%	52%	13%	34%	55%	11%	

Table 7.E.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	432,348	2568	125	49%	30%	21%	35%	49%	16%	28%	56%	17%
Male	220,371	2563	131	51%	28%	21%	36%	47%	17%	30%	53%	17%
Female	211,977	2573	118	46%	32%	22%	34%	51%	14%	25%	59%	16%
American Indian or Alaska Native	2,527	2539	112	59%	28%	13%	42%	48%	10%	33%	57%	10%
Asian	40,143	2681	120	16%	25%	58%	13%	43%	44%	9%	43%	48%
Native Hawaiian or Other Pacific Islander	2,268	2547	115	53%	33%	14%	41%	50%	9%	31%	59%	10%
Filipino	13,528	2623	107	27%	38%	35%	21%	56%	23%	14%	60%	26%
Hispanic or Latino	225,631	2533	110	60%	29%	11%	43%	49%	7%	34%	58%	8%
Black or African American	25,499	2507	111	68%	24%	8%	53%	43%	5%	41%	54%	6%
White	109,797	2604	121	36%	34%	30%	24%	52%	23%	20%	56%	24%
Two or more races	12,955	2593	126	40%	32%	28%	28%	51%	21%	23%	55%	23%
English only	237,378	2578	124	45%	31%	24%	32%	50%	18%	26%	56%	19%
Initially fluent English proficient	33,731	2621	125	33%	32%	35%	23%	51%	26%	18%	54%	28%
English learner	39,857	2451	97	87%	10%	3%	68%	30%	2%	51%	46%	2%
Reclassified fluent English proficient	120,465	2571	111	48%	33%	19%	34%	53%	13%	26%	60%	14%
To be determined	240	2523	132	59%	27%	14%	45%	45%	10%	36%	54%	11%
English proficiency unknown	677	2505	128	70%	18%	12%	49%	41%	10%	37%	55%	8%
No special education services	394,955	2580	121	45%	32%	23%	32%	51%	17%	25%	57%	18%
Special education services	37,393	2444	98	88%	9%	3%	69%	29%	2%	56%	42%	2%
Not economically disadvantaged	183,797	2615	124	33%	33%	34%	24%	51%	26%	19%	54%	27%
Economically disadvantaged	248,551	2533	114	60%	28%	12%	44%	48%	8%	34%	57%	9%
Migrant	3,266	2511	107	67%	25%	8%	51%	44%	5%	38%	56%	5%
Not migrant	429,082	2568	125	49%	30%	22%	35%	49%	16%	28%	56%	17%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	1,151	2568	112	49%	33%	18%	34%	52%	14%	26%	59%	15%	
Asian	23,596	2714	109	9%	21%	69%	8%	37%	54%	5%	36%	59%	
Native Hawaiian or Other Pacific Islander	976	2575	117	44%	36%	20%	33%	53%	14%	25%	60%	16%	
Filipino	9,054	2637	104	22%	38%	40%	17%	56%	27%	12%	58%	30%	
Hispanic or Latino	50,720	2563	114	49%	33%	18%	35%	53%	12%	28%	59%	13%	
Black or African American	8,180	2542	113	56%	30%	14%	43%	49%	8%	33%	58%	10%	
White	81,789	2624	116	30%	35%	35%	20%	53%	27%	16%	55%	28%	
Two or more races	8,331	2624	121	30%	34%	36%	21%	51%	28%	16%	54%	30%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	1,376	2514	107	68%	24%	8%	48%	45%	6%	38%	55%	7%	
Asian	16,547	2634	120	26%	32%	42%	21%	50%	29%	14%	54%	32%	
Native Hawaiian or Other Pacific Islander	1,292	2525	108	60%	31%	9%	48%	48%	4%	35%	59%	6%	
Filipino	4,474	2594	107	36%	39%	25%	28%	57%	16%	19%	63%	18%	
Hispanic or Latino	174,911	2524	107	63%	28%	9%	46%	48%	6%	36%	58%	7%	
Black or African American	17,319	2491	106	73%	21%	5%	57%	40%	3%	44%	52%	4%	
White	28,008	2546	116	56%	30%	14%	38%	51%	11%	32%	57%	11%	
Two or more races	4,624	2538	117	58%	28%	14%	41%	50%	10%	34%	56%	10%	

Appendix 7.F: Student Completion Conditions

Note: Due to different data sources, the number of students in these tables may differ slightly from the total number of students in Appendix 7.A: Participation Rates. The data for Appendix 7.F were calculated based on the number of items a student answered. Some students who logged on to both the non–performance task and performance task (PT) portions but did not answer questions may not be included. Participation rates in Appendix 7.A were based on the final P2 data that included all cases.

Table 7.F.1 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Student Completion Conditions

	If the Student:	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
		N	N	N	N	N	N	N
English Language Arts/Literacy	1. Logged on to both computer adaptive test (CAT) and PT, but answered no items	0	0	0	0	1	0	1
	2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	16	18	21	25	28	50	51
	3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	112	87	85	133	99	148	394
	4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	817	243	313	509	541	527	2,255
	5. Completed both CAT and PT	456,096	472,698	463,595	458,552	456,544	449,956	431,808
	6. Did not log on to both CAT and PT—not tested medical emergency (NTE)	16	26	25	23	32	41	38
	7. Did not log on to both CAT and PT—parent guardian exemption (PGE)	211	191	192	193	236	309	506
	8. Did not log on to both CAT and PT—other reasons	1,108	1,039	1,050	1,271	1,768	2,099	5,237
Mathematics	1. Logged on to both CAT and PT, but answered no items	0	0	2	0	0	0	2
	2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	14	15	7	12	11	20	21
	3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	98	78	115	113	122	163	435
	4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	145	110	145	241	318	361	449
	5. Completed both CAT and PT	458,905	474,793	465,554	460,435	458,084	451,240	431,899
	6. Did not log on to both CAT and PT—NTE (medical reasons)	15	17	20	24	23	28	33
	7. Did not log on to both CAT and PT—PGE	109	90	137	104	138	176	355
	8. Did not log on to both CAT and PT—other reasons	972	915	912	1,216	1,823	2,141	5,576

Table 7.F.2 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for English Language Arts/Literacy (ELA), Grade Three

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. English Learner (EL)	2. English Only (EO)	3. Reclassified Fluent English Proficient (RFEF)	4. Initially Fluent English Proficient (IFEP)	5. To Be Determined (TBD)	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	16	7	9	7	7	0	0	1	1	10	6
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	112	58	54	35	70	4	0	2	1	67	45
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	817	432	385	258	501	29	21	2	6	601	216
5. Completed both CAT and PT	456,096	233,134	222,962	132,742	265,891	39,988	16,528	246	701	290,523	165,573
6. Did not log on to both CAT and PT—NTE (medical reasons)	16	9	7	2	13	1	0	0	0	8	8
7. Did not log on to both CAT and PT—PGE	211	126	85	30	172	2	5	0	2	95	116
8. Did not log on to both CAT and PT—other reasons	1,108	585	523	419	568	36	18	29	38	757	351

Table 7.F.3 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	0	0	10	0	4	0	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	1	8	0	2	46	5	41	6	3
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	13	42	7	12	446	90	178	24	5
5. Completed both CAT and PT	2,334	40,056	2,153	9,562	252,574	25,176	105,109	16,203	2,929
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	1	8	1	5	1	0
7. Did not log on to both CAT and PT—PGE	3	4	0	4	70	11	103	14	2
8. Did not log on to both CAT and PT—other reasons	12	106	9	22	541	105	248	34	31

Table 7.F.4 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N								
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	18	13	5	8	9	0	1	0	0	12	6
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	87	53	34	24	57	2	0	3	1	54	33
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	243	128	115	66	161	8	6	0	2	167	76
5. Completed both CAT and PT	472,698	241,497	231,201	122,576	269,317	61,373	18,578	197	657	301,609	171,089
6. Did not log on to both CAT and PT—NTE (medical reasons)	26	13	13	6	19	0	1	0	0	14	12
7. Did not log on to both CAT and PT—PGE	191	110	81	31	152	5	3	0	0	65	126
8. Did not log on to both CAT and PT—other reasons	1,039	557	482	401	518	39	16	22	43	717	322

Table 7.F.5 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	0	1	7	1	7	1	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	8	0	0	33	5	34	6	1
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	4	12	0	8	107	31	62	16	3
5. Completed both CAT and PT	2,453	41,565	2,195	10,773	262,319	25,958	108,765	15,930	2,740
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	13	2	7	3	0
7. Did not log on to both CAT and PT—PGE	2	5	0	4	64	11	96	8	1
8. Did not log on to both CAT and PT—other reasons	7	92	6	18	526	90	225	32	43

Table 7.F.6 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male	2. Female	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT, and answered at least one item for only CAT or PT	21	13	8	3	17	1	0	0	0	14	7
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	85	52	33	22	59	1	1	0	2	45	40
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	313	153	160	71	200	33	6	1	2	214	99
5. Completed both CAT and PT	463,595	235,826	227,769	96,869	260,461	86,956	18,621	178	510	292,480	171,115
6. Did not log on to both CAT and PT—NTE (medical reasons)	25	11	14	4	16	4	1	0	0	19	6
7. Did not log on to both CAT and PT—PGE	192	103	89	20	157	7	7	1	0	75	117
8. Did not log on to both CAT and PT—other reasons	1,050	624	426	387	545	56	11	18	33	733	317

Table 7.F.7 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	2	0	0	9	6	4	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	3	7	0	0	34	4	33	2	2
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	3	8	2	7	159	38	75	16	5
5. Completed both CAT and PT	2,406	41,768	2,291	11,175	254,059	25,611	109,209	14,803	2,273
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	1	1	14	1	7	1	0
7. Did not log on to both CAT and PT—PGE	2	4	0	1	58	7	102	13	5
8. Did not log on to both CAT and PT—other reasons	9	92	5	20	530	107	232	22	33

Table 7.F.8 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	25	14	11	7	16	1	0	1	0	14	11
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	133	77	56	34	78	17	1	2	1	98	35
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	509	284	225	134	284	71	13	3	4	355	154
5. Completed both CAT and PT	458,552	234,281	224,271	79,486	254,907	102,885	20,503	236	535	285,386	173,166
6. Did not log on to both CAT and PT—NTE (medical reasons)	23	12	11	3	18	2	0	0	0	13	10
7. Did not log on to both CAT and PT—PGE	193	104	89	16	162	9	6	0	0	73	120
8. Did not log on to both CAT and PT—other reasons	1,271	727	544	396	673	105	25	23	49	878	393

Table 7.F.9 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
If the Student:									
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	1	0	12	4	5	2	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	2	1	2	65	10	32	16	5
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	6	23	3	7	281	51	120	14	4
5. Completed both CAT and PT	2,440	42,561	2,334	11,760	246,935	25,730	110,303	13,623	2,866
6. Did not log on to both CAT and PT—NTE (medical reasons)	1	0	1	1	9	0	9	2	0
7. Did not log on to both CAT and PT—PGE	4	16	1	1	50	10	104	6	1
8. Did not log on to both CAT and PT—other reasons	11	99	12	22	649	139	269	35	35

Table 7.F.10 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	1	0	1	0	0	1	0	0	0	1	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	28	20	8	5	16	5	0	0	2	18	10
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	99	57	42	29	57	7	2	2	2	67	32
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	541	279	262	110	297	113	15	2	4	413	128
5. Completed both CAT and PT	456,544	233,213	223,331	63,993	251,492	118,206	22,000	232	621	280,675	175,869
6. Did not log on to both CAT and PT—NTE (medical reasons)	32	18	14	4	26	2	0	0	0	16	16
7. Did not log on to both CAT and PT—PGE	236	115	121	27	200	5	4	0	0	88	148
8. Did not log on to both CAT and PT—other reasons	1,768	964	804	500	1,013	161	23	27	44	1,299	469

Table 7.F.11 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	1	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	1	1	0	0	13	2	9	2	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	1	4	2	1	53	6	23	5	4
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	5	30	4	9	309	67	98	14	5
5. Completed both CAT and PT	2,454	42,303	2,203	12,429	244,372	25,882	111,451	12,634	2,816
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	16	2	13	1	0
7. Did not log on to both CAT and PT—PGE	1	9	2	1	68	13	131	9	2
8. Did not log on to both CAT and PT—other reasons	21	70	18	19	961	193	384	44	58

Table 7.F.12 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	50	34	16	15	27	7	1	0	0	34	16
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	148	74	74	42	83	16	4	2	1	104	44
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	527	271	256	113	253	139	20	0	2	384	143
5. Completed both CAT and PT	449,956	229,245	220,711	54,838	245,114	128,193	21,048	188	575	275,591	174,365
6. Did not log on to both CAT and PT—NTE (medical reasons)	41	15	26	2	35	4	0	0	0	14	27
7. Did not log on to both CAT and PT—PGE	309	144	165	24	240	38	7	0	0	113	196
8. Did not log on to both CAT and PT—other reasons	2,099	1,237	862	531	1,178	272	50	24	44	1,563	536

Table 7.F.13 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	3	0	0	27	9	8	2	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	5	2	1	80	18	30	10	2
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	6	27	2	7	322	47	97	12	7
5. Completed both CAT and PT	2,553	41,088	2,333	12,483	241,179	26,582	109,637	11,612	2,489
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	3	0	0	16	1	20	1	0
7. Did not log on to both CAT and PT—PGE	2	15	0	4	87	15	161	23	2
8. Did not log on to both CAT and PT—other reasons	30	103	17	26	1,154	258	403	66	42

Table 7.F.14 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	1	1	0	0	1	0	0	0	0	0	1
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	51	38	13	8	31	8	3	1	0	34	17
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	394	207	187	79	230	61	20	0	4	253	141
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	2,255	1,223	1,032	350	1,150	602	139	5	9	1,539	716
5. Completed both CAT and PT	431,808	219,881	211,927	39,057	237,821	120,415	33,766	215	534	248,047	183,761
6. Did not log on to both CAT and PT—NTE (medical reasons)	38	17	21	4	30	2	2	0	0	19	19
7. Did not log on to both CAT and PT—PGE	506	245	261	20	402	58	26	0	0	174	332
8. Did not log on to both CAT and PT—other reasons	5,237	2,837	2,400	987	2,956	1,000	254	5	35	3,599	1,638

Table 7.F.15 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	1	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	1	30	6	13	0	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	3	10	8	6	227	35	95	6	4
4. Logged on to both CAT and PT, answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	24	125	11	43	1,339	214	422	63	14
5. Completed both CAT and PT	2,538	39,916	2,280	13,504	225,244	25,501	109,921	11,138	1,766
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	2	1	0	17	2	14	2	0
7. Did not log on to both CAT and PT—PGE	3	26	2	7	124	26	291	25	2
8. Did not log on to both CAT and PT—other reasons	37	233	30	69	2,927	632	1,142	125	42

Table 7.F.16 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	14	11	3	2	9	0	1	1	1	9	5
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	98	54	44	32	61	2	0	0	3	63	35
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	145	67	78	37	96	6	2	2	2	111	34
5. Completed both CAT and PT	458,905	234,625	224,280	134,927	266,009	39,995	16,534	463	977	292,284	166,621
6. Did not log on to both CAT and PT—NTE (medical reasons)	15	7	8	4	8	1	1	0	1	11	4
7. Did not log on to both CAT and PT—PGE	109	64	45	23	79	3	1	1	2	46	63
8. Did not log on to both CAT and PT—other reasons	972	535	437	272	602	37	27	14	20	679	293

Table 7.F.17 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	7	0	6	0	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	1	2	0	3	45	6	31	7	3
4. Logged on to both CAT and PT and answered at least one PT item and at least 10 CAT items, but did not answer specified minimum number of items	0	7	2	5	72	17	36	5	1
5. Completed both CAT and PT	2,350	40,772	2,158	9,620	253,963	25,208	105,437	16,223	3,174
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	1	8	1	4	0	1
7. Did not log on to both CAT and PT—PGE	0	4	0	1	42	6	48	6	2
8. Did not log on to both CAT and PT—other reasons	13	44	8	12	490	119	223	37	26

Table 7.F.18 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four

If the Student:	Gender			English Language Fluency						Economic Status		
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged	
	N	N	N	N	N	N	N	N	N	N	N	
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	15	6	9	7	7	0	0	0	1	10	5	
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	78	43	35	13	61	0	1	3	0	41	37	
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	110	63	47	31	68	7	3	0	1	71	39	
5. Completed both CAT and PT	474,793	242,518	232,275	124,494	269,032	61,340	18,585	388	954	302,964	171,829	
6. Did not log on to both CAT and PT—NTE (medical reasons)	17	8	9	6	11	0	0	0	0	9	8	
7. Did not log on to both CAT and PT—PGE	90	55	35	15	72	2	0	0	1	29	61	
8. Did not log on to both CAT and PT—other reasons	915	517	398	207	587	59	22	11	29	625	290	

Table 7.F.19 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	7	1	5	0	2
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	3	0	0	20	7	42	4	2
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	0	7	0	0	62	7	29	5	0
5. Completed both CAT and PT	2,456	42,174	2,202	10,836	263,379	25,959	108,884	15,919	2,984
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	7	1	7	1	0
7. Did not log on to both CAT and PT—PGE	2	6	0	1	21	6	54	0	0
8. Did not log on to both CAT and PT—other reasons	8	58	8	13	445	96	223	39	25

Table 7.F.20 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	2	2	0	0	2	0	0	0	0	0	2
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	7	4	3	2	5	0	0	0	0	5	2
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	115	71	44	28	77	5	0	3	2	73	42
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	145	87	58	28	100	12	2	1	2	81	64
5. Completed both CAT and PT	465,554	236,856	228,698	98,671	260,228	86,967	18,625	328	735	293,804	171,750
6. Did not log on to both CAT and PT—NTE (medical reasons)	20	12	8	2	14	3	1	0	0	11	9
7. Did not log on to both CAT and PT—PGE	137	77	60	23	108	3	1	1	1	56	81
8. Did not log on to both CAT and PT—other reasons	912	517	395	201	597	66	20	6	22	643	269

Table 7.F.21 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	1	0	1	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	1	1	2	0	2	1	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	2	5	0	2	44	10	41	3	8
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	2	5	0	2	70	14	43	7	2
5. Completed both CAT and PT	2,399	42,313	2,295	11,230	255,123	25,605	109,306	14,798	2,485
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	1	1	8	0	7	1	1
7. Did not log on to both CAT and PT—PGE	2	6	0	1	36	7	71	11	3
8. Did not log on to both CAT and PT—other reasons	12	33	5	17	438	103	244	32	28

Table 7.F.22 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N								
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	12	8	4	2	6	3	0	0	1	11	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	113	72	41	42	59	6	0	3	3	71	42
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	241	136	105	57	143	33	7	1	0	166	75
5. Completed both CAT and PT	460,435	235,291	225,144	81,250	254,671	102,851	20,515	391	757	286,578	173,857
6. Did not log on to both CAT and PT—NTE (medical reasons)	24	13	11	4	14	5	1	0	0	16	8
7. Did not log on to both CAT and PT—PGE	104	56	48	6	88	4	0	1	5	35	69
8. Did not log on to both CAT and PT—other reasons	1,216	727	489	270	745	148	22	7	24	872	344

Table 7.F.23 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	7	2	1	2	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	2	11	0	2	55	6	28	6	3
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1	8	0	4	118	29	68	10	3
5. Completed both CAT and PT	2,447	43,110	2,345	11,800	247,885	25,686	110,424	13,635	3,103
6. Did not log on to both CAT and PT—NTE (medical reasons)	1	0	0	1	13	0	9	0	0
7. Did not log on to both CAT and PT—PGE	3	4	0	1	25	9	56	3	3
8. Did not log on to both CAT and PT—other reasons	9	39	9	18	660	165	265	35	16

Table 7.F.24 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
	N	N	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	11	6	5	2	9	0	0	0	0	6	5
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	122	66	56	34	62	17	2	4	3	89	33
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	318	176	142	59	182	57	11	2	7	230	88
5. Completed both CAT and PT	458,084	234,046	224,038	65,672	251,038	118,122	21,988	390	874	281,758	176,326
6. Did not log on to both CAT and PT—NTE (medical reasons)	23	11	12	2	18	2	0	0	1	11	12
7. Did not log on to both CAT and PT—PGE	138	69	69	21	105	7	4	1	0	50	88
8. Did not log on to both CAT and PT—other reasons	1,823	1,021	802	391	1,116	228	40	20	28	1,344	479

Table 7.F.25 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	8	2	1	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	3	1	4	67	10	28	5	4
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	5	11	3	2	187	34	60	10	6
5. Completed both CAT and PT	2,451	42,780	2,218	12,466	245,237	25,831	111,448	12,615	3,038
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	10	0	11	0	1
7. Did not log on to both CAT and PT—PGE	0	6	0	2	45	7	68	6	4
8. Did not log on to both CAT and PT—other reasons	21	54	14	16	990	208	420	54	46

Table 7.F.26 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight

If the Student	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. EL N	2. EO N	3. RFEP N	4. IFEP N	5. TBD N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	20	11	9	6	10	2	1	1	0	13	7
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	163	91	72	36	84	32	7	1	3	116	47
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	361	193	168	58	186	99	13	1	4	254	107
5. Completed both CAT and PT	451,240	229,975	221,265	56,332	244,608	128,118	21,036	313	833	276,467	174,773
6. Did not log on to both CAT and PT—NTE (medical reasons)	28	11	17	1	21	6	0	0	0	8	20
7. Did not log on to both CAT and PT—PGE	176	91	85	13	139	20	4	0	0	64	112
8. Did not log on to both CAT and PT—other reasons	2,141	1,280	861	413	1,310	321	70	10	17	1,581	560

Table 7.F.27 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	1	12	1	6	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	2	5	1	1	92	18	34	7	3
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1	18	2	6	212	38	68	12	4
5. Completed both CAT and PT	2,558	41,503	2,333	12,518	241,941	26,539	109,568	11,594	2,686
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	9	3	15	0	0
7. Did not log on to both CAT and PT—PGE	0	8	0	1	59	9	86	13	0
8. Did not log on to both CAT and PT—other reasons	25	73	18	25	1,169	243	482	69	37

Table 7.F.28 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven

If the Student:	Gender			English Language Fluency						Economic Status	
		1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
	All N	N	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	2	2	0	1	1	0	0	0	0	1	1
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	21	9	12	4	8	7	1	0	1	16	5
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	435	227	208	82	243	81	20	1	8	274	161
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	449	236	213	82	218	105	34	2	8	282	167
5. Completed both CAT and PT	431,899	220,135	211,764	39,775	237,160	120,360	33,697	238	669	248,269	183,630
6. Did not log on to both CAT and PT—NTE (medical reasons)	33	12	21	3	29	1	0	0	0	19	14
7. Did not log on to both CAT and PT—PGE	355	174	181	13	268	41	33	0	0	97	258
8. Did not log on to both CAT and PT—other reasons	5,576	3,013	2,563	908	3,172	1,150	308	9	29	3,740	1,836

Table 7.F.29 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven

	Ethnicity								
	1. American Indian/Alaska Native	2. Asian	3. Native Hawaiian/Other Pacific Islander	4. Filipino	5. Hispanic or Latino	6. Black or African American	7. White	8. Two or More Races	9. Unknown
If the Student:	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	1	0	0	1	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	1	13	2	3	1	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	6	12	7	7	239	42	104	8	10
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	2	33	0	4	264	46	85	12	3
5. Completed both CAT and PT	2,525	40,110	2,268	13,524	225,367	25,453	109,712	11,127	1,813
6. Did not log on to both CAT and PT—NTE (medical reasons)	1	1	1	0	10	2	15	3	0
7. Did not log on to both CAT and PT—PGE	2	53	2	2	88	10	175	22	1
8. Did not log on to both CAT and PT—other reasons	47	249	36	70	3,121	602	1,260	143	48

Chapter 8: Analyses

This chapter summarizes the item- and test-level statistics calculated for the California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Online Summative Assessments administered during the 2015–16 administration.

8.1. Background

There are five primary statistical analyses presented in this chapter:

1. Item Response Theory (IRT) Parameters
2. Omission and Completion Analyses
3. Conditional Exposure Analyses
4. Reliability Analyses
5. Analyses in Support of Validity Evidence

8.1.1 Summary of the Analyses

Each of these sets of analyses is presented in the body of the text and in the appendixes listed below. Please note that classical item analyses and differential item functioning (DIF) analysis are not presented because these analyses were performed by the Smarter Balanced Assessment Consortium during the 2013–14 field test administration (Smarter Balanced, 2016d).

1. **Item Response Theory (IRT) Parameters.** Appendix 8.A on page 332 presents summaries of item difficulty parameter estimates (b -values) and item discrimination parameter estimates (a -values) for all of the items in each assessment and separate summaries for each claim. Also presented for each test are conditional distributions of a -values and b -values for students at specified ability levels (scale-score intervals) and the a -values and b -values of all performance task (PT) items. For polytomous items, partial credit step values (d -values) are included.
2. **Omission and Completion Analyses.** Appendix 8.B on page 397 shows item parameter estimate summaries for items with different omit rates. Statistics are shown for the PTs and computer adaptive test (CAT) items in each test. The item parameter estimates are from the field test calibrations. The purpose of these analyses is to examine whether the items with high omit rates are systematically more difficult or more discriminating than items with low omit rates. Appendix 8.B also shows the completion rates for each test.
3. **Conditional Exposure Analyses.** Appendix 8.C on page 403 shows, for each assessment, distributions (in intervals) of item exposure frequency for all of the items in that test, for the items in each claim, and for items at different difficulty levels.
4. **Reliability Analyses.** Appendix 8.D, beginning on page 420, presents results of the reliability analyses of test scores and claim scores for the population as a whole and for selected subgroups. Table 8.2 presents the reliability results for the population as a whole. Table 8.3 shows the conditional standard errors of measurement (CSEMs) at achievement-level scale score cuts.

Tables in Appendix 8.E, starting on page 461, present CSEM distributions for the total test scores. Figure 8.E.1 through Figure 8.E.14, which start on page 465, present plots of CSEMs conditional on scale scores. Table 8.4 presents the mean CSEM for each achievement level. Tables in Appendix 8.F, starting on page 473, present statistics

describing the accuracy and consistency of the performance classifications. Interrater reliability statistics for the human-scored items and statistics showing the agreement of artificial intelligence (AI) scoring with human scoring are shown in Appendix 8.G, beginning on page 480, for the constructed-response (CR) items.

5. **Analyses in Support of Validity Evidence.** Validity evidence related to the CAASPP online summative assessments is discussed in subsection 8.6 on page 320. Appendix 8.H, starting on page 524, presents distributions of the time required to complete the total test for each content area, including both the PT and CAT portions. Table 8.5, on page 329, and the tables in Appendix 8.I, beginning on page 535, present correlations between English language arts/literacy (ELA) and mathematics scores calculated for all students and for demographic subgroups of interest.

8.1.2 Samples for the Analyses

Analyses were conducted on the sample of student data received during the last “daily feed” on October 5, 2016, which comprised the full CAASPP online summative assessments’ data for the majority of tests. All valid student records were used for the technical report analyses. Student records that were flagged as “not scored” or students who were enrolled in a different grade than the one in which they were tested were not included.

8.2. IRT Parameter Values

The purpose of the IRT calibration and scaling is to place item difficulty and student ability estimates onto a common theta scale in each content area. The Common Core State Standards provide a foundation for developing Smarter Balanced assessments that support inferences concerning student changes in achievement (i.e., progress). One approach to modeling student progress across grades is to report scores on a common vertical scale. A vertical scale is a single scale for reporting scores on tests at different grade levels of the same content area. Its purpose is to report scores in a way that shows a student’s progress in a content area, from one grade level to the next. One key assumption with vertical scaling is that it is possible to make meaningful comparisons between scores on tests in the same content area at different grade levels.

Item parameters used in the CAASPP online summative assessments were estimated and scales were constructed during the Smarter Balanced field test administration. Item parameter calibration software, model fit, and evaluation of vertical scale anchor items are not described in the current technical report. For more detailed information on these and other psychometric topics, see Chapter 6 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016d).

Unidimensional IRT models were used to calibrate items within each content area. Based on the results from the psychometric analyses occurring during the pilot and field test administrations, the Smarter Balanced Assessment Consortium chose the two-parameter logistic (2PL) model (Birnbaum, 1968) for calibration of the dichotomous items and the generalized partial credit model (GPCM; Muraki, 1992) for calibration of polytomous items. The formula associated with these models is provided in Equation 7.1 on page 146.

Chapter 9 of the *2013–14 Smarter Balanced Technical Report* provides more detailed information about how Smarter Balanced assessments were calibrated and both horizontally and vertically scaled through IRT processes (Smarter Balanced, 2016d).

8.2.1 Summary Information

Parameter estimates for the 2015–16 operational items were obtained from the 2013–14 Smarter Balanced field test analyses. Summary statistics of these parameter estimates are calculated to show the difficulty and discrimination of the overall test, as well as the difficulty and discrimination of claims; distributions of b -value and a -value parameter estimates are created to provide more detail. The step parameters for all polytomous items are also provided.

Appendix 8.A on page 332 provides summary statistics describing the distributions of item difficulty and discrimination parameter estimates at each test level from the field test calibration and scaling. Note that only operational items from the item pool administered as part of the CAASPP administration are included in this analysis. For more information regarding the IRT methodology used by Smarter Balanced to form the basis for new item development, test equating, and computer-adaptive testing, refer to Chapter 9 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced 2016d).

8.2.1.1 All Items

Table 8.A.1 through Table 8.A.14 present univariate statistics (mean, standard deviation, minimum, and maximum) of the scaled IRT a -values. The results for each test are presented for all items in the test and for the items in each claim. Table 8.A.15 through Table 8.A.28 present the univariate statistics of the IRT b -values for all items in the test and for the items in each claim.

8.2.1.2 CAT Items

Table 8.A.29 through Table 8.A.42 show the distributions of CAT item a -values across 10 intervals of the ability scale, conditional on 6 intervals of student ability indicated by ranges of the overall test scale score. Table 8.A.43 through Table 8.A.56 present the distributions of CAT items across 16 intervals of b -values conditional on 6 intervals of overall test scale scores. The mode of each distribution is in bold text.

8.2.1.3 Performance Task Items

Table 8.A.57 through Table 8.A.70 show the conditional distribution of a -values for the PT items. Table 8.A.71 through Table 8.A.84 show the conditional distribution of b -values for the PT items. Parameter values of all PT items are presented in Table 8.A.85 through Table 8.A.98.

For Table 8.A.29 through Table 8.A.84, the scale score intervals range from the lowest one hundred scale scores containing the lowest obtainable scale score (LOSS) to the highest one hundred scale scores containing the highest obtainable scale score (HOSS) for that test. For example, “2100–2199” to “2600–2699” for ELA in grade three includes the LOSS of 2114 and the HOSS of 2623.

8.3. Omission and Completion Analyses

8.3.1 Omit Rates

When a question has been seen but has not been answered (left blank) in the middle of an administered assessment wherein the student has viewed and responded to successive items, that response is regarded as an “omit.” When a question has not been answered (left blank) and the student did not view any of the successive items, that response is regarded as “not seen.”

The percentage of students leaving an item blank can indicate a problem with the time provided for the test or with some feature of the item. If students have an adequate amount of testing time, at least 95 percent of the students should attempt to answer each item. The CAASPP online summative assessments are designed to be untimed, allowing all students to respond to all of the items. Because there is no time limit for the test, a percentage of blank responses that is greater than five percent for any single item may be an indication of a problem with an item.

Table 8.B.1 and Table 8.B.2 present the summary of omit rates, including the number of items in each omit rate interval, for the PT and CAT items respectively. The tables also contain the average difficulty and discrimination for these items. As shown, the overall omit rates for CAT items across contents and grades are very low; no items have omit rates higher than five percent.

8.3.2 Completion Rates

Completion rates indicate the proportion of students who failed to complete a certain number of items in either the CAT or PT portion of the test. A student's record for the CAT portion is considered incomplete if the student completed fewer than 10 CAT items. A student's record for the PT portion is considered incomplete if the student did not complete at least one PT item. A student's record for the test is not considered complete unless the student completed at least 10 CAT items and at least one PT item. A student's record for a claim is not considered complete unless the student completed at least the specified minimum number of items for that claim (Table 8.1). The percentages of students completing each test, each claim on the test, and each of the two parts of the test are presented in Table 8.B.3.

Table 8.1 Minimum Number of Items for Claims

Content Area	Claim	Grades 3–5	Grades 6–8	Grade 11
ELA	1	14	13	15
	2	12	12	12
	3	8	8	8
	4	8	8	8
Mathematics	1	17	16	19
	2	8	8	8
	3	8	8	8

8.4. Conditional Exposure Rates of Items

Item exposure refers to the frequency of item administration in the student population. Items that are selected too frequently may become known to students in advance of the test administration and, as a result, fail to perform as expected. Table 8.C.1 and Table 8.C.2 show, for each test and for each claim, how many items were not administered. These tables also present the numbers of items in five intervals of exposure with the lowest being 1 to 100 student testing events and the highest being greater than or equal to 3,000 student testing events.

Conditional exposure control refers to the establishment of exposure controls to be applied to the items at a specified level of difficulty (*b*-value). These controls become necessary when items at a particular level of difficulty are especially likely to be used too often. For example, it may be necessary to limit item exposure for very difficult items. Table 8.C.3

through Table 8.C.16 present the same information as Table 8.C.1 and Table 8.C.2, computed separately for items in several intervals of difficulty.

8.5. Reliability Analyses

There are many definitions of reliability (Haertel, 2006) that have their genesis in classical test theory and a variety of methods that can be used to estimate reliability.

The general concept of reliability concerns the extent to which the test scores measure a *particular construct* consistently. The variance in the distribution of test scores—essentially, the differences among individuals—is partly due to factors that are consistent over permissible differences in the testing process (e.g., different items or tasks, different raters) and partly due to factors that are not consistent. The measure of variation associated with the first kind of differences—consistent differences—is called “true variance”; the measure of variation associated with the remaining differences—those that operate essentially at random—is called “error variance.” Reliability is the proportion of total variance that is due to true variance. The standard error of measurement (SEM) is a statistic that characterizes the error variance.

This subsection documents the reliability and SEM statistics that are used for CAASPP.

8.5.1 Sample for Reliability Analyses

The reliability analyses performed for CAASPP require that the sample be screened beyond the requirements listed in subsection 8.1.2 *Samples for the Analyses*. When students’ ability estimates on the overall test or a claim are lower than the lowest obtainable theta (LOT) for that test, they are assigned the LOSS for that test. When students’ ability estimates on the overall test or a claim are higher than the highest obtainable theta (HOT) for that test, they are assigned the HOSS for that test. When a student is assigned to either the LOSS or HOSS, a measure of his or her true performance is not known as it would be lower than LOSS or higher than HOSS, which ultimately impacts any reliability analyses. Because of this, the reliability analyses in this section further exclude students assigned the LOSS or HOSS from the student data used for general analyses that was described at the beginning of this chapter. (Refer to subsection 7.4.1.2 *Scale Scores for the Total Assessment* on page 150 for the definitions of LOSS/LOT and HOSS/HOT.)

8.5.2 Marginal Reliability

In a specified population of students, the reliability of test scores, X , is defined as the proportion of the test score variance that is attributable to true differences in student abilities and is sometimes operationalized as the correlation between scores on two replications of the same testing procedure, $\rho_{XX'}$. Reliability coefficients may range from 0 to 1. The higher the reliability coefficient for a set of scores, the more likely students would be to obtain very similar scores if they were retested. In applied settings, the requirement of repeated administrations is impractical, and methodologies estimating reliability from relationships among student performances on items within a single test form are often used. Coefficient alpha (Cronbach, 1951) is among the most common of these methodologies. These reliability indices are not directly applicable to CAT because each student takes a different test form.

An IRT-based approach called marginal reliability (Green, Bock, Humphreys, Linn, & Reckase, 1984) can be used to estimate the reliability of CAT scores. The estimates of reliability coefficients reported here are for item response model-based ability estimates.

This reliability coefficient for theta estimates, $\rho_{\theta\theta'}$, is defined, based on a single test administration, as shown in Equation 8.1:

$$\rho_{\theta\theta'} = 1 - \frac{M_{SEM_{\theta}^2}}{s_{\theta}^2} \quad (8.1)$$

where,

s_{θ}^2 is the measure of variance in ability estimates,

θ is an ability estimate, and

$M_{SEM_{\theta}^2}$ is an average of the squared CSEM (i.e., error variances) at each value of the ability estimate.

8.5.3 Standard Error of Measurement (SEM)

The SEM provides a measure of score instability in the scale score metric. The SEM is the square root of the “error variance” in the scores (i.e., the standard deviation of the distribution of the differences between students’ observed scores and their true scores). The SEM is calculated by:

$$SEM_{Scaled} = a \times s_{\theta} \sqrt{1 - \rho_{\theta\theta'}} \quad (8.2)$$

where,

$\rho_{\theta\theta'}$ is the reliability estimated in Equation 8.1,

s_{θ} is the standard deviation of the total test θ score, and

a is the slope of the scaling constants that transform θ to the reporting scale.

The SEM is useful in determining the confidence interval (CI) that likely captures a student’s true score. A student’s true score can be thought of as the score a student would earn over an infinite number of independent administrations of the test. Across those administrations, approximately 95 percent of CIs from a student’s observed score of -1.96 SEMs to that student’s observed score of $+1.96$ SEMs would contain a student’s true score (Crocker & Algina, 1986). For example, if a student’s observed score on a given test equals 2440 points, and the SEM equals 23, one can be 95 percent confident that the student’s true score lies between 2395 and 2485 points (2440 ± 45).

Table 8.2 gives the total score reliability for theta, and the mean, standard deviation, and SEM of both thetas and scale scores for each of the 14 tests, along with the number of student results upon which those analyses are performed. Note that in the case of the total test reliability, the reliability is for the whole test on the theta score scale; it is calculated using the total test theta scale score of individual students.

In Table 8.2, only students who finished at least 10 CAT items and 1 PT item are included in the analysis.

Table 8.2 Summary Statistics for Scale Scores and Theta Scores, Reliability, and SEMs

Content Area	Grade	Number of Students	Reliability	Scale Score			Theta Score		
				Mean	SD	SEM	Mean	SD	SEM
ELA	3	452,842	0.92	2412	88	25.20	-1.12	1.03	0.29
	4	467,245	0.92	2452	94	26.67	-0.66	1.09	0.31
	5	457,735	0.92	2493	95	26.01	-0.18	1.10	0.30
	6	453,442	0.92	2517	95	27.54	0.11	1.10	0.32
	7	449,471	0.92	2539	97	28.08	0.36	1.13	0.33
	8	443,942	0.92	2557	96	27.51	0.57	1.12	0.32
	11	420,966	0.91	2595	106	31.49	1.01	1.24	0.37
Mathematics	3	452,949	0.94	2424	79	19.53	-1.14	0.99	0.25
	4	469,153	0.94	2459	80	19.88	-0.71	1.01	0.25
	5	460,211	0.93	2483	89	23.31	-0.40	1.12	0.29
	6	450,950	0.93	2509	102	25.94	-0.08	1.28	0.33
	7	451,038	0.94	2525	107	26.69	0.13	1.36	0.34
	8	439,260	0.91	2539	113	32.87	0.31	1.42	0.41
	11	425,053	0.92	2568	120	33.98	0.67	1.51	0.43

8.5.4 Intercorrelations, Reliabilities, and SEMs for Claims Scores

For each test, theta scores and scale scores are computed for claims. As is described on page 152 in *Chapter 7: Scoring and Reporting*, a claim consists of a group of items with related content standards.

Intercorrelations, reliability estimates, and theta-based SEMs for the claims are presented in Table 8.D.1 through Table 8.D.14, starting on page 420. The reliability estimates across claims vary significantly according to the number of items as well as the types of content standards that are included in each claim. The standards of claims can be found in the Smarter Balanced blueprints that are provided in Appendix 2.A on page 23.

8.5.5 Subgroup Reliabilities and SEMs

The reliabilities of the total test scores and the claim scores are examined for various subgroups of the student population. The subgroups included in these analyses are defined by gender, economic status, for special education services status, accommodations for students with special education services, English-language fluency, primary ethnicity, migrant status. The reliability analyses are also presented by primary ethnicity within economic status.

Reliabilities and theta-based SEMs for the total test scores and the claim scores are reported for each subgroup analysis. Table 8.D.15 through Table 8.D.24 present the overall test reliabilities for subgroups defined by student gender, economic status, special education services status, English-language fluency, primary ethnicity, and migrant status. Table 8.D.25 through Table 8.D.30 present the reliabilities for the subgroups based on primary ethnicity within economic status.

The next set of tables, Table 8.D.31 through Table 8.D.100, present the claim-level reliabilities for the subgroups. Table 8.D.31 through Table 8.D.44 present the claim-level reliabilities for the subgroups based on gender, economic status, and migrant status. Table 8.D.45 through Table 8.D.58 show the same analyses for the subgroups based on special education services status and English-language fluency. Table 8.D.59 through Table 8.D.72 present results for the subgroups based on primary ethnicity of the students.

The last set of tables, Table 8.D.73 through Table 8.D.100, present the claim-level reliabilities for the subgroups based on primary ethnicity within economic status. Note that the reliabilities are reported only for samples that are comprised of 11 or more students. Also, in some cases, score reliabilities are not estimable and are presented in the tables as a hyphen. The reliability estimates for some of the subgroups are negative due to small variation in scale scores and large CSEMs for extreme score values. These negative reliabilities and their associated SEMs are presented as “N/A.”

8.5.6 Conditional Standard Errors of Measurement (CSEMs)

As part of the IRT-based scoring procedure, CSEMs are produced. CSEMs for scale scores are based on IRT and are estimated as a function of measured ability. The CSEMs are typically smaller in scale score units toward the center of the scale in the test metric where more items are located and are usually larger at the extreme ends of the scale, because there is no way to know how much better than that a student really is in the case of an extremely high score, or how much worse than that a student really is in the case of an extremely low score, given the difficulty of content administered to the student. A student’s CSEM under the IRT framework is equal to the reciprocal of the square root of the test information function (TIF):

$$\text{CSEM}(SS) = a \times \frac{1}{\sqrt{I(\theta)}} \quad (8.3)$$

where,

$$SS = a \times \theta + b, \text{ and}$$

$\text{CSEM}(SS)$ is the conditional standard error of measurement on scale score scale, and

$I(\theta)$ is the test information function at ability level θ , as is shown in equations 7.8 to 7.11, which start on page 154.

The statistic is multiplied by a , where a is the scaling factor needed to transform theta to the scale score metric. The intercept to transform theta to the scale score is denoted as b . The value of a and b vary by content area and is shown in equations 7.5 and 7.6 for ELA and mathematics, respectively.

Because the Smarter Balanced assessments utilize item pattern scoring, each response pattern can have a unique ability estimate and CSEM. Some response patterns have more uncertainty or random error associated with ability estimates at the upper or lower ends of the reporting scale, where items administered to students may not be well-aligned to a student’s true ability level. For example, items available for administration to a particularly high-performing student may not be difficult enough. Under these circumstances, while a student’s scale score will be high, the CSEM may not be well estimated.

In order to reduce the level of uncertainty, the CSEMs are averaged at each scale score point. In addition, the uncertainty associated with CSEMs across the entire ability continuum, including the extreme ends, could be further reduced by loglinear smoothing. Loglinear smoothing is implemented by using loglinear models to replace a discrete empirical dataset with a discrete dataset that preserves some features of the observed data without the irregularities that are attributable to sampling. Loglinear models can preserve a variety of different features in observed data with a relatively small number of parameters (Moses, von Davier, & Casabianca, 2004). Loglinear smoothing is implemented through

LOGLIN, which is a function of an open-source software *KE* (Educational Testing Service [ETS], 2011).

The average CSEMs at each scale score point are estimated based on the 2014–15 Smarter Balanced Summative Assessment data for all students (Smarter Balanced, 2016e). Given the stability across the 2014–15 and 2015–16 California student populations and the stability of the item pool, the relationship between the reporting scale and CSEMs should remain stable across administration years. The stability of this relationship helps facilitate the production of CSEMs prior to the test administration instead of after the completion of all testing windows.

CSEMs vary across the θ scale. When a test has cut scores, it is important to provide CSEMs at those cut scores. Table 8.3 presents the scale score CSEMs at the lowest score required for a student to be classified in the *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded* achievement levels for each test.

Table 8.3 Scale Score CSEM at Performance-level Cut Points

Content Area	Grade	Standard Nearly Met		Standard Met		Standard Exceeded	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
ELA	3	2367	24	2432	22	2490	23
	4	2416	25	2473	24	2533	25
	5	2442	24	2502	24	2582	25
	6	2457	27	2531	25	2618	26
	7	2479	27	2552	26	2649	26
	8	2487	27	2567	26	2668	27
	11	2493	32	2583	29	2682	28
Mathematics	3	2381	19	2436	17	2501	17
	4	2411	20	2485	17	2549	17
	5	2455	23	2528	19	2579	18
	6	2473	25	2552	21	2610	20
	7	2484	30	2567	23	2635	20
	8	2504	32	2586	26	2653	22
	11	2543	35	2628	27	2718	22

Table 8.4 presents the average CSEMs in each achievement level by content area and grade level. The CSEMs tended to be smaller in the achievement levels of *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded* than *Standard Not Met* for all tests. The pattern of average CSEMs is similar for the tests in each content area.

Table 8.4 Mean Conditional Standard Errors of Scale Scores

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	27.50	22.80	22.00	23.74
	4	28.57	25.00	24.47	25.83
	5	27.54	24.00	24.58	26.45
	6	31.58	26.01	25.45	27.27
	7	31.00	26.16	25.62	28.08
	8	30.51	26.28	26.06	27.88
	11	36.31	30.04	28.05	29.91

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
Mathematics	3	22.23	17.96	17.00	17.77
	4	23.28	18.14	17.00	17.64
	5	29.10	20.83	18.24	17.95
	6	33.31	23.14	20.59	20.90
	7	40.95	26.19	21.44	20.58
	8	39.70	29.00	24.08	21.93
	11	48.18	30.90	24.79	22.47

Scale score CSEM distributions are shown in Table 8.E.1 through Table 8.E.14, which start on page 461. The plots of the CSEMs conditional for scale scores are also presented in Figure 8.E.1 through Figure 8.E.14, which start on page 465. In the figures, the vertical axis is defined as the CSEMs and the horizontal axis is designated as scale scores, which is a common metric for tests within the same content area. Each data point represents an individual student. Typically, for fixed-form tests, the pattern of the CSEMs tends to be U-shaped such that the plotted values of CSEMs for the middle scale scores tend to be lower than those for extreme scale scores. An impact of the CAT, in relation to a fixed-form test, is the attenuation of the U-shaped relationship between CSEMs and scale scores.

8.5.7 Decision Classification Analyses

The accuracy of decisions (classifications) based on specified cut scores for the CAASPP online summative assessments is evaluated as a measure of the reliability of achievement-level classifications. Every discrete test administration will result in some errors in the classification of students. When an assessment uses achievement levels as the primary method to report test results, accuracy and consistency of decisions become key indicators about the quality of the assessment.

The methodology used for estimating the reliability of classification decisions described in Livingston and Lewis (1995) is implemented using the ETS proprietary computer program RELCLASS-COMP (Version 4.14).

Decision accuracy describes the extent to which students are classified in the same way as they would be on the basis of the average of all possible forms of a test. Decision accuracy answers the following question: How closely does the actual classification of test takers, based on their single-form scores, agree with the classification that would be made on the basis of their true scores, if their true scores are somehow known?

Decision consistency describes the extent to which students are classified in the same way as they would be on the basis of a single form of a test other than the one for which data are available. Decision consistency answers the following question: What is the agreement between the classifications based on two nonoverlapping, equally difficult forms of the test? The input information that RELCLASS-COMP requires includes the maximum and minimum possible scores, the observed score distribution, and the reliability coefficient that is estimated for the same group of students.

In each case, the estimated proportion of classifications with exact agreement is the sum of the entries in the diagonal of the contingency table representing the multivariate distribution. Reliability of classification at a cut score is estimated by combining the multivariate distribution at any particular cut score into a two-by-two table indicating whether the students are above or below the cut score and summing the entries in the diagonal. Figure 8.1 and Figure 8.2 present the two scenarios.

		Decision made on the all-forms average	
		Does not reach an achievement level	Reaches an achievement level
True status on all-forms average	Does not reach an achievement level	Correct classification	Misclassification
	Reaches an achievement level	Misclassification	Correct classification

Figure 8.1 Decision Accuracy for Reaching an Achievement Level

		Decision made on a hypothetical alternate form	
		Does not reach an achievement level	Reaches an achievement level
Decision made on the form taken	Does not reach an achievement level	Correct classification	Misclassification
	Reaches an achievement level	Misclassification	Correct classification

Figure 8.2 Decision Consistency for Reaching an Achievement Level

For each test, the classification consistency and accuracy table includes estimates of the proportion of:

- overall consistent and accurate classifications, and
- consistency and accuracy around all cut scores.

The results of these analyses are presented in Table 8.F.1 through Table 8.F.14 in Appendix 8.F, starting on page 473.

Each table includes the contingency tables for both accuracy and consistency of the various achievement-level classifications. The proportion of students being accurately classified is determined by summing across the diagonals of the upper tables. The proportion of consistently classified students is determined by summing the diagonals of the lower tables. The classifications are collapsed to *Standard Not Met* and *Standard Nearly Met* versus *Standard Met* and *Standard Exceeded*, which are the critical categories for accountability.

8.5.8 Interrater Agreement

To monitor the consistency of ratings assigned to students' responses by raters, approximately 10 percent of the CRs received a second rating. The two sets of ratings are used to compute statistics describing the consistency (or reliability) of the ratings. This interrater consistency is described in three ways:

1. Percentage agreement between two raters,
2. Cohen's Kappa, and
3. Quadratic-weighted Kappa coefficient.

8.5.8.1 Percentage Agreement

Percentage agreement between two raters is frequently defined as the percentage of exact score agreement and adjacent score agreement. The percentage of exact score agreement is a stringent criterion, which tends to decrease with increasing numbers of item score points. The fewer the item score points, the fewer degrees of freedom on which two raters can vary, and the higher the percentage of agreement.

8.5.8.2 Kappa

Interrater reliability or consistency is an indicator of homogeneity and is most frequently measured using an intraclass correlation (ICC) which incorporates the exact agreement between raters over and above that expected by chance. The index is defined as the following:

$$ICC = r_1 = (mS_{\text{between}} - mS_{\text{within}})/(mS_{\text{between}} + [k - 1]mS_{\text{within}}) \quad (8.4)$$

where,

mS_{between} is the mean-square estimate of between-subjects variance, and
 mS_{within} is the mean-square estimate of within-subjects variance.

For categorical ratings, Cohen's Kappa statistic (1960) has the properties of an ICC and can be used for interrater reliability. Cohen's Kappa is therefore used as a primary indicator of the interrater reliability of the human-scored items. In addition, the percentages of ratings on which the raters are in exact agreement or differ by just one point are computed.

8.5.8.3 Quadratic-Weighted Kappa

Quadratic-weighted Kappa is used because Kappa does not take into account the degree of disagreement between raters. It is a generalization of the simple Kappa coefficient using weights to quantify the relative difference between categories. The range of the quadratic weighted Kappa is from 0.0 to 1.0, with perfect agreement being equal to 1.0.

For a human-scored item with m categories, one can construct an $m \times m$ rating table with scores provided by two raters A and B. Suppose m is the maximum obtainable score for each item, n_{ij} is the number of responses for which rater A's score = i and rater B's score = j , n_{i+} is the number of responses for which rater A = i , n_{+j} is the number of responses for which rater B = j , and n_{++} is the number of all responses from either rater A or rater B. The weighted Kappa coefficient is defined as:

$$K_{ij} = \frac{\left(\sum_{i=0}^m \sum_{j=0}^m w_{ij} \frac{n_{ij}}{n_{++}} \right) - \left(\sum_{i=0}^m \sum_{j=0}^m w_{ij} \frac{n_{i+}n_{+j}}{n_{++}^2} \right)}{1 - \left(\sum_{i=0}^m \sum_{j=0}^m w_{ij} \frac{n_{i+}n_{+j}}{n_{++}^2} \right)} \quad (8.5)$$

For quadratic weighted kappa, the weights are

$$w_{ij} = 1 - \frac{(i-j)^2}{m^2} \quad (8.6)$$

The interrater reliability analyses are performed on approximately 10 percent of the overall testing population randomly selected from the total population; those students' responses are scored by two raters. In some scoring rubrics, zero is a valid score for the responses but is not provided by a rater. Instead, a score of zero is assigned when the student attempted the writing task but did not provide a response. Responses with zero scores should not be included in the calculation of the agreement statistics for these items.

Table 8.G.1 through Table 8.G.14, which start on page 480 in Appendix 8.G, present the results of the interrater analyses and descriptive statistics of the ratings by the two raters on short-answer items, including the following:

- Number of score points in each item
- Number of raters for each round of rating
- Kappa
- Quadratic-weighted Kappa
- Percent of exact agreement
- Percent of adjacent agreement
- Mean of the item score
- Standard deviation of the item score

Table 8.G.15 through Table 8.G.20, which start on page 495, present the results of the interrater analyses on writing extended-response (WER) items. In addition to the statistics described above, the dimension name is also identified. Refer to *Chapter 7: Scoring and Reporting* of this report and the *Smarter Balanced Scoring Guide for Grades Three, Six, and Eleven: English/ Language Arts PT Full-Write Baseline Sets* (Smarter Balanced, 2014c) for scoring dimensions.

8.5.9 Agreement between AI and Human Scoring

In order to monitor the accuracy of the AI scoring engine, Measurement Incorporated, the CAASPP subcontractor scoring some of the CR items, conducts ongoing quality checks to ensure that the scoring models perform consistently. A description of these quality checks is provided in subsection 7.2.2. *Quality Control of Artificial Intelligence Scoring*, which starts on page 138. Two sets of ratings for the same item, one set from the AI scoring engine and the other set from human raters, are evaluated and compared. Table 8.G.21 through Table 8.G.34, which start on page 505, present the agreement statistics between AI and human scoring for short answer items for ELA and mathematics. Table 8.G.35 through Table 8.G.37, which start on page 520, present the agreement statistics between AI and human scoring for WER items. The dimension name is identified in the case of WER items. These tables include the following:

- Number of score points in each item
- Number of raters for each round of rating
- Kappa
- Quadratic-weighted Kappa
- Percent of exact agreement
- Percent of adjacent agreement

8.6. Validity Evidence

Validity refers to the degree to which each interpretation or use of a test score is supported by the accumulated evidence (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014; ETS, 2014). It constitutes the central notion underlying the development, administration, and scoring of a test and the uses and interpretations of test scores. Validation is the process of accumulating evidence to support each proposed score interpretation or use. This validation process does not rely on a single study or gathering only one type of evidence. Rather, validation involves multiple investigations and different kinds of supporting evidence (AERA, APA, & NCME, 2014; Cronbach, 1971; ETS, 2014; Kane, 2006). It begins with the test design and is implicit throughout the entire assessment process, which includes item development and field testing, analyses of items, test scaling and linking, scoring, reporting, and score usage.

In this subsection, the evidence gathered is presented to support the intended uses and interpretations of scores for the CAASPP online summative assessments. This section is organized primarily around the principles prescribed by AERA, APA, and NCME's *Standards for Educational and Psychological Testing* (2014). These *Standards* require a clear definition of the purpose of the test, a description of the constructs to be assessed, and the population to be assessed, as well as how the scores are to be interpreted and used. Since many aspects of the CAASPP System are still under development at the time of this report, additional research to further support the Smarter Balanced goals is mentioned as appropriate throughout this section.

The *Standards* identify five kinds of evidence that can provide support for score interpretations and uses:

1. Evidence based on test content,
2. Evidence based on relations to other variables,
3. Evidence based on response processes,
4. Evidence based on internal structure, and
5. Evidence based on the consequences of testing.

The next subsection defines the purpose of the CAASPP online summative assessments, followed by a description and discussion of the kinds of validity evidence that have been gathered. For general test validity evidence collected by the Smarter Balanced Assessment Consortium, refer to Chapter 1 of the *2014–15 Smarter Balanced Technical Report* (Smarter Balanced, 2016e). The validity evidence presented in Chapter 1 of that report was collected from the results of a pilot test and a field test prior to the operational administration of the nationwide Smarter Balanced Online Summative Assessments.

8.6.1 Evidence in the Design of CAASPP

8.6.1.1 Purpose

The purpose of the CAASPP assessment system is to provide school staff and teachers with information and tools they need to improve teaching and learning so as to prepare all students for college and career readiness.

8.6.1.2 The Constructs to Be Measured

The CAASPP online summative assessments are designed to show how well students perform relative to the Smarter Balanced Assessment Consortium content standards, which are aligned to the Common Core State Standards (CCSS). These standards describe what students should know and be able to do at each grade level.

Test blueprints define the procedures used to measure the claims and standards. These blueprints, for ELA and mathematics, are provided in Appendix 2.A on page 23. They also provide an operational definition of the construct to which each set of standards refers. That is, they define, for each content area, the subject to be assessed, the tasks to be presented, the administration instructions to be given, and the rules used to score student responses. The test blueprints control as many aspects of the measurement procedure as possible so that the testing conditions will remain the same over test administrations (Cronbach, 1971) in order to minimize construct-irrelevant score variance (Messick, 1989).

The Smarter Balanced Assessment Consortium also created the content specifications used to create the CAASPP online summative assessments (Smarter Balanced, 2015a and 2015b).

8.6.1.3 The Interpretations and Uses of the Scores

Overall student performance expressed as scale scores and achievement levels are generated for both ELA and mathematics assessments, as are strength and weakness levels for each claim. An inference is drawn about how much knowledge and skill in the content area the student has, based on a student's total score. The total score is also used to classify students in terms of their level of knowledge and skill in the content area. These levels are called achievement levels and are labeled *Standard Exceeded*, *Standard Met*, *Standard Nearly Met*, and *Standard Not Met*.

The strength and weakness levels are used to draw inferences about a student's achievement in each of the claims for each test. A detailed description of the uses and applications of the CAASPP online summative assessment scores is presented in Chapter 7, starting on page 134. The CDE also publishes *The Guide to Your CAASPP Student Score Report* for parents/guardians of students in grades three (CDE, 2016c); four, six, and seven (CDE, 2016e); eleven (CDE, 2016b); and five and eight (CDE, 2016d). The guides are published in English and Spanish.

The results for tests within the CAASPP System have four primary purposes:

1. Help facilitate conversations between parents/guardians and teachers about student performance.
2. Serve as a tool to help parents/guardians and teachers work together to improve student learning.
3. Help staff from schools and local educational agencies identify strengths and areas that need improvement in their educational programs.
4. Provide the public and policymakers with information about student achievement.

More detailed descriptions regarding score use can be found in the *Education Code* Section 60602 Web page at http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=EDC&division=4.&title=2.&part=33.&chapter=5.&article=1 (outside source).

8.6.1.4 Intended Test Population

Students enrolled in grades three through eight and grade eleven are required to take part in the Smarter Balanced Summative Assessments, unless they are eligible to participate in the alternate assessments. English learners who were in their first 12 months of attending school in the United States were exempt from taking the ELA portion of the assessments.

8.6.2 Validity Evidence Based on Test Content

Evidence based on test content refers to traditional forms of content validity evidence, such as the rating of test specifications and test items (Crocker, Miller, & Franks, 1989; Sireci, 1998), as well as alignment methods for educational tests that evaluate the interactions between curriculum frameworks, testing, and instruction (Rothman, Slattery, Vranek, & Resnick, 2002; Bhola, Impara & Buckendahl, 2003; Martone & Sireci, 2009).

The degree to which (a) the Smarter Balanced test specifications captured the CCSS and (b) the items adequately represent the domains delineated in the test specifications were demonstrated in the *Alignment Study Report* (Smarter Balanced, 2014). The major finding presented here is that the knowledge, skills, and abilities measured by the Smarter Balanced assessments are consistent with the ones specified in the CCSS. With computer adaptive testing, an extra dimension of content validity evidence is to ensure that the item selection algorithm produces forms for individual students that conform to the test blueprint.

It was found that across content areas and grade levels, 98 percent or more of the simulated tests covered the test blueprint (American Institutes for Research, 2015).

8.6.2.1 Description of the State Standards

As noted on page 1 in Chapter 1, the Smarter Balanced Summative Assessments are aligned with the CCSS for ELA and mathematics. The purpose of the CCSS is to provide school staff and teachers with the information and tools they need to improve teaching and learning so as to prepare all students for college and career readiness. These content standards describe what students should know and be able to do at each grade level (Smarter Balanced, 2015a and 2015b).

8.6.2.2 Item Specifications

Item specifications describe the characteristics of items that are written to measure each content standard. A thorough description of the specifications can be found in the specifications for ELA (Smarter Balanced, 2015c through 2015h and 2016a through 2016c) and mathematics (2014a, 2015i through 2015r).

8.6.2.3 Item Selection Algorithm

The item selection algorithm is designed to cover a standards-based blueprint in the assembly of CAT forms. The general item selection approach is based on an item selection algorithm (refer to *Chapter 4: Test Assembly* on page 108) that evaluates an item's contribution to each of these measures:

1. a measure of content match to the blueprint;
2. a measure of overall test information; and
3. measures of test information for each reporting category on the test.

Details can be found in Cohen & Albright (2014).

8.6.2.4 Assessment Blueprints

The Smarter Balanced summative test blueprints provided in Appendix 2.A on page 23 describe the content of the ELA and mathematics summative assessments for all grades tested and how that content is assessed. The summative online test blueprints reflect the depth and breadth of the performance expectations of the CCSS. The test blueprints have information about the number of items and depth of knowledge for items associated with each assessment target. Each test is described by a single blueprint for each segment of the test and identifies the order in which the segments appear.

The degree to which test forms administered in 2014–15 met the blueprint is provided in *Chapter 5: Test Administration*, starting on page 112, and in Table 5.B.4 on page 131.

8.6.2.5 Item Development Process

A detailed description of the content and psychometric criteria applicable to the construction of the Smarter Balanced item pool is included in *Chapter 4: Test Design*, for overall content validity, and *Chapter 3: Item Development*, for item development, of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016d).

8.6.2.6 Alignment Study

A strong alignment between standards and assessments is fundamental to the meaningful measurement of student achievement and instructional effectiveness. Alignment results demonstrate that the assessments represent the full range of the content standards and that these assessments measure student knowledge in the same manner and at the same level of complexity as expected in the content standards. For example, across all grades,

64.7 percent of the items are identified in alignment with the ELA grade-level standards and 76.7 percent of the items are identified in alignment with the mathematics grade-level standards by at least 50 percent of the reviewers (Smarter Balanced, 2014b).

8.6.2.7 Form Assembly Process

The content standards, blueprints, and item selection algorithm are the basis for choosing items for each assessment. Additional item difficulty and discrimination targets are defined in light of what are desirable statistical characteristics in test items and statistical evaluations. See Chapter 4, starting on page 108, for additional information.

8.6.2.8 Simulation Study

Simulations are conducted to evaluate and ensure the implementation and quality of the adaptive item-selection algorithm and the scoring algorithm. The simulation tool allows for the manipulation of key blueprint and configuration settings to match the blueprint and minimize measurement error. The report *Smarter Balanced Summative Assessments Testing Procedures for Adaptive Item-Selection Algorithm* contains more information about the algorithms used (AIR, 2015).

8.6.3 Validity Evidence Based on Response Processes

Validity evidence based on response processes refers to “evidence concerning the fit between the construct and the detailed nature of performance or response actually engaged in by students” (AERA et al., 1999, p. 12). This type of evidence generally includes documentation of activities such as:

- interviewing students concerning their responses to test items (i.e., think alouds);
- systematic observations of test response behavior;
- evaluation of the criteria used by judges when scoring performance tasks, analysis of student item-response-time data, and features scored by automated algorithms; and
- evaluation of the reasoning processes students employ when solving test items (Embretson, 1983; Messick, 1989; Mislevy, 2009).

This type of evidence is used to confirm that the Smarter Balanced assessments are measuring the cognitive skills that are intended to be the objects of measurement and that students are using these targeted skills to respond to the items.

8.6.3.1 Think Alouds

One way to evaluate response process is through think-aloud protocols (Lewis, 1982). Think-aloud protocols were conducted early in the development of the Smarter Balanced assessments and were described by Smarter Balanced (2015a) in the following way:

“Using the revised item and task specifications, a small set of items was developed and administered in fall 2012 during a small-scale trial. This provided the Consortium with their first opportunity to administer and score the new item types. During the small-scale trials, the Consortium also conducted cognitive laboratories to better understand how students respond to various types of items. The cognitive laboratories used a think-aloud methodology in which students speak their thoughts while working on a test item. The item and task specifications were again revised based on the findings of the cognitive laboratories and the small-scale trial. These revised specifications were used to develop items for the 2013 pilot test, and they were again revised based on 2013 pilot test results and subsequent review by content experts.”

8.6.3.2 Analysis of Testing Time

Testing times for each administration can be evaluated for consistency, with the expected response processes for the tasks presented to students. The length of time it takes students to take a test is collected and analyzed to build a profile describing what a typical testing event looks like for each content area and grade. In addition, variability in testing time is investigated to determine whether a student's testing time should be viewed as unusual or irregular. It should be noted that the Smarter Balanced assessments are untimed tests.

In these analyses, only students who completed at least 10 CAT items and 1 PT item and had timing records are considered. One percent of the students having the shortest testing time in the PT portion and one percent of the students with the shortest testing time in the CAT portion are removed from the analysis. The remaining testing population is partitioned into quartiles based on scale scores on the total test. These groupings are not the same as the achievement levels.

The descriptive statistics—e.g., the number of students, mean, standard deviation, minimum and maximum, percentiles—of the following time variables are computed for each of the four quartile groups for each content area:

- Time required to complete the total test
- Time required to complete the CAT section of each test
- Time required to complete the PT section of each test

Some cases of extremely long testing time may be attributed to students with special needs taking longer to complete the tests, or the test not being closed down properly. With that being said, the results should be interpreted with caution. Mean testing times should not be interpreted directly, whereas the medians (50th percentile) are more meaningful in the interpretation of the time comparisons because medians are less impacted by the extreme values than means. The removal of one percent of the student data with the shortest testing time is a modest exclusion that leaves some very short durations in the results for each of the tests. Similarly, some very long durations are present in the data that suggest errors such as the failure to close a testing session. These are reminders that the medians are to be preferred in evaluating testing time information.

Table 8.H.1 and Table 8.H.2, which start on page 524, provide descriptive statistics for ELA and mathematics testing time, respectively. These tables include total testing time and percentile information at each ability level. The unit of testing time is minutes; for example, in Table 8.H.1, the median of the testing time for the ELA grade three Q1 group is 139 minutes. Overall, students in the lowest ability level (1st quartile, Q1) have shorter testing times than students in the other groups. The median of total testing time generally increases with ability level from Q1 to Q4. Students at the 50th percentile within each ability quartile spent 112 to 221 minutes on ELA assessments across grades and 67 to 149 minutes on mathematics assessments across all grades.

Table 8.H.3 (for ELA) and Table 8.H.4 (for mathematics) provide the descriptive statistics of testing time for the CAT portion and the percentile information at each ability level. The number of CAT items presented to each student is reported in Table 5.B.2 on page 130. Similar to total testing time, the median of testing time in the CAT portion generally increases with ability level from Q1 to Q4 in mathematics. For ELA, median testing time also increase with ability level, though there are no substantial differences in testing times between the Q3 and Q4 groups for ELA. Students at the 50th percentile within each ability

quartile spent 63 to 109 minutes on the CAT portion of ELA tests across grades and 47 to 100 minutes on the CAT portion of mathematics tests across grades.

After testing time distributions for CAT were reviewed, testing times for the PTs are investigated. Each student is presented with a few items (one to six) that are randomly assigned in each grade. (More details on assignment of PTs can be found in *Chapter 5: Test Administration* on page 112.) Table 8.H.1 through Table 8.H.6, which start on page 524, provide the descriptive statistics for ELA and mathematics testing times for each PT and the percentile information at each ability level, respectively. Overall, students in the lowest ability level (1st quartile, Q1) have shorter testing times than students in the other groups. For ELA, the median of the PT testing time increases with ability level from Q1 to Q4. Students at the 50th percentile within each ability quartile spent 45 to 116 minutes on the PT portion of ELA tests across PTs and grades and 16 to 63 minutes on the PT portion of mathematics tests across PTs and grades. For mathematics, there are no significant differences in PT testing time from Q2 to Q4 groups.

For the CAT administrations, results are consistent with past studies suggesting that testing time for items increases with more difficult items (van der Linden, 2009).

8.6.4 Validity Evidence Based on Internal Structure

Validity evidence based on *internal structure* refers to the statistical analysis of item and score subdomains to investigate the primary and secondary (if any) dimensions measured by an assessment. Procedures for gathering such evidence include factor analysis (both exploratory and confirmatory) or multidimensional IRT scaling. With a vertical scale, a consistent primary dimension across the levels of the test should be maintained.

8.6.4.1 Dimensionality

A dimensionality study was conducted during the pilot test phase to determine the factor structure of the assessments and the types of scales developed, as well as the associated IRT models used to calibrate them. In part, that study used the Akaike Information Criterion (Akaike, 1973) to evaluate the fit of potential multidimensional models relative to the unidimensional model. The results suggested that the unidimensional model fit better than the multidimensional model, once model complexity was taken into account. More detailed results for the Smarter Balanced pilot test are available in the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016d).

8.6.4.2 Differential Item Functioning (DIF)

In addition, analysis of item functioning using IRT and DIF falls under the internal structure category. For Smarter Balanced, DIF analyses were conducted to assess differences in the item performance of groups of students that differ in their demographic characteristics. DIF analyses were implemented during the pilot test and field test phases when the tests were delivered in linear fixed-length forms (Smarter Balanced, 2016d, Chapter 6; and Smarter Balanced, 2016e, Chapter 8). For both ELA and mathematics, few items were identified as having significant levels of DIF. In the operational assessment, by virtue of the CAT delivery, the non-embedded field test items are not amenable to DIF analyses.

8.6.4.3 Overall Reliability Estimates

The results of reliability analyses on the total test theta scores on each summative test are presented in Table 8.2. The results indicate that the reliability estimates for all summative test total scores are high, ranging from 0.91 to 0.94. Theta score standard deviations and SEMs are increasing with grade level; this is often an artifact of vertical scaling.

8.6.4.4 Claim Reliability Estimates

For each CAASPP online summative assessment, theta scores are computed for claims. The reliability estimates of these scores are presented in Table 8.D.1 through Table 8.D.14, which start on page 420. The reliability estimates of claims are invariably lower than those for the total tests because they are based on fewer items. Because the reliabilities of scores at the claim level are lower than for total scores, and because each claim contains a different number of items, educators should supplement the score results with other information when interpreting claim scores.

8.6.4.5 Subgroup Reliability Estimates

The reliabilities also are examined for various subgroups of the student population that differ in their demographic characteristics. The characteristics considered are gender, ethnicity, economic status, special education services status, migrant status, English-language fluency, and ethnicity-by-economic status (refer to Table 7.13 on page 160 for the demographic groups reported). Reliability estimates and SEM information for the total test theta scores and the claim theta scores are reported for each subgroup. Table 8.D.15 through Table 8.D.30 present the reliabilities and SEMs on the overall test theta scores for the various subgroups. Table 8.D.31 through Table 8.D.100 present the reliabilities and SEMs of theta scores for the claims.

8.6.4.6 Reliability of Performance Classifications

The methodology used for estimating the reliability of classification decisions is described with the decision classification analyses on page 317. The results of these analyses are presented in Table 8.F.1 through Table 8.F.14 in Appendix 8.F. When the classifications are collapsed to below *Standard Met* versus *Standard Met* and above, which are the critical categories for accountability analyses, the proportion of students who are classified accurately ranges from 0.90 to 0.93 across all tests. Similarly, the proportion of students who are classified consistently ranges from 0.87 to 0.90 for students classified into below *Standard Met* versus *Standard Met* and above. These are considered high levels of accuracy and consistency.

8.6.4.7 Interrater Reliability

Cohen's Kappa statistics provide evidence of the degree to which a student's score is consistent from one rater to another rater. Research has shown values of Kappa between 0.41 and 0.60 exhibit moderate levels of agreement between the two ratings (Landis & Koch, 1977; Flack, Afifi, Lachenbruch, & Schouten, 1988); the values of quadratic-weighted Kappa greater than 0.70 indicate excellent agreement (Williamson, Xi, & Breyer, 2012).

The results in Table 8.G.1 through Table 8.G.14, which start on page 480, show at least moderate levels of agreement between raters who scored students' responses for 75 percent of the human-scored short-answer items in ELA and 27 percent of the human-scored items in mathematics. The rater agreement is at least high, with Kappa over 0.60 for 13 percent of ELA human-scored items and 68 percent of mathematics human-scored items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 35 percent of the ELA and 75 percent of the mathematics human-scored items.

The results in Table 8.G.15 through Table 8.G.20, which start on page 495, show at least moderate levels of agreement between raters that scored students' responses for 3 percent of the human-scored WER items and high levels of agreement for 48 percent of the human-scored WER items in grades three through eight ELA tests. The rater agreement is

excellent, with the quadratic-weighted Kappa over 0.7 for 50 percent of the human-scored WER items.

Table 8.G.21 through Table 8.G.34, which start on page 505, present the results for AI machine-scored items for ELA and mathematics. The results show at least moderate levels of agreement between human raters and AI engines that scored students' responses for 74 percent of the AI machine-scored short-answer items in ELA and 36 percent of the AI machine-scored short-answer items in mathematics. The agreement is high, with Kappa over 0.6 for 3 percent of ELA AI machine-scored short-answer items and 57 percent of mathematics AI machine-scored short-answer items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 26 percent of the ELA and 73 percent of the mathematics AI machine-scored items.

Table 8.G.35 through Table 8.G.37, which start on page 520, presents the results for AI machine-scored WER items for ELA in grades three, six, and eleven. The results show at least moderate levels of agreement between human raters and AI engines for 46 percent of the AI machine-scored WER items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 43 percent of the AI machine-scored WER items.

8.6.4.8 Interrater Agreement

As is shown in Table 8.G.1 through Table 8.G.14, all human-scored items in ELA tests can be awarded a maximum of two points (0, 1, or 2) for short-text items and a maximum of four points for WER items. In mathematics, human-scored items can be awarded between one (0, 1) and four (0, 1, 2, 3, 4) points. Approximately 10 percent of the test population's responses to the human-scored items are scored by two raters. The percentage of students for whom the raters are in exact agreement ranges from 57.7 percent to 100 percent for ELA tests and 47.8 percent to 100 percent for mathematics tests. The percentage of students for whom the raters are in exact or adjacent agreement ranges from 95.7 percent to 100 percent for ELA tests and 92.1 percent to 100 percent for mathematics tests.

As is reported in Table 8.G.15 through Table 8.G.20, WER items have two points for convention dimension and four points for organization/purpose, development/elaboration, or evidence/elaboration scoring dimensions. The percentage of students for whom the raters are in exact agreement ranges from 48.2 percent to 100 percent; the percentage of students for whom the raters are in exact or adjacent agreement ranges from 92.6 percent to 100 percent in ELA tests for grades three through eight.

As presented in Table 8.G.21 through Table 8.G.34, 10 percent of the students who are scored by the AI engine are also scored by human raters. The percentages of students for whom the AI engine and human raters are in exact agreement range from 48.7 percent to 90.2 percent for ELA across the grades and from 45.1 percent to 99.3 percent for mathematics across the grades. The percentages of students for whom the AI engine and human raters are in exact or adjacent agreement are all over 91.9 percent for the ELA tests and over 87.5 percent for the mathematics tests.

Table 8.G.35 through Table 8.G.37 present the interrater agreement between the AI engine and human raters for ELA WER items in grades three, six, and eleven; only these three tests contain AI-scored WER items. The percentages of students for whom the AI engine and human raters are in exact agreement range from 42.8 percent to 68.2 percent. The percentages of students for whom the AI engine and human raters are in exact or adjacent agreement are over 85.2 percent.

8.6.4.9 Correlations between the Claims Within Content Areas

The distinctiveness and reliability of the claim theta scores in each content area are important because CAASPP strength and weakness levels are reported based on claim scores. The interrelationships of claim scores should be shown to be consistent with the construct being assessed. Table 8.D.1 through Table 8.D.14 provide the intercorrelations between claim scores within each test in the two content areas (i.e., ELA and mathematics). Results show that the correlations between claim scores are consistent across the grades and of a moderate magnitude. Correlations range from 0.58 to 0.74 for ELA and from 0.65 to 0.82 for mathematics.

8.6.4.10 Correlations between Content Area Test Scores

The degree to which students' content area test scores correlate as expected provides evidence of those scores as measures of the intended constructs. Table 8.5 provides the correlations between scores on the 2015–16 CAASPP ELA and mathematics tests and the numbers of students on which these correlations are based. Sample sizes for individual tests are shown on the left; the numbers of students on which the correlations are based are shown on the lower right in bold font. The correlations are provided in the upper right. Results are based on all students with valid scale scores and are provided by grade.

Table 8.5 Correlations for All Students

Grade	Content Area	Sample Size	R and Sample Size
3	ELA	456,912	0.81
	Mathematics	459,050	455,870
4	ELA	472,940	0.81
	Mathematics	474,903	471,899
5	ELA	463,908	0.81
	Mathematics	465,699	462,833
6	ELA	459,061	0.83
	Mathematics	460,676	457,760
7	ELA	457,084	0.82
	Mathematics	458,402	455,200
8	ELA	450,483	0.8
	Mathematics	451,601	448,399
11	ELA	434,061	0.78
	Mathematics	432,348	428,320

Notes:

- Numbers in **bold** font are the sample sizes to calculate the correlations.
- R denotes the correlation coefficient.

Results for these students appear to be consistent with expectations. In general, students' ELA scores correlated moderately with their mathematics scores. They are correlated more highly among students in lower grades than students in higher grades.

Table 8.I.1 through Table 8.I.8 in Appendix 8.I starting on page 535 provide the content area test score correlations by gender, ethnicity, English-language fluency, economic status, migrant status, and special education services status. Similar patterns of correlations were found between students' ELA and mathematics results within the subgroups. One exception was English learners, who showed lower correlations across grades.

Note that the correlations are reported only for groups of more than 10 students. Correlations between scores on any two content area tests where 10 or fewer students took the tests are expressed as hyphens.

8.6.5 Validity Evidence Based on Relations to Other Variables

Evidence based on *relations to other variables* refers to traditional forms of criterion-related validity evidence such as concurrent and predictive validity, as well as more comprehensive investigations of the relationships among test scores and other variables such as multitrait-multimethod studies (Campbell & Fiske, 1959). External variables can be used to evaluate hypothesized relationships between test scores and other measures of student achievement (e.g., test scores) to evaluate the degree to which different tests actually measure different skills and the utility of test scores for predicting specific criteria (e.g., college grades). This type of evidence is essential for supporting the validity of certain inferences based on scores from the Smarter Balanced assessments for certifying college and career readiness, which are the primary test purposes.

A subset of students who took National Assessment of Educational Progress (NAEP) and Program for International Student Assessment (PISA) items also took Smarter Balanced CAT items and PTs. A summary of the resulting item performance for NAEP, PISA, and all Smarter Balanced items can be found in chapters 7 and 8 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016d). That study found item-level performance to be similar for NAEP and Smarter Balanced populations. A study taking the next step of relating Smarter Balanced scales to NAEP or PISA scales has not yet been completed.

Another study established the relationship between Smarter Balanced field-test scores and the likelihood of achieving “Conditionally Exempt” status based on achieving the required minimum scores for the California State University (CSU) Early Assessment Program (EAP). During the 2013–14 administration, students in grade eleven took the EAP for ELA test and/or mathematics test. The comparison showed a correlation of 0.68 between Smarter Balanced ELA and EAP ELA tests, and correlations from 0.49 to 0.61 between Smarter Balanced mathematics and EAP mathematics tests (ETS, 2015a, 2015b, and 2015c). These correlations indicate that Smarter Balanced summative assessments might be measuring different aspects of college readiness than the EAP tests, which previously provided insight into the readiness of California students in grade eleven for college-level mathematics and ELA courses. Other predictive validity research is being pursued by the Smarter Balanced Assessment Consortium as part of their research agenda.

8.6.6 Validity Evidence Based on Consequences of Testing

Evidence based on *consequences of testing* refers to the evaluation of the intended and unintended consequences associated with a testing program. Examples of evidence based on testing consequences include investigations of adverse impact, evaluation of the effects of testing on instruction, and evaluation of the effects of testing on issues such as high school dropout rates. With respect to educational tests, the *Standards* stress the importance of evaluating test consequences. For example, they state,

“When educational testing programs are mandated . . . the ways in which test results are intended to be used should be clearly described. It is the responsibility of those who mandate the use of tests to monitor their impact and to identify and minimize potential negative consequences. Consequences resulting from the use of the test, both intended and unintended, should also be examined by the test user.” (AERA et al., 1999, p. 145)

Investigations of testing consequences relevant to the Smarter Balanced goals include analyses of students' opportunity to learn the CCSS and analyses of changes in textbooks and instructional approaches. Unintended consequences, such as changes in instruction, diminished morale among teachers and students, increased pressure on students leading to increased dropout rates, or the pursuit of college majors and careers that are less challenging can be evaluated. These sorts of investigations require information beyond what has been available to the CAASPP program to date.

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Appendix 8.A: IRT Parameter Estimates

Table 8.A.1 IRT α -values for ELA, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	206	0.72	0.26	0.20	1.52
Claim 2	201	0.67	0.19	0.19	1.12
Claim 3	118	0.56	0.19	0.21	1.01
Claim 4	131	0.67	0.23	0.19	1.29
All Items	656	0.67	0.23	0.19	1.52

Table 8.A.2 IRT α -values for ELA, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	172	0.64	0.22	0.15	1.17
Claim 2	224	0.60	0.22	0.17	1.16
Claim 3	127	0.55	0.18	0.18	1.01
Claim 4	160	0.59	0.19	0.15	1.06
All Items	683	0.60	0.21	0.15	1.17

Table 8.A.3 IRT α -values for ELA, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	186	0.64	0.20	0.18	1.22
Claim 2	241	0.65	0.21	0.19	1.25
Claim 3	108	0.52	0.17	0.16	1.02
Claim 4	157	0.65	0.17	0.23	1.10
All Items	692	0.63	0.20	0.16	1.25

Table 8.A.4 IRT α -values for ELA, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	171	0.59	0.19	0.17	1.18
Claim 2	228	0.59	0.25	0.17	1.35
Claim 3	116	0.50	0.18	0.11	0.95
Claim 4	147	0.62	0.22	0.17	1.22
All Items	662	0.58	0.22	0.11	1.35

Table 8.A.5 IRT α -values for ELA, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	175	0.57	0.18	0.18	1.11
Claim 2	231	0.60	0.25	0.17	1.65
Claim 3	117	0.49	0.15	0.18	0.99
Claim 4	118	0.60	0.20	0.14	1.00
All Items	641	0.57	0.21	0.14	1.65

Table 8.A.6 IRT α -values for ELA, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	154	0.59	0.20	0.15	1.11
Claim 2	226	0.57	0.20	0.15	1.07
Claim 3	131	0.47	0.17	0.13	0.91
Claim 4	123	0.58	0.19	0.20	1.19
All Items	634	0.55	0.20	0.13	1.19

Table 8.A.7 IRT α -values for ELA, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	469	0.57	0.19	0.13	1.16
Claim 2	444	0.47	0.14	0.15	1.07
Claim 3	332	0.45	0.16	0.10	0.93
Claim 4	300	0.51	0.19	0.12	0.99
All Items	1,545	0.50	0.18	0.10	1.16

Table 8.A.8 IRT α -values for Mathematics, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	549	0.85	0.28	0.16	1.59
Claim 2	228	0.91	0.26	0.20	1.48
Claim 3	155	0.79	0.31	0.13	1.42
All Items	932	0.86	0.29	0.13	1.59

Table 8.A.9 IRT α -values for Mathematics, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	544	0.84	0.29	0.17	1.80
Claim 2	249	0.79	0.30	0.20	1.63
Claim 3	147	0.79	0.29	0.25	1.51
All Items	940	0.82	0.29	0.17	1.80

Table 8.A.10 IRT α -values for Mathematics, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	517	0.77	0.29	0.14	1.55
Claim 2	260	0.82	0.30	0.16	1.56
Claim 3	175	0.72	0.31	0.18	1.77
All Items	952	0.77	0.30	0.14	1.77

Table 8.A.11 IRT α -values for Mathematics, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	547	0.68	0.25	0.15	1.35
Claim 2	197	0.80	0.25	0.17	1.42
Claim 3	136	0.62	0.23	0.18	1.41
All Items	880	0.70	0.25	0.15	1.42

Table 8.A.12 IRT *a*-values for Mathematics, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	483	0.71	0.28	0.10	1.43
Claim 2	185	0.83	0.28	0.11	1.43
Claim 3	121	0.66	0.34	0.12	1.68
All Items	789	0.73	0.29	0.10	1.68

Table 8.A.13 IRT *a*-values for Mathematics, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	418	0.62	0.26	0.09	1.29
Claim 2	156	0.73	0.29	0.16	1.24
Claim 3	139	0.57	0.23	0.14	1.36
All Items	713	0.63	0.27	0.09	1.36

Table 8.A.14 IRT *a*-values for Mathematics, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	1,569	0.58	0.27	0.09	1.49
Claim 2	383	0.57	0.28	0.10	1.49
Claim 3	438	0.47	0.25	0.09	1.39
All Items	2,390	0.56	0.27	0.09	1.49

Table 8.A.15 IRT *b*-values for ELA, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	206	-0.45	1.07	-2.72	2.74
Claim 2	201	-0.66	1.11	-2.90	2.81
Claim 3	118	-0.01	1.24	-2.28	3.82
Claim 4	131	-0.06	1.07	-2.03	3.03
All Items	656	-0.36	1.14	-2.90	3.82

Table 8.A.16 IRT *b*-values for ELA, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	172	0.33	1.24	-2.10	3.13
Claim 2	224	-0.38	1.20	-3.25	2.94
Claim 3	127	0.14	1.41	-2.82	4.25
Claim 4	160	0.48	1.18	-1.83	3.73
All Items	683	0.09	1.29	-3.25	4.25

Table 8.A.17 IRT *b*-values for ELA, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	186	0.71	1.17	-1.60	4.81
Claim 2	241	-0.09	1.34	-3.25	4.95
Claim 3	108	0.68	1.17	-2.40	3.48
Claim 4	157	0.50	1.24	-2.03	3.83
All Items	692	0.38	1.29	-3.25	4.95

Table 8.A.18 IRT *b*-values for ELA, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	171	1.08	1.22	-1.20	4.78
Claim 2	228	0.43	1.52	-3.25	4.61
Claim 3	116	1.03	1.51	-1.45	4.92
Claim 4	147	0.86	1.23	-1.76	3.61
All Items	662	0.80	1.41	-3.25	4.92

Table 8.A.19 IRT *b*-values for ELA, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	175	1.21	1.24	-1.88	3.91
Claim 2	231	0.55	1.44	-2.72	5.12
Claim 3	117	0.87	1.26	-1.71	4.78
Claim 4	118	1.34	1.48	-1.49	5.52
All Items	641	0.94	1.40	-2.72	5.52

Table 8.A.20 IRT *b*-values for ELA, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	154	1.53	1.25	-1.17	5.57
Claim 2	226	0.62	1.45	-3.01	4.56
Claim 3	131	0.97	1.28	-1.54	4.27
Claim 4	123	1.61	1.23	-0.93	5.19
All Items	634	1.11	1.39	-3.01	5.57

Table 8.A.21 IRT *b*-values for ELA, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	469	1.92	1.24	-0.89	5.57
Claim 2	444	1.41	1.47	-1.98	5.93
Claim 3	332	1.30	1.39	-1.25	5.62
Claim 4	300	2.02	1.19	-0.27	5.12
All Items	1,545	1.66	1.36	-1.98	5.93

Table 8.A.22 IRT *b*-values for Mathematics, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	549	-1.15	1.01	-3.38	2.40
Claim 2	228	-0.38	0.86	-2.68	1.97
Claim 3	155	-0.20	0.86	-2.32	3.46
All Items	932	-0.80	1.04	-3.38	3.46

Table 8.A.23 IRT *b*-values for Mathematics, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	544	-0.40	1.12	-3.26	4.11
Claim 2	249	0.11	0.99	-2.68	2.57
Claim 3	147	0.36	0.94	-2.01	3.16
All Items	940	-0.15	1.11	-3.26	4.11

Table 8.A.24 IRT *b*-values for Mathematics, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	517	0.07	1.25	-3.26	3.61
Claim 2	260	1.10	0.93	-2.68	4.45
Claim 3	175	0.96	1.05	-2.01	5.28
All Items	952	0.51	1.23	-3.26	5.28

Table 8.A.25 IRT *b*-values for Mathematics, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	547	0.65	1.45	-3.93	4.35
Claim 2	197	1.18	1.10	-2.98	5.10
Claim 3	136	1.43	1.05	-1.73	4.71
All Items	880	0.89	1.36	-3.93	5.10

Table 8.A.26 IRT *b*-values for Mathematics, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	483	1.45	1.41	-3.93	5.64
Claim 2	185	1.81	1.08	-1.09	5.07
Claim 3	121	2.00	1.41	-1.73	6.17
All Items	789	1.62	1.35	-3.93	6.17

Table 8.A.27 IRT *b*-values for Mathematics, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	418	1.99	1.58	-2.19	6.32
Claim 2	156	2.30	1.30	-1.48	5.75
Claim 3	139	2.58	1.43	-1.65	6.70
All Items	713	2.17	1.51	-2.19	6.70

Table 8.A.28 IRT *b*-values for Mathematics, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	1569	2.26	1.54	-3.36	7.30
Claim 2	383	3.01	1.40	-2.98	6.68
Claim 3	438	2.94	1.51	-1.64	7.19
All Items	2,390	2.51	1.55	-3.36	7.30

Note: In Table 8.A.29 through Table 8.A.42, the mode of each distribution is in **bold** text.

Table 8.A.29 Distribution of IRT α -values Conditional on Ability for ELA Non-PT Items, Grade Three

IRT α -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2		1	1	2	2	2
0.2 –< 0.4	48	51	57	64	63	57
0.4 –< 0.6	107	120	131	145	146	127
0.6 –< 0.8	129	144	158	172	159	143
0.8 –< 1.0	57	62	75	80	76	71
1.0 –< 1.2	17	23	27	28	25	19
1.2 –< 1.4	2	2	3	3	3	3
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.30 Distribution of IRT α -values Conditional on Ability for ELA Non-PT Items, Grade Four

IRT α -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	4	5	6	6	6	6
0.2 –< 0.4	65	76	80	86	95	95
0.4 –< 0.6	111	131	139	157	167	161
0.6 –< 0.8	113	139	148	158	160	143
0.8 –< 1.0	40	54	57	60	58	56
1.0 –< 1.2	12	16	17	19	18	17
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.31 Distribution of IRT α -values Conditional on Ability for ELA Non-PT Items, Grade Five

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	1	2	2	2	2	2
0.2 –< 0.4	41	43	56	60	58	52
0.4 –< 0.6	113	126	141	151	149	136
0.6 –< 0.8	111	129	140	136	132	123
0.8 –< 1.0	60	64	67	67	59	52
1.0 –< 1.2	15	15	14	11	9	6
1.2 –< 1.4	1	1	1	1	1	1
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.32 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Six

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	4	4	5	6	6	6
0.2 –< 0.4	79	81	91	98	92	90
0.4 –< 0.6	131	138	155	154	151	143
0.6 –< 0.8	90	99	114	111	102	90
0.8 –< 1.0	32	37	42	40	36	30
1.0 –< 1.2	2	2	2	2	1	
1.2 –< 1.4	1	1	1	1	1	
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.33 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Seven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	8	8	9	9	9	9
0.2 –< 0.4	97	106	113	107	110	107
0.4 –< 0.6	164	181	189	193	192	185
0.6 –< 0.8	102	117	124	122	114	107
0.8 –< 1.0	28	34	37	38	31	28
1.0 –< 1.2	4	4	4	3	2	2
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.34 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Eight

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	12	13	15	15	15	15
0.2 –< 0.4	101	113	114	117	115	110
0.4 –< 0.6	154	181	191	200	198	195
0.6 –< 0.8	91	105	114	117	115	110
0.8 –< 1.0	31	36	36	36	33	31
1.0 –< 1.2	3	3	4	4	4	4
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.35 Distribution of IRT a-values Conditional on Ability for ELA Non-PT Items, Grade Eleven

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	31	36	38	42	45	47
0.2 –< 0.4	237	265	310	323	331	329
0.4 –< 0.6	375	422	475	496	511	499
0.6 –< 0.8	131	158	196	210	207	204
0.8 –< 1.0	18	25	31	39	38	37
1.0 –< 1.2	3	4	3	3	2	2
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.36 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Three

IRT a-value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	1	1	10	10	10	5
0.2 –< 0.4	12	19	27	31	33	26
0.4 –< 0.6	52	62	72	75	70	51
0.6 –< 0.8	96	118	145	160	151	108
0.8 –< 1.0	130	164	187	200	190	121
1.0 –< 1.2	116	135	173	181	170	120
1.2 –< 1.4	49	55	79	81	75	50
1.4 –< 1.6	4	5	7	8	7	6
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.37 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Four

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	2	2	2	2	2
0.2 –< 0.4	26	34	45	52	50
0.4 –< 0.6	102	124	144	150	137
0.6 –< 0.8	173	197	208	212	184
0.8 –< 1.0	132	162	179	183	162
1.0 –< 1.2	72	102	115	119	105
1.2 –< 1.4	35	55	63	67	62
1.4 –< 1.6	8	19	25	26	25
1.6 –< 1.8	1	3	4	4	4
1.8 –< 2.0					

Table 8.A.38 Distribution of IRT a -values Conditional on Ability for Mathematics Non-PT Items, Grade Five

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	3	5	6	8	8	8
0.2 –< 0.4	43	56	63	78	82	67
0.4 –< 0.6	118	141	158	163	150	94
0.6 –< 0.8	139	194	212	202	188	110
0.8 –< 1.0	86	132	153	158	148	105
1.0 –< 1.2	52	77	95	109	106	82
1.2 –< 1.4	51	57	67	70	68	55
1.4 –< 1.6	9	14	15	17	17	14
1.6 –< 1.8	1	1	1	1	1	1
1.8 –< 2.0						

Table 8.A.39 Distribution of IRT a -values Conditional on Ability for Mathematics Non-PT Items, Grade Six

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	8	11	12	13	14	14
0.2 –< 0.4	56	67	69	78	87	82
0.4 –< 0.6	113	118	135	149	149	117
0.6 –< 0.8	142	153	167	187	172	131
0.8 –< 1.0	126	133	146	171	165	147
1.0 –< 1.2	64	68	76	81	81	71
1.2 –< 1.4	11	12	12	13	14	13
1.4 –< 1.6	1	2	2	3	3	3
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.40 Distribution of IRT a -values Conditional on Ability for Mathematics Non-PT Items, Grade Seven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	6	6	9	14	16	16
0.2 –< 0.4	31	48	65	74	90	80
0.4 –< 0.6	57	72	84	97	110	103
0.6 –< 0.8	57	93	108	130	159	135
0.8 –< 1.0	50	90	102	127	150	129
1.0 –< 1.2	25	45	60	77	94	93
1.2 –< 1.4	5	7	10	15	16	16
1.4 –< 1.6					1	1
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.41 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Eight

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 –< 0.2	14	16	18	20	21	21	18
0.2 –< 0.4	83	86	94	98	106	105	93
0.4 –< 0.6	124	130	140	148	153	152	138
0.6 –< 0.8	99	110	124	132	138	135	130
0.8 –< 1.0	50	59	79	84	103	103	85
1.0 –< 1.2	18	18	28	30	38	36	25
1.2 –< 1.4	4	4	6	6	7	7	6
1.4 –< 1.6							
1.6 –< 1.8							
1.8 –< 2.0							

Table 8.A.42 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 –< 0.2	61	73	82	98	123	132	117
0.2 –< 0.4	240	278	333	375	411	391	318
0.4 –< 0.6	225	276	354	434	493	481	351
0.6 –< 0.8	179	227	274	357	416	439	352
0.8 –< 1.0	93	121	170	236	301	318	261
1.0 –< 1.2	19	33	51	72	90	94	82
1.2 –< 1.4	5	8	11	11	14	14	13
1.4 –< 1.6		1	3	4	4	4	4
1.6 –< 1.8							
1.8 –< 2.0							

Note: In Table 8.A.43 through Table 8.A.56, the mode of each distribution is in **bold** text.

Table 8.A.43 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Three

IRT <i>b</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5						
-3.5 <- -3.0						
-3.0 <- -2.5	5	5	5	5	4	4
-2.5 <- -2.0	25	25	25	25	20	19
-2.0 <- -1.5	68	70	71	69	63	58
-1.5 <- -1.0	59	78	81	82	77	55
-1.0 <- -0.5	38	44	60	61	60	43
-0.5 <- 0	53	56	73	78	72	70
0 <- 0.5	40	45	57	66	66	61
0.5 <- 1.0	30	36	37	53	55	54
1.0 <- 1.5	23	25	24	32	35	35
1.5 <- 2.0	8	8	8	12	12	12
2.0 <- 2.5	5	5	5	5	5	6
2.5 <- 3.0	4	4	4	4	3	3
3.0 <- 3.5	1	1	1	1	1	1
>= 3.5	1	1	1	1	1	1

Table 8.A.44 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Four

IRT <i>b</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5						
-3.5 <- -3.0	1	1	1	1	1	1
-3.0 <- -2.5	6	6	6	4	2	2
-2.5 <- -2.0	18	23	23	22	12	12
-2.0 <- -1.5	33	35	35	34	35	27
-1.5 <- -1.0	56	65	68	65	65	59
-1.0 <- -0.5	48	66	74	73	75	64
-0.5 <- 0	53	62	68	72	73	71
0 <- 0.5	42	48	60	65	67	67
0.5 <- 1.0	27	39	40	54	54	54
1.0 <- 1.5	27	32	33	48	53	51
1.5 <- 2.0	14	20	17	22	34	34
2.0 <- 2.5	11	13	12	15	19	19
2.5 <- 3.0	6	7	7	7	8	10
3.0 <- 3.5	1	1	1	2	3	4
>= 3.5	2	3	2	2	3	3

Table 8.A.45 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0	1	1	1			
-3.0 < -2.5	4	3	3	1		
-2.5 < -2.0	13	14	11	7	2	
-2.0 < -1.5	12	14	15	13	10	5
-1.5 < -1.0	35	36	36	34	29	21
-1.0 < -0.5	55	57	59	58	57	54
-0.5 < 0	35	39	44	46	45	38
0 < 0.5	52	53	60	61	59	54
0.5 < 1.0	67	73	78	77	76	72
1.0 < 1.5	28	40	51	55	55	52
1.5 < 2.0	19	24	29	35	35	35
2.0 < 2.5	11	15	20	24	24	23
2.5 < 3.0	6	7	8	10	10	10
3.0 < 3.5	1	1	3	3	4	4
>= 3.5	3	3	3	4	4	4

Table 8.A.46 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0	1	1	1			
-3.0 < -2.5						
-2.5 < -2.0	4	4	4	2		
-2.0 < -1.5	10	10	10	8	6	3
-1.5 < -1.0	26	33	33	32	17	12
-1.0 < -0.5	32	33	36	33	34	23
-0.5 < 0	45	45	46	46	46	41
0 < 0.5	46	47	54	54	50	47
0.5 < 1.0	43	43	52	54	52	48
1.0 < 1.5	45	52	55	57	55	53
1.5 < 2.0	33	40	49	50	50	50
2.0 < 2.5	23	23	32	32	33	33
2.5 < 3.0	13	13	18	21	20	20
3.0 < 3.5	8	8	10	12	13	13
>= 3.5	10	10	10	11	13	16

Table 8.A.47 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 <- -3.0						
-3.0 <- -2.5						
-2.5 <- -2.0	2	2	2	1		
-2.0 <- -1.5	14	14	14	10	6	4
-1.5 <- -1.0	32	37	38	35	20	16
-1.0 <- -0.5	20	24	22	22	20	19
-0.5 <- 0	60	66	66	64	63	57
0 <- 0.5	51	55	53	52	52	51
0.5 <- 1.0	50	58	61	60	59	57
1.0 <- 1.5	59	64	77	76	76	74
1.5 <- 2.0	48	57	65	70	70	68
2.0 <- 2.5	31	33	34	36	36	36
2.5 <- 3.0	12	13	14	13	14	13
3.0 <- 3.5	9	11	13	15	18	17
>= 3.5	15	16	17	18	24	26

Table 8.A.48 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 <- -3.0	1	1	1	1	1	1
-3.0 <- -2.5	1	1	1			
-2.5 <- -2.0						
-2.0 <- -1.5	8	9	8	3	3	3
-1.5 <- -1.0	14	21	20	18	8	6
-1.0 <- -0.5	25	33	33	33	27	23
-0.5 <- 0	61	70	70	70	70	62
0 <- 0.5	47	53	54	54	54	54
0.5 <- 1.0	41	48	51	52	52	50
1.0 <- 1.5	46	57	59	61	61	61
1.5 <- 2.0	53	57	68	70	70	70
2.0 <- 2.5	36	39	44	53	53	53
2.5 <- 3.0	23	25	27	34	34	34
3.0 <- 3.5	18	19	20	21	23	23
>= 3.5	18	18	18	19	24	25

Table 8.A.49 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 <- -3.0						
-3.0 <- -2.5						
-2.5 <- -2.0						
-2.0 <- -1.5	6	6	6	4	3	3
-1.5 <- -1.0	10	12	12	11	9	8
-1.0 <- -0.5	47	54	54	54	48	45
-0.5 <- 0	73	86	87	85	85	79
0 <- 0.5	105	116	129	125	124	116
0.5 <- 1.0	91	106	147	141	142	138
1.0 <- 1.5	102	111	144	147	143	140
1.5 <- 2.0	114	128	150	176	170	169
2.0 <- 2.5	78	88	101	129	124	124
2.5 <- 3.0	69	82	84	100	108	106
3.0 <- 3.5	44	52	59	60	79	81
>= 3.5	56	69	80	81	99	109

Table 8.A.50 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Three

IRT <i>b</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5						
-3.5 <- -3.0	9	9	9	9	2	
-3.0 <- -2.5	29	29	30	28	20	7
-2.5 <- -2.0	62	65	65	65	57	20
-2.0 <- -1.5	112	135	142	142	124	54
-1.5 <- -1.0	73	85	103	103	101	56
-1.0 <- -0.5	56	77	108	108	107	72
-0.5 <- 0	60	76	115	126	125	107
0 <- 0.5	39	55	73	85	85	85
0.5 <- 1.0	15	19	36	56	56	56
1.0 <- 1.5	3	5	14	19	20	20
1.5 <- 2.0	2	3	4	5	7	7
2.0 <- 2.5					2	2
2.5 <- 3.0						
3.0 <- 3.5		1	1			1
>= 3.5						

Table 8.A.51 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Four

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5					
-3.5 <- -3.0	3	3	3	3	2
-3.0 <- -2.5	11	11	9	6	2
-2.5 <- -2.0	26	26	26	23	16
-2.0 <- -1.5	48	48	48	47	34
-1.5 <- -1.0	71	74	76	76	53
-1.0 <- -0.5	90	110	111	111	87
-0.5 <- 0	119	165	167	167	155
0 <- 0.5	84	120	144	144	143
0.5 <- 1.0	54	79	121	123	123
1.0 <- 1.5	31	42	51	70	70
1.5 <- 2.0	9	13	17	29	29
2.0 <- 2.5	3	5	8	12	13
2.5 <- 3.0	1	1	2	2	2
3.0 <- 3.5			1	1	1
>= 3.5	1	1	1	1	1

Table 8.A.52 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 <- -3.0	2	2	1			
-3.0 <- -2.5	11	11	8	4		
-2.5 <- -2.0	18	21	18	9	2	3
-2.0 <- -1.5	21	22	22	14	6	3
-1.5 <- -1.0	16	18	18	17	12	2
-1.0 <- -0.5	63	65	65	65	50	13
-0.5 <- 0	82	103	103	103	100	33
0 <- 0.5	92	156	172	172	170	93
0.5 <- 1.0	87	120	140	145	145	122
1.0 <- 1.5	51	68	100	112	112	99
1.5 <- 2.0	39	59	84	101	101	97
2.0 <- 2.5	14	22	28	40	42	42
2.5 <- 3.0	2	5	5	17	19	19
3.0 <- 3.5	1	2	3	3	5	6
>= 3.5	3	3	3	4	4	4

Table 8.A.53 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	1	1	1	1	1	1
-3.5 <- -3.0	4	4	4	2		
-3.0 <- -2.5	14	14	14	11	3	3
-2.5 <- -2.0	16	16	16	14	2	2
-2.0 <- -1.5	19	19	19	15	10	8
-1.5 <- -1.0	19	18	18	18	14	10
-1.0 <- -0.5	34	35	35	33	24	15
-0.5 <- 0	50	50	51	50	46	26
0 <- 0.5	73	77	84	87	83	50
0.5 <- 1.0	83	90	106	114	112	90
1.0 <- 1.5	79	83	96	124	125	109
1.5 <- 2.0	53	60	71	104	109	104
2.0 <- 2.5	48	58	61	75	91	90
2.5 <- 3.0	15	20	22	26	36	36
3.0 <- 3.5	6	11	12	13	17	17
>= 3.5	7	8	9	8	12	17

Table 8.A.54 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 <- -3.0						
-3.0 <- -2.5						
-2.5 <- -2.0	1	2	1	1		
-2.0 <- -1.5	10	10	10	11	11	7
-1.5 <- -1.0	11	11	11	14	11	7
-1.0 <- -0.5	7	8	8	8	7	5
-0.5 <- 0	13	18	19	19	14	11
0 <- 0.5	30	30	37	37	34	27
0.5 <- 1.0	43	56	64	70	70	56
1.0 <- 1.5	49	71	77	103	105	78
1.5 <- 2.0	36	74	84	112	129	123
2.0 <- 2.5	14	39	61	76	116	116
2.5 <- 3.0	7	27	41	47	80	79
3.0 <- 3.5	3	7	13	17	29	30
>= 3.5	7	8	12	19	30	34

Table 8.A.55 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5							
-3.5 <- -3.0							
-3.0 <- -2.5							
-2.5 <- -2.0							
-2.0 <- -1.5	6	6	6	3	3	3	2
-1.5 <- -1.0	8	9	9	7	7	4	3
-1.0 <- -0.5	22	22	22	21	21	15	14
-0.5 <- 0	19	19	19	19	18	14	11
0 <- 0.5	25	25	25	25	25	22	16
0.5 <- 1.0	31	31	32	32	32	31	26
1.0 <- 1.5	45	46	48	48	48	46	40
1.5 <- 2.0	54	65	75	78	80	79	63
2.0 <- 2.5	62	70	86	86	102	102	84
2.5 <- 3.0	41	47	67	71	84	84	79
3.0 <- 3.5	30	31	40	51	60	61	61
>= 3.5	49	52	60	77	86	98	96

Table 8.A.56 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5							
-3.5 <- -3.0	3	3	3	1	1		
-3.0 <- -2.5							
-2.5 <- -2.0	7	7	7	5	2	2	
-2.0 <- -1.5	11	11	11	11	4		
-1.5 <- -1.0	27	27	27	27	20	8	1
-1.0 <- -0.5	34	34	34	34	33	14	5
-0.5 <- 0	37	48	48	48	48	28	5
0 <- 0.5	62	78	79	81	78	55	23
0.5 <- 1.0	98	116	126	126	127	109	56
1.0 <- 1.5	97	118	163	167	167	164	96
1.5 <- 2.0	102	156	184	233	234	230	149
2.0 <- 2.5	90	129	190	283	302	302	224
2.5 <- 3.0	77	101	168	227	330	329	303
3.0 <- 3.5	53	64	96	140	233	267	267
>= 3.5	124	125	142	204	273	365	369

Note: In Table 8.A.57 through Table 8.A.70, the mode of each distribution is in **bold** text.

Table 8.A.57 Distribution of IRT α -values Conditional for PT for ELA, Grade Three

IRT α -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2						
0.2 –< 0.4	6	6	6	6	6	6
0.4 –< 0.6	11	11	11	11	11	11
0.6 –< 0.8	26	26	26	26	26	26
0.8 –< 1.0	14	14	14	14	14	14
1.0 –< 1.2	5	5	5	5	5	5
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.58 Distribution of IRT α -values Conditional for PT for ELA, Grade Four

IRT α -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2						
0.2 –< 0.4	4	4	4	4	4	4
0.4 –< 0.6	29	29	29	29	29	29
0.6 –< 0.8	31	31	31	31	31	31
0.8 –< 1.0	16	16	16	16	16	16
1.0 –< 1.2	2	2	2	2	2	2
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.59 Distribution of IRT α -values Conditional for PT for ELA, Grade Five

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4	3	3	3	3	3	3
0.4 –< 0.6	27	27	27	27	27	27
0.6 –< 0.8	40	40	40	40	40	40
0.8 –< 1.0	18	18	18	18	18	18
1.0 –< 1.2	6	6	6	6	6	6
1.2 –< 1.4	1	1	1	1	1	1
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.60 Distribution of IRT α -values Conditional for PT for ELA, Grade Six

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4						
0.4 –< 0.6	6	6	6	6	6	6
0.6 –< 0.8	18	18	18	18	18	18
0.8 –< 1.0	22	22	22	22	22	22
1.0 –< 1.2	11	11	11	11	11	11
1.2 –< 1.4	4	4	4	4	4	4
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.61 Distribution of IRT α -values Conditional for PT for ELA, Grade Seven

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4	6	6	6	6	6	6
0.4 –< 0.6	3	3	3	3	3	3
0.6 –< 0.8	30	30	30	30	30	30
0.8 –< 1.0	29	29	29	29	29	29
1.0 –< 1.2	4	4	4	4	4	4
1.2 –< 1.4	5	5	5	5	5	5
1.4 –< 1.6	1	1	1	1	1	1
1.6 –< 1.8	1	1	1	1	1	1
1.8 –< 2.0						

Table 8.A.62 Distribution of IRT α -values Conditional for PT for ELA, Grade Eight

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4	5	5	5	5	5	5
0.4 –< 0.6	13	13	13	13	13	13
0.6 –< 0.8	41	41	41	41	41	41
0.8 –< 1.0	27	27	27	27	27	27
1.0 –< 1.2	3	3	3	3	3	3
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.63 Distribution of IRT α -values Conditional for PT for ELA, Grade Eleven

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4	4	4	4	4	4	4
0.4 –< 0.6	48	48	48	48	48	48
0.6 –< 0.8	51	51	51	51	51	51
0.8 –< 1.0	2	2	2	2	2	2
1.0 –< 1.2						
1.2 –< 1.4						
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.64 Distribution of IRT α -values Conditional for PT for Mathematics, Grade Three

IRT α -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	1	1	1	1	1	1
0.2 –< 0.4	1	1	1	1	1	1
0.4 –< 0.6	9	9	9	9	9	9
0.6 –< 0.8	20	20	20	20	20	20
0.8 –< 1.0	16	16	16	16	16	16
1.0 –< 1.2	23	23	23	23	23	23
1.2 –< 1.4	7	7	7	7	7	7
1.4 –< 1.6	3	3	3	3	3	3
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.65 Distribution of IRT α -values Conditional for PT for Mathematics, Grade Four

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2					
0.2 –< 0.4					
0.4 –< 0.6	8	8	8	8	8
0.6 –< 0.8	37	37	37	37	37
0.8 –< 1.0	27	27	27	27	27
1.0 –< 1.2	15	15	15	15	15
1.2 –< 1.4	6	6	6	6	6
1.4 –< 1.6	2	2	2	2	2
1.6 –< 1.8					
1.8 –< 2.0					

Table 8.A.66 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Five

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4	8	8	8	8	8	8
0.4 –< 0.6	18	18	18	18	18	18
0.6 –< 0.8	24	24	24	24	24	24
0.8 –< 1.0	20	20	20	20	20	20
1.0 –< 1.2	9	9	9	9	9	9
1.2 –< 1.4	6	6	6	6	6	6
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.67 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Six

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2						
0.2 –< 0.4						
0.4 –< 0.6	16	16	16	16	16	16
0.6 –< 0.8	35	35	35	35	35	35
0.8 –< 1.0	13	13	13	13	13	13
1.0 –< 1.2	7	7	7	7	7	7
1.2 –< 1.4	1	1	1	1	1	1
1.4 –< 1.6						
1.6 –< 1.8						
1.8 –< 2.0						

Table 8.A.68 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Seven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	3	3	3	3	3	3
0.2 –< 0.4	4	4	4	4	4	4
0.4 –< 0.6	3	3	3	3	3	3
0.6 –< 0.8	23	23	23	23	23	23
0.8 –< 1.0	22	22	22	22	22	22
1.0 –< 1.2	18	18	18	18	18	18
1.2 –< 1.4	10	10	10	10	10	10
1.4 –< 1.6	3	3	3	3	3	3
1.6 –< 1.8	1	1	1	1	1	1
1.8 –< 2.0						

Table 8.A.69 Distribution of IRT α -values Conditional for PT for Mathematics, Grade Eight

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 –< 0.2							
0.2 –< 0.4							
0.4 –< 0.6	9	9	9	9	9	9	9
0.6 –< 0.8	13	13	13	13	13	13	13
0.8 –< 1.0	19	19	19	19	19	19	19
1.0 –< 1.2	13	13	13	13	13	13	13
1.2 –< 1.4	4	4	4	4	4	4	4
1.4 –< 1.6							
1.6 –< 1.8							
1.8 –< 2.0							

Table 8.A.70 Distribution of IRT α -values Conditional for PT for Mathematics, Grade Eleven

IRT α -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 –< 0.2							
0.2 –< 0.4	11	11	11	11	11	11	11
0.4 –< 0.6	18	18	18	18	18	18	18
0.6 –< 0.8	16	16	16	16	16	16	16
0.8 –< 1.0	8	8	8	8	8	8	8
1.0 –< 1.2	5	5	5	5	5	5	5
1.2 –< 1.4	3	3	3	3	3	3	3
1.4 –< 1.6							
1.6 –< 1.8							
1.8 –< 2.0							

Note: In Table 8.A.71 through Table 8.A.84, the mode of each distribution is in **bold** text.

Table 8.A.71 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Three

IRT <i>b</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5						
-3.5 <- -3.0						
-3.0 <- -2.5						
-2.5 <- -2.0						
-2.0 <- -1.5						
-1.5 <- -1.0	4	4	4	4	4	4
-1.0 <- -0.5	13	13	13	13	13	13
-0.5 <- 0	10	10	10	10	10	10
0 <- 0.5	14	14	14	14	14	14
0.5 <- 1.0	10	10	10	10	10	10
1.0 <- 1.5	5	5	5	5	5	5
1.5 <- 2.0	3	3	3	3	3	3
2.0 <- 2.5	1	1	1	1	1	1
2.5 <- 3.0	1	1	1	1	1	1
3.0 <- 3.5	1	1	1	1	1	1
>= 3.5						

Table 8.A.72 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Four

IRT <i>b</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5						
-3.5 <- -3.0						
-3.0 <- -2.5						
-2.5 <- -2.0						
-2.0 <- -1.5	1	1	1	1	1	1
-1.5 <- -1.0	1	1	1	1	1	1
-1.0 <- -0.5						
-0.5 <- 0	25	25	25	25	25	25
0 <- 0.5	19	19	19	19	19	19
0.5 <- 1.0	19	19	19	19	19	19
1.0 <- 1.5	7	7	7	7	7	7
1.5 <- 2.0	7	7	7	7	7	7
2.0 <- 2.5	1	1	1	1	1	1
2.5 <- 3.0	2	2	2	2	2	2
3.0 <- 3.5						
>= 3.5						

Table 8.A.73 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5	1	1	1	1	1	1
-0.5 < 0	18	18	18	18	18	18
0 < 0.5	28	28	28	28	28	28
0.5 < 1.0	13	13	13	13	13	13
1.0 < 1.5	16	16	16	16	16	16
1.5 < 2.0	11	11	11	11	11	11
2.0 < 2.5	3	3	3	3	3	3
2.5 < 3.0	4	4	4	4	4	4
3.0 < 3.5	1	1	1	1	1	1
>= 3.5						

Table 8.A.74 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5						
-0.5 < 0	13	13	13	13	13	13
0 < 0.5	7	7	7	7	7	7
0.5 < 1.0	14	14	14	14	14	14
1.0 < 1.5	12	12	12	12	12	12
1.5 < 2.0	8	8	8	8	8	8
2.0 < 2.5	4	4	4	4	4	4
2.5 < 3.0	1	1	1	1	1	1
3.0 < 3.5	2	2	2	2	2	2
>= 3.5						

Table 8.A.75 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5						
-0.5 < 0	5	5	5	5	5	5
0 < 0.5	11	11	11	11	11	11
0.5 < 1.0	21	21	21	21	21	21
1.0 < 1.5	24	24	24	24	24	24
1.5 < 2.0	5	5	5	5	5	5
2.0 < 2.5	7	7	7	7	7	7
2.5 < 3.0	3	3	3	3	3	3
3.0 < 3.5	2	2	2	2	2	2
>= 3.5	1	1	1	1	1	1

Table 8.A.76 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5						
-0.5 < 0	16	16	16	16	16	16
0 < 0.5	6	6	6	6	6	6
0.5 < 1.0	9	9	9	9	9	9
1.0 < 1.5	25	25	25	25	25	25
1.5 < 2.0	14	14	14	14	14	14
2.0 < 2.5	10	10	10	10	10	10
2.5 < 3.0	4	4	4	4	4	4
3.0 < 3.5	3	3	3	3	3	3
>= 3.5	2	2	2	2	2	2

Table 8.A.77 Distribution of IRT b -values Conditional for PT for ELA, Grade Eleven

IRT b -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5						
-0.5 < 0						
0 < 0.5						
0.5 < 1.0	8	8	8	8	8	8
1.0 < 1.5	26	26	26	26	26	26
1.5 < 2.0	42	42	42	42	42	42
2.0 < 2.5	15	15	15	15	15	15
2.5 < 3.0	3	3	3	3	3	3
3.0 < 3.5	3	3	3	3	3	3
≥ 3.5	8	8	8	8	8	8

Table 8.A.78 Distribution of IRT b -values Conditional for PT for Mathematics, Grade Three

IRT b -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5	8	8	8	8	8	8
-1.5 < -1.0	16	16	16	16	16	16
-1.0 < -0.5	15	15	15	15	15	15
-0.5 < 0	22	22	22	22	22	22
0 < 0.5	15	15	15	15	15	15
0.5 < 1.0	3	3	3	3	3	3
1.0 < 1.5						
1.5 < 2.0						
2.0 < 2.5	1	1	1	1	1	1
2.5 < 3.0						
3.0 < 3.5						
≥ 3.5						

Table 8.A.79 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Four

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5					
-3.5 < -3.0					
-3.0 < -2.5					
-2.5 < -2.0					
-2.0 < -1.5	6	6	6	6	6
-1.5 < -1.0	15	15	15	15	15
-1.0 < -0.5	11	11	11	11	11
-0.5 < 0	8	8	8	8	8
0 < 0.5	28	28	28	28	28
0.5 < 1.0	18	18	18	18	18
1.0 < 1.5	4	4	4	4	4
1.5 < 2.0	3	3	3	3	3
2.0 < 2.5	2	2	2	2	2
2.5 < 3.0					
3.0 < 3.5					
>= 3.5					

Table 8.A.80 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0	2	2	2	2	2	2
-1.0 < -0.5	2	2	2	2	2	2
-0.5 < 0	5	5	5	5	5	5
0 < 0.5	7	7	7	7	7	7
0.5 < 1.0	29	29	29	29	29	29
1.0 < 1.5	20	20	20	20	20	20
1.5 < 2.0	10	10	10	10	10	10
2.0 < 2.5	7	7	7	7	7	7
2.5 < 3.0	1	1	1	1	1	1
3.0 < 3.5						
>= 3.5	2	2	2	2	2	2

Table 8.A.81 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5	11	11	11	11	11	11
-0.5 < 0	10	10	10	10	10	10
0 < 0.5	9	9	9	9	9	9
0.5 < 1.0	7	7	7	7	7	7
1.0 < 1.5	13	13	13	13	13	13
1.5 < 2.0	14	14	14	14	14	14
2.0 < 2.5	8	8	8	8	8	8
2.5 < 3.0						
3.0 < 3.5						
>= 3.5						

Table 8.A.82 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5						
-3.5 < -3.0						
-3.0 < -2.5						
-2.5 < -2.0						
-2.0 < -1.5						
-1.5 < -1.0						
-1.0 < -0.5	7	7	7	7	7	7
-0.5 < 0	1	1	1	1	1	1
0 < 0.5	6	6	6	6	6	6
0.5 < 1.0	5	5	5	5	5	5
1.0 < 1.5	22	22	22	22	22	22
1.5 < 2.0	13	13	13	13	13	13
2.0 < 2.5	17	17	17	17	17	17
2.5 < 3.0	11	11	11	11	11	11
3.0 < 3.5	2	2	2	2	2	2
>= 3.5	3	3	3	3	3	3

Table 8.A.83 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5							
-3.5 <- -3.0							
-3.0 <- -2.5							
-2.5 <- -2.0							
-2.0 <- -1.5							
-1.5 <- -1.0							
-1.0 <- -0.5							
-0.5 <- 0	1	1	1	1	1	1	1
0 <- 0.5	2	2	2	2	2	2	2
0.5 <- 1.0	3	3	3	3	3	3	3
1.0 <- 1.5	10	10	10	10	10	10	10
1.5 <- 2.0	18	18	18	18	18	18	18
2.0 <- 2.5	15	15	15	15	15	15	15
2.5 <- 3.0	7	7	7	7	7	7	7
3.0 <- 3.5	2	2	2	2	2	2	2
>= 3.5							

Table 8.A.84 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5							
-3.5 <- -3.0							
-3.0 <- -2.5							
-2.5 <- -2.0							
-2.0 <- -1.5							
-1.5 <- -1.0							
-1.0 <- -0.5							
-0.5 <- 0							
0 <- 0.5							
0.5 <- 1.0	1	1	1	1	1	1	1
1.0 <- 1.5	11	11	11	11	11	11	11
1.5 <- 2.0	7	7	7	7	7	7	7
2.0 <- 2.5	3	3	3	3	3	3	3
2.5 <- 3.0	15	15	15	15	15	15	15
3.0 <- 3.5	14	14	14	14	14	14	14
>= 3.5	10	10	10	10	10	10	10

Table 8.A.85 PT Item Statistics—ELA, Grade Three

Item ID	Score Points	A	B	D
VH295915	2	1.15	0.74	0.17, -0.17
VH295224	2	1.09	-0.69	0.45, -0.45
VH295563	2	0.95	-0.56	0.22, -0.22
VH295686	2	0.80	-0.65	0.1, -0.1
VH295419	3	0.62	-0.66	1.85, -0.16, -1.69
VH295672	2	0.60	-0.72	0.53, -0.53
VH295343	2	0.99	0.66	0.43, -0.43
VH295346	2	0.73	-1.41	0.82, -0.82
VH295948	1	0.45	2.95	
VH295951	4	0.38	0.85	-0.74, 1.91, 0.08, -1.25
VH295656	1	0.63	1.35	
VH296067	2	0.79	0.28	0.1, -0.1
VH296070	2	0.76	-0.11	-0.03, 0.03
VH295712	2	0.75	0.77	0.27, -0.27
VH295715	2	0.75	-0.62	0.35, -0.35
VH295878	2	0.37	0.04	0.75, -0.75
VH295881	4	0.64	0.03	0.76, 1.07, -0.24, -1.59
VH295961	2	0.73	0.56	0.1, -0.1
VH295964	2	0.75	-0.57	-0.1, 0.1
VH296000	1	0.33	-0.39	
VH295911	2	0.92	0.84	0.35, -0.35
VH295914	2	0.86	-0.93	0.38, -0.38
VH295223	3	1.00	-0.07	1.25, 0.03, -1.28
VH295226	2	0.83	1.47	0.88, -0.88
VH295562	4	0.60	-0.00	0.39, 1.47, -0.13, -1.73
VH295565	2	0.98	0.48	0.63, -0.63
VH295685	4	0.54	0.13	0.74, 1.33, -0.18, -1.89
VH295688	2	0.91	1.18	0.5, -0.5
VH295421	2	0.59	-0.32	-1.34, 1.34
VH295671	3	0.55	0.06	1.54, 0.19, -1.73
VH295675	2	0.84	-0.28	-0.12, 0.12
VH295342	2	0.63	0.37	0.72, -0.72
VH295345	3	0.67	-0.78	1.95, 0.04, -1.99
VH295947	2	0.38	-0.57	0.57, -0.57
VH295658	2	1.02	0.24	0.42, -0.42
VH295661	2	0.86	-1.26	0.75, -0.75
VH296066	1	0.86	0.01	
VH296069	4	0.49	0.62	0.12, 1.42, 0.17, -1.71
VH295711	2	0.47	-0.73	-0.7, 0.7
VH295714	3	0.66	-0.03	1.02, 0.4, -1.42
VH295877	2	0.69	0.61	0.42, -0.42
VH295963	3	0.67	0.07	0.76, 0.41, -1.18
VH295966	2	0.60	1.28	-0.25, 0.25
VH295996	2	0.57	1.52	-0.85, 0.85
VH295999	2	0.63	-1.10	0.36, -0.36
VH295913	3	0.71	-0.36	1.4, -0.01, -1.39
VH295916	1	0.61	0.04	

Item ID	Score Points	A	B	D
VH295225	2	0.90	0.80	0.08, -0.08
VH295564	2	0.64	0.36	0.91, -0.91
VH295687	1	0.30	2.31	
VH295417	1	0.62	1.59	
VH295420	2	0.67	-1.28	0.47, -0.47
VH295674	2	0.55	-0.19	0.13, -0.13
VH295952	2	0.60	0.19	-0.28, 0.28
VH295657	2	0.78	0.40	0.41, -0.41
VH295660	3	0.86	-0.82	1.76, -0.02, -1.74
VH296065	2	0.69	0.56	0.22, -0.22
VH295879	1	0.40	3.03	
VH295882	2	1.03	-0.66	0.16, -0.16
VH295965	1	0.71	1.81	
VH295995	2	0.98	1.02	0.4, -0.4
VH295998	3	0.58	-0.44	1.64, -0.11, -1.53

Table 8.A.86 PT Item Statistics—ELA, Grade Four

Item ID	Score Points	A	B	D
VH295456	2	0.64	0.65	-0.05, 0.05
VH295458	2	0.42	0.66	-0.66, 0.66
VH295460	3	0.74	-0.49	0.96, 0.31, -1.28
VH295521	2	0.64	0.31	0.12, -0.12
VH295523	4	0.60	0.36	1.49, 1.33, -0.47, -2.34
VH295524	2	0.85	-0.39	0.27, -0.27
VH295893	4	0.47	0.61	1.95, 1.55, -0.83, -2.67
VH295895	2	0.67	-0.48	0.23, -0.23
VH295733	2	0.67	-0.36	0.01, -0.01
VH295786	2	0.56	0.85	-0.23, 0.23
VH295788	3	0.63	-0.46	0.83, 0.37, -1.2
VH295790	2	0.63	1.55	0.27, -0.27
VH295446	2	0.68	-0.35	0.37, -0.37
VH295780	1	0.44	2.76	
VH295782	4	0.43	0.34	0.49, 1.24, 0.04, -1.77
VH295784	2	0.48	0.53	-1.15, 1.15
VH295863	2	0.93	1.00	0.33, -0.33
VH295867	2	0.91	0.05	0.31, -0.31
VH295492	2	1.03	0.78	0.97, -0.97
VH295494	4	0.61	0.44	2.26, 1.03, -0.8, -2.48
VH295496	2	0.82	0.49	0.21, -0.21
VH295704	2	0.78	0.59	0.21, -0.21
VH295706	1	0.28	2.82	
VH295708	3	0.65	-0.26	0.74, 0.41, -1.15
VH295630	2	0.66	1.45	-0.5, 0.5
VH295632	3	0.52	-0.09	0.85, 0.7, -1.55
VH295257	2	0.71	1.07	0.56, -0.56
VH295259	4	0.41	0.10	-0.21, 1.51, 0.11, -1.41
VH295261	1	0.32	1.65	
VH295954	2	0.58	0.62	-0.05, 0.05
VH295958	2	0.66	-0.34	0.16, -0.16
VH295350	2	0.77	1.20	0.4, -0.4
VH295352	4	0.52	-0.06	0.63, 1.05, -0.43, -1.25
VH295643	2	0.79	0.54	0.83, -0.83
VH295645	4	0.49	0.20	0.29, 1.19, -0.2, -1.29
VH295647	2	0.75	0.41	0.24, -0.24
VH295589	2	0.85	0.04	0.18, -0.18
VH295591	2	0.65	1.05	0.21, -0.21
VH295428	2	0.53	-0.25	-0.04, 0.04
VH295772	2	1.06	0.78	0.52, -0.52
VH295774	1	0.70	0.50	
VH295776	4	0.53	-0.10	0.86, 1, -0.54, -1.31
VH295857	2	0.63	0.77	0.39, -0.39
VH295859	4	0.55	0.16	0.21, 1.19, -0.18, -1.22
VH295861	1	0.52	1.41	
VH295457	1	0.48	-1.15	
VH295461	2	0.98	-0.38	0.45, -0.45

Item ID	Score Points	A	B	D
VH295520	2	0.48	0.10	0.55, -0.55
VH295894	2	0.65	-0.44	0.28, -0.28
VH295896	2	0.80	1.16	0.37, -0.37
VH295730	2	0.53	0.03	-0.89, 0.89
VH295732	4	0.45	0.59	1.54, 1.38, -0.23, -2.68
VH295734	2	0.68	0.61	0.26, -0.26
VH295789	2	0.94	-0.31	0.52, -0.52
VH295791	1	0.41	0.13	
VH295443	2	0.82	1.44	0.32, -0.32
VH295445	4	0.49	0.57	2.09, 1.34, -0.69, -2.74
VH295779	2	0.51	0.97	0.68, -0.68
VH295783	2	0.77	-0.04	0.33, -0.33
VH295864	1	0.49	1.54	
VH295866	4	0.49	0.24	0.45, 1.17, -0.06, -1.56
VH295868	2	0.56	0.15	-0.8, 0.8
VH295495	2	0.87	-0.36	0.43, -0.43
VH295705	2	0.89	0.77	0.27, -0.27
VH295709	2	0.90	-0.30	0.4, -0.4
VH295629	2	0.42	1.76	0.16, -0.16
VH295633	2	0.77	-0.15	0.39, -0.39
VH295256	2	0.67	1.75	0.45, -0.45
VH295260	2	0.82	-0.08	0.47, -0.47
VH295957	3	0.44	-0.15	1.28, 0.63, -1.9
VH295959	2	0.68	0.83	0.5, -0.5
VH295349	2	0.60	-0.16	0.14, -0.14
VH295353	2	0.87	-0.14	0.42, -0.42
VH295642	1	0.40	-1.52	
VH295646	2	0.90	-0.02	0.26, -0.26
VH295588	4	0.49	0.10	-0.25, 1.17, -0.04, -0.88
VH295590	2	0.72	0.03	-0.15, 0.15
VH295592	1	0.62	2.36	
VH295423	2	0.80	0.51	0.62, -0.62
VH295425	1	0.47	1.92	
VH295427	4	0.39	0.97	2.1, 1.67, -0.61, -3.16
VH295773	2	0.71	1.99	0.88, -0.88
VH295777	2	0.85	-0.27	0.44, -0.44
VH295856	2	0.39	0.37	0.73, -0.73
VH295860	2	0.90	-0.19	0.15, -0.15

Table 8.A.87 PT Item Statistics—ELA, Grade Five

Item ID	Score Points	A	B	D
VH295901	4	0.41	1.00	-0.73, 2.33, 0.26, -1.86
VH295902	2	0.75	0.40	0.09, -0.09
VH295903	1	0.63	1.66	
VH295540	1	0.57	2.75	
VH295541	2	0.87	0.82	0.47, -0.47
VH295544	4	0.56	0.24	2.05, 0.8, -0.55, -2.3
VH295545	2	0.87	-0.22	0.94, -0.94
VH296080	2	0.50	-0.34	0.3, -0.3
VH296082	4	0.58	0.11	2.42, 0.83, -0.7, -2.55
VH296083	2	0.80	-0.34	1.13, -1.13
VH296084	2	0.59	0.97	0.86, -0.86
VH296085	1	0.73	2.94	
VH295968	2	0.87	0.90	0.45, -0.45
VH295969	2	0.48	1.18	-0.14, 0.14
VH295970	1	0.63	2.05	
VH295972	4	0.59	0.21	2.39, 0.67, -0.69, -2.37
VH295973	2	0.91	-0.22	0.85, -0.85
VH295235	1	0.59	1.58	
VH295236	2	0.86	1.59	0.13, -0.13
VH295237	2	0.66	1.33	-0.1, 0.1
VH295239	4	0.73	0.14	1.42, 0.84, -0.44, -1.82
VH295240	2	1.00	0.07	0.7, -0.7
VH295228	2	0.38	0.31	0.89, -0.89
VH295229	2	0.58	1.57	0.89, -0.89
VH295231	4	0.65	0.07	1.86, 0.83, -0.65, -2.03
VH295232	2	0.81	-0.29	0.95, -0.95
VH295233	1	0.79	2.83	
VH295918	2	0.65	1.06	0.08, -0.08
VH295919	2	0.71	0.99	0.72, -0.72
VH295921	4	0.57	0.29	0.49, 1.43, -0.06, -1.86
VH295922	2	1.07	-0.04	0.71, -0.71
VH295924	1	0.40	-0.66	
VH295449	2	0.76	1.11	0, 0
VH295450	2	0.79	0.76	0.37, -0.37
VH295451	1	0.36	2.13	
VH295453	4	0.57	0.05	2.34, 0.75, -0.66, -2.42
VH295454	2	0.82	-0.42	1.06, -1.06
VH295213	1	0.65	0.21	
VH295216	4	0.54	0.30	0.63, 1.85, -0.21, -2.27
VH295217	2	1.03	0.05	0.63, -0.63
VH295218	2	0.51	1.51	0.43, -0.43
VH295219	2	0.61	1.16	0.64, -0.64
VH295794	4	0.64	0.29	2.21, 0.77, -0.4, -2.58
VH295795	2	0.91	-0.22	0.75, -0.75
VH295796	1	0.60	1.40	
VH295797	2	0.44	1.51	-1.46, 1.46
VH295798	2	0.63	1.01	0.46, -0.46

Item ID	Score Points	A	B	D
VH295807	2	0.75	0.38	0.5, -0.5
VH295808	2	0.79	0.98	0.52, -0.52
VH295809	1	0.59	2.90	
VH295811	4	0.64	0.24	1.07, 1.2, -0.1, -2.17
VH295812	2	1.14	-0.04	0.9, -0.9
VH296030	2	0.61	1.87	0.36, -0.36
VH296031	1	0.40	1.92	
VH296032	2	0.78	0.87	0.48, -0.48
VH296034	4	0.70	0.37	1.79, 0.95, -0.53, -2.2
VH296035	2	1.08	0.03	0.64, -0.64
VH295836	4	0.61	0.28	0.58, 1.49, -0.27, -1.8
VH295837	2	1.12	0.03	0.77, -0.77
VH295838	1	0.50	0.45	
VH295839	2	0.57	1.22	0.41, -0.41
VH295840	2	0.53	0.88	0.07, -0.07
VH295430	2	0.67	-0.00	0.59, -0.59
VH295432	4	0.66	0.09	1.89, 0.89, -0.62, -2.16
VH295433	2	0.98	-0.40	0.89, -0.89
VH295434	1	0.62	3.11	
VH295435	2	0.75	0.77	0.59, -0.59
VH295898	2	0.47	1.14	1.15, -1.15
VH296073	4	0.66	0.14	2.09, 0.72, -0.44, -2.38
VH296075	2	0.91	-0.28	0.91, -0.91
VH296076	2	0.71	0.77	-0.12, 0.12
VH296077	2	0.94	0.95	0.29, -0.29
VH295738	2	0.83	1.07	0.76, -0.76
VH295739	2	0.81	1.52	0.82, -0.82
VH295741	4	0.74	0.21	0.75, 1.3, -0.32, -1.72
VH295742	2	1.25	0.07	0.79, -0.79
VH295403	2	0.89	1.14	-0.12, 0.12
VH295404	2	0.80	0.88	0.29, -0.29
VH295405	1	0.76	1.87	
VH295407	4	0.59	-0.10	2.19, 0.67, -0.72, -2.14
VH295408	2	0.77	-0.43	1.02, -1.02
VH295477	2	0.71	1.19	-0.16, 0.16
VH295478	1	0.48	1.42	
VH295479	2	0.75	1.53	0.81, -0.81
VH295481	4	0.54	0.04	0.55, 1.37, -0.22, -1.7
VH295482	2	1.06	-0.04	0.74, -0.74
VH296087	2	0.67	1.35	0.29, -0.29
VH296088	2	0.68	0.44	-0.03, 0.03
VH296089	1	0.52	2.06	
VH296091	4	0.62	0.24	0.82, 1.69, -0.35, -2.16
VH296092	2	0.96	-0.12	0.68, -0.68
VH296044	2	0.72	0.74	0.55, -0.55
VH296045	2	0.63	1.18	0.12, -0.12
VH296048	4	0.56	-0.04	0.04, 1.56, -0.11, -1.49
VH296049	2	0.98	-0.07	0.52, -0.52

Table 8.A.88 PT Item Statistics—ELA, Grade Six

Item ID	Score Points	A	B	D
VH295677	2	0.87	1.63	0.73, -0.73
VH295938	2	1.09	-0.00	0.29, -0.29
VH295314	2	0.60	1.69	-0.51, 0.51
VH295318	2	1.30	-0.06	0.35, -0.35
VH295982	2	0.90	0.88	0.37, -0.37
VH295986	2	1.07	-0.30	0.41, -0.41
VH296037	2	1.22	1.22	0.32, -0.32
VH296039	2	0.94	1.57	0.49, -0.49
VH296041	3	1.03	0.08	1.24, 0.21, -1.45
VH295681	4	0.83	0.67	1.3, 1.07, -0.57, -1.81
VH295678	2	0.86	2.03	0.19, -0.19
VH295664	4	0.74	0.42	0.5, 1.14, -0.19, -1.45
VH295666	2	0.72	1.04	0.73, -0.73
VH295821	2	0.78	1.10	0.34, -0.34
VH295825	4	0.77	0.58	2.19, 1.31, -0.76, -2.74
VH295691	2	0.90	1.48	0.68, -0.68
VH295695	2	0.88	-0.05	0.32, -0.32
VH295933	1	0.64	-0.11	
VH296042	2	1.35	-0.06	0.32, -0.32
VH295872	2	0.74	0.79	0.32, -0.32
VH295874	4	0.69	0.60	0.13, 1.24, -0.19, -1.17
VH295581	2	0.51	2.10	-0.89, 0.89
VH295585	2	1.01	-0.03	0.22, -0.22
VH295751	2	0.48	0.85	-0.19, 0.19
VH295753	1	0.67	3.07	
VH295755	4	0.79	0.46	2.02, 0.63, -0.84, -1.8
VH295871	2	0.91	1.75	-0.33, 0.33
VH295875	2	1.10	0.13	-0.08, 0.08
VH295580	2	0.75	1.19	0.28, -0.28
VH295582	1	1.05	1.71	
VH295584	4	0.88	0.74	1.51, 1.04, -0.69, -1.86
VH295752	2	0.89	1.32	0.44, -0.44
VH295756	2	0.91	-0.21	0.3, -0.3
VH295437	2	0.73	1.49	-0.02, 0.02
VH295441	2	1.11	-0.03	0.32, -0.32
VH295935	2	0.75	1.11	0.37, -0.37
VH295937	4	0.96	0.65	1.59, 0.67, -0.64, -1.62
VH295315	2	0.96	1.62	0.3, -0.3
VH295317	4	1.05	0.66	1.94, 0.74, -0.71, -1.97
VH295983	2	0.67	0.61	0.52, -0.52
VH295985	4	0.94	0.53	2.16, 1.1, -0.9, -2.37
VH295438	2	0.45	2.77	-0.28, 0.28
VH295440	4	0.69	0.37	0.95, 0.97, -0.35, -1.57
VH295555	2	0.76	1.23	0.48, -0.48
VH295559	2	1.03	0.12	0.26, -0.26
VH296009	1	0.92	1.66	
VH296011	2	0.88	1.23	0.4, -0.4

Item ID	Score Points	A	B	D
VH296013	4	0.93	0.77	1.61, 0.79, -0.71, -1.69
VH295682	2	1.14	-0.14	0.25, -0.25
VH295665	2	1.34	-0.09	0.21, -0.21
VH295667	2	0.54	1.36	0.5, -0.5
VH295822	2	0.76	2.28	-1.04, 1.04
VH295826	2	0.95	-0.44	0.38, -0.38
VH295690	2	0.68	1.88	0.66, -0.66
VH295692	1	0.89	2.31	
VH295694	4	0.63	0.72	1.91, 0.76, -0.74, -1.93
VH295934	2	0.85	0.57	0.21, -0.21
VH295556	1	0.85	3.09	
VH295558	4	0.58	0.39	0.31, 1.34, -0.17, -1.48
VH296010	2	0.85	1.40	0.29, -0.29
VH296014	2	1.15	-0.04	0.31, -0.31

Table 8.A.89 PT Item Statistics—ELA, Grade Seven

Item ID	Score Points	A	B	D
VH296105	3	1.00	0.59	1.27, 0.04, -1.31
VH296106	2	1.24	0.27	0.56, -0.56
VH295322	4	1.14	1.22	2.17, 0.59, -0.6, -2.16
VH295323	2	1.33	0.16	0.59, -0.59
VH295324	2	0.79	1.28	0.67, -0.67
VH295325	2	0.91	1.43	0.39, -0.39
VH295397	2	0.74	1.42	0.58, -0.58
VH295399	3	1.28	0.93	1.03, 0.02, -1.05
VH295400	2	1.65	0.52	0.41, -0.41
VH295401	2	0.81	1.28	0.29, -0.29
VH295574	2	0.72	1.15	-0.05, 0.05
VH295578	2	0.98	0.42	0.48, -0.48
VH295905	1	0.29	2.05	
VH295907	3	0.71	0.84	1.51, -0.1, -1.41
VH295909	2	0.72	1.08	0.17, -0.17
VH295505	2	0.54	1.19	0, 0
VH295509	3	0.80	0.73	1.48, 0.29, -1.76
VH296116	2	0.61	1.70	0.42, -0.42
VH296118	3	0.68	0.55	1.66, 0.14, -1.8
VH295412	2	1.00	-0.13	0.3, -0.3
VH295414	2	0.61	1.97	0.46, -0.46
VH295273	2	0.83	0.05	0.49, -0.49
VH295263	2	0.82	0.82	0.24, -0.24
VH295267	3	0.73	0.51	1.74, -0.04, -1.7
VH295335	3	1.25	0.63	1.33, -0.05, -1.28
VH295337	1	0.27	4.54	
VH295339	2	0.81	0.96	0.43, -0.43
VH295717	2	0.75	2.05	0.27, -0.27
VH295721	2	0.99	0.15	0.52, -0.52
VH295940	2	0.67	1.45	0.19, -0.19
VH295944	3	0.83	0.76	1.68, -0.07, -1.61
VH295638	2	0.88	-0.00	0.4, -0.4
VH295758	2	0.87	1.30	0.2, -0.2
VH295762	4	0.66	1.08	0.75, 0.72, 0, -1.47
VH295306	2	0.89	1.22	0.34, -0.34
VH295311	2	0.96	-0.05	0.42, -0.42
VH295526	2	0.71	1.72	-0.34, 0.34
VH295530	2	0.90	0.58	0.26, -0.26
VH295575	2	0.36	2.52	0.39, -0.39
VH295577	4	0.66	0.78	1.47, 0.65, -0.32, -1.79
VH295908	2	0.92	0.37	0.58, -0.58
VH295506	2	0.67	1.80	0.77, -0.77
VH295510	2	0.97	0.12	0.48, -0.48
VH296115	2	0.63	1.29	0.2, -0.2
VH296119	2	0.87	-0.06	0.56, -0.56
VH295411	4	0.88	1.24	2.21, 0.7, -0.68, -2.23
VH295415	2	0.66	2.11	0.47, -0.47

Item ID	Score Points	A	B	D
VH295270	2	0.78	1.50	0.22, -0.22
VH295272	4	0.67	1.25	2.31, 0.66, -0.83, -2.15
VH295274	2	0.65	1.43	-0.3, 0.3
VH295264	2	0.72	1.29	0.02, -0.02
VH295268	2	0.87	-0.03	0.64, -0.64
VH295336	2	1.50	0.34	0.54, -0.54
VH295338	2	0.67	2.25	-0.16, 0.16
VH295718	2	0.40	2.59	0.43, -0.43
VH295720	3	0.94	0.63	1.53, -0.11, -1.42
VH295941	2	0.92	1.41	0.36, -0.36
VH295945	2	0.82	0.17	0.55, -0.55
VH295635	2	0.66	2.02	0.17, -0.17
VH295637	3	0.70	0.56	1.31, 0.22, -1.53
VH295639	2	0.97	1.22	0.44, -0.44
VH295759	2	0.76	1.28	0.18, -0.18
VH295763	2	1.02	0.52	0.14, -0.14
VH295305	2	0.87	0.98	0.21, -0.21
VH295307	1	0.96	2.95	
VH295310	3	0.82	0.49	1.35, 0.15, -1.5
VH295527	2	0.31	3.20	-0.1, 0.1
VH295529	4	0.66	1.27	1.47, 0.62, -0.37, -1.72
VH295608	2	0.78	1.57	0.41, -0.41
VH295609	1	0.59	0.54	
VH295611	4	0.61	0.89	1.58, 1.04, -0.36, -2.26
VH295612	2	0.95	0.17	0.38, -0.38
VH295613	2	0.76	1.10	0.66, -0.66
VH295370	2	0.57	2.23	0.33, -0.33
VH295371	2	0.75	2.38	0.92, -0.92
VH295373	3	0.99	1.00	0.97, 0.02, -0.99
VH295374	2	1.20	0.59	0.37, -0.37
VH296101	2	0.37	3.24	-0.61, 0.61
VH296102	2	1.00	1.40	0.35, -0.35

Table 8.A.90 PT Item Statistics—ELA, Grade Eight

Item ID	Score Points	A	B	D
VH295570	2	0.69	-0.12	0.1, -0.1
VH296016	2	0.53	2.31	0.89, -0.89
VH296018	4	0.74	1.04	2.41, 1.23, -0.79, -2.85
VH296021	2	0.53	1.44	0.07, -0.07
VH295484	2	0.80	2.41	-0.2, 0.2
VH295488	2	0.86	-0.23	0.5, -0.5
VH295595	2	0.51	2.62	0.07, -0.07
VH295597	4	0.57	1.06	-0.21, 1.02, 0.05, -0.85
VH295356	2	0.68	1.49	-0.01, 0.01
VH295358	4	0.82	1.09	2.63, 0.8, -1.27, -2.16
VH295360	1	0.49	2.35	
VH295975	2	0.84	2.14	0.78, -0.78
VH295977	2	0.62	1.77	0.35, -0.35
VH295979	3	0.70	0.42	1.42, 0.42, -1.83
VH296061	2	0.73	0.07	0.27, -0.27
VH296063	2	0.62	1.55	0.26, -0.26
VH295463	2	0.89	1.53	0.19, -0.19
VH295467	2	0.79	0.00	0.33, -0.33
VH295278	2	0.37	2.80	-0.72, 0.72
VH295280	4	0.87	1.08	1.95, 0.99, -0.81, -2.13
VH295282	1	0.43	3.64	
VH295765	2	0.88	1.36	0.46, -0.46
VH295769	4	0.70	0.78	2.19, 1.06, -1.12, -2.13
VH295623	2	0.76	2.37	0.8, -0.8
VH295625	4	0.87	1.01	2.21, 0.81, -0.68, -2.34
VH295828	2	0.91	1.00	0.32, -0.32
VH295832	4	0.96	1.10	2.24, 1.04, -0.75, -2.54
VH295299	2	0.60	2.00	0.23, -0.23
VH295303	2	0.90	0.44	-0.29, 0.29
VH295383	2	0.48	1.85	-0.26, 0.26
VH295387	4	0.93	0.96	1.94, 0.77, -0.9, -1.81
VH296026	4	0.85	1.28	2.5, 0.83, -1.17, -2.16
VH296028	2	0.83	1.10	0.17, -0.17
VH296094	2	0.40	1.97	0.14, -0.14
VH296098	4	0.68	0.61	1.29, 0.66, -0.55, -1.4
VH295602	2	0.64	1.81	0.8, -0.8
VH295606	2	1.05	-0.08	0.45, -0.45
VH295512	2	0.61	1.79	0.56, -0.56
VH295514	3	0.64	0.39	1.77, 0.32, -2.09
VH295515	2	0.71	-0.30	0.59, -0.59
VH295516	1	0.38	0.25	
VH295517	2	0.68	2.17	1.05, -1.05
VH295842	1	0.74	2.81	
VH295843	2	0.82	1.54	0.04, -0.04
VH295844	2	0.63	1.93	-0.22, 0.22
VH295846	4	0.91	1.06	2.31, 0.96, -1, -2.27
VH295847	2	0.85	-0.16	0.51, -0.51

Item ID	Score Points	A	B	D
VH295291	2	0.61	1.28	0.33, -0.33
VH295293	1	0.50	3.18	
VH295295	4	0.74	1.15	2.11, 1.06, -0.83, -2.33
VH295296	2	0.78	-0.16	0.37, -0.37
VH295567	2	0.70	1.89	0.65, -0.65
VH295569	3	0.70	0.61	1.57, 0.36, -1.93
VH295571	2	0.70	1.49	0.33, -0.33
VH296019	2	0.88	-0.34	0.4, -0.4
VH295485	1	0.22	1.46	
VH295487	4	0.75	0.96	2.39, 1.07, -1.02, -2.43
VH295489	2	0.72	2.17	0.69, -0.69
VH295594	1	0.57	2.37	
VH295598	2	0.82	0.62	-0.28, 0.28
VH295599	2	0.61	1.41	0.45, -0.45
VH295355	2	0.72	2.04	0.64, -0.64
VH295359	2	0.82	-0.11	0.42, -0.42
VH295976	1	0.51	3.42	
VH295980	2	0.77	-0.26	0.3, -0.3
VH296058	1	0.65	2.96	
VH296060	4	0.59	0.78	1.74, 0.56, -0.59, -1.71
VH296062	2	0.62	1.73	0.57, -0.57
VH295464	2	0.92	1.15	0.14, -0.14
VH295466	3	0.86	0.53	1.42, 0.24, -1.66
VH295277	2	0.69	1.30	0.22, -0.22
VH295281	2	0.99	-0.01	0.3, -0.3
VH295766	2	0.32	3.32	-2.91, 2.91
VH295770	2	0.70	-0.49	0.42, -0.42
VH295622	2	0.79	2.39	0.35, -0.35
VH295626	2	0.93	-0.27	0.45, -0.45
VH295829	2	0.83	1.49	0.39, -0.39
VH295833	2	1.05	-0.14	0.47, -0.47
VH295298	2	0.45	1.59	1.28, -1.28
VH295302	4	0.57	1.03	-0.11, 1.27, -0.1, -1.06
VH295384	2	0.79	1.85	0.33, -0.33
VH295388	2	1.01	-0.05	0.4, -0.4
VH296023	2	0.74	1.32	0.46, -0.46
VH296027	2	0.72	-0.09	0.29, -0.29
VH296095	2	0.78	1.35	0.11, -0.11
VH296099	2	0.99	-0.08	0.22, -0.22
VH295601	2	0.85	1.44	0.41, -0.41
VH295603	1	0.64	3.61	
VH295605	4	0.98	0.77	1.9, 0.74, -0.83, -1.81

Table 8.A.91 PT Item Statistics—ELA, Grade Eleven

Item ID	Score Points	A	B	D
VH295547	2	0.46	2.71	0.69, -0.69
VH295551	4	0.43	1.94	2.81, 0.71, -1.1, -2.41
VH295817	4	0.63	1.64	2.1, 0.6, -0.86, -1.84
VH295819	2	0.67	1.91	0.4, -0.4
VH295284	2	0.63	0.74	0.27, -0.27
VH295288	2	0.80	1.26	0.41, -0.41
VH295377	2	0.66	1.79	0.46, -0.46
VH295381	2	0.58	0.83	0.04, -0.04
VH295800	2	0.45	2.70	0.79, -0.79
VH295802	2	0.71	1.92	0.62, -0.62
VH295804	4	0.62	1.55	2.5, 0.64, -0.85, -2.29
VH295650	2	0.62	1.22	0.19, -0.19
VH295654	2	0.63	1.47	0.23, -0.23
VH296055	2	0.70	0.84	0.25, -0.25
VH295850	2	0.58	1.95	0.54, -0.54
VH295851	2	0.71	1.61	1.19, -1.19
VH295853	4	0.61	1.70	2.67, 0.91, -0.85, -2.73
VH295393	2	0.56	1.09	-0.01, 0.01
VH295395	2	0.78	2.31	0.44, -0.44
VH295470	2	0.62	1.10	0.37, -0.37
VH295474	4	0.51	1.84	2.35, 1.17, -0.79, -2.72
VH295499	2	0.57	1.95	0.1, -0.1
VH295503	2	0.60	1.30	-0.12, 0.12
VH295615	2	0.64	2.12	0.27, -0.27
VH295619	2	0.61	1.13	0.09, -0.09
VH295745	2	0.71	2.18	0.2, -0.2
VH295749	2	0.71	1.14	0.21, -0.21
VH295988	2	0.63	1.97	0.63, -0.63
VH295992	2	0.63	1.07	0.09, -0.09
VH296003	2	0.63	1.38	0.45, -0.45
VH296005	4	0.48	1.73	2.52, 0.71, -0.96, -2.28
VH296007	1	0.42	3.65	
VH295362	2	0.54	3.10	0.44, -0.44
VH295366	4	0.49	1.90	2.49, 0.74, -0.62, -2.61
VH295698	2	0.49	3.23	0.33, -0.33
VH295702	2	0.66	1.01	0.01, -0.01
VH295723	1	0.59	1.98	
VH295725	2	0.51	3.62	-0.55, 0.55
VH295727	4	0.53	2.01	2.46, 1.06, -0.72, -2.8
VH295534	4	0.53	1.53	2.74, 0.92, -0.83, -2.83
VH295538	2	0.60	1.25	-0.4, 0.4
VH295886	2	0.69	1.07	0.12, -0.12
VH295888	2	0.59	2.05	0.23, -0.23
VH296109	2	0.64	1.57	0.66, -0.66
VH296113	2	0.55	0.90	0.01, -0.01
VH295242	2	0.69	1.77	0.29, -0.29
VH295246	4	0.59	1.50	2.42, 0.67, -1, -2.09

Item ID	Score Points	A	B	D
VH295548	2	0.26	3.29	-1.71, 1.71
VH295552	2	0.50	1.20	-0.25, 0.25
VH295814	2	0.75	2.07	0.63, -0.63
VH295818	2	0.65	1.08	0.23, -0.23
VH295285	2	0.71	2.43	0.47, -0.47
VH295287	4	0.55	1.81	2.16, 1, -0.98, -2.17
VH295376	1	0.48	4.02	
VH295378	2	0.71	2.01	0.67, -0.67
VH295380	4	0.51	1.31	2.6, 1.03, -0.91, -2.72
VH295801	1	0.61	4.04	
VH295805	2	0.75	1.10	0.56, -0.56
VH295649	2	0.57	1.71	0.03, -0.03
VH295653	4	0.50	1.76	2.51, 0.67, -1.05, -2.13
VH296052	2	0.64	2.01	0.21, -0.21
VH296054	4	0.64	1.53	2.05, 0.83, -0.87, -2.01
VH296056	2	0.70	1.54	-0.03, 0.03
VH295849	1	0.60	4.03	
VH295854	2	0.69	1.06	0.25, -0.25
VH295390	2	0.62	1.66	0.03, -0.03
VH295392	4	0.51	1.83	2.68, 0.93, -0.7, -2.91
VH295471	2	0.71	1.48	0.36, -0.36
VH295475	2	0.63	1.08	0.03, -0.03
VH295498	2	0.38	4.05	-0.12, 0.12
VH295502	4	0.55	2.17	2.3, 0.71, -0.75, -2.25
VH295618	4	0.56	1.72	2.2, 0.84, -0.99, -2.04
VH295620	2	0.41	1.40	0.04, -0.04
VH295744	2	0.73	1.82	0.28, -0.28
VH295748	4	0.56	1.67	2.05, 0.61, -0.83, -1.84
VH295989	2	0.73	1.69	0.47, -0.47
VH295991	4	0.58	1.73	2.48, 0.81, -0.82, -2.47
VH295993	1	0.57	4.43	
VH296002	2	0.53	1.38	-0.15, 0.15
VH296006	2	0.57	1.15	0.04, -0.04
VH295363	2	0.39	2.91	0.45, -0.45
VH295367	2	0.64	1.22	0.38, -0.38
VH295697	2	0.64	1.50	0.31, -0.31
VH295701	4	0.51	1.72	2.34, 1.09, -0.57, -2.86
VH295724	2	0.46	2.27	-0.03, 0.03
VH295728	2	0.62	1.09	0.13, -0.13
VH295535	2	0.58	0.91	0.09, -0.09
VH295537	2	0.61	2.32	0.91, -0.91
VH295885	4	0.56	1.54	2.02, 1.04, -0.81, -2.25
VH295887	2	0.68	2.15	1.09, -1.09
VH296108	1	0.63	4.31	
VH296110	2	0.74	1.99	0.12, -0.12
VH296112	4	0.50	1.63	2.67, 1.09, -1.1, -2.66
VH295243	2	0.87	1.51	0.68, -0.68
VH295247	2	0.75	1.02	0.26, -0.26

Item ID	Score Points	A	B	D
VH295926	1	0.41	1.70	
VH295928	4	0.52	1.67	2.9, 0.89, -0.84, -2.95
VH295929	2	0.59	0.83	0.16, -0.16
VH295930	2	0.67	2.19	0.43, -0.43
VH295931	2	0.66	2.16	0.17, -0.17
VH295249	2	0.45	1.88	0.42, -0.42
VH295250	2	0.54	1.83	0.18, -0.18
VH295251	1	0.34	0.69	
VH295253	4	0.44	1.73	2.61, 1.03, -0.85, -2.78
VH295254	2	0.52	0.95	-0.21, 0.21

Table 8.A.92 PT Item Statistics—Mathematics, Grade Three

Item ID	Score Points	A	B	D
VH300139	1	1.29	0.11	
VH324308	1	1.09	-1.20	
VH299092	1	1.35	-1.23	
VH299094	2	0.72	-0.75	-1.25, 1.25
VH299097	2	1.02	0.69	0.02, -0.02
VH299632	2	0.67	0.17	0.83, -0.83
VH299646	2	0.94	-0.61	-0.5, 0.5
VH324383	1	1.06	-1.03	
VH299466	1	1.09	-0.49	
VH299468	2	0.78	-0.44	0.2, -0.2
VH299470	2	0.78	-0.46	-0.31, 0.31
VH299544	1	1.13	-0.81	
VH299549	1	1.35	-0.12	
VH300362	3	0.59	-1.55	-0.17, 0.69, -0.52
VH300365	2	0.97	0.01	0.26, -0.26
VH324346	1	0.98	-1.22	
VH300478	2	0.76	-0.72	0.07, -0.07
VH300482	1	1.40	0.05	
VH324374	1	1.12	-1.23	
VH299538	1	0.86	0.23	
VH299548	2	0.61	0.10	-0.19, 0.19
VH324214	1	1.01	-1.09	
VH300360	2	0.82	-0.45	-0.34, 0.34
VH300364	1	1.13	-1.03	
VH324345	1	1.19	-1.26	
VH300480	2	0.73	-0.71	-1.13, 1.13
VH300485	2	1.04	0.67	0.33, -0.33
VH324375	1	1.13	-1.14	
VH299998	1	1.21	-0.21	
VH300000	1	0.91	-0.88	
VH299360	1	0.13	0.29	
VH324272	1	0.61	-1.77	
VH324274	1	1.13	-0.81	
VH299291	1	1.04	-1.41	
VH299294	2	0.60	-1.53	0.42, -0.42
VH299297	2	0.61	-0.57	-0.62, 0.62
VH299172	1	1.24	-1.49	
VH299174	2	0.70	-0.75	-1.25, 1.25
VH299176	2	1.06	0.57	0, 0
VH300262	1	0.91	-1.04	
VH300264	1	1.11	-0.50	
VH300267	1	1.22	0.06	
VH299378	2	0.89	-0.30	-0.44, 0.44
VH299380	1	1.28	-1.08	
VH324305	1	1.42	-1.74	
VH299560	2	0.57	-0.30	-1.51, 1.51
VH299565	1	0.26	2.20	

Item ID	Score Points	A	B	D
VH324270	1	1.44	-0.68	
VH299780	1	0.91	-0.13	
VH299782	2	0.71	-0.34	-0.35, 0.35
VH299784	2	1.30	0.22	0.51, -0.51
VH299414	1	0.86	-1.51	
VH299416	2	0.63	0.42	-0.68, 0.68
VH299419	2	0.41	-0.17	-2.68, 2.68
VH299058	1	1.04	-0.03	
VH299060	1	0.90	-1.05	
VH300058	1	1.07	-1.40	
VH300060	2	0.49	-1.28	0.64, -0.64
VH300063	2	0.66	-0.40	-0.82, 0.82
VH300138	2	0.72	-0.72	-1.4, 1.4
VH300140	2	0.84	0.70	0.16, -0.16
VH324309	1	1.01	-0.84	
VH299090	1	0.93	-1.20	
VH299093	2	0.71	-0.49	-0.02, 0.02
VH299637	2	0.59	-0.18	-0.34, 0.34
VH299647	2	1.10	0.27	0.47, -0.47
VH324384	1	0.88	-0.20	
VH299465	1	1.02	-1.84	
VH299467	2	0.76	0.39	-1.2, 1.2
VH299469	2	0.43	-0.04	-2.13, 2.13
VH299997	1	0.76	-0.71	
VH299999	3	0.54	-1.44	-0.39, 0.74, -0.35
VH300001	1	1.15	-0.16	
VH299352	2	0.51	-0.52	-1.21, 1.21
VH299365	1	0.67	0.61	
VH324273	1	1.03	-1.19	
VH299292	1	1.07	-0.74	
VH299295	1	0.68	-0.38	
VH299298	2	1.18	0.01	0.02, -0.02
VH299171	1	0.86	-1.27	
VH299173	2	0.70	-0.80	0.02, -0.02
VH300263	1	0.75	0.52	
VH300265	1	0.63	0.23	
VH299379	3	0.64	-1.55	-0.22, 0.68, -0.46
VH299381	2	0.93	0.09	0.1, -0.1
VH324306	1	1.30	-1.38	
VH299561	2	0.84	0.82	-0.63, 0.63
VH324269	1	1.08	-1.07	
VH324271	1	1.44	-0.50	
VH299779	1	1.14	-1.07	
VH299781	2	0.86	0.19	0.57, -0.57
VH299783	2	1.07	-0.59	-0.34, 0.34
VH299415	1	1.12	-0.56	
VH299417	2	0.72	-0.52	0.26, -0.26
VH299420	2	0.84	-0.49	-0.17, 0.17

Item ID	Score Points	A	B	D
VH299057	1	0.64	-0.97	
VH299059	3	0.52	-1.67	-0.73, 0.75, -0.02
VH299061	1	1.04	-0.10	
VH300059	1	1.22	-0.58	
VH300062	1	0.67	-0.37	
VH300064	2	1.07	0.03	-0.08, 0.08
VH300137	2	0.91	-0.81	0.13, -0.13

Table 8.A.93 PT Item Statistics—Mathematics, Grade Four

Item ID	Score Points	A	B	D
VH324335	1	0.66	-0.79	
VH299934	2	1.23	0.65	-0.06, 0.06
VH324315	1	1.09	-1.18	
VH324316	1	0.88	-1.49	
VH324317	1	1.01	0.19	
VH300286	1	0.72	-0.69	
VH300287	1	1.15	-0.57	
VH300288	2	0.93	0.78	0.26, -0.26
VH299178	1	0.79	-1.02	
VH299179	1	0.48	2.21	
VH299180	1	0.53	0.05	
VH299181	2	0.57	0.37	-0.13, 0.13
VH299182	2	0.60	0.95	-1.77, 1.77
VH300290	2	0.78	0.49	0.18, -0.18
VH300291	3	0.64	-1.19	1.01, -0.62, -0.4
VH300094	1	0.67	-0.76	
VH300095	1	1.43	-1.90	
VH300096	1	0.82	0.13	
VH300098	1	0.97	0.20	
VH300099	2	0.73	-0.07	0.42, -0.42
VH299472	1	0.66	-0.72	
VH299473	1	1.09	-1.53	
VH299474	1	0.88	0.18	
VH299476	1	0.76	0.22	
VH299477	2	0.68	0.01	0.27, -0.27
VH299110	1	0.57	-0.63	
VH299111	1	0.98	-0.71	
VH299112	2	0.88	0.86	0.32, -0.32
VH299113	2	0.71	0.65	0.26, -0.26
VH299114	3	0.65	-1.16	0.83, -0.95, 0.12
VH299115	2	0.87	1.20	0.09, -0.09
VH300038	2	0.63	0.33	0.02, -0.02
VH300047	2	0.71	0.69	-1.88, 1.88
VH324275	1	0.86	-1.33	
VH324276	1	0.44	2.15	
VH300410	1	1.08	0.74	
VH300412	2	0.92	-0.53	0.78, -0.78
VH300414	1	0.60	0.35	
VH299823	2	1.22	1.05	0.09, -0.09
VH324342	1	1.05	-0.21	
VH324343	1	0.73	-1.67	
VH324344	1	0.95	0.31	
VH299443	1	1.08	-1.58	
VH299444	1	1.27	-0.98	
VH299445	2	0.94	0.38	0.23, -0.23
VH299446	2	0.74	0.68	-0.97, 0.97
VH299447	1	1.13	0.53	

Item ID	Score Points	A	B	D
VH299448	3	0.85	-0.01	0.44, 0.49, -0.92
VH299337	1	0.85	-1.47	
VH299338	1	1.11	-0.83	
VH299339	2	1.06	0.73	-0.05, 0.05
VH299340	2	0.74	0.62	-0.66, 0.66
VH299341	1	0.90	0.45	
VH299342	3	0.70	0.12	0.77, 0.26, -1.03
VH300004	1	0.68	-1.41	
VH300005	2	0.66	0.45	-1.77, 1.77
VH300006	1	0.94	0.44	
VH300007	2	0.50	1.25	-1.53, 1.53
VH300008	2	0.57	0.33	-0.86, 0.86
VH300009	2	0.69	-0.09	-1.36, 1.36
VH300180	1	1.37	-1.04	
VH300181	1	1.24	-1.07	
VH300185	2	0.99	-0.23	0.04, -0.04
VH300188	2	0.74	0.94	0.17, -0.17
VH299400	1	0.98	0.27	
VH299402	2	0.44	1.57	-3.52, 3.52
VH299403	2	0.69	0.35	-0.67, 0.67
VH299405	2	0.82	0.04	-1.44, 1.44
VH303281	1	0.79	-1.26	
VH324307	2	0.63	0.55	-1.81, 1.81
VH299501	1	0.63	0.02	
VH299504	1	0.87	0.84	
VH299506	2	0.80	0.16	-0.18, 0.18
VH299508	1	1.07	-0.33	
VH299512	2	0.69	0.43	-0.49, 0.49
VH324382	1	0.65	-0.75	
VH299100	1	1.18	-1.21	
VH299101	1	0.75	-1.68	
VH299103	2	0.91	0.80	0.19, -0.19
VH299105	2	0.69	1.98	-0.52, 0.52
VH299106	1	1.00	0.57	
VH299107	3	0.77	0.24	0.56, 0.55, -1.1
VH299775	2	1.15	-0.38	0.08, -0.08
VH299776	2	0.95	0.08	0.24, -0.24
VH324310	1	1.42	-1.21	
VH324311	1	1.30	-1.05	
VH300208	1	0.89	-1.05	
VH300209	1	0.67	-1.66	
VH300210	2	0.79	1.14	0.1, -0.1
VH300211	1	0.88	1.58	
VH300212	1	1.02	0.42	
VH300213	3	0.82	0.61	0.64, 0.38, -1.02
VH300216	1	0.70	-0.42	
VH300217	1	0.87	0.93	
VH300219	2	0.79	0.31	-0.27, 0.27

Table 8.A.94 PT Item Statistics—Mathematics, Grade Five

Item ID	Score Points	A	B	D
VH299884	2	0.64	0.76	-0.54, 0.54
VH299887	2	0.99	1.67	-0.1, 0.1
VH299891	3	0.74	1.32	0.19, -0.21, 0.02
VH324350	1	0.69	1.23	
VH324351	1	1.14	1.17	
VH299680	1	1.22	0.67	
VH299683	2	0.57	0.13	0.24, -0.24
VH299685	2	0.83	1.37	0.42, -0.42
VH299433	1	1.24	1.19	
VH299434	2	0.55	0.10	0.23, -0.23
VH299438	2	0.77	1.49	0.45, -0.45
VH324339	1	0.98	-0.39	
VH324340	1	0.52	2.12	
VH300303	1	1.30	0.43	
VH300305	1	1.21	0.75	
VH300306	2	0.63	1.34	-0.17, 0.17
VH300307	2	1.01	1.84	0.13, -0.13
VH300308	2	0.79	1.49	0, 0
VH300309	2	0.42	0.63	-3.01, 3.01
VH299143	2	0.73	1.03	-0.2, 0.2
VH299151	2	0.88	1.73	-0.29, 0.29
VH299164	2	0.82	1.14	-0.24, 0.24
VH299169	2	0.37	0.74	-3.58, 3.58
VH324347	1	1.09	0.92	
VH324348	1	1.11	0.82	
VH299692	1	1.10	0.91	
VH299693	1	1.13	0.68	
VH299695	2	0.82	1.06	0.05, -0.05
VH299696	2	0.91	1.86	-0.12, 0.12
VH299697	2	0.84	1.30	0.04, -0.04
VH299699	2	0.39	0.83	-3.11, 3.11
VH299594	2	0.59	-0.49	-1.83, 1.83
VH299595	2	0.69	0.87	-0.33, 0.33
VH299597	2	0.83	1.69	-0.15, 0.15
VH299601	3	0.55	0.91	-0.58, -0.54, 1.13
VH324336	1	0.73	1.24	
VH324337	1	1.16	0.98	
VH299076	1	0.79	0.19	
VH299077	1	1.20	0.97	
VH299078	2	0.68	1.08	-0.66, 0.66
VH299080	2	0.67	1.60	0.2, -0.2
VH299081	3	0.54	0.90	-0.57, -0.1, 0.67
VH299082	2	0.30	3.94	1.92, -1.92
VH299881	2	0.45	-0.19	-2.39, 2.39
VH299687	2	1.20	2.18	0.2, -0.2
VH324376	1	0.96	0.51	
VH324377	1	0.46	2.05	

Item ID	Score Points	A	B	D
VH299043	2	0.88	0.90	-0.06, 0.06
VH299044	2	1.14	1.73	0.11, -0.11
VH299045	2	0.81	1.11	-0.16, 0.16
VH299046	2	0.48	0.86	-2.87, 2.87
VH324334	1	0.90	0.73	
VH324338	1	1.26	0.83	
VH299186	1	0.94	-0.22	
VH299187	1	0.90	1.12	
VH299188	3	0.82	1.36	1, -1.29, 0.29
VH299190	1	0.54	0.70	
VH299850	1	0.56	-1.14	
VH299852	2	0.69	0.51	-1.94, 1.94
VH299855	2	0.87	2.02	-0.3, 0.3
VH299857	2	0.39	0.95	-0.53, 0.53
VH299860	1	0.53	2.20	
VH299861	2	0.68	0.57	-0.34, 0.34
VH300073	1	0.93	0.54	
VH300074	1	0.78	-0.48	
VH300075	2	0.61	1.00	-1.15, 1.15
VH300076	2	0.71	1.60	0.43, -0.43
VH300077	3	0.58	0.83	-0.5, -0.33, 0.83
VH300078	2	0.31	3.81	1.9, -1.9
VH299991	1	0.70	-0.73	
VH299992	2	0.54	0.82	-3.35, 3.35
VH299993	2	0.34	1.47	-0.91, 0.91
VH299994	2	0.57	0.99	-0.86, 0.86
VH299995	2	0.65	0.55	1.17, -1.17
VH299983	1	0.82	-0.94	
VH299984	1	0.71	1.39	
VH299985	2	0.58	0.02	0.14, -0.14
VH299987	2	0.77	1.52	-0.12, 0.12
VH299989	3	0.33	2.40	-1.35, 0.49, 0.86
VH299407	1	0.75	-1.15	
VH299408	1	0.60	0.23	
VH299409	2	0.58	0.46	0.45, -0.45
VH299410	1	0.72	2.98	
VH299411	2	0.82	1.60	-0.07, 0.07
VH299412	3	0.39	2.13	-0.93, 0.67, 0.26

Table 8.A.95 PT Item Statistics—Mathematics, Grade Six

Item ID	Score Points	A	B	D
VH300196	2	0.66	1.56	-0.32, 0.32
VH300197	1	1.03	1.55	
VH300198	2	0.56	1.88	-0.09, 0.09
VH300200	1	0.57	-0.19	
VH300201	1	0.69	0.24	
VH300202	1	0.82	0.50	
VH300204	1	0.55	-0.79	
VH300205	2	0.52	1.47	1.14, -1.14
VH300206	2	0.55	1.93	0.35, -0.35
VH300109	2	0.62	1.72	-0.59, 0.59
VH300114	2	0.70	1.41	-0.24, 0.24
VH299516	1	0.79	-0.14	
VH299517	1	0.61	-0.65	
VH299518	2	0.69	1.68	-0.19, 0.19
VH299520	2	0.68	1.48	-0.29, 0.29
VH299521	1	1.12	1.63	
VH299522	2	0.70	1.78	-0.95, 0.95
VH299649	1	0.80	-0.12	
VH299650	1	0.82	-0.81	
VH299651	2	0.68	1.49	-0.38, 0.38
VH299652	2	0.65	1.39	-0.26, 0.26
VH299653	1	0.73	-0.33	
VH299655	2	0.55	1.42	-0.84, 0.84
VH299282	1	0.86	0.90	
VH299283	2	0.40	-0.27	-0.39, 0.39
VH299285	2	0.61	0.72	0.28, -0.28
VH299287	2	0.67	2.01	-0.5, 0.5
VH324185	1	0.74	1.43	
VH324186	1	1.13	2.08	
VH299480	1	0.77	1.49	
VH299481	1	0.92	2.24	
VH299482	1	0.83	1.19	
VH299484	2	0.40	-0.60	-0.34, 0.34
VH299485	2	0.51	0.65	0.39, -0.39
VH299486	2	0.96	1.73	-0.18, 0.18
VH300192	1	0.81	-0.15	
VH300193	1	0.71	-0.65	
VH300195	2	0.51	2.33	-1.15, 1.15
VH300125	1	1.08	1.46	
VH300126	2	0.76	1.79	-0.48, 0.48
VH324159	1	0.76	0.26	
VH324160	1	0.67	-0.87	
VH300390	1	1.29	0.79	
VH300397	2	0.60	1.62	0.95, -0.95
VH321665	1	0.75	-0.61	
VH300153	2	0.59	2.14	-0.84, 0.84
VH300155	2	0.73	1.36	-0.25, 0.25

Item ID	Score Points	A	B	D
VH300163	2	0.71	1.47	-0.74, 0.74
VH303296	1	0.81	0.13	
VH324157	1	0.86	-0.64	
VH324158	1	0.91	-0.21	
VH299015	3	0.46	0.53	-0.59, 0.3, 0.29
VH324352	1	1.08	0.46	
VH324353	2	0.44	1.31	0.15, -0.15
VH300294	1	0.96	1.01	
VH300295	1	1.16	0.61	
VH300297	2	0.58	0.27	1.11, -1.11
VH300298	2	0.72	2.22	0.91, -0.91
VH300299	2	0.53	0.21	-0.86, 0.86
VH300301	4	0.42	0.81	-0.14, 0.48, 0.49, -0.83
VH299579	1	0.75	-0.38	
VH299580	1	0.74	0.37	
VH299582	1	0.98	0.46	
VH299583	1	0.69	-0.79	
VH299585	1	1.19	0.89	
VH299586	2	0.41	2.30	1.11, -1.11
VH299786	1	0.67	-0.23	
VH299787	1	0.71	0.46	
VH299788	1	0.82	0.45	
VH299789	1	0.59	-0.69	
VH299790	2	0.58	1.27	1.13, -1.13
VH299792	2	0.50	2.21	0.48, -0.48
VH300428	2	0.73	0.74	0.17, -0.17
VH300431	2	0.66	0.94	-0.24, 0.24
VH300438	3	0.53	0.42	-0.32, 0.26, 0.06
VH324312	1	0.95	0.52	
VH324313	2	0.46	2.19	-0.3, 0.3
VH300229	1	0.91	0.34	
VH300230	2	0.77	1.19	0.35, -0.35
VH300232	2	0.98	1.84	-0.67, 0.67
VH300403	2	0.42	-0.52	1.02, -1.02
VH300405	2	0.45	0.23	-0.89, 0.89
VH300406	4	0.45	0.61	0.39, 0.18, 0.02, -0.59
VH300407	1	0.79	0.66	
VH300408	1	1.19	0.62	
VH300378	1	0.77	-0.19	
VH300380	1	0.70	0.22	
VH300384	1	1.01	0.53	
VH299006	2	0.64	0.58	-0.03, 0.03
VH299009	2	0.50	0.97	-0.87, 0.87
VH300233	2	0.91	1.70	0.02, -0.02
VH300234	4	0.39	0.41	0.43, 0.7, 0.09, -1.22
VH300235	1	1.08	0.81	
VH299727	2	0.86	1.21	0.25, -0.25
VH299729	2	0.80	1.91	-0.99, 0.99

Item ID	Score Points	A	B	D
VH299730	2	0.65	2.14	-0.32, 0.32
VH299732	4	0.39	0.36	-0.2, 0.44, 0.24, -0.48
VH299733	1	1.10	1.28	
VH299734	1	0.80	0.44	
VH299450	1	0.82	0.35	
VH299451	1	0.65	-0.54	
VH299453	2	0.57	2.03	-0.81, 0.81
VH299454	2	0.63	1.56	-0.32, 0.32
VH299455	1	1.02	1.70	
VH299456	2	0.60	1.62	-0.08, 0.08

Table 8.A.96 PT Item Statistics—Mathematics, Grade Seven

Item ID	Score Points	A	B	D
VH299570	1	1.01	1.35	
VH299571	1	0.91	1.83	
VH299572	1	1.22	2.28	
VH299574	1	1.52	2.41	
VH299575	2	0.78	1.17	0.51, -0.51
VH299577	2	0.36	2.83	2.66, -2.66
VH300444	1	0.76	2.08	
VH300446	1	0.86	-0.35	
VH299953	2	0.82	2.33	-0.21, 0.21
VH300447	1	1.00	1.97	
VH300448	1	0.15	3.38	
VH300449	2	0.77	1.20	-0.04, 0.04
VH299073	1	0.75	-0.86	
VH299074	1	1.02	1.88	
VH324172	1	0.79	1.20	
VH324173	1	0.83	-0.57	
VH299239	1	1.37	2.20	
VH299240	1	1.14	2.77	
VH299242	2	0.34	3.09	2.58, -2.58
VH299237	1	1.03	1.11	
VH299238	1	1.43	1.74	
VH299245	1	0.82	0.98	
VH299246	1	1.10	2.00	
VH299247	1	1.27	2.22	
VH299248	2	0.91	2.91	-0.03, 0.03
VH299249	1	1.40	2.18	
VH299765	1	1.38	2.58	
VH299768	2	0.82	1.20	0.51, -0.51
VH299770	1	0.19	2.82	
VH324149	1	1.29	2.29	
VH324150	1	1.03	1.68	
VH324151	1	1.03	1.09	
VH299865	1	0.68	1.40	
VH299866	1	0.71	-0.72	
VH299868	1	1.35	1.34	
VH299869	2	0.85	1.24	0.46, -0.46
VH299871	1	1.30	2.05	
VH299872	2	0.82	2.17	-0.45, 0.45
VH300087	1	1.02	0.77	
VH300088	1	1.32	1.64	
VH300089	1	1.14	2.27	
VH300090	2	0.87	2.56	-0.41, 0.41
VH300091	2	0.69	1.32	0.55, -0.55
VH300092	1	1.42	2.06	
VH299050	1	0.76	2.30	
VH299054	1	0.15	2.71	
VH299055	2	0.69	1.36	-0.07, 0.07

Item ID	Score Points	A	B	D
VH300066	1	0.84	0.49	
VH300067	1	0.93	0.26	
VH300068	1	1.06	1.93	
VH300069	1	0.38	0.75	
VH300070	2	1.02	1.22	0.11, -0.11
VH300071	2	0.74	0.99	-0.22, 0.22
VH300257	1	0.41	0.59	
VH300259	2	0.82	1.17	-0.05, 0.05
VH324199	1	0.73	0.40	
VH324200	1	0.85	-0.57	
VH324201	1	0.92	1.98	
VH299921	1	0.86	0.33	
VH299922	1	0.72	1.29	
VH299923	1	1.34	2.65	
VH299925	2	0.69	2.55	0.17, -0.17
VH299926	1	0.84	1.81	
VH299927	2	0.51	4.02	1.43, -1.43
VH300019	1	0.70	1.29	
VH300020	1	0.71	-0.62	
VH300021	1	0.68	-0.88	
VH300022	1	0.95	1.95	
VH299051	1	0.65	0.41	
VH299053	1	0.79	2.09	
VH300318	1	1.05	2.83	
VH300320	2	0.68	1.20	0.67, -0.67
VH300323	1	0.21	3.75	
VH324152	1	1.19	2.23	
VH324153	1	1.19	1.95	
VH324154	1	1.10	1.03	
VH299212	1	1.68	2.54	
VH299227	2	0.53	3.75	1.14, -1.14
VH303301	2	0.87	2.32	0.21, -0.21
VH303302	1	0.92	1.78	
VH324170	1	0.95	0.15	
VH324171	1	0.90	1.13	
VH299947	1	0.69	1.17	
VH299948	1	0.70	-0.75	
VH299949	1	1.07	1.27	
VH299950	2	0.66	1.33	0.55, -0.55
VH299952	1	1.03	2.10	

Table 8.A.97 PT Item Statistics—Mathematics, Grade Eight

Item ID	Score Points	A	B	D
VH299737	1	1.16	1.46	
VH299739	2	0.82	1.85	-0.1, 0.1
VH299742	1	0.86	0.85	
VH299489	1	0.82	1.51	
VH299492	1	1.15	2.09	
VH299494	2	0.75	3.27	0.1, -0.1
VH300012	1	0.56	1.93	
VH300014	2	0.64	3.05	0.3, -0.3
VH300016	2	0.61	2.64	0.95, -0.95
VH299899	1	1.18	2.78	
VH299901	2	0.85	2.40	0.36, -0.36
VH299274	2	0.50	2.73	-1.27, 1.27
VH300165	1	1.01	2.81	
VH300167	2	0.80	3.01	0.34, -0.34
VH300169	2	0.60	2.01	-0.77, 0.77
VH299614	2	0.56	2.40	-1.76, 1.76
VH299701	1	1.01	2.36	
VH299704	1	0.68	2.63	
VH299706	2	0.57	1.74	-1.19, 1.19
VH299312	1	1.22	2.06	
VH299320	1	0.96	1.63	
VH324250	1	0.92	1.69	
VH300465	2	0.58	3.12	-0.11, 0.11
VH300468	2	0.52	3.22	1.34, -1.34
VH324192	1	0.60	1.61	
VH324194	1	0.96	1.34	
VH299669	2	1.08	2.31	0.28, -0.28
VH324168	1	0.92	1.54	
VH300243	1	1.13	2.10	
VH300246	1	0.88	1.29	
VH300053	1	1.15	1.64	
VH300055	2	0.51	1.49	-0.62, 0.62
VH300340	1	0.66	1.67	
VH324155	1	0.98	1.69	
VH299802	1	1.16	2.12	
VH299807	1	0.99	1.62	
VH324249	1	0.98	1.74	
VH299084	1	1.17	1.11	
VH299087	2	0.75	1.94	1.01, -1.01
VH300081	2	0.78	2.95	-0.02, 0.02
VH300084	1	1.20	2.03	
VH299709	1	0.85	1.71	
VH299711	2	0.47	-0.07	0.36, -0.36
VH299713	2	0.57	2.61	-0.53, 0.53
VH299738	1	1.19	1.86	
VH299741	2	0.54	1.49	-0.42, 0.42
VH299490	1	0.87	1.73	

Item ID	Score Points	A	B	D
VH299493	2	0.42	0.17	0.07, -0.07
VH300013	1	0.76	2.41	
VH300015	1	0.72	0.19	
VH300017	2	0.65	2.75	-0.68, 0.68
VH299897	1	1.01	1.36	
VH299900	2	0.82	2.10	0.74, -0.74
VH299902	1	0.67	1.70	
VH299253	1	1.18	2.29	
VH299260	1	0.95	2.54	
VH299270	2	0.65	2.08	-0.63, 0.63
VH300170	2	0.53	3.01	-0.9, 0.9
VH299608	1	1.17	2.26	
VH299611	2	0.72	3.16	0.23, -0.23
VH299613	2	0.71	1.52	-0.65, 0.65
VH299707	2	0.53	3.03	-1.05, 1.05
VH299314	2	0.74	2.15	-0.2, 0.2
VH299325	2	0.78	3.16	0.06, -0.06
VH300470	2	0.85	2.79	-0.35, 0.35
VH324193	1	0.78	2.58	
VH299670	1	0.71	1.24	
VH324169	1	0.73	2.21	
VH300242	1	0.87	1.71	
VH300245	2	0.44	0.03	0.31, -0.31
VH300247	2	0.59	2.52	-0.78, 0.78
VH300052	1	1.11	1.20	
VH300054	2	1.24	1.86	0.42, -0.42
VH300056	1	0.79	0.70	
VH300337	2	1.36	2.24	0.6, -0.6
VH300345	2	0.56	2.50	0.76, -0.76
VH324156	1	0.73	2.90	
VH299806	2	0.79	2.11	-0.17, 0.17
VH299811	2	0.86	2.78	0.02, -0.02
VH299085	1	1.13	2.58	
VH299088	1	0.66	2.49	
VH300080	1	1.00	1.41	
VH300083	1	0.95	1.67	
VH300085	2	0.47	0.51	-0.32, 0.32
VH299710	1	1.09	2.14	
VH299712	1	0.88	1.30	

Table 8.A.98 PT Item Statistics—Mathematics, Grade Eleven

Item ID	Score Points	A	B	D
VH299194	1	0.67	3.23	
VH299196	2	0.62	1.95	-1.17, 1.17
VH299199	1	1.00	3.42	
VH299022	1	0.80	2.67	
VH299026	1	1.39	1.35	
VH324241	1	0.60	1.52	
VH324243	1	0.57	1.21	
VH300224	2	0.34	2.74	1.97, -1.97
VH300226	2	0.48	3.42	0.87, -0.87
VH324184	2	0.41	1.50	-1.76, 1.76
VH300281	1	1.42	2.56	
VH324246	2	0.80	1.24	0.48, -0.48
VH324248	2	0.65	2.22	-1.08, 1.08
VH299383	1	0.86	1.38	
VH299385	1	0.60	2.04	
VH299387	3	0.74	3.09	-0.66, 0.71, -0.05
VH299551	1	0.42	4.13	
VH299553	1	0.79	2.44	
VH299555	2	0.37	3.07	-1.9, 1.9
VH300237	2	0.46	0.50	2.27, -2.27
VH300239	2	0.76	3.55	0.64, -0.64
VH299746	1	0.76	4.44	
VH300173	1	1.07	1.38	
VH300176	1	0.65	1.93	
VH300178	3	0.58	3.20	-1.08, 0.88, 0.2
VH299833	1	0.37	6.44	
VH299835	1	0.84	2.65	
VH299838	2	0.50	3.43	-0.8, 0.8
VH300128	1	0.70	1.51	
VH300133	3	0.71	3.21	-0.77, 0.15, 0.63
VH299458	2	0.43	2.43	-2.13, 2.13
VH299460	3	0.71	2.35	-0.67, 0.1, 0.58
VH299462	2	0.77	1.90	0.24, -0.24
VH299659	1	1.11	3.47	
VH299661	2	0.37	3.64	-2.66, 2.66
VH299718	1	0.73	1.45	
VH299720	2	0.83	2.38	0.05, -0.05
VH299725	1	1.49	2.30	
VH299905	1	1.09	3.26	
VH299910	2	0.39	2.77	-1.54, 1.54
VH303311	2	0.61	3.61	-1.27, 1.27
VH299956	1	1.14	3.30	
VH299961	2	0.35	2.81	-1.97, 1.97
VH324389	3	0.47	2.70	1.01, -1.5, 0.49
VH299974	2	0.51	2.80	-0.61, 0.61
VH299977	2	0.34	3.23	1.99, -1.99
VH299980	2	0.50	3.21	0.98, -0.98

Item ID	Score Points	A	B	D
VH299192	2	0.42	2.13	-2.12, 2.12
VH299195	3	0.88	2.01	-0.07, 0.26, -0.2
VH299197	2	0.75	1.81	0.19, -0.19
VH299032	2	0.65	2.51	0.13, -0.13
VH324242	1	1.26	1.29	
VH300222	2	0.57	1.90	0.22, -0.22
VH324183	2	0.44	2.87	-0.69, 0.69
VH300274	1	1.39	2.35	
VH300283	2	1.09	2.13	0.1, -0.1
VH324247	1	1.29	1.24	
VH299384	1	0.90	2.41	
VH299386	2	0.56	2.90	-1.11, 1.11
VH299552	1	0.40	2.66	
VH299554	1	0.66	1.81	
VH300238	1	1.18	2.95	
VH300240	1	0.25	5.35	
VH299745	2	0.32	3.32	-4.39, 4.39
VH299747	2	0.80	1.74	-0.57, 0.57
VH299750	1	1.31	2.06	
VH300174	1	0.89	1.88	
VH300177	2	0.30	2.52	-2.44, 2.44
VH299834	1	0.45	2.56	
VH299836	1	0.56	1.22	
VH300129	1	1.28	3.60	
VH300132	2	0.37	3.61	-1.9, 1.9
VH299459	1	0.89	3.37	
VH299461	2	0.55	1.98	-1.51, 1.51
VH299463	2	0.64	3.17	0.24, -0.24
VH299657	1	0.94	1.44	
VH299660	2	0.55	4.24	-2.44, 2.44
VH299662	3	0.70	3.15	-0.74, 0.52, 0.22
VH299717	1	0.44	0.48	
VH299719	1	0.73	1.56	
VH299723	2	1.32	3.03	-0.05, 0.05
VH299912	3	0.67	3.08	-1.04, 0.57, 0.48
VH303312	3	0.60	2.82	0.68, -2.65, 1.98
VH324349	1	0.98	1.50	
VH299958	2	0.67	4.05	-1.39, 1.39
VH299965	3	0.75	3.07	-0.83, 0.17, 0.66
VH324388	1	0.83	1.32	
VH299976	2	0.62	1.89	0.04, -0.04
VH299979	2	0.47	1.37	-1.14, 1.14

Appendix 8.B: Omission and Completion Analyses

Note: An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 8.B.1 Omit Rates for ELA

Section		Omission Rate (in percent)					
		0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]
Grade 3							
	No. of Items		62				
PT	Mean a		0.71				
	Mean b		0.21				
CAT	No. of Items	361	151				
	Mean a	0.63	0.68				
	Mean b	-0.3	-0.69				
Grade 4							
	No. of Items		82				
PT	Mean a		0.64				
	Mean b		0.45				
CAT	No. of Items	369	169				
	Mean a	0.58	0.62				
	Mean b	0.09	-0.22				
Grade 5							
	No. of Items		95				
PT	Mean a		0.71				
	Mean b		0.74				
CAT	No. of Items	294	157				
	Mean a	0.61	0.64				
	Mean b	0.34	0.27				
Grade 6							
	No. of Items		61				
PT	Mean a		0.87				
	Mean b		0.92				
CAT	No. of Items	284	154	3			
	Mean a	0.53	0.56	0.79			
	Mean b	0.92	0.61	1.53			
Grade 7							
	No. of Items		79				
PT	Mean a		0.81				
	Mean b		1.15				
CAT	No. of Items	323	183	5			
	Mean a	0.52	0.55	0.71			
	Mean b	0.97	0.81	1.48			

Section		Omission Rate (in percent)					
		0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]
Grade 8							
PT	No. of Items	89					
	Mean a	0.72					
	Mean b	1.26					
CAT	No. of Items	301	203	5			
	Mean a	0.49	0.55	0.9			
	Mean b	1.27	0.8	1.83			
Grade 11							
PT	No. of Items	104		1			
	Mean a	0.59		0.78			
	Mean b	1.84		2.31			
CAT	No. of Items	918	337	4	3		
	Mean a	0.48	0.51	0.63	0.64		
	Mean b	1.67	1.42	0.79	0.66		

Table 8.B.2 Omit Rates for Mathematics

Section		Omission Rate (in percent)					
		0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]
Grade 3							
PT	No. of Items	2	78				
	Mean a	1.17	0.88				
	Mean b	-1.39	-0.5				
CAT	No. of Items	647	107				
	Mean a	0.88	0.83				
	Mean b	-0.81	-1				
Grade 4							
PT	No. of Items	3	92				
	Mean a	0.92	0.85				
	Mean b	-1.44	0.01				
CAT	No. of Items	740	85				
	Mean a	0.81	0.86				
	Mean b	-0.08	-0.36				
Grade 5							
PT	No. of Items	1	84				
	Mean a	0.82	0.76				
	Mean b	-0.94	1.04				
CAT	No. of Items	747	99				
	Mean a	0.78	0.77				
	Mean b	0.54	0.24				
Grade 6							
PT	No. of Items		72				
	Mean a		0.73				
	Mean b		0.8				
CAT	No. of Items	634	122				
	Mean a	0.7	0.69				
	Mean b	1.01	0.39				
Grade 7							
PT	No. of Items		87				
	Mean a		0.89				
	Mean b		1.58				
CAT	No. of Items	552	110				
	Mean a	0.72	0.71				
	Mean b	1.82	0.88				
Grade 8							
PT	No. of Items		58				
	Mean a		0.88				
	Mean b		1.81				
CAT	No. of Items	397	189				
	Mean a	0.62	0.63				
	Mean b	2.43	1.54				

Section		Omission Rate (in percent)					
		0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]
Grade 11							
	No. of Items		61				
PT	Mean a		0.66				
	Mean b		2.67				
CAT	No. of Items	1,777	247		1		
	Mean a	0.58	0.54		1.04		
	Mean b	2.35	1.9		1.79		

Table 8.B.3 Item Completion

Score	ELA		Mathematics	
	% Completion	Total N	% Completion	Total N
Grade 3				
Overall	100.00%	456,912	100.00%	459,050
Claim 1	99.94%	456,627	99.97%	458,919
Claim 2	99.79%	455,948	99.98%	458,964
Claim 3	99.95%	456,674	99.96%	458,877
Claim 4	99.92%	456,562		
PT	100.00%	456,912	100.00%	459,050
Non-PT	100.00%	456,912	100.00%	459,050
Grade 4				
Overall	100.00%	472,940	100.00%	474,903
Claim 1	99.96%	472,728	99.98%	474,808
Claim 2	99.83%	472,147	99.98%	474,818
Claim 3	99.96%	472,773	99.97%	474,763
Claim 4	99.95%	472,685		
PT	100.00%	472,940	100.00%	474,903
Non-PT	100.00%	472,940	100.00%	474,903
Grade 5				
Overall	100.00%	463,908	100.00%	465,699
Claim 1	99.95%	463,675	99.97%	465,563
Claim 2	99.87%	463,297	99.98%	465,607
Claim 3	99.96%	463,723	99.96%	465,526
Claim 4	100.00%	463,898		
PT	100.00%	463,908	100.00%	465,699
Non-PT	100.00%	463,908	100.00%	465,699
Grade 6				
Overall	100.00%	459,061	100.00%	460,676
Claim 1	99.93%	458,719	99.94%	460,388
Claim 2	99.81%	458,177	100.00%	460,662
Claim 3	99.94%	458,779	99.98%	460,573
Claim 4	99.95%	458,847		
PT	100.00%	459,061	100.00%	460,676
Non-PT	100.00%	459,061	100.00%	460,676
Grade 7				
Overall	100.00%	457,084	100.00%	458,402
Claim 1	99.88%	456,536	99.92%	458,055
Claim 2	99.75%	455,930	99.98%	458,326
Claim 3	99.91%	456,651	99.95%	458,182
Claim 4	99.88%	456,549		
PT	100.00%	457,084	100.00%	458,402
Non-PT	100.00%	457,084	100.00%	458,402

Score	ELA		Mathematics	
	% Completion	Total N	% Completion	Total N
Grade 8				
Overall	100.00%	450,483	100.00%	451,601
Claim 1	99.89%	449,974	99.89%	451,123
Claim 2	99.69%	449,078	99.96%	451,399
Claim 3	99.92%	450,119	99.92%	451,254
Claim 4	99.86%	449,861		
PT	100.00%	450,483	100.00%	451,601
Non-PT	100.00%	450,483	100.00%	451,601
Grade 11				
Overall	100.00%	434,061	100.00%	432,348
Claim 1	99.79%	433,132	99.90%	431,936
Claim 2	99.52%	431,976	99.86%	431,762
Claim 3	99.83%	433,315	99.96%	432,184
Claim 4	99.74%	432,950		
PT	100.00%	434,061	100.00%	432,348
Non-PT	100.00%	434,061	100.00%	432,348

Appendix 8.C: Item Exposure

Table 8.C.1 Item Exposure Frequency—ELA

Claim	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
Grade 3							
Overall	656	82	33	5	3	130	403
Claim 1	206	80	29	4		16	77
Claim 2	201	2	2	1	3	17	176
Claim 3	118					92	26
Claim 4	131		2			5	124
Grade 4							
Overall	683	63	39	5	5	99	472
Claim 1	172	31	31	1	2	2	105
Claim 2	224	6	3	2	2	7	204
Claim 3	127	22	4			79	22
Claim 4	160	4	1	2	1	11	141
Grade 5							
Overall	692	146	19	7	12	29	479
Claim 1	186	44	2	5	3	12	120
Claim 2	241	18	11	2	7	17	186
Claim 3	108	66	6		2		34
Claim 4	157	18					139
Grade 6							
Overall	662	160	40	16	6	27	413
Claim 1	171	55	17	4	4	5	86
Claim 2	228	33	1	3	2	12	177
Claim 3	116	66	21	9			20
Claim 4	147	6	1			10	130
Grade 7							
Overall	641	51	35	12	10	127	406
Claim 1	175	30	26		2	15	102
Claim 2	231	15	5	11	8	30	162
Claim 3	117					79	38
Claim 4	118	6	4	1		3	104
Grade 8							
Overall	634	36	13	3	8	113	461
Claim 1	154	18	2	2	4	10	118
Claim 2	226	14	10	1	3	13	185
Claim 3	131	4				87	40
Claim 4	123		1		1	3	118

Claim	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
Grade 11							
Overall	1,545	178	140	23	320	131	753
Claim 1	469	149	136	11	27	20	126
Claim 2	444	14	1	10	19	82	318
Claim 3	332	6			264	4	58
Claim 4	300	9	3	2	10	25	251

Table 8.C.2 Item Exposure Frequency—Mathematics

Claim	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
Grade 3							
Overall	932	98	9	15	20	88	702
Claim 1	549	73	6	1	3	66	400
Claim 2	228	16	1	9	12	13	177
Claim 3	155	9	2	5	5	9	125
Grade 4							
Overall	940	20	11	24	15	102	768
Claim 1	544	15	3	15	1	42	468
Claim 2	249	5	4	4	6	48	182
Claim 3	147		4	5	8	12	118
Grade 5							
Overall	952	21	30	55	45	79	722
Claim 1	517	18	17	18	14	29	421
Claim 2	260		10	27	27	39	157
Claim 3	175	3	3	10	4	11	144
Grade 6							
Overall	880	52	31	23	31	107	636
Claim 1	547	14	23	12	20	72	406
Claim 2	197	22		6	10	30	129
Claim 3	136	16	8	5	1	5	101
Grade 7							
Overall	789	41	39	50	61	142	456
Claim 1	483	23	20	32	43	105	260
Claim 2	185	1	9	9	14	29	123
Claim 3	121	17	10	9	4	8	73
Grade 8							
Overall	713	69	21	19	25	102	477
Claim 1	418	30	10	9	5	73	291
Claim 2	156	19	1	1	9	15	111
Claim 3	139	20	10	9	11	14	75
Grade 11							
Overall	2,390	304	93	209	295	568	921
Claim 1	1,569	150	53	131	241	450	544
Claim 2	383	99	31	47	27	53	126
Claim 3	438	55	9	31	27	65	251

Table 8.C.3 Conditional Exposure by Difficulty for ELA, Grade Three

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]							
(4.5, 5.0]							
(4.0, 4.5]							
(3.5, 4.0]	1					1	
(3.0, 3.5]	2					1	1
(2.5, 3.0]	5			1		2	2
(2.0, 2.5]	7		1			3	3
(1.5, 2.0]	20	5				7	8
(1.0, 1.5]	48	8	2			16	22
(0.5, 1.0]	74	9	2		1	15	47
(0, 0.5]	88	6	5	1		18	58
(-0.5, 0]	99	10	7			17	65
(-1.0, -0.5]	94	17	5	1		15	56
(-1.5, -1.0]	100	13	6			16	65
(-2.0, -1.5]	86	12	5	1		13	55
(-2.5, -2.0]	26	1		1	2	5	17
(-3.0, -2.5]	6	1				1	4
(-3.5, -3.0]							
<= -3.5							

Table 8.C.4 Conditional Exposure by Difficulty for ELA, Grade Four

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]							
(4.5, 5.0]							
(4.0, 4.5]	1					1	
(3.5, 4.0]	3		2				1
(3.0, 3.5]	5	1		2		2	
(2.5, 3.0]	16	4	2		1	3	6
(2.0, 2.5]	24	4	2			9	9
(1.5, 2.0]	51	7	5		1	11	27
(1.0, 1.5]	70	10	3		1	5	51
(0.5, 1.0]	85	7	7			9	62
(0, 0.5]	96	8	4			13	71
(-0.5, 0]	102	4	3			12	83
(-1.0, -0.5]	81	5	6	1		12	57
(-1.5, -1.0]	78	9	3			13	53
(-2.0, -1.5]	41	4	2			3	32
(-2.5, -2.0]	23			2	1	4	16
(-3.0, -2.5]	6				1	2	3
(-3.5, -3.0]	1						1
<= -3.5							

Table 8.C.5 Conditional Exposure by Difficulty for ELA, Grade Five

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]							
(4.5, 5.0]	2	1					1
(4.0, 4.5]							
(3.5, 4.0]	3					1	2
(3.0, 3.5]	6	1	1		1		3
(2.5, 3.0]	18	3	2			1	12
(2.0, 2.5]	40	13		2	1	1	23
(1.5, 2.0]	63	17			1	4	41
(1.0, 1.5]	89	18	1	1	3	4	62
(0.5, 1.0]	111	18	3		1	4	85
(0, 0.5]	105	16		2	1	1	85
(-0.5, 0]	79	14	2	1	1	5	56
(-1.0, -0.5]	74	14	1		1	6	52
(-1.5, -1.0]	46	10	1				35
(-2.0, -1.5]	28	13	2	1			12
(-2.5, -2.0]	21	6	5			1	9
(-3.0, -2.5]	6	2	1		1	1	1
(-3.5, -3.0]	1				1		
<= -3.5							

Table 8.C.6 Conditional Exposure by Difficulty for ELA, Grade Six

<i>b</i> -value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]							
(4.5, 5.0]	4		2				2
(4.0, 4.5]	9	3		3		1	2
(3.5, 4.0]	10	2	3		1	1	3
(3.0, 3.5]	21	6	2		2	1	10
(2.5, 3.0]	29	7	1			1	20
(2.0, 2.5]	54	16	3	1	1	2	31
(1.5, 2.0]	82	20	6	1			55
(1.0, 1.5]	87	18	2	3		3	61
(0.5, 1.0]	87	18	4	3	1	5	56
(0, 0.5]	75	13	6			2	54
(-0.5, 0]	78	17	4	3		2	52
(-1.0, -0.5]	55	17	6	1		1	30
(-1.5, -1.0]	42	9	1	1		7	24
(-2.0, -1.5]	19	9				1	9
(-2.5, -2.0]	7	3					4
(-3.0, -2.5]	2	2					
(-3.5, -3.0]	1				1		
<= -3.5							

Table 8.C.7 Conditional Exposure by Difficulty for ELA, Grade Seven

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]	1	1					
(5.0, 5.5]	2	1				1	
(4.5, 5.0]	5		1			3	1
(4.0, 4.5]	5		2			3	
(3.5, 4.0]	16		1	1	1	4	9
(3.0, 3.5]	24	2	3	1	2	1	15
(2.5, 3.0]	19	2	1			3	13
(2.0, 2.5]	53	8	2			13	30
(1.5, 2.0]	89	10	5	2	1	12	59
(1.0, 1.5]	102	1	2			14	85
(0.5, 1.0]	85	2	4			15	64
(0, 0.5]	68	2	4			17	45
(-0.5, 0]	81	10	2			18	51
(-1.0, -0.5]	29	4	3		1	9	12
(-1.5, -1.0]	40	2	2	5	3	8	20
(-2.0, -1.5]	17	3	3	3		6	2
(-2.5, -2.0]	3	1			2		
(-3.0, -2.5]	2	2					
(-3.5, -3.0]							
<= -3.5							

Table 8.C.8 Conditional Exposure by Difficulty for ELA, Grade Eight

<i>b</i> -value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]	1						1
(5.0, 5.5]	2		1				1
(4.5, 5.0]	1					1	
(4.0, 4.5]	8	1			2	2	3
(3.5, 4.0]	17	1			1	7	8
(3.0, 3.5]	26				1	5	20
(2.5, 3.0]	41	2	1			7	31
(2.0, 2.5]	69	6			1	8	54
(1.5, 2.0]	94	9	2			13	70
(1.0, 1.5]	87	1	1			13	72
(0.5, 1.0]	63	2		1		11	49
(0, 0.5]	62	2		1		14	45
(-0.5, 0]	91	5				13	73
(-1.0, -0.5]	35	2	1		1	8	23
(-1.5, -1.0]	25	4	6			6	9
(-2.0, -1.5]	10	1	1		2	5	1
(-2.5, -2.0]							
(-3.0, -2.5]	1			1			
(-3.5, -3.0]	1						1
<= -3.5							

Table 8.C.9 Conditional Exposure by Difficulty for ELA, Grade Eleven

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]	4				3	1	
(5.0, 5.5]	7	3	1		2	1	
(4.5, 5.0]	21	4	1		10	3	3
(4.0, 4.5]	52	11	7	3	15	7	9
(3.5, 4.0]	67	7	8		17	27	8
(3.0, 3.5]	104	10	15		10	27	42
(2.5, 3.0]	145	27	12	3	28	7	68
(2.0, 2.5]	195	37	22		27	1	108
(1.5, 2.0]	260	27	25	1	31	1	175
(1.0, 1.5]	190	8	17	1	36	10	118
(0.5, 1.0]	176	14	17	2	48	12	83
(0, 0.5]	142	10	9	1	42	10	70
(-0.5, 0]	95	5	5	2	29	6	48
(-1.0, -0.5]	61	7		6	19	12	17
(-1.5, -1.0]	19	7		3	3	3	3
(-2.0, -1.5]	7	1	1	1		3	1
(-2.5, -2.0]							
(-3.0, -2.5]							
(-3.5, -3.0]							
<= -3.5							

Table 8.C.10 Conditional Exposure by Difficulty for Mathematics, Grade Three

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]							
(4.5, 5.0]							
(4.0, 4.5]							
(3.5, 4.0]							
(3.0, 3.5]	2	1	1				
(2.5, 3.0]							
(2.0, 2.5]	3		1	1			1
(1.5, 2.0]	7		2	2	3		
(1.0, 1.5]	20			2	4	6	8
(0.5, 1.0]	66	7		4	3	7	45
(0, 0.5]	113	13		5	6	10	79
(-0.5, 0]	158	10		1	3	2	142
(-1.0, -0.5]	153	30	1			6	116
(-1.5, -1.0]	139	20	1			2	116
(-2.0, -1.5]	161	11	1			40	109
(-2.5, -2.0]	67	2	1			1	63
(-3.0, -2.5]	34	4	1		1	8	20
(-3.5, -3.0]	9					6	3
<= -3.5							

Table 8.C.11 Conditional Exposure by Difficulty for Mathematics, Grade Four

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]							
(4.5, 5.0]							
(4.0, 4.5]	1						1
(3.5, 4.0]							
(3.0, 3.5]	1				1		
(2.5, 3.0]	2				1	1	
(2.0, 2.5]	15		2	2	1	1	9
(1.5, 2.0]	32		2		4	9	17
(1.0, 1.5]	74		2	7		17	48
(0.5, 1.0]	141			4	6	24	107
(0, 0.5]	172		1		1	13	157
(-0.5, 0]	179	4	2	3	1	14	155
(-1.0, -0.5]	123	1	1			10	111
(-1.5, -1.0]	91						91
(-2.0, -1.5]	54			4		9	41
(-2.5, -2.0]	27	1		4		2	20
(-3.0, -2.5]	20	9	1			2	8
(-3.5, -3.0]	8	5					3
<= -3.5							

Table 8.C.12 Conditional Exposure by Difficulty for Mathematics, Grade Five

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]	2			1		1	
(4.5, 5.0]							
(4.0, 4.5]	1						1
(3.5, 4.0]	3			1			2
(3.0, 3.5]	6		1	3	1	1	
(2.5, 3.0]	20		1	3	4	7	5
(2.0, 2.5]	49		5	5	1	11	27
(1.5, 2.0]	113	2	4	24	7	19	57
(1.0, 1.5]	137	4	4	9	16	12	92
(0.5, 1.0]	174		1	1	8	12	152
(0, 0.5]	181	2		1	2	4	172
(-0.5, 0]	108						108
(-1.0, -0.5]	67					5	62
(-1.5, -1.0]	20			2	1	1	16
(-2.0, -1.5]	24	1	5	2	1	3	12
(-2.5, -2.0]	24	3	5	2	1	3	10
(-3.0, -2.5]	18	6	4		2		6
(-3.5, -3.0]	5	3		1	1		
<= -3.5							

Table 8.C.13 Conditional Exposure by Difficulty for Mathematics, Grade Six

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0							
(5.5, 6.0]							
(5.0, 5.5]	1				1		
(4.5, 5.0]	1			1			
(4.0, 4.5]	3		2	1			
(3.5, 4.0]	12		1	6	2	3	
(3.0, 3.5]	17		1			12	4
(2.5, 3.0]	37	1		3	1	14	18
(2.0, 2.5]	102	3	2	4	7	29	57
(1.5, 2.0]	127	4	2	4	10	26	81
(1.0, 1.5]	148	10	2		2	9	125
(0.5, 1.0]	138	16	7				115
(0, 0.5]	108	12	6	1			89
(-0.5, 0]	62	1	1	1			59
(-1.0, -0.5]	47	1	2	1		1	42
(-1.5, -1.0]	20	1	1		1	1	16
(-2.0, -1.5]	21	2	3			5	11
(-2.5, -2.0]	16				3		13
(-3.0, -2.5]	15	1	1		2	6	5
(-3.5, -3.0]	4			1	2	1	
<= -3.5	1						1

Table 8.C.14 Conditional Exposure by Difficulty for Mathematics, Grade Seven

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	1						1
(5.5, 6.0]	1		1				
(5.0, 5.5]	7	5		1			1
(4.5, 5.0]	7	1	1		1	2	2
(4.0, 4.5]	14	3	5	2	2		2
(3.5, 4.0]	18		1	4	5	3	5
(3.0, 3.5]	33	1	1	5	6	8	12
(2.5, 3.0]	94	3	11	8	8	24	40
(2.0, 2.5]	139	4	7	17	16	32	63
(1.5, 2.0]	145	3	1	8	15	33	85
(1.0, 1.5]	127		6	2	4	29	86
(0.5, 1.0]	75			2	2	8	63
(0, 0.5]	45	1	3			2	39
(-0.5, 0]	22	1	1	1	1		18
(-1.0, -0.5]	17	2					15
(-1.5, -1.0]	20	6			1		13
(-2.0, -1.5]	17	6					11
(-2.5, -2.0]	5	3	1			1	
(-3.0, -2.5]							
(-3.5, -3.0]	1	1					
<= -3.5	1	1					

Table 8.C.15 Conditional Exposure by Difficulty for Mathematics, Grade Eight

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	2	2					
(5.5, 6.0]	12	5	2	3	1		1
(5.0, 5.5]	12	7	1	1	3		
(4.5, 5.0]	15	4		2	3	2	4
(4.0, 4.5]	28	3	3	2	2	14	4
(3.5, 4.0]	50		3	2	4	23	18
(3.0, 3.5]	74	11	2	1	5	17	38
(2.5, 3.0]	101	10	2	1	2	15	71
(2.0, 2.5]	126	9	1	3	4	27	82
(1.5, 2.0]	103	5		1	1	4	92
(1.0, 1.5]	60	2					58
(0.5, 1.0]	35		1				34
(0, 0.5]	28	1		1			26
(-0.5, 0]	22	2		2			18
(-1.0, -0.5]	23	1	1				21
(-1.5, -1.0]	11	2	2				7
(-2.0, -1.5]	10	4	3				3
(-2.5, -2.0]	1	1					
(-3.0, -2.5]							
(-3.5, -3.0]							
<= -3.5							

Table 8.C.16 Conditional Exposure by Difficulty for Mathematics, Grade Eleven

<i>b</i> -value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	35	26	1	2	2	2	2
(5.5, 6.0]	36	25	3	3		2	3
(5.0, 5.5]	48	38	3	6			1
(4.5, 5.0]	98	58	14	11	10	2	3
(4.0, 4.5]	125	41	14	21	14	21	14
(3.5, 4.0]	239	5	11	30	48	91	54
(3.0, 3.5]	301	19	17	38	47	91	89
(2.5, 3.0]	366	20	10	45	60	114	117
(2.0, 2.5]	331	24	8	27	77	69	126
(1.5, 2.0]	259	16	2	21	28	67	125
(1.0, 1.5]	192	12	2		3	40	135
(0.5, 1.0]	132	3	2	1	2	34	90
(0, 0.5]	83	2	3			12	66
(-0.5, 0]	49	1				6	42
(-1.0, -0.5]	37	3				7	27
(-1.5, -1.0]	32	5			1	5	21
(-2.0, -1.5]	16	5		1	2	4	4
(-2.5, -2.0]	7		1	2	1	1	2
(-3.0, -2.5]	1	1					
(-3.5, -3.0]	3		2	1			
<= -3.5							

Appendix 8.D: Reliability Analyses

Table 8.D.1 Reliabilities of Claims and Intercorrelations for ELA, Grade Three

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	14–16	1.00	.	.	.	0.72	0.57
Claim 2	12	0.70	1.00	.	.	0.78	0.54
Claim 3	8–9	0.63	0.63	1.00	.	0.47	0.81
Claim 4	8–9	0.66	0.67	0.58	1.00	0.65	0.72

Table 8.D.2 Reliabilities of Claims and Intercorrelations for ELA, Grade Four

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	14–16	1.00	.	.	.	0.76	0.57
Claim 2	12	0.72	1.00	.	.	0.77	0.55
Claim 3	8–9	0.62	0.60	1.00	.	0.44	0.96
Claim 4	8–9	0.69	0.68	0.58	1.00	0.64	0.76

Table 8.D.3 Reliabilities of Claims and Intercorrelations for ELA, Grade Five

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	14–16	1.00	.	.	.	0.75	0.59
Claim 2	12	0.71	1.00	.	.	0.80	0.53
Claim 3	8–9	0.65	0.62	1.00	.	0.48	0.96
Claim 4	8–9	0.69	0.71	0.61	1.00	0.64	0.67

Table 8.D.4 Reliabilities of Claims and Intercorrelations for ELA, Grade Six

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	13–17	1.00	.	.	.	0.69	0.69
Claim 2	12	0.70	1.00	.	.	0.79	0.53
Claim 3	8–9	0.61	0.63	1.00	.	0.38	0.98
Claim 4	8–9	0.67	0.71	0.59	1.00	0.62	0.75

Table 8.D.5 Reliabilities of Claims and Intercorrelations for ELA, Grade Seven

		Intercorrelations				Reliability	SEM
Claim	No. of Items	1	2	3	4		
Claim 1	13–17	1.00	.	.	.	0.72	0.66
Claim 2	12	0.71	1.00	.	.	0.76	0.57
Claim 3	8–9	0.64	0.62	1.00	.	0.41	0.96
Claim 4	8–9	0.71	0.71	0.61	1.00	0.66	0.76

Table 8.D.6 Reliabilities of Claims and Intercorrelations for ELA, Grade Eight

		Intercorrelations				Reliability	SEM
Claim	No. of Items	1	2	3	4		
Claim 1	13–17	1.00	.	.	.	0.75	0.60
Claim 2	12	0.73	1.00	.	.	0.76	0.58
Claim 3	8–9	0.64	0.63	1.00	.	0.42	0.93
Claim 4	8–9	0.71	0.71	0.60	1.00	0.65	0.77

Table 8.D.7 Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven

		Intercorrelations				Reliability	SEM
Claim	No. of Items	1	2	3	4		
Claim 1	15–16	1.00	.	.	.	0.68	0.71
Claim 2	12	0.72	1.00	.	.	0.74	0.67
Claim 3	8–9	0.64	0.64	1.00	.	0.43	1.01
Claim 4	8–9	0.68	0.74	0.60	1.00	0.61	0.83

Table 8.D.8 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three

		Intercorrelations				Reliability	SEM
Claim	No. of Items	1	2	3	4		
Claim 1	17–20	1.00	.	.	.	0.89	0.34
Claim 2	8–10	0.78	1.00	.	.	0.71	0.53
Claim 3	8–10	0.77	0.72	1.00	.	0.64	0.62

Table 8.D.9 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four

		Intercorrelations				Reliability	SEM
Claim	No. of Items	1	2	3	4		
Claim 1	17–20	1.00	.	.	.	0.89	0.34
Claim 2	8–10	0.78	1.00	.	.	0.70	0.56
Claim 3	8–10	0.80	0.71	1.00	.	0.71	0.59

Table 8.D.10 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five

		Intercorrelations				Reliability	SEM
Claim	No. of Items	1	2	3	4		
Claim 1	17–20	1.00	.	.	.	0.88	0.40
Claim 2	8–10	0.77	1.00	.	.	0.70	0.57
Claim 3	8–10	0.76	0.70	1.00	.	0.65	0.69

Table 8.D.11 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	16–20	1.00	.	.	0.89	0.45
Claim 2	8–10	0.82	1.00	.	0.70	0.62
Claim 3	8–10	0.76	0.72	1.00	0.61	0.80

Table 8.D.12 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	16–20	1.00	.	.	0.89	0.45
Claim 2	8–10	0.81	1.00	.	0.70	0.74
Claim 3	8–10	0.81	0.74	1.00	0.67	0.82

Table 8.D.13 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	16–20	1.00	.	.	0.86	0.55
Claim 2	8–10	0.72	1.00	.	0.55	0.84
Claim 3	8–10	0.78	0.65	1.00	0.59	0.90

Table 8.D.14 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	19–22	1.00	.	.	0.88	0.54
Claim 2	8–10	0.76	1.00	.	0.52	1.04
Claim 3	8–10	0.74	0.65	1.00	0.52	1.09

Table 8.D.15 Reliabilities and SEMs by Gender

Content Area	Grade	Male			Female		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	231,940	0.92	0.30	220,902	0.92	0.29
	4	239,459	0.92	0.31	227,786	0.92	0.31
	5	233,713	0.92	0.31	224,022	0.92	0.30
	6	232,368	0.92	0.33	221,074	0.91	0.32
	7	230,616	0.92	0.33	218,855	0.91	0.32
	8	226,941	0.92	0.32	217,001	0.91	0.32
	11	215,047	0.92	0.37	205,919	0.90	0.36
Mathematics	3	230,863	0.94	0.25	222,086	0.93	0.24
	4	238,893	0.94	0.25	230,260	0.94	0.25
	5	233,624	0.94	0.30	226,587	0.93	0.29
	6	229,218	0.94	0.33	221,732	0.93	0.32
	7	229,874	0.94	0.34	221,164	0.94	0.33
	8	222,804	0.92	0.42	216,456	0.91	0.40
	11	215,532	0.92	0.44	209,521	0.92	0.42

Table 8.D.16 Reliabilities and SEMs by Economic Status

Content Area	Grade	No Economic Disadvantage			Economic Disadvantage		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	162,299	0.91	0.28	290,543	0.90	0.30
	4	166,271	0.91	0.31	300,974	0.90	0.31
	5	166,144	0.91	0.30	291,591	0.91	0.30
	6	168,706	0.90	0.31	284,736	0.90	0.33
	7	169,833	0.90	0.32	279,638	0.90	0.33
	8	169,543	0.91	0.32	274,399	0.91	0.32
	11	174,798	0.90	0.36	246,168	0.90	0.37
Mathematics	3	163,162	0.94	0.23	289,787	0.92	0.25
	4	167,072	0.94	0.23	302,081	0.92	0.26
	5	167,488	0.94	0.26	292,723	0.91	0.31
	6	168,632	0.94	0.29	282,318	0.91	0.35
	7	172,479	0.94	0.30	278,559	0.92	0.36
	8	167,502	0.93	0.36	271,758	0.88	0.44
	11	179,793	0.93	0.39	245,260	0.89	0.46

Table 8.D.17 Reliabilities and SEMs by Special Education Services Status

Content Area	Grade	No Special Education Services			With Special Education Services		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	405,450	0.92	0.29	47,392	0.89	0.33
	4	414,795	0.91	0.31	52,450	0.89	0.34
	5	404,414	0.92	0.30	53,321	0.90	0.33
	6	402,796	0.91	0.32	50,646	0.87	0.36
	7	401,005	0.91	0.32	48,466	0.85	0.37
	8	398,184	0.91	0.32	45,758	0.86	0.35
	11	383,712	0.91	0.36	37,254	0.86	0.41
Mathematics	3	407,392	0.93	0.24	45,557	0.93	0.29
	4	417,217	0.94	0.24	51,936	0.92	0.30
	5	407,387	0.93	0.28	52,824	0.88	0.37
	6	403,224	0.93	0.31	47,726	0.88	0.42
	7	404,391	0.94	0.32	46,647	0.87	0.44
	8	395,476	0.91	0.40	43,784	0.79	0.54
	11	389,175	0.92	0.41	35,878	0.78	0.55

Table 8.D.18 Reliabilities and SEMs by Accommodations

Content Area	Grade	No Accommodations			Accommodations		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	39,677	0.90	0.32	10,659	0.81	0.34
	4	43,726	0.91	0.33	12,441	0.82	0.35
	5	44,551	0.91	0.32	13,427	0.84	0.34
	6	40,161	0.90	0.35	15,610	0.81	0.38
	7	38,083	0.89	0.36	16,064	0.78	0.38
	8	38,401	0.90	0.34	13,847	0.80	0.36
	11	38,390	0.89	0.40	5,861	0.81	0.43
Mathematics	3	44,982	0.93	0.28	3,516	0.89	0.32
	4	40,374	0.93	0.29	15,271	0.84	0.32
	5	39,029	0.91	0.35	18,454	0.78	0.40
	6	36,092	0.91	0.39	16,733	0.80	0.45
	7	37,168	0.91	0.41	15,167	0.78	0.46
	8	37,102	0.86	0.51	13,089	0.64	0.58
	11	36,380	0.86	0.53	6,502	0.67	0.58

Notes:

- “No Accommodations” indicate students who have an individualized education program (IEP) or Section 504 plan but were not provided any accommodations in the test.
- “Accommodations” indicate students who have an IEP or Section 504 plan and receive accommodations.
- Refer to subsection 2.5 *Universal Tools, Designated Supports, and Accommodations* on page 15 in *Chapter 2: Overview of Smarter Balanced Processes* for accommodation conditions.

Table 8.D.19 Reliabilities and SEMs by English–Language Fluency

Content Area	Grade	English Only			Initially Designated Fluent		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	263,379	0.92	0.29	15,976	0.91	0.28
	4	265,420	0.92	0.31	17,690	0.90	0.31
	5	256,467	0.92	0.30	17,728	0.90	0.30
	6	251,544	0.91	0.32	19,700	0.90	0.31
	7	246,769	0.92	0.32	20,919	0.90	0.32
	8	241,313	0.92	0.32	20,176	0.90	0.32
	11	230,651	0.91	0.36	31,840	0.90	0.36
Mathematics	3	262,506	0.94	0.24	15,863	0.94	0.23
	4	265,549	0.94	0.25	17,581	0.94	0.23
	5	257,156	0.94	0.29	17,668	0.94	0.25
	6	249,647	0.94	0.32	19,468	0.94	0.29
	7	247,644	0.94	0.32	21,085	0.95	0.30
	8	238,584	0.92	0.40	19,565	0.93	0.36
	11	233,695	0.92	0.42	32,669	0.93	0.38

Table 8.D.20 Reliabilities and SEMs by English–Language Fluency (Continued)

Content Area	Grade	English Learner			Reclassified Fluent		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	132,856	0.87	0.31	39,687	0.87	0.28
	4	122,559	0.87	0.32	60,732	0.86	0.30
	5	96,714	0.86	0.31	86,143	0.88	0.29
	6	79,447	0.84	0.35	101,986	0.87	0.31
	7	63,860	0.81	0.36	117,074	0.89	0.32
	8	54,542	0.82	0.35	127,157	0.89	0.31
	11	38,895	0.79	0.42	118,834	0.89	0.36
Mathematics	3	133,694	0.91	0.26	39,490	0.91	0.23
	4	124,152	0.90	0.27	60,546	0.92	0.23
	5	98,273	0.85	0.34	86,069	0.92	0.26
	6	79,173	0.86	0.39	101,579	0.92	0.30
	7	64,077	0.86	0.42	117,000	0.92	0.32
	8	54,313	0.78	0.53	125,713	0.90	0.39
	11	38,536	0.77	0.56	119,265	0.91	0.41

Table 8.D.21 Reliabilities and SEMs by Primary Ethnicity

Content Area	Grade	American Indian or Alaska Native			Asian		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	2,339	0.90	0.30	38,833	0.92	0.29
	4	2,450	0.91	0.32	39,632	0.91	0.31
	5	2,391	0.92	0.31	39,663	0.91	0.30
	6	2,433	0.91	0.33	40,468	0.90	0.31
	7	2,439	0.91	0.33	39,658	0.91	0.32
	8	2,541	0.91	0.33	38,811	0.91	0.32
	11	2,521	0.91	0.37	35,948	0.90	0.36
Mathematics	3	2,334	0.93	0.26	39,065	0.94	0.23
	4	2,446	0.93	0.26	39,633	0.94	0.23
	5	2,385	0.92	0.31	39,858	0.94	0.25
	6	2,400	0.92	0.35	40,131	0.94	0.29
	7	2,414	0.93	0.36	40,379	0.95	0.28
	8	2,512	0.89	0.44	37,177	0.94	0.34
	11	2,505	0.90	0.45	37,930	0.94	0.35

Table 8.D.22 Reliabilities and SEMs by Primary Ethnicity (Continued)

Content Area	Grade	Native Hawaiian or Other Pacific Islander			Filipino		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	2,153	0.91	0.29	9,434	0.91	0.28
	4	2,179	0.90	0.31	10,539	0.90	0.30
	5	2,282	0.92	0.30	10,954	0.90	0.30
	6	2,328	0.90	0.32	11,536	0.89	0.31
	7	2,195	0.90	0.33	12,134	0.90	0.32
	8	2,316	0.90	0.32	12,212	0.90	0.31
	11	2,255	0.90	0.37	13,028	0.88	0.35
Mathematics	3	2,136	0.93	0.25	9,519	0.93	0.23
	4	2,194	0.93	0.25	10,675	0.93	0.23
	5	2,287	0.92	0.30	11,073	0.93	0.26
	6	2,313	0.92	0.33	11,622	0.93	0.29
	7	2,204	0.93	0.34	12,336	0.94	0.30
	8	2,305	0.90	0.42	12,212	0.92	0.36
	11	2,241	0.90	0.44	13,412	0.92	0.37

Table 8.D.23 Reliabilities and SEMs by Primary Ethnicity (Continued)

Content Area	Grade	Hispanic or Latino			Black or African American			White		
		N	Reliability	SEM	N	Reliability	SEM	N	Reliability	SEM
ELA	3	252,420	0.90	0.30	25,202	0.90	0.30	103,642	0.92	0.29
	4	261,636	0.90	0.31	25,919	0.91	0.32	106,659	0.91	0.31
	5	253,204	0.91	0.30	25,541	0.92	0.31	107,025	0.92	0.30
	6	246,348	0.90	0.32	25,691	0.91	0.33	108,463	0.91	0.31
	7	243,430	0.90	0.33	25,784	0.90	0.34	108,774	0.91	0.32
	8	240,229	0.90	0.32	26,453	0.91	0.33	107,586	0.91	0.32
	11	223,879	0.90	0.37	25,375	0.91	0.38	105,531	0.91	0.36
Mathematics	3	252,016	0.92	0.25	24,844	0.92	0.26	103,991	0.94	0.24
	4	262,671	0.92	0.26	25,883	0.92	0.27	107,143	0.94	0.24
	5	254,305	0.90	0.31	25,475	0.90	0.33	107,862	0.94	0.27
	6	244,613	0.91	0.34	25,086	0.91	0.36	108,451	0.94	0.30
	7	242,780	0.92	0.36	25,375	0.91	0.37	110,140	0.94	0.30
	8	238,334	0.88	0.44	25,959	0.87	0.47	106,931	0.92	0.37
	11	223,047	0.89	0.46	25,021	0.87	0.48	108,167	0.93	0.39

Table 8.D.24 Reliabilities and SEMs by Migrant Status

Content Area	Grade	Migrant			Non-Migrant		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	4,431	0.87	0.31	448,411	0.92	0.29
	4	4,606	0.89	0.32	462,639	0.92	0.31
	5	4,509	0.90	0.31	453,226	0.92	0.30
	6	3,968	0.89	0.33	449,474	0.92	0.32
	7	3,689	0.89	0.34	445,782	0.92	0.33
	8	3,801	0.90	0.33	440,141	0.92	0.32
	11	3,229	0.90	0.38	417,737	0.91	0.37
Mathematics	3	4,452	0.91	0.26	448,497	0.94	0.25
	4	4,644	0.90	0.27	464,509	0.94	0.25
	5	4,577	0.88	0.33	455,634	0.93	0.29
	6	3,968	0.90	0.36	446,982	0.93	0.33
	7	3,719	0.90	0.38	447,319	0.94	0.34
	8	3,798	0.86	0.47	435,462	0.92	0.41
	11	3,206	0.86	0.48	421,847	0.92	0.43

Table 8.D.25 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged

Content Area	Grade	American Indian or Alaska Native			Asian		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	694	0.91	0.29	24,785	0.90	0.28
	4	717	0.91	0.31	24,729	0.89	0.31
	5	743	0.92	0.30	24,590	0.89	0.31
	6	743	0.91	0.32	24,955	0.87	0.31
	7	813	0.91	0.32	24,033	0.87	0.32
	8	891	0.92	0.32	23,637	0.88	0.32
	11	1,140	0.90	0.36	20,273	0.88	0.36
Mathematics	3	695	0.93	0.24	24,809	0.92	0.23
	4	714	0.94	0.24	24,435	0.92	0.23
	5	743	0.93	0.28	24,478	0.93	0.24
	6	741	0.93	0.32	24,420	0.93	0.28
	7	813	0.94	0.33	24,451	0.94	0.27
	8	892	0.92	0.40	22,102	0.93	0.31
	11	1,144	0.91	0.42	21,695	0.94	0.32

Table 8.D.26 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (Continued)

Content Area	Grade	Native Hawaiian or Other Pacific Islander			Filipino		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	615	0.91	0.29	6,053	0.90	0.28
	4	687	0.90	0.31	6,678	0.89	0.30
	5	704	0.91	0.30	6,902	0.89	0.30
	6	736	0.90	0.31	7,286	0.88	0.31
	7	743	0.91	0.32	7,711	0.88	0.31
	8	809	0.90	0.31	7,810	0.89	0.31
	11	961	0.90	0.36	8,637	0.87	0.35
Mathematics	3	615	0.93	0.24	6,099	0.93	0.23
	4	694	0.94	0.24	6,758	0.93	0.23
	5	708	0.93	0.27	6,986	0.93	0.25
	6	735	0.93	0.31	7,336	0.93	0.28
	7	757	0.94	0.31	7,867	0.93	0.29
	8	814	0.91	0.38	7,820	0.92	0.34
	11	967	0.92	0.41	8,962	0.92	0.36

Table 8.D.27 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (Continued)

Content Area	Grade	Hispanic or Latino			Black or African American			White		
		N	Reliability	SEM	N	Reliability	SEM	N	Reliability	SEM
ELA	3	42,837	0.91	0.29	5,366	0.91	0.29	70,795	0.91	0.28
	4	43,476	0.91	0.31	5,843	0.91	0.31	73,262	0.90	0.30
	5	42,873	0.91	0.30	5,797	0.92	0.30	74,416	0.90	0.30
	6	42,461	0.90	0.31	6,317	0.91	0.32	76,404	0.89	0.31
	7	43,700	0.90	0.32	6,614	0.91	0.33	77,062	0.89	0.32
	8	44,254	0.91	0.32	7,017	0.92	0.32	76,751	0.90	0.31
	11	49,869	0.90	0.36	8,105	0.91	0.37	77,930	0.90	0.36
Mathematics	3	43,036	0.93	0.24	5,352	0.93	0.24	71,198	0.93	0.23
	4	43,849	0.93	0.24	5,852	0.93	0.25	73,671	0.93	0.23
	5	43,234	0.93	0.28	5,807	0.92	0.29	75,167	0.93	0.25
	6	42,569	0.93	0.31	6,235	0.93	0.33	76,631	0.93	0.29
	7	44,070	0.93	0.32	6,605	0.93	0.34	78,427	0.94	0.29
	8	44,193	0.91	0.40	6,936	0.90	0.42	76,327	0.92	0.35
	11	50,247	0.91	0.43	8,082	0.90	0.44	80,517	0.93	0.37

Table 8.D.28 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged

Content Area	Grade	American Indian or Alaska Native			Asian		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	1,645	0.89	0.30	14,048	0.92	0.29
	4	1,733	0.89	0.32	14,903	0.91	0.31
	5	1,648	0.90	0.31	15,073	0.92	0.30
	6	1,690	0.90	0.34	15,513	0.91	0.32
	7	1,626	0.89	0.34	15,625	0.91	0.32
	8	1,650	0.90	0.33	15,174	0.91	0.32
	11	1,381	0.90	0.38	15,675	0.91	0.36
Mathematics	3	1,639	0.92	0.26	14,256	0.94	0.24
	4	1,732	0.91	0.27	15,198	0.94	0.24
	5	1,642	0.89	0.33	15,380	0.94	0.27
	6	1,659	0.90	0.37	15,711	0.94	0.30
	7	1,601	0.91	0.37	15,928	0.94	0.31
	8	1,620	0.85	0.46	15,075	0.93	0.37
	11	1,361	0.87	0.47	16,235	0.93	0.37

Table 8.D.29 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (Continued)

Content Area	Grade	Native Hawaiian or Other Pacific Islander			Filipino		
		N	Reliability	SEM	No.	Reliability	SEM
ELA	3	1,538	0.90	0.30	3,381	0.91	0.28
	4	1,492	0.89	0.31	3,861	0.90	0.30
	5	1,578	0.91	0.30	4,052	0.91	0.30
	6	1,592	0.90	0.32	4,250	0.90	0.31
	7	1,452	0.89	0.33	4,423	0.90	0.32
	8	1,507	0.90	0.32	4,402	0.90	0.31
	11	1,294	0.90	0.38	4,391	0.89	0.36
Mathematics	3	1,521	0.92	0.25	3,420	0.93	0.23
	4	1,500	0.92	0.25	3,917	0.93	0.24
	5	1,579	0.90	0.31	4,087	0.93	0.27
	6	1,578	0.91	0.34	4,286	0.93	0.30
	7	1,447	0.91	0.35	4,469	0.93	0.31
	8	1,491	0.89	0.43	4,392	0.91	0.38
	11	1,274	0.88	0.46	4,450	0.91	0.40

Table 8.D.30 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (Continued)

Content Area	Grade	Hispanic or Latino			Black or African American			White		
		N	Reliability	SEM	N	Reliability	SEM	N	Reliability	SEM
ELA	3	209,583	0.89	0.30	19,836	0.89	0.31	32,847	0.91	0.29
	4	218,160	0.90	0.31	20,076	0.90	0.32	33,397	0.91	0.31
	5	210,331	0.91	0.30	19,744	0.91	0.31	32,609	0.92	0.30
	6	203,887	0.90	0.33	19,374	0.89	0.34	32,059	0.91	0.32
	7	199,730	0.89	0.33	19,170	0.89	0.35	31,712	0.90	0.33
	8	195,975	0.90	0.32	19,436	0.90	0.33	30,835	0.91	0.32
	11	174,010	0.90	0.37	17,270	0.90	0.39	27,601	0.91	0.37
Mathematics	3	208,980	0.92	0.25	19,492	0.91	0.27	32,793	0.93	0.25
	4	218,822	0.91	0.26	20,031	0.91	0.27	33,472	0.93	0.25
	5	211,071	0.89	0.32	19,668	0.88	0.34	32,695	0.92	0.30
	6	202,044	0.91	0.35	18,851	0.90	0.37	31,820	0.92	0.33
	7	198,710	0.91	0.36	18,770	0.90	0.39	31,713	0.92	0.34
	8	194,141	0.87	0.45	19,023	0.84	0.48	30,604	0.90	0.42
11	172,800	0.88	0.46	16,939	0.85	0.50	27,650	0.90	0.44	

Table 8.D.31 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Three

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.72	0.57	0.73	0.56	0.71	0.56	0.67	0.57	0.59	0.59
Claim 2	12	0.77	0.54	0.78	0.53	0.76	0.51	0.74	0.55	0.69	0.57	0.78	0.54
Claim 3	8–9	0.48	0.81	0.46	0.80	0.40	0.79	0.43	0.82	0.39	0.84	0.47	0.81
Claim 4	8–9	0.64	0.73	0.65	0.71	0.65	0.68	0.59	0.74	0.53	0.76	0.65	0.72

Table 8.D.32 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Four

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.58	0.76	0.57	0.74	0.55	0.71	0.59	0.65	0.61
Claim 2	12	0.77	0.56	0.76	0.55	0.73	0.55	0.75	0.55	0.74	0.56	0.77	0.55
Claim 3	8–9	0.45	0.96	0.43	0.95	0.36	0.94	0.41	0.97	0.38	0.99	0.44	0.96
Claim 4	8–9	0.63	0.77	0.64	0.75	0.62	0.72	0.59	0.78	0.54	0.80	0.64	0.76

Table 8.D.33 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Five

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.59	0.75	0.58	0.74	0.57	0.71	0.59	0.66	0.61
Claim 2	12	0.80	0.53	0.78	0.53	0.75	0.54	0.78	0.53	0.78	0.53	0.80	0.53
Claim 3	8–9	0.48	0.96	0.48	0.96	0.44	0.92	0.43	0.98	0.40	1.00	0.48	0.96
Claim 4	8–9	0.64	0.68	0.64	0.66	0.60	0.65	0.61	0.69	0.58	0.71	0.64	0.67

Table 8.D.34 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Six

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.69	0.71	0.69	0.68	0.69	0.65	0.63	0.72	0.57	0.74
Claim 2	12	0.79	0.53	0.78	0.52	0.75	0.53	0.77	0.53	0.76	0.54	0.79	0.53
Claim 3	8–9	0.40	0.98	0.36	0.98	0.25	0.99	0.39	0.97	0.41	0.96	0.38	0.98
Claim 4	8–9	0.61	0.77	0.62	0.73	0.60	0.69	0.58	0.78	0.55	0.80	0.62	0.75

Table 8.D.35 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Seven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.71	0.67	0.72	0.64	0.71	0.63	0.67	0.67	0.60	0.69
Claim 2	12	0.76	0.58	0.75	0.56	0.72	0.56	0.74	0.58	0.71	0.59	0.76	0.57
Claim 3	8–9	0.42	0.96	0.40	0.96	0.32	0.96	0.39	0.96	0.36	0.97	0.41	0.96
Claim 4	8–9	0.65	0.78	0.65	0.74	0.63	0.71	0.62	0.79	0.59	0.80	0.66	0.76

Table 8.D.36 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Eight

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.74	0.61	0.74	0.59	0.74	0.57	0.70	0.61	0.67	0.64
Claim 2	12	0.76	0.58	0.74	0.58	0.71	0.58	0.74	0.58	0.73	0.58	0.76	0.58
Claim 3	8–9	0.44	0.93	0.38	0.93	0.33	0.94	0.41	0.92	0.41	0.92	0.42	0.93
Claim 4	8–9	0.64	0.79	0.64	0.75	0.63	0.73	0.61	0.80	0.58	0.82	0.65	0.77

Table 8.D.37 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Eleven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	15–16	0.69	0.72	0.66	0.70	0.66	0.69	0.65	0.72	0.61	0.75
Claim 2	12	0.74	0.68	0.72	0.65	0.72	0.65	0.73	0.68	0.71	0.69	0.74	0.67
Claim 3	8–9	0.46	1.01	0.39	1.01	0.37	1.02	0.43	1.00	0.42	0.99	0.43	1.01
Claim 4	8–9	0.61	0.86	0.60	0.81	0.60	0.79	0.59	0.86	0.55	0.89	0.61	0.83

Table 8.D.38 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Three

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.90	0.34	0.88	0.33	0.87	0.33	0.88	0.34	0.86	0.34
Claim 2	8–10	0.72	0.53	0.70	0.53	0.73	0.49	0.63	0.56	0.56	0.58	0.71	0.53
Claim 3	8–10	0.64	0.63	0.63	0.61	0.69	0.55	0.53	0.66	0.43	0.70	0.64	0.62

Table 8.D.39 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Four

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.90	0.35	0.88	0.34	0.88	0.34	0.87	0.35	0.84	0.35
Claim 2	8–10	0.70	0.56	0.69	0.56	0.72	0.51	0.60	0.59	0.52	0.61	0.70	0.56
Claim 3	8–10	0.72	0.60	0.70	0.59	0.75	0.52	0.62	0.63	0.53	0.66	0.71	0.59

Table 8.D.40 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Five

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.89	0.40	0.87	0.40	0.88	0.37	0.84	0.42	0.82	0.43
Claim 2	8–10	0.71	0.57	0.70	0.56	0.75	0.50	0.58	0.61	0.47	0.64	0.70	0.57
Claim 3	8–10	0.66	0.70	0.64	0.69	0.70	0.62	0.53	0.73	0.43	0.76	0.65	0.69

Table 8.D.41 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Six

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.89	0.45	0.88	0.44	0.88	0.43	0.86	0.46	0.84	0.48
Claim 2	8–10	0.71	0.62	0.70	0.62	0.74	0.56	0.60	0.66	0.50	0.69	0.71	0.62
Claim 3	8–10	0.62	0.81	0.60	0.79	0.68	0.70	0.47	0.85	0.33	0.90	0.61	0.80

Table 8.D.42 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Seven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.89	0.46	0.89	0.45	0.89	0.42	0.86	0.47	0.85	0.48
Claim 2	8–10	0.70	0.74	0.69	0.73	0.75	0.64	0.58	0.80	0.48	0.84	0.70	0.74
Claim 3	8–10	0.67	0.84	0.67	0.80	0.73	0.70	0.57	0.89	0.48	0.94	0.67	0.82

Table 8.D.43 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Eight

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.86	0.56	0.86	0.54	0.87	0.50	0.82	0.58	0.79	0.60
Claim 2	8–10	0.56	0.84	0.53	0.83	0.63	0.74	0.36	0.90	0.21	0.93	0.55	0.84
Claim 3	8–10	0.59	0.93	0.59	0.88	0.66	0.80	0.46	0.96	0.37	1.00	0.59	0.90

Table 8.D.44 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Eleven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.88	0.55	0.87	0.53	0.89	0.50	0.84	0.57	0.81	0.60
Claim 2	8–10	0.55	1.04	0.49	1.04	0.62	0.93	0.35	1.12	0.23	1.17	0.52	1.04
Claim 3	8–10	0.53	1.11	0.50	1.08	0.60	1.00	0.38	1.16	0.25	1.21	0.52	1.09

Table 8.D.45 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—ELA, Grade Three

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		Initially Fluent English Proficient (IFEP)		English Learner		Reclassified Fluent English Proficient (RFEP)	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.72	0.56	0.61	0.60	0.73	0.56	0.70	0.56	0.58	0.58
Claim 2	12	0.77	0.53	0.71	0.61	0.78	0.53	0.75	0.51	0.69	0.56	0.67	0.50
Claim 3	8–9	0.45	0.80	0.41	0.87	0.46	0.80	0.34	0.79	0.37	0.83	0.28	0.78
Claim 4	8–9	0.64	0.71	0.53	0.78	0.65	0.71	0.64	0.67	0.51	0.76	0.58	0.67

Table 8.D.46 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—ELA, Grade Four

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.57	0.65	0.63	0.76	0.57	0.73	0.55	0.59	0.60
Claim 2	12	0.75	0.55	0.73	0.60	0.77	0.55	0.70	0.56	0.70	0.56	0.63	0.54
Claim 3	8–9	0.41	0.95	0.39	1.03	0.44	0.95	0.30	0.93	0.34	0.99	0.25	0.93
Claim 4	8–9	0.63	0.75	0.51	0.83	0.64	0.75	0.62	0.70	0.48	0.81	0.55	0.72

**Table 8.D.47 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
ELA, Grade Five**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.58	0.61	0.65	0.76	0.58	0.72	0.57	0.53	0.62
Claim 2	12	0.77	0.53	0.76	0.54	0.79	0.53	0.73	0.55	0.73	0.52	0.68	0.53
Claim 3	8–9	0.46	0.95	0.37	1.03	0.48	0.95	0.42	0.90	0.26	1.02	0.36	0.94
Claim 4	8–9	0.62	0.66	0.51	0.75	0.64	0.67	0.55	0.64	0.47	0.72	0.54	0.64

**Table 8.D.48 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
ELA, Grade Six**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.69	0.68	0.45	0.80	0.70	0.68	0.70	0.64	0.37	0.78
Claim 2	12	0.77	0.52	0.71	0.59	0.79	0.53	0.74	0.53	0.69	0.55	0.70	0.51
Claim 3	8–9	0.33	0.98	0.37	0.98	0.36	0.98	0.21	0.99	0.33	0.96	0.22	0.97
Claim 4	8–9	0.60	0.73	0.41	0.87	0.62	0.74	0.60	0.68	0.41	0.85	0.55	0.71

**Table 8.D.49 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
ELA, Grade Seven**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.71	0.65	0.50	0.74	0.72	0.65	0.71	0.63	0.34	0.74
Claim 2	12	0.74	0.56	0.64	0.65	0.76	0.57	0.72	0.56	0.60	0.63	0.69	0.55
Claim 3	8–9	0.39	0.96	0.28	0.99	0.40	0.96	0.29	0.96	0.18	0.98	0.31	0.95
Claim 4	8–9	0.64	0.75	0.46	0.86	0.66	0.75	0.64	0.70	0.40	0.85	0.60	0.74

**Table 8.D.50 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
ELA, Grade Eight**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.74	0.59	0.54	0.69	0.75	0.59	0.74	0.57	0.39	0.68	0.70	0.58
Claim 2	12	0.74	0.58	0.67	0.60	0.76	0.58	0.70	0.58	0.62	0.59	0.69	0.57
Claim 3	8–9	0.38	0.93	0.36	0.93	0.40	0.93	0.29	0.94	0.25	0.92	0.31	0.92
Claim 4	8–9	0.63	0.76	0.41	0.87	0.65	0.77	0.62	0.72	0.35	0.87	0.60	0.76

**Table 8.D.51 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
ELA, Grade Eleven**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	15–16	0.67	0.70	0.52	0.79	0.68	0.70	0.64	0.68	0.31	0.81	0.62	0.70
Claim 2	12	0.73	0.66	0.58	0.76	0.74	0.66	0.70	0.65	0.50	0.76	0.69	0.65
Claim 3	8–9	0.40	1.01	0.38	0.98	0.42	1.01	0.33	1.02	0.26	0.97	0.34	1.01
Claim 4	8–9	0.60	0.82	0.37	1.00	0.61	0.82	0.58	0.78	0.28	1.01	0.57	0.81

**Table 8.D.52 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Three**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17-20	0.88	0.33	0.89	0.36	0.89	0.33	0.87	0.33	0.87	0.34	0.83	0.33
Claim 2	8-10	0.71	0.52	0.61	0.62	0.72	0.52	0.74	0.48	0.56	0.58	0.68	0.47
Claim 3	8-10	0.64	0.61	0.46	0.75	0.66	0.60	0.71	0.53	0.44	0.70	0.64	0.52

**Table 8.D.53 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Four**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.34	0.87	0.39	0.89	0.34	0.88	0.34	0.84	0.36
Claim 2	8–10	0.69	0.55	0.55	0.66	0.71	0.54	0.72	0.51	0.47	0.63	0.66	0.51
Claim 3	8–10	0.71	0.57	0.52	0.73	0.73	0.58	0.77	0.50	0.49	0.68	0.71	0.51

**Table 8.D.54 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Five**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.87	0.39	0.82	0.48	0.89	0.39	0.89	0.36	0.78	0.45
Claim 2	8–10	0.71	0.55	0.48	0.69	0.72	0.55	0.77	0.49	0.30	0.68	0.69	0.52
Claim 3	8–10	0.65	0.68	0.38	0.81	0.67	0.67	0.71	0.61	0.28	0.79	0.63	0.64

**Table 8.D.55 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Six**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.88	0.44	0.83	0.53	0.89	0.44	0.88	0.42	0.80	0.50
Claim 2	8–10	0.71	0.61	0.47	0.76	0.72	0.61	0.76	0.56	0.35	0.74	0.67	0.59
Claim 3	8–10	0.62	0.78	0.21	0.98	0.64	0.77	0.70	0.69	0.10	0.96	0.58	0.75

**Table 8.D.56 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Seven**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.89	0.44	0.81	0.55	0.89	0.44	0.89	0.42	0.79	0.52
Claim 2	8–10	0.70	0.72	0.40	0.92	0.71	0.71	0.77	0.64	0.29	0.91	0.65	0.72
Claim 3	8–10	0.67	0.79	0.34	1.05	0.69	0.79	0.74	0.70	0.28	1.04	0.64	0.78

**Table 8.D.57 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Eight**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.86	0.54	0.69	0.68	0.86	0.54	0.88	0.50	0.69	0.67
Claim 2	8–10	0.55	0.82	0.08	1.04	0.57	0.81	0.65	0.73	N/A	1.04	0.49	0.84
Claim 3	8–10	0.60	0.88	0.13	1.13	0.62	0.87	0.68	0.80	0.09	1.14	0.56	0.87

**Table 8.D.58 Claim Reliabilities and SEM by Special Education Services Status/English Fluency—
Mathematics, Grade Eleven**

Claim	No. of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.88	0.53	0.71	0.66	0.88	0.53	0.89	0.50	0.71	0.67
Claim 2	8–10	0.53	1.01	N/A	1.40	0.55	1.01	0.62	0.92	N/A	1.35	0.46	1.04
Claim 3	8–10	0.53	1.07	N/A	1.32	0.55	1.07	0.61	1.00	N/A	1.34	0.47	1.08

Table 8.D.59 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Three

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.68	0.57	0.72	0.56	0.70	0.57	0.70	0.55	0.68	0.57	0.67	0.58
Claim 2	12	0.74	0.55	0.77	0.51	0.75	0.53	0.75	0.51	0.74	0.55	0.75	0.56	0.77	0.52
Claim 3	8–9	0.46	0.82	0.41	0.80	0.43	0.81	0.37	0.79	0.44	0.81	0.44	0.83	0.43	0.79
Claim 4	8–9	0.59	0.74	0.66	0.67	0.60	0.74	0.64	0.68	0.60	0.74	0.58	0.76	0.65	0.69

Table 8.D.60 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Four

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.73	0.59	0.75	0.55	0.73	0.57	0.73	0.55	0.72	0.58	0.71	0.60
Claim 2	12	0.76	0.56	0.74	0.56	0.76	0.55	0.70	0.55	0.75	0.55	0.76	0.56	0.74	0.55
Claim 3	8–9	0.43	0.97	0.39	0.94	0.40	0.96	0.37	0.94	0.41	0.97	0.43	0.98	0.39	0.94
Claim 4	8–9	0.60	0.79	0.64	0.71	0.61	0.77	0.61	0.71	0.60	0.78	0.58	0.80	0.63	0.73

Table 8.D.61 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Five

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.73	0.61	0.74	0.57	0.73	0.59	0.72	0.56	0.71	0.59	0.70	0.61
Claim 2	12	0.79	0.53	0.76	0.55	0.79	0.53	0.74	0.54	0.78	0.53	0.79	0.53	0.77	0.54
Claim 3	8–9	0.44	0.98	0.47	0.91	0.45	0.98	0.44	0.93	0.43	0.98	0.44	1.00	0.45	0.93
Claim 4	8–9	0.61	0.69	0.60	0.65	0.62	0.68	0.58	0.65	0.61	0.68	0.60	0.70	0.62	0.66

Table 8.D.62 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Six

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.64	0.73	0.70	0.64	0.67	0.71	0.68	0.65	0.64	0.71	0.62	0.74
Claim 2	12	0.78	0.53	0.74	0.54	0.77	0.52	0.73	0.53	0.77	0.53	0.78	0.54	0.76	0.52
Claim 3	8–9	0.41	0.97	0.25	1.00	0.39	0.97	0.23	0.99	0.38	0.97	0.42	0.97	0.29	0.99
Claim 4	8–9	0.56	0.79	0.61	0.67	0.59	0.75	0.58	0.68	0.58	0.77	0.57	0.80	0.60	0.71

Table 8.D.63 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Seven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.69	0.67	0.71	0.63	0.69	0.67	0.70	0.62	0.67	0.67	0.66	0.68
Claim 2	12	0.75	0.58	0.72	0.57	0.74	0.57	0.71	0.56	0.74	0.58	0.75	0.60	0.74	0.56
Claim 3	8–9	0.43	0.96	0.32	0.97	0.39	0.96	0.30	0.96	0.39	0.96	0.40	0.96	0.34	0.96
Claim 4	8–9	0.62	0.79	0.64	0.68	0.63	0.77	0.62	0.70	0.62	0.78	0.60	0.81	0.64	0.72

Table 8.D.64 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eight

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.72	0.62	0.74	0.57	0.72	0.60	0.72	0.57	0.71	0.61	0.70	0.63
Claim 2	12	0.75	0.58	0.70	0.59	0.72	0.57	0.69	0.58	0.74	0.57	0.76	0.58	0.73	0.58
Claim 3	8–9	0.43	0.93	0.31	0.94	0.38	0.92	0.29	0.93	0.40	0.92	0.43	0.92	0.35	0.94
Claim 4	8–9	0.61	0.81	0.62	0.71	0.62	0.78	0.61	0.72	0.61	0.79	0.60	0.82	0.63	0.75

Table 8.D.65 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eleven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	15–16	0.66	0.72	0.67	0.68	0.65	0.72	0.62	0.68	0.64	0.72	0.65	0.74
Claim 2	12	0.73	0.69	0.70	0.65	0.73	0.67	0.67	0.64	0.72	0.67	0.72	0.70	0.73	0.65
Claim 3	8–9	0.43	1.01	0.37	1.02	0.43	1.01	0.32	1.02	0.42	1.00	0.46	1.00	0.39	1.02
Claim 4	8–9	0.59	0.87	0.56	0.77	0.59	0.86	0.54	0.76	0.59	0.86	0.57	0.90	0.61	0.80

Table 8.D.66 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Three

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.34	0.87	0.34	0.87	0.34	0.86	0.33	0.87	0.34	0.88	0.34
Claim 2	8–10	0.66	0.55	0.74	0.49	0.68	0.54	0.71	0.49	0.64	0.55	0.60	0.58	0.73	0.49
Claim 3	8–10	0.55	0.66	0.72	0.53	0.58	0.64	0.67	0.55	0.54	0.66	0.50	0.69	0.68	0.57

Table 8.D.67 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Four

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.35	0.88	0.34	0.88	0.34	0.87	0.34	0.87	0.35	0.87	0.36
Claim 2	8–10	0.64	0.58	0.73	0.51	0.66	0.56	0.69	0.51	0.61	0.58	0.58	0.60	0.72	0.52
Claim 3	8–10	0.64	0.64	0.77	0.49	0.67	0.59	0.74	0.51	0.62	0.63	0.58	0.67	0.74	0.53

Table 8.D.68 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Five

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.86	0.42	0.89	0.36	0.86	0.40	0.87	0.37	0.84	0.42	0.84	0.44
Claim 2	8–10	0.62	0.59	0.77	0.49	0.63	0.58	0.73	0.50	0.59	0.60	0.53	0.63	0.73	0.51
Claim 3	8–10	0.58	0.73	0.72	0.59	0.58	0.70	0.68	0.62	0.53	0.73	0.48	0.76	0.69	0.63

Table 8.D.69 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Six

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.87	0.47	0.87	0.43	0.87	0.45	0.87	0.42	0.86	0.46	0.86	0.47
Claim 2	8–10	0.63	0.67	0.76	0.55	0.63	0.65	0.72	0.56	0.60	0.66	0.57	0.69	0.73	0.57
Claim 3	8–10	0.49	0.86	0.71	0.66	0.53	0.82	0.65	0.70	0.47	0.85	0.43	0.88	0.66	0.72

Table 8.D.70 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Seven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.88	0.47	0.89	0.42	0.87	0.45	0.88	0.42	0.86	0.46	0.86	0.48
Claim 2	8–10	0.62	0.78	0.78	0.59	0.63	0.76	0.73	0.64	0.58	0.79	0.53	0.83	0.73	0.65
Claim 3	8–10	0.61	0.87	0.76	0.64	0.63	0.83	0.71	0.70	0.56	0.89	0.55	0.92	0.71	0.73

Table 8.D.71 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eight

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.82	0.58	0.88	0.48	0.84	0.55	0.86	0.49	0.82	0.58	0.80	0.60
Claim 2	8–10	0.40	0.90	0.69	0.67	0.43	0.88	0.60	0.74	0.35	0.90	0.29	0.95	0.61	0.75
Claim 3	8–10	0.49	0.97	0.70	0.75	0.53	0.91	0.64	0.80	0.45	0.96	0.40	0.99	0.64	0.82

Table 8.D.72 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eleven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.84	0.56	0.90	0.46	0.86	0.55	0.87	0.48	0.84	0.56	0.82	0.59
Claim 2	8–10	0.41	1.12	0.69	0.81	0.38	1.11	0.58	0.90	0.33	1.12	0.19	1.22	0.59	0.94
Claim 3	8–10	0.41	1.16	0.66	0.89	0.43	1.13	0.56	0.97	0.36	1.16	0.29	1.19	0.58	1.02

Table 8.D.73 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.71	0.55	0.66	0.56	0.72	0.56	0.68	0.55	0.71	0.55	0.72	0.56
Claim 2	12	0.75	0.52	0.72	0.50	0.76	0.51	0.74	0.51	0.76	0.52	0.77	0.53	0.74	0.51
Claim 3	8–9	0.47	0.80	0.30	0.79	0.41	0.79	0.34	0.79	0.42	0.80	0.45	0.80	0.37	0.79
Claim 4	8–9	0.62	0.69	0.62	0.65	0.63	0.71	0.64	0.67	0.64	0.70	0.63	0.72	0.63	0.68

Table 8.D.74 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.76	0.57	0.70	0.55	0.73	0.56	0.72	0.55	0.74	0.56	0.75	0.58
Claim 2	12	0.75	0.55	0.66	0.57	0.73	0.55	0.67	0.55	0.74	0.55	0.76	0.55	0.70	0.55
Claim 3	8–9	0.37	0.94	0.28	0.93	0.35	0.93	0.35	0.94	0.39	0.94	0.43	0.95	0.32	0.93
Claim 4	8–9	0.64	0.76	0.59	0.68	0.63	0.74	0.59	0.70	0.62	0.74	0.62	0.76	0.60	0.71

Table 8.D.75 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.58	0.68	0.57	0.75	0.57	0.70	0.56	0.74	0.57	0.75	0.59
Claim 2	12	0.78	0.54	0.69	0.55	0.77	0.54	0.71	0.55	0.77	0.53	0.79	0.53	0.73	0.54
Claim 3	8–9	0.45	0.94	0.39	0.88	0.47	0.94	0.41	0.92	0.44	0.94	0.46	0.96	0.40	0.91
Claim 4	8–9	0.64	0.67	0.51	0.65	0.59	0.65	0.54	0.64	0.62	0.66	0.62	0.67	0.57	0.64

Table 8.D.76 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.67	0.67	0.65	0.63	0.69	0.68	0.67	0.64	0.68	0.67	0.68	0.70
Claim 2	12	0.77	0.52	0.66	0.54	0.74	0.51	0.70	0.53	0.76	0.52	0.79	0.53	0.72	0.52
Claim 3	8–9	0.35	0.97	0.10	1.00	0.31	0.98	0.15	0.99	0.31	0.98	0.38	0.98	0.20	0.99
Claim 4	8–9	0.57	0.74	0.53	0.65	0.58	0.72	0.57	0.67	0.60	0.72	0.60	0.75	0.57	0.68

Table 8.D.77 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.72	0.64	0.65	0.62	0.72	0.65	0.68	0.62	0.71	0.64	0.71	0.65
Claim 2	12	0.75	0.56	0.62	0.57	0.74	0.56	0.67	0.56	0.74	0.56	0.76	0.57	0.69	0.55
Claim 3	8–9	0.40	0.95	0.17	0.97	0.35	0.96	0.25	0.96	0.37	0.96	0.39	0.96	0.26	0.96
Claim 4	8–9	0.65	0.76	0.56	0.66	0.65	0.73	0.59	0.69	0.63	0.74	0.64	0.77	0.61	0.70

Table 8.D.78 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.75	0.59	0.69	0.56	0.71	0.57	0.70	0.56	0.73	0.58	0.74	0.60
Claim 2	12	0.75	0.58	0.62	0.60	0.71	0.57	0.64	0.58	0.72	0.58	0.76	0.58	0.69	0.58
Claim 3	8–9	0.40	0.93	0.19	0.95	0.33	0.93	0.24	0.93	0.36	0.93	0.42	0.93	0.29	0.94
Claim 4	8–9	0.64	0.77	0.54	0.69	0.63	0.75	0.59	0.71	0.63	0.76	0.64	0.79	0.61	0.73

Table 8.D.79 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	15–16	0.64	0.71	0.62	0.67	0.65	0.70	0.60	0.68	0.66	0.70	0.67	0.72
Claim 2	12	0.72	0.66	0.64	0.65	0.72	0.65	0.63	0.64	0.72	0.66	0.73	0.67	0.70	0.65
Claim 3	8–9	0.39	1.02	0.27	1.02	0.37	1.01	0.27	1.02	0.40	1.01	0.45	1.01	0.33	1.02
Claim 4	8–9	0.60	0.83	0.50	0.75	0.61	0.82	0.51	0.75	0.60	0.82	0.59	0.86	0.58	0.78

Table 8.D.80 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.87	0.33	0.84	0.34	0.87	0.35	0.85	0.33	0.87	0.33	0.88	0.33
Claim 2	8–10	0.69	0.51	0.70	0.47	0.71	0.50	0.71	0.48	0.70	0.51	0.68	0.53	0.71	0.48
Claim 3	8–10	0.65	0.60	0.69	0.50	0.66	0.61	0.68	0.53	0.63	0.59	0.62	0.62	0.68	0.53

Table 8.D.81 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.89	0.34	0.84	0.35	0.88	0.34	0.85	0.34	0.87	0.34	0.88	0.34
Claim 2	8–10	0.70	0.54	0.69	0.50	0.69	0.52	0.69	0.50	0.68	0.54	0.66	0.56	0.70	0.50
Claim 3	8–10	0.72	0.56	0.74	0.47	0.73	0.55	0.73	0.49	0.71	0.56	0.68	0.60	0.74	0.50

Table 8.D.82 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.39	0.86	0.35	0.87	0.38	0.87	0.36	0.87	0.39	0.87	0.40
Claim 2	8–10	0.70	0.54	0.75	0.46	0.70	0.53	0.73	0.49	0.70	0.54	0.66	0.56	0.73	0.48
Claim 3	8–10	0.68	0.66	0.69	0.56	0.65	0.66	0.68	0.60	0.64	0.67	0.62	0.70	0.69	0.60

Table 8.D.83 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.88	0.44	0.84	0.42	0.87	0.43	0.86	0.42	0.87	0.43	0.88	0.45
Claim 2	8–10	0.69	0.60	0.73	0.52	0.69	0.60	0.72	0.55	0.69	0.60	0.67	0.63	0.73	0.55
Claim 3	8–10	0.61	0.78	0.70	0.61	0.61	0.77	0.67	0.67	0.60	0.77	0.58	0.81	0.67	0.68

Table 8.D.84 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.89	0.45	0.86	0.41	0.88	0.43	0.87	0.41	0.88	0.44	0.88	0.45
Claim 2	8–10	0.70	0.72	0.77	0.54	0.71	0.70	0.74	0.61	0.68	0.71	0.65	0.75	0.73	0.61
Claim 3	8–10	0.69	0.78	0.73	0.59	0.69	0.77	0.71	0.66	0.65	0.79	0.65	0.82	0.71	0.68

Table 8.D.85 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.86	0.54	0.86	0.46	0.84	0.51	0.86	0.48	0.85	0.53	0.84	0.56
Claim 2	8–10	0.55	0.82	0.68	0.62	0.51	0.81	0.61	0.70	0.51	0.82	0.46	0.87	0.62	0.71
Claim 3	8–10	0.61	0.88	0.68	0.70	0.59	0.83	0.65	0.77	0.57	0.88	0.53	0.92	0.65	0.78

Table 8.D.86 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eleven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.86	0.53	0.89	0.44	0.87	0.53	0.87	0.47	0.86	0.54	0.85	0.55
Claim 2	8–10	0.50	1.03	0.70	0.74	0.51	1.03	0.60	0.86	0.46	1.04	0.35	1.12	0.62	0.89
Claim 3	8–10	0.49	1.10	0.66	0.82	0.51	1.08	0.58	0.94	0.47	1.09	0.42	1.12	0.60	0.98

Table 8.D.87 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.63	0.57	0.72	0.56	0.66	0.57	0.71	0.55	0.65	0.57	0.63	0.58
Claim 2	12	0.71	0.56	0.77	0.52	0.74	0.54	0.76	0.51	0.73	0.55	0.73	0.57	0.75	0.54
Claim 3	8–9	0.41	0.82	0.44	0.80	0.40	0.81	0.39	0.79	0.42	0.82	0.41	0.84	0.45	0.81
Claim 4	8–9	0.55	0.76	0.65	0.70	0.58	0.75	0.63	0.69	0.57	0.74	0.54	0.77	0.61	0.73

Table 8.D.88 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.69	0.60	0.75	0.56	0.70	0.58	0.73	0.56	0.70	0.59	0.68	0.60
Claim 2	12	0.74	0.56	0.76	0.55	0.75	0.55	0.73	0.55	0.74	0.55	0.75	0.56	0.75	0.55
Claim 3	8–9	0.41	0.98	0.43	0.95	0.39	0.97	0.38	0.94	0.40	0.97	0.40	0.99	0.42	0.95
Claim 4	8–9	0.55	0.80	0.64	0.74	0.58	0.79	0.62	0.74	0.58	0.78	0.54	0.81	0.60	0.77

Table 8.D.89 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.68	0.62	0.75	0.57	0.70	0.59	0.73	0.57	0.69	0.60	0.67	0.62
Claim 2	12	0.77	0.53	0.78	0.54	0.78	0.53	0.75	0.53	0.77	0.52	0.78	0.53	0.79	0.53
Claim 3	8–9	0.38	1.00	0.47	0.95	0.40	1.00	0.43	0.95	0.41	0.99	0.40	1.01	0.45	0.97
Claim 4	8–9	0.56	0.70	0.63	0.66	0.61	0.69	0.60	0.66	0.60	0.69	0.58	0.71	0.62	0.68

Table 8.D.90 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.59	0.75	0.69	0.67	0.64	0.72	0.68	0.67	0.61	0.72	0.58	0.75
Claim 2	12	0.76	0.54	0.78	0.53	0.77	0.52	0.75	0.52	0.76	0.53	0.77	0.55	0.78	0.53
Claim 3	8–9	0.40	0.97	0.34	0.98	0.39	0.97	0.30	0.98	0.38	0.97	0.41	0.97	0.37	0.97
Claim 4	8–9	0.53	0.81	0.63	0.71	0.58	0.77	0.59	0.70	0.56	0.78	0.53	0.82	0.58	0.77

Table 8.D.91 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.65	0.69	0.72	0.64	0.65	0.67	0.71	0.63	0.65	0.68	0.62	0.69
Claim 2	12	0.73	0.59	0.75	0.57	0.73	0.57	0.73	0.56	0.72	0.58	0.72	0.60	0.75	0.57
Claim 3	8–9	0.40	0.96	0.38	0.96	0.37	0.96	0.35	0.96	0.38	0.96	0.37	0.97	0.38	0.96
Claim 4	8–9	0.58	0.81	0.66	0.72	0.61	0.79	0.63	0.73	0.60	0.79	0.57	0.83	0.62	0.78

Table 8.D.92 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.67	0.64	0.75	0.58	0.70	0.61	0.72	0.58	0.69	0.62	0.67	0.64
Claim 2	12	0.73	0.58	0.74	0.58	0.72	0.57	0.72	0.57	0.73	0.57	0.75	0.58	0.75	0.58
Claim 3	8–9	0.40	0.93	0.37	0.93	0.38	0.91	0.34	0.93	0.39	0.92	0.42	0.92	0.40	0.93
Claim 4	8–9	0.56	0.83	0.65	0.74	0.60	0.79	0.63	0.74	0.59	0.80	0.57	0.83	0.62	0.79

Table 8.D.93 Claim Reliabilities and SEM for ELA, Grade Eleven by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	15–16	0.65	0.73	0.68	0.70	0.63	0.74	0.63	0.69	0.63	0.73	0.62	0.75
Claim 2	12	0.70	0.71	0.73	0.66	0.72	0.68	0.70	0.65	0.71	0.68	0.70	0.71	0.74	0.67
Claim 3	8–9	0.44	1.00	0.41	1.01	0.43	1.01	0.37	1.01	0.42	1.00	0.44	1.00	0.44	1.01
Claim 4	8–9	0.55	0.91	0.59	0.79	0.56	0.88	0.57	0.79	0.58	0.87	0.54	0.92	0.60	0.86

Table 8.D.94 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.34	0.88	0.33	0.87	0.33	0.86	0.33	0.87	0.34	0.87	0.34
Claim 2	8–10	0.60	0.57	0.72	0.51	0.63	0.55	0.70	0.51	0.61	0.56	0.55	0.59	0.68	0.53
Claim 3	8–10	0.46	0.69	0.68	0.58	0.52	0.65	0.64	0.57	0.50	0.67	0.43	0.71	0.59	0.63

Table 8.D.95 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.86	0.35	0.88	0.34	0.86	0.34	0.87	0.34	0.86	0.35	0.86	0.36
Claim 2	8–10	0.58	0.60	0.71	0.54	0.61	0.58	0.67	0.53	0.57	0.59	0.52	0.62	0.66	0.56
Claim 3	8–10	0.56	0.67	0.74	0.54	0.61	0.62	0.71	0.54	0.59	0.64	0.52	0.69	0.67	0.60

Table 8.D.96 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.83	0.44	0.88	0.38	0.84	0.41	0.86	0.38	0.83	0.42	0.82	0.45
Claim 2	8–10	0.52	0.62	0.73	0.53	0.56	0.60	0.69	0.54	0.54	0.62	0.44	0.65	0.65	0.57
Claim 3	8–10	0.46	0.76	0.68	0.64	0.51	0.72	0.65	0.66	0.49	0.74	0.40	0.78	0.60	0.70

Table 8.D.97 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.85	0.48	0.88	0.43	0.86	0.45	0.87	0.43	0.85	0.46	0.85	0.48
Claim 2	8–10	0.56	0.70	0.73	0.58	0.58	0.67	0.69	0.59	0.56	0.67	0.50	0.71	0.65	0.63
Claim 3	8–10	0.38	0.89	0.66	0.73	0.46	0.84	0.60	0.75	0.42	0.87	0.34	0.91	0.55	0.82

Table 8.D.98 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.85	0.48	0.89	0.43	0.85	0.46	0.87	0.43	0.85	0.47	0.84	0.49
Claim 2	8–10	0.53	0.81	0.74	0.66	0.55	0.79	0.68	0.70	0.53	0.81	0.44	0.86	0.63	0.74
Claim 3	8–10	0.53	0.91	0.72	0.72	0.57	0.86	0.67	0.76	0.52	0.91	0.47	0.95	0.61	0.84

Table 8.D.99 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.78	0.60	0.88	0.50	0.82	0.57	0.85	0.51	0.80	0.59	0.76	0.62
Claim 2	8–10	0.18	0.95	0.63	0.75	0.33	0.93	0.54	0.80	0.28	0.92	0.14	0.98	0.44	0.85
Claim 3	8–10	0.34	1.01	0.65	0.82	0.48	0.95	0.59	0.86	0.41	0.98	0.32	1.02	0.52	0.92

Table 8.D.100 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven

Claim	No. of Items	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.82	0.58	0.89	0.48	0.83	0.56	0.86	0.51	0.82	0.57	0.80	0.60
Claim 2	8–10	0.27	1.19	0.63	0.89	0.20	1.17	0.50	0.97	0.27	1.14	0.05	1.27	0.44	1.07
Claim 3	8–10	0.30	1.21	0.60	0.97	0.33	1.16	0.49	1.03	0.31	1.17	0.18	1.22	0.44	1.13

Appendix 8.E: Scale Score CSEM Distribution

Notes:

- Conditional standard errors of measurement (CSEMs) reported in these tables and figures are not truncated.
- An expression that opens with a bracket and closes with a parenthesis indicates that a value is greater than the first number and is less than or equal to the second number. For example, “[20, 25)” indicates a value greater than or equal to 20 but less than 25.

Table 8.E.1 Scale Score CSEM Distribution—ELA, Grade Three

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	320,459	320,459	70%	70%
[25, 30)	105,337	425,796	23%	93%
[30, 35)	21,722	447,518	5%	98%
[35, 40)	6,015	453,533	1%	99%
[40, 45)	1,963	455,496	0%	100%
[45, 50)	743	456,239	0%	100%
[50, 55)	310	456,549	0%	100%
[55, 60)	137	456,686	0%	100%
[60, 65)	68	456,754	0%	100%
[65, 70)	57	456,811	0%	100%
[70, 75)	101	456,912	0%	100%

Table 8.E.2 Scale Score CSEM Distribution—ELA, Grade Four

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	53,333	53,333	11%	11%
[25, 30)	366,204	419,537	77%	89%
[30, 35)	40,940	460,477	9%	97%
[35, 40)	8,281	468,758	2%	99%
[40, 45)	2,545	471,303	1%	100%
[45, 50)	905	472,208	0%	100%
[50, 55)	357	472,565	0%	100%
[55, 60)	161	472,726	0%	100%
[60, 65)	85	472,811	0%	100%
[65, 70)	55	472,866	0%	100%
[70, 75)	74	472,940	0%	100%

Table 8.E.3 Scale Score CSEM Distribution—ELA, Grade Five

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	162,257	162,257	35%	35%
[25, 30)	263,886	426,143	57%	92%
[30, 35)	27,452	453,595	6%	98%
[35, 40)	5,701	459,296	1%	99%
[40, 45)	2,299	461,595	0%	100%
[45, 50)	1,103	462,698	0%	100%
[50, 55)	467	463,165	0%	100%
[55, 60)	286	463,451	0%	100%
[60, 65)	457	463,908	0%	100%

Table 8.E.4 Scale Score CSEM Distribution—ELA, Grade Six

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	386,268	386,268	84%	84%
[30, 35)	49,300	435,568	11%	95%
[35, 40)	12,817	448,385	3%	98%
[40, 45)	5,580	453,965	1%	99%
[45, 50)	2,434	456,399	1%	99%
[50, 55)	1,216	457,615	0%	100%
[55, 60)	610	458,225	0%	100%
[60, 65)	336	458,561	0%	100%
[65, 70)	190	458,751	0%	100%
[70, 75)	310	459,061	0%	100%

Table 8.E.5 Scale Score CSEM Distribution—ELA, Grade Seven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	374,832	374,832	82%	82%
[30, 35)	61,367	436,199	13%	95%
[35, 40)	13,045	449,244	3%	98%
[40, 45)	4,515	453,759	1%	99%
[45, 50)	1,705	455,464	0%	100%
[50, 55)	745	456,209	0%	100%
[55, 60)	382	456,591	0%	100%
[60, 65)	493	457,084	0%	100%

Table 8.E.6 Scale Score CSEM Distribution—ELA, Grade Eight

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	387,457	387,457	86%	86%
[30, 35)	48,360	435,817	11%	97%
[35, 40)	9,412	445,229	2%	99%
[40, 45)	2,955	448,184	1%	99%
[45, 50)	1,131	449,315	0%	100%
[50, 55)	1,168	450,483	0%	100%

Table 8.E.7 Scale Score CSEM Distribution—ELA, Grade Eleven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	231,517	231,517	53%	53%
[30, 35)	154,571	386,088	36%	89%
[35, 40)	32,793	418,881	8%	97%
[40, 45)	10,072	428,953	2%	99%
[45, 50)	2,965	431,918	1%	100%
[50, 55)	2,143	434,061	0%	100%

Table 8.E.8 Scale Score CSEM Distribution—Mathematics, Grade Three

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	338,851	338,851	74%	74%
[20, 25)	94,754	433,605	21%	94%
[25, 30)	14,603	448,208	3%	98%
[30, 35)	4,950	453,158	1%	99%
[35, 40)	2,230	455,388	0%	99%
[40, 45)	3,662	459,050	1%	100%

Table 8.E.9 Scale Score CSEM Distribution—Mathematics, Grade Four

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	324,947	324,947	68%	68%
[20, 25)	117,102	442,049	25%	93%
[25, 30)	22,317	464,366	5%	98%
[30, 35)	6,153	470,519	1%	99%
[35, 40)	2,260	472,779	0%	100%
[40, 45)	972	473,751	0%	100%
[45, 50)	461	474,212	0%	100%
[50, 55)	691	474,903	0%	100%

Table 8.E.10 Scale Score CSEM Distribution—Mathematics, Grade Five

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	164,182	164,182	35%	35%
[20, 25)	153,156	317,338	33%	68%
[25, 30)	84,603	401,941	18%	86%
[30, 35)	37,310	439,251	8%	94%
[35, 40)	14,980	454,231	3%	98%
[40, 45)	6,042	460,273	1%	99%
[45, 50)	2,529	462,802	1%	99%
[50, 55)	1,256	464,058	0%	100%
[55, 60)	613	464,671	0%	100%
[60, 65)	1,028	465,699	0%	100%

Table 8.E.11 Scale Score CSEM Distribution—Mathematics, Grade Six

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	269,258	269,258	58%	58%
[25, 30)	98,137	367,395	21%	80%
[30, 35)	39,877	407,272	9%	88%
[35, 40)	20,820	428,092	5%	93%
[40, 45)	11,835	439,927	3%	95%
[45, 50)	6,980	446,907	2%	97%
[50, 55)	3,985	450,892	1%	98%
[55, 60)	2,502	453,394	1%	98%
[60, 65)	1,727	455,121	0%	99%
[65, 70)	5,555	460,676	1%	100%

Table 8.E.12 Scale Score CSEM Distribution—Mathematics, Grade Seven

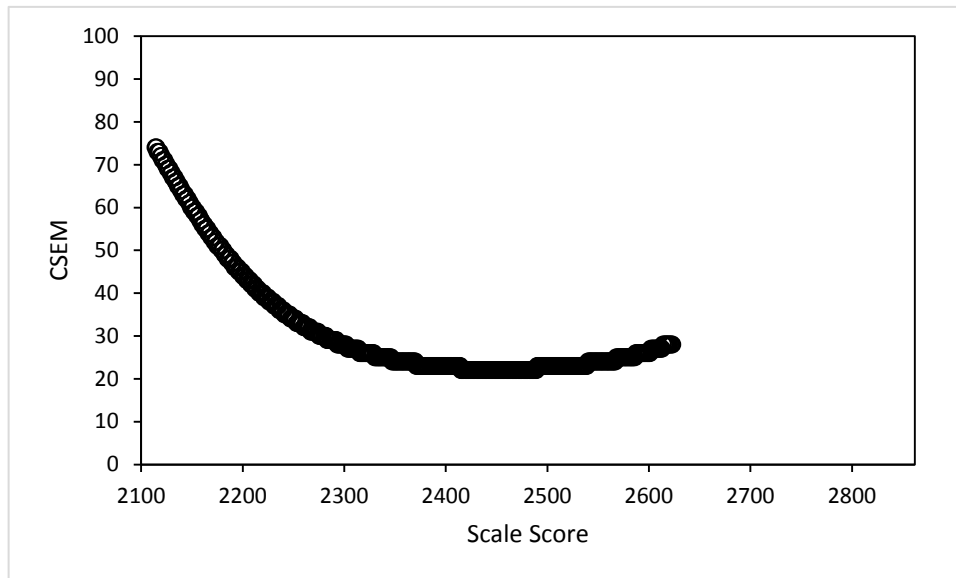
CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	191,281	191,281	42%	42%
[25, 30)	105,155	296,436	23%	65%
[30, 35)	57,749	354,185	13%	77%
[35, 40)	35,126	389,311	8%	85%
[40, 45)	23,263	412,574	5%	90%
[45, 50)	15,444	428,018	3%	93%
[50, 55)	10,161	438,179	2%	96%
[55, 60)	6,283	444,462	1%	97%
[60, 65)	3,959	448,421	1%	98%
[65, 70)	2,785	451,206	1%	98%
[70, 75)	1,588	452,794	0%	99%
[75, 80)	1,216	454,010	0%	99%
[80, 85)	756	454,766	0%	99%
[85, 90)	3,636	458,402	1%	100%

Table 8.E.13 Scale Score CSEM Distribution—Mathematics, Grade Eight

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	120,364	120,364	27%	27%
[25, 30)	107,502	227,866	24%	50%
[30, 35)	89,943	317,809	20%	70%
[35, 40)	63,524	381,333	14%	84%
[40, 45)	34,362	415,695	8%	92%
[45, 50)	15,439	431,134	3%	95%
[50, 55)	7,401	438,535	2%	97%
[55, 60)	3,942	442,477	1%	98%
[60, 65)	2,056	444,533	0%	98%
[65, 70)	1,397	445,930	0%	99%
[70, 75)	939	446,869	0%	99%
[75, 80)	4,732	451,601	1%	100%

Table 8.E.14 Scale Score CSEM Distribution—Mathematics, Grade Eleven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	86,318	86,318	20%	20%
[25, 30)	88,921	175,239	21%	41%
[30, 35)	63,942	239,181	15%	55%
[35, 40)	51,476	290,657	12%	67%
[40, 45)	41,032	331,689	9%	77%
[45, 50)	32,004	363,693	7%	84%
[50, 55)	22,616	386,309	5%	89%
[55, 60)	15,071	401,380	3%	93%
[60, 65)	10,376	411,756	2%	95%
[65, 70)	6,519	418,275	2%	97%
[70, 75)	4,108	422,383	1%	98%
[75, 80)	2,861	425,244	1%	98%
[80, 85)	1,799	427,043	0%	99%
[85, 90)	1,298	428,341	0%	99%
[90, 95)	4,007	432,348	1%	100%

**Figure 8.E.1 Scale Score CSEM Distribution Plots—ELA, Grade Three**

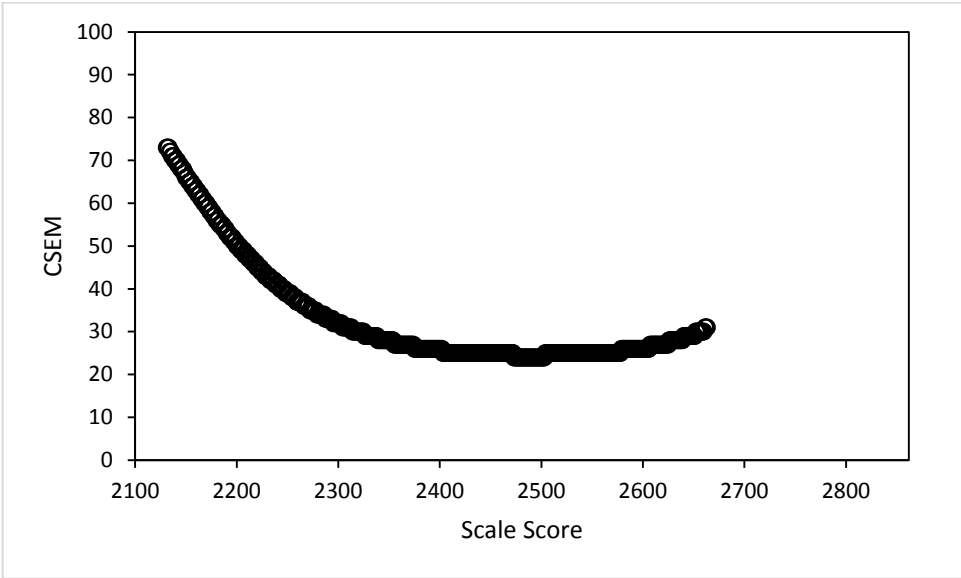


Figure 8.E.2 Scale Score CSEM Distribution Plots—ELA, Grade Four

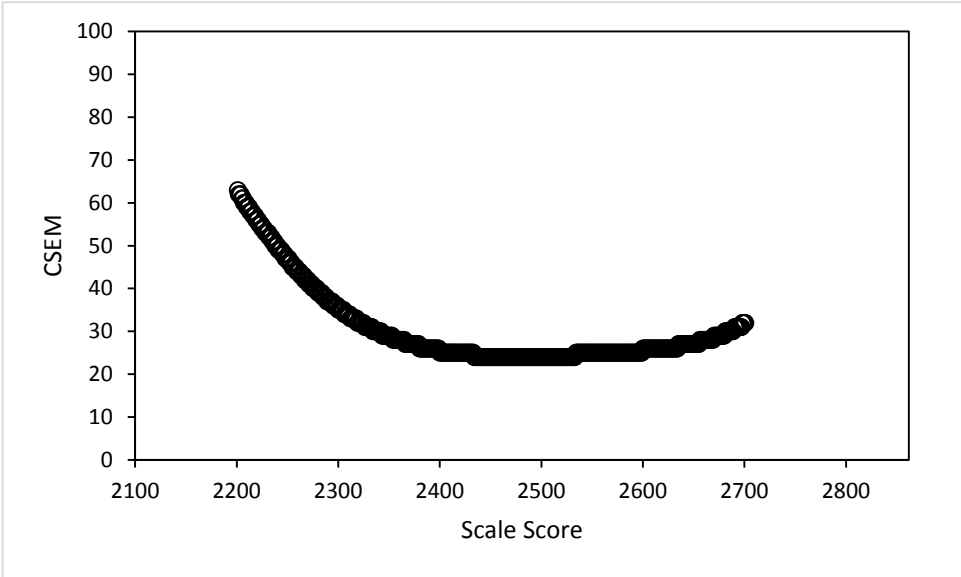


Figure 8.E.3 Scale Score CSEM Distribution Plots—ELA, Grade 5

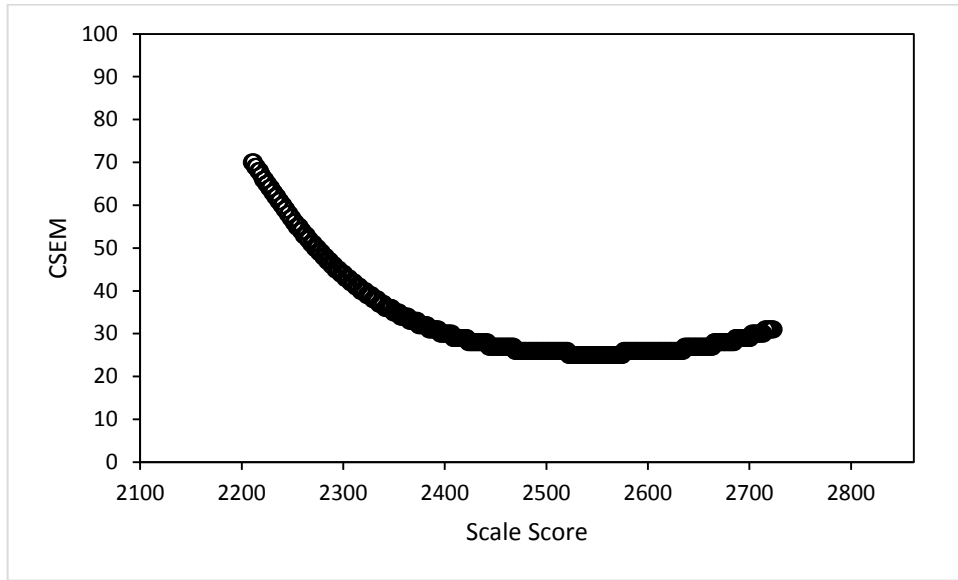


Figure 8.E.4 Scale Score CSEM Distribution Plots—ELA, Grade Six

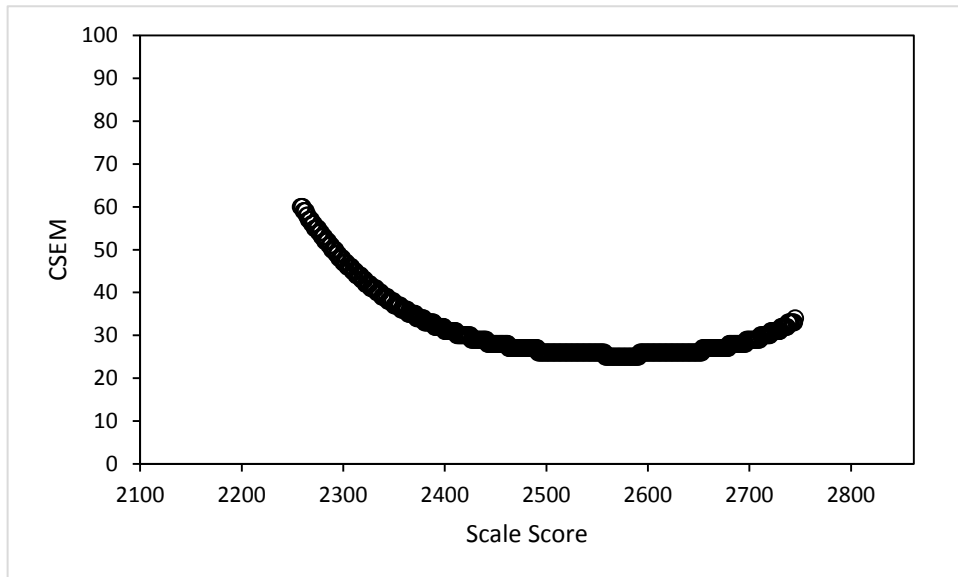


Figure 8.E.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven

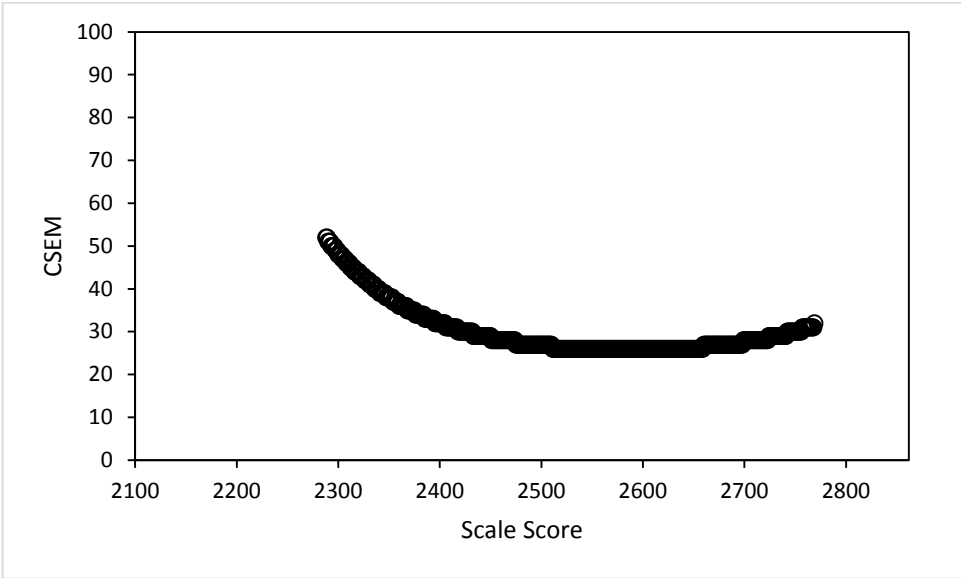


Figure 8.E.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight

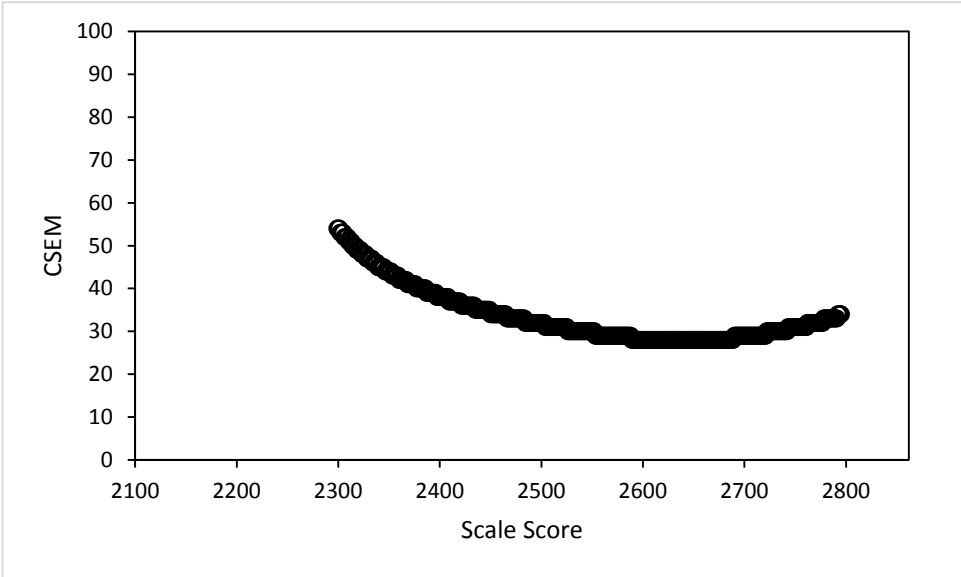


Figure 8.E.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven

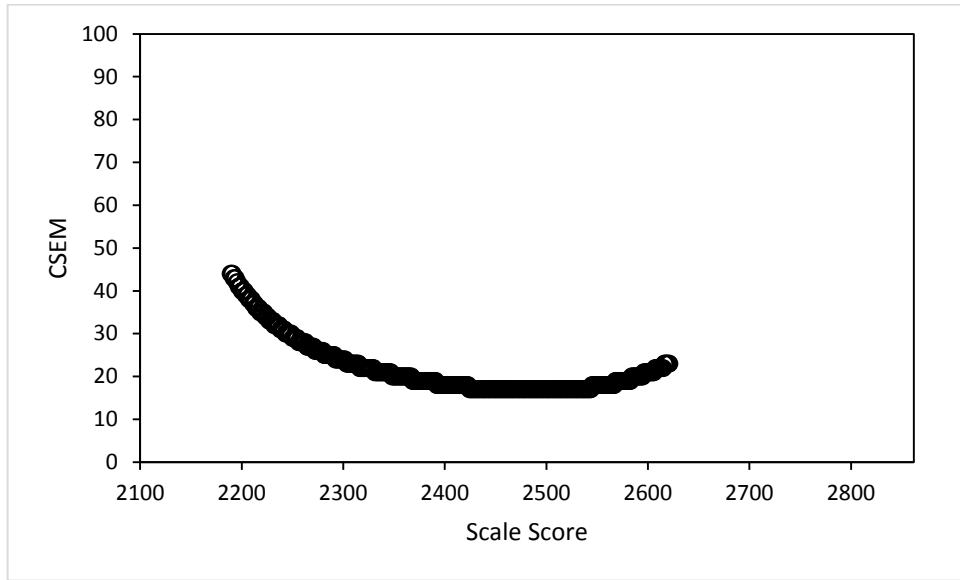


Figure 8.E.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three

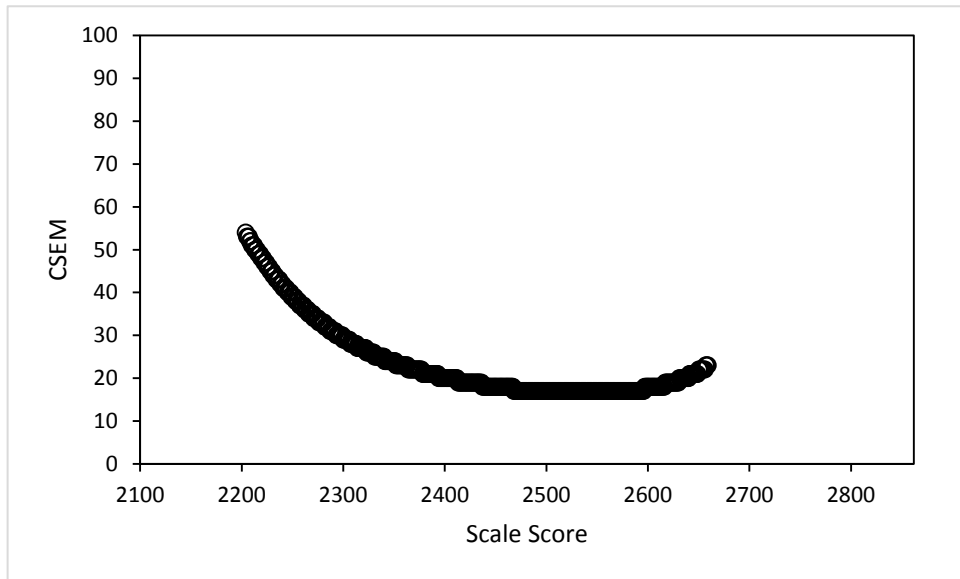


Figure 8.E.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four

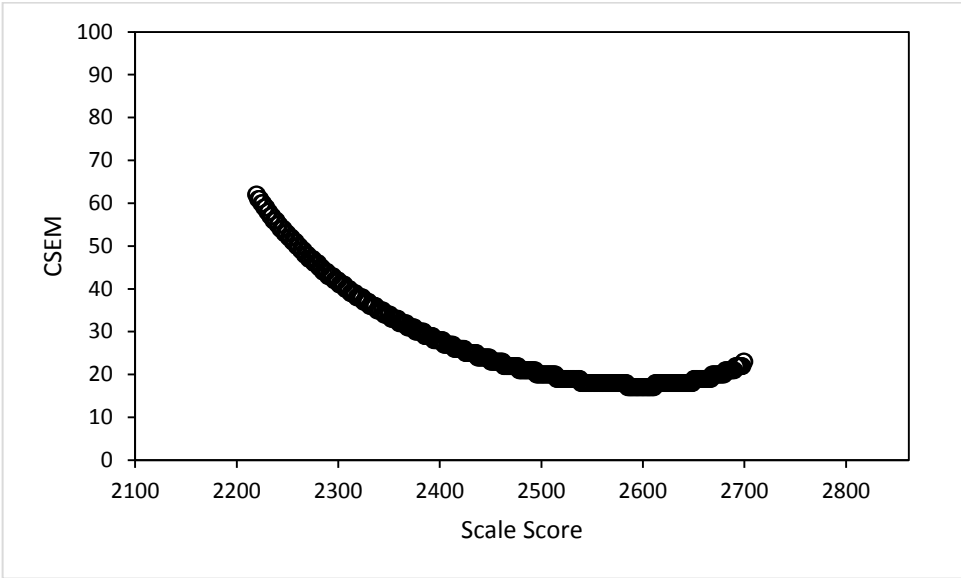


Figure 8.E.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five

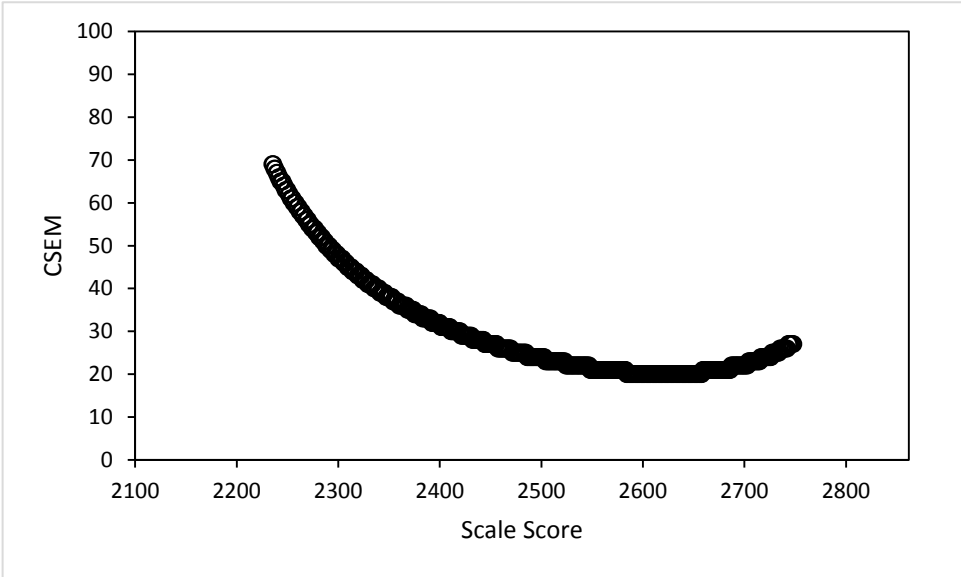


Figure 8.E.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six

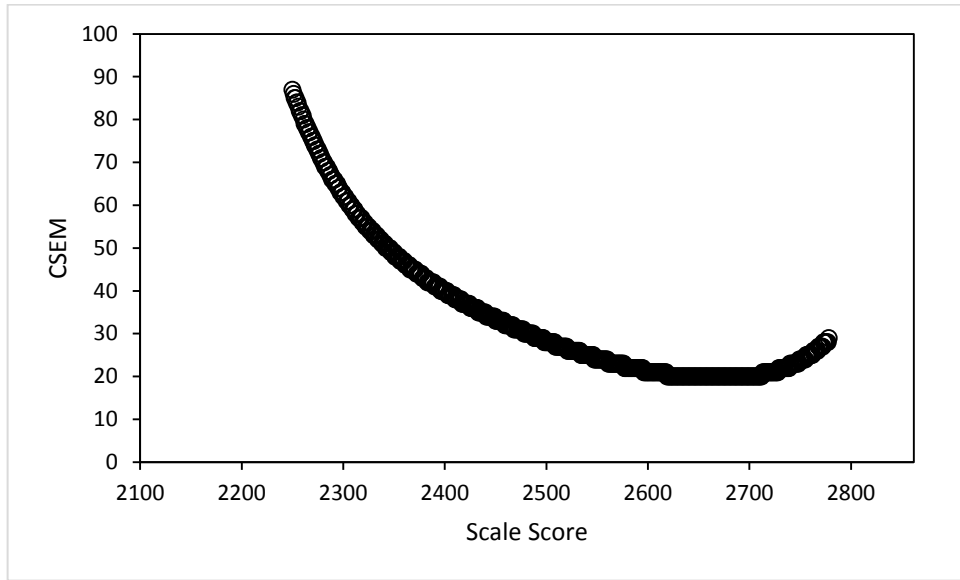


Figure 8.E.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven

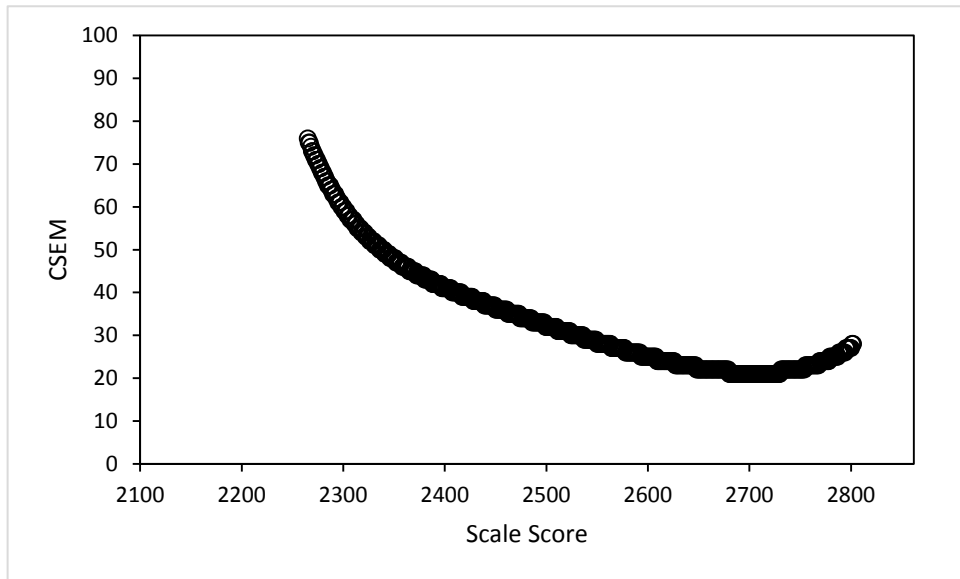


Figure 8.E.13 Scale Score CSEM Distribution Plots—Mathematics, Grade 8

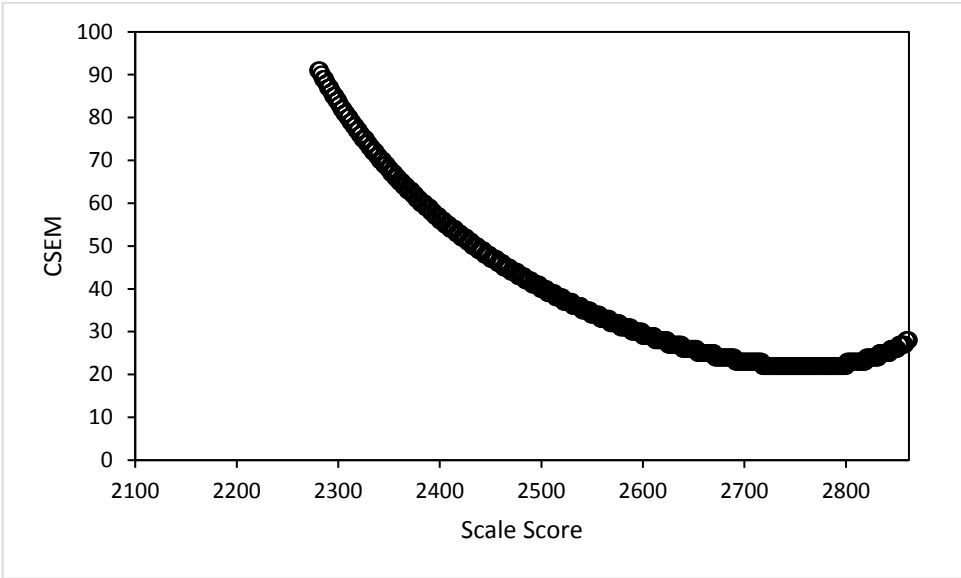


Figure 8.E.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven

Appendix 8.F: Analyses of Classification

Table 8.F.1 Decision Accuracy and Decision Consistency: ELA, Grade Three

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2114–2366	0.28	0.04	0.00	0.00	0.32
	2367–2431	0.04	0.17	0.04	0.00	0.25
	2432–2489	0.00	0.04	0.13	0.03	0.21
	2490–2623	0.00	0.00	0.03	0.19	0.22
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.91					
Decision Consistency	2114–2366	0.27	0.05	0.00	0.00	0.32
	2367–2431	0.06	0.14	0.05	0.00	0.25
	2432–2489	0.00	0.05	0.11	0.04	0.21
	2490–2623	0.00	0.00	0.04	0.18	0.22
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.89					

Table 8.F.2 Decision Accuracy and Decision Consistency: ELA, Grade Four

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2131–2415	0.32	0.04	0.00	0.00	0.36
	2416–2472	0.04	0.12	0.04	0.00	0.20
	2473–2532	0.00	0.04	0.14	0.03	0.21
	2533–2663	0.00	0.00	0.03	0.20	0.23
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Exceeded = 0.91					
Decision Consistency	2131–2415	0.30	0.05	0.00	0.00	0.36
	2416–2472	0.05	0.10	0.05	0.00	0.20
	2473–2532	0.01	0.05	0.11	0.04	0.21
	2533–2663	0.00	0.00	0.04	0.19	0.23
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.88					

Table 8.F.3 Decision Accuracy and Decision Consistency: ELA, Grade Five

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2201–2441	0.27	0.04	0.00	0.00	0.31
	2442–2501	0.03	0.13	0.04	0.00	0.21
	2502–2581	0.00	0.04	0.21	0.03	0.28
	2582–2701	0.00	0.00	0.03	0.18	0.21
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.91					
Decision Consistency	2201–2441	0.26	0.05	0.00	0.00	0.31
	2442–2501	0.05	0.10	0.05	0.00	0.21
	2502–2581	0.01	0.05	0.18	0.05	0.28
	2582–2701	0.00	0.00	0.04	0.17	0.21
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.88					

Table 8.F.4 Decision Accuracy and Decision Consistency: ELA, Grade Six

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2210–2456	0.23	0.04	0.00	0.00	0.26
	2457–2530	0.04	0.18	0.05	0.00	0.26
	2531–2617	0.00	0.05	0.23	0.03	0.31
	2618–2724	0.00	0.00	0.03	0.14	0.17
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Exceeded = 0.91					
Decision Consistency	2210–2456	0.22	0.05	0.00	0.00	0.26
	2457–2530	0.05	0.14	0.06	0.00	0.26
	2531–2617	0.00	0.06	0.20	0.04	0.31
	2618–2724	0.00	0.00	0.04	0.13	0.17
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.69 Standard Met and Exceeded = 0.87					

Table 8.F.5 Decision Accuracy and Decision Consistency: ELA, Grade Seven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2258–2478	0.24	0.04	0.00	0.00	0.28
	2479–2551	0.04	0.16	0.04	0.00	0.24
	2552–2648	0.00	0.05	0.25	0.03	0.33
	2649–2745	0.00	0.00	0.03	0.13	0.15
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.91					
Decision Consistency	2258–2478	0.23	0.05	0.00	0.00	0.28
	2479–2551	0.05	0.13	0.06	0.00	0.24
	2552–2648	0.00	0.06	0.22	0.04	0.33
	2649–2745	0.00	0.00	0.03	0.12	0.15
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.87					

Table 8.F.6 Decision Accuracy and Decision Consistency: ELA, Grade Eight

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2288–2486	0.21	0.04	0.00	0.00	0.25
	2487–2566	0.03	0.19	0.04	0.00	0.27
	2567–2667	0.00	0.05	0.27	0.03	0.34
	2668–2769	0.00	0.00	0.03	0.12	0.14
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Exceeded = 0.91					
Decision Consistency	2288–2486	0.20	0.05	0.00	0.00	0.25
	2487–2566	0.05	0.15	0.06	0.00	0.27
	2567–2667	0.00	0.06	0.24	0.04	0.34
	2668–2769	0.00	0.00	0.03	0.11	0.14
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Above = 0.87					

Table 8.F.7 Decision Accuracy and Decision Consistency: ELA, Grade Eleven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2299–2492	0.15	0.03	0.00	0.00	0.19
	2493–2582	0.02	0.16	0.04	0.00	0.22
	2583–2681	0.00	0.05	0.24	0.04	0.33
	2682–2795	0.00	0.00	0.04	0.22	0.26
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Above = 0.90					
Decision Consistency	2299–2492	0.14	0.04	0.00	0.00	0.19
	2493–2582	0.04	0.13	0.06	0.00	0.22
	2583–2681	0.01	0.06	0.20	0.06	0.33
	2682–2795	0.00	0.00	0.05	0.21	0.26
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.68 Standard Met and Above = 0.87					

Table 8.F.8 Decision Accuracy and Decision Consistency: Mathematics, Grade Three

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2189–2380	0.26	0.03	0.00	0.00	0.29
	2381–2435	0.04	0.17	0.04	0.00	0.26
	2436–2500	0.00	0.04	0.21	0.03	0.28
	2501–2621	0.00	0.00	0.02	0.16	0.18
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.91					
Decision Consistency	2189–2380	0.25	0.04	0.00	0.00	0.29
	2381–2435	0.05	0.14	0.06	0.01	0.26
	2436–2500	0.00	0.05	0.18	0.04	0.28
	2501–2621	0.00	0.00	0.03	0.15	0.18
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.72 Standard Met and Above = 0.88					

Table 8.F.9 Decision Accuracy and Decision Consistency: Mathematics, Grade Four

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2204–2410	0.26	0.03	0.00	0.00	0.28
	2411–2484	0.04	0.25	0.04	0.00	0.33
	2485–2548	0.00	0.04	0.17	0.02	0.23
	2549–2659	0.00	0.00	0.02	0.14	0.15
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.81 Standard Met and Above = 0.92					
Decision Consistency	2204–2410	0.25	0.04	0.00	0.00	0.28
	2411–2484	0.06	0.22	0.06	0.01	0.33
	2485–2548	0.00	0.05	0.15	0.03	0.23
	2549–2659	0.00	0.00	0.02	0.13	0.15
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.74 Standard Met and Above = 0.89					

Table 8.F.10 Decision Accuracy and Decision Consistency: Mathematics, Grade Five

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2219–2454	0.35	0.04	0.00	0.00	0.39
	2455–2527	0.04	0.20	0.04	0.00	0.28
	2528–2578	0.00	0.03	0.11	0.02	0.16
	2579–2700	0.00	0.00	0.02	0.15	0.17
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.93					
Decision Consistency	2219–2454	0.33	0.05	0.00	0.00	0.39
	2455–2527	0.06	0.17	0.05	0.01	0.28
	2528–2578	0.00	0.04	0.08	0.03	0.16
	2579–2700	0.00	0.00	0.03	0.14	0.17
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.73 Standard Met and Above = 0.90					

Table 8.F.11 Decision Accuracy and Decision Consistency: Mathematics, Grade Six

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2235–2472	0.32	0.03	0.00	0.00	0.35
	2473–2551	0.04	0.19	0.05	0.01	0.30
	2552–2609	0.00	0.03	0.12	0.03	0.18
	2610–2748	0.00	0.00	0.02	0.15	0.17
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Above = 0.91					
Decision Consistency	2235–2472	0.31	0.04	0.00	0.00	0.35
	2473–2551	0.06	0.16	0.06	0.01	0.30
	2552–2609	0.00	0.05	0.09	0.04	0.18
	2610–2748	0.00	0.00	0.02	0.15	0.17
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.71 Standard Met and Above = 0.88					

Table 8.F.12 Decision Accuracy and Decision Consistency: Mathematics, Grade Seven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2250–2483	0.32	0.03	0.00	0.00	0.34
	2484–2566	0.05	0.20	0.05	0.01	0.30
	2567–2634	0.00	0.03	0.13	0.02	0.19
	2635–2778	0.00	0.00	0.02	0.15	0.17
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.91					
Decision Consistency	2250–2483	0.30	0.04	0.00	0.00	0.34
	2484–2566	0.06	0.17	0.06	0.01	0.30
	2567–2634	0.00	0.05	0.11	0.04	0.19
	2635–2778	0.00	0.00	0.03	0.14	0.17
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.72 Standard Met and Above = 0.89					

Table 8.F.13 Decision Accuracy and Decision Consistency: Mathematics, Grade Eight

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2265–2503	0.35	0.04	0.00	0.00	0.39
	2504–2585	0.05	0.16	0.04	0.01	0.25
	2586–2652	0.00	0.04	0.10	0.03	0.17
	2653–2802	0.00	0.00	0.03	0.16	0.19
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Above = 0.91					
Decision Consistency	2265–2503	0.33	0.05	0.00	0.00	0.39
	2504–2585	0.06	0.13	0.05	0.01	0.25
	2586–2652	0.00	0.05	0.08	0.04	0.17
	2653–2802	0.00	0.00	0.03	0.16	0.19
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Above = 0.88					

Table 8.F.14 Decision Accuracy and Decision Consistency: Mathematics, Grade Eleven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2280–2542	0.39	0.04	0.00	0.00	0.43
	2543–2627	0.05	0.16	0.04	0.00	0.25
	2628–2717	0.00	0.04	0.14	0.02	0.20
	2718–2862	0.00	0.00	0.02	0.10	0.13
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Above = 0.92					
Decision Consistency	2280–2542	0.37	0.05	0.00	0.00	0.43
	2543–2627	0.06	0.13	0.05	0.00	0.25
	2628–2717	0.00	0.05	0.11	0.03	0.20
	2718–2862	0.00	0.00	0.03	0.10	0.13
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.71 Standard Met and Above = 0.89					

Appendix 8.G: Interrater Reliability

Table 8.G.1 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for English Language Arts/Literacy (ELA), Grade Three Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295342	2	3,158	3,158	0.40	0.59	63.3	34.8	98.2	0.65	0.72	0.66	0.73
2	VH295911	2	3,115	3,115	0.47	0.64	70.8	28.2	99.0	0.52	0.67	0.51	0.66
3	VH295915	2	3,118	3,118	0.42	0.60	71.4	27.7	99.1	0.42	0.62	0.43	0.64
AVERAGE			3,130	3,130	0.43	0.61	68.5	30.3	98.7	0.53	0.67	0.53	0.67

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.2 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Four Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH281693	2	15,580	15,580	0.39	0.51	79.9	19.1	98.9	0.23	0.49	0.23	0.49
2	VH281696	2	1,067	1,067	0.36	0.54	64.8	33.9	98.7	0.51	0.65	0.52	0.66
3	VH282756	2	14,064	14,064	0.44	0.56	76.3	22.5	98.8	0.32	0.56	0.32	0.55
4	VH295256	2	2,560	2,560	0.43	0.59	67.5	31.2	98.7	0.56	0.67	0.55	0.66
5	VH295257	2	2,521	2,521	0.49	0.65	70.9	27.4	98.3	0.57	0.71	0.55	0.69
6	VH295423	2	2,514	2,514	0.50	0.70	69.7	28.4	98.1	0.66	0.78	0.64	0.77
7	VH295520	2	2,555	2,555	0.45	0.66	65.2	33.7	98.9	0.75	0.75	0.75	0.74
8	VH295521	2	2,557	2,557	0.52	0.74	68.8	30.2	99.1	0.80	0.80	0.80	0.82
9	VH295730	2	2,482	2,482	0.56	0.75	74.7	23.9	98.6	0.60	0.78	0.60	0.76
10	VH295734	2	2,518	2,518	0.52	0.71	73.4	24.6	98.0	0.54	0.75	0.55	0.74
11	VH295779	2	2,509	2,509	0.41	0.58	67.3	30.0	97.3	0.52	0.70	0.54	0.69
12	VH295784	2	2,555	2,555	0.58	0.79	76.3	21.7	98.0	0.65	0.84	0.65	0.83
13	VH295786	2	2,530	2,530	0.43	0.62	66.1	31.9	98.0	0.63	0.73	0.60	0.72
14	VH295790	2	2,501	2,501	0.42	0.58	68.3	29.8	98.0	0.51	0.67	0.50	0.67
15	VH295856	2	2,556	2,556	0.43	0.60	64.3	32.9	97.1	0.75	0.75	0.74	0.75
16	VH295857	2	2,542	2,542	0.48	0.68	69.3	28.6	97.9	0.61	0.76	0.63	0.76
17	VH295895	2	2,530	2,530	0.38	0.60	59.7	38.4	98.1	0.87	0.75	0.89	0.76
18	VH295896	2	2,501	2,501	0.45	0.63	67.9	30.6	98.5	0.59	0.71	0.60	0.71
19	VH295954	2	2,532	2,532	0.44	0.64	67.9	29.9	97.7	0.59	0.73	0.58	0.73
20	VH295959	2	2,583	2,583	0.56	0.75	73.1	25.0	98.1	0.72	0.82	0.72	0.82
AVERAGE			3,688	3,688	0.46	0.64	69.6	28.7	98.2	0.60	0.72	0.60	0.72

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.3 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Five Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH288730	2	595	595	0.36	0.57	59.0	39.2	98.2	0.88	0.74	0.89	0.73
2	VH295218	2	2,257	2,257	0.39	0.57	61.2	35.5	96.7	0.77	0.75	0.78	0.75
3	VH295219	2	2,267	2,267	0.54	0.73	69.5	28.8	98.3	0.97	0.83	1.00	0.81
4	VH295228	2	2,265	2,265	0.36	0.55	57.7	38.4	96.0	1.01	0.78	1.00	0.77
5	VH295229	2	2,278	2,278	0.45	0.61	67.3	28.7	96.0	0.62	0.76	0.63	0.77
6	VH295236	2	2,246	2,246	0.51	0.69	78.5	19.1	97.7	0.39	0.68	0.40	0.68
7	VH295237	2	2,254	2,254	0.47	0.66	69.4	28.6	98.0	0.59	0.73	0.60	0.74
8	VH295403	2	2,291	2,291	0.50	0.69	68.2	30.0	98.3	0.74	0.78	0.75	0.77
9	VH295404	2	2,273	2,273	0.54	0.73	71.1	27.2	98.3	0.70	0.78	0.73	0.80
10	VH295430	2	2,273	2,273	0.46	0.65	64.2	34.1	98.3	1.08	0.77	1.08	0.77
11	VH295435	2	2,264	2,264	0.47	0.67	65.6	33.4	99.1	0.90	0.75	0.91	0.75
12	VH295449	2	2,296	2,296	0.51	0.70	71.2	27.0	98.2	0.61	0.75	0.62	0.76
13	VH295450	2	2,284	2,284	0.56	0.76	70.9	27.5	98.3	0.96	0.85	0.92	0.84
14	VH295477	2	2,249	2,249	0.56	0.73	77.1	20.5	97.6	0.52	0.75	0.53	0.76
15	VH295479	2	2,249	2,249	0.46	0.64	65.8	33.3	99.1	0.84	0.71	0.85	0.72
16	VH295541	2	2,225	2,225	0.53	0.75	69.4	29.7	99.1	0.86	0.81	0.84	0.81
17	VH295807	2	2,292	2,292	0.47	0.67	64.6	33.5	98.0	0.96	0.79	0.94	0.79
18	VH295808	2	2,277	2,277	0.52	0.71	71.5	26.4	97.8	0.62	0.78	0.64	0.77
19	VH295839	2	2,281	2,281	0.49	0.71	67.0	30.9	97.9	0.84	0.82	0.84	0.82
20	VH295840	2	2,277	2,277	0.48	0.69	66.2	32.6	98.8	0.87	0.78	0.87	0.77
21	VH295898	2	2,235	2,235	0.42	0.62	61.8	34.8	96.6	0.83	0.80	0.83	0.80
22	VH295918	2	2,258	2,258	0.44	0.62	64.2	34.5	98.7	0.86	0.73	0.87	0.73
23	VH295919	2	2,256	2,256	0.44	0.62	64.5	33.8	98.3	0.76	0.73	0.75	0.72
24	VH295968	2	2,284	2,284	0.42	0.62	61.8	35.3	97.1	0.84	0.79	0.85	0.78
25	VH295969	2	2,282	2,282	0.45	0.64	66.2	30.3	96.5	0.68	0.78	0.70	0.78
26	VH296030	2	2,250	2,250	0.53	0.69	80.1	17.2	97.3	0.38	0.67	0.37	0.66
27	VH296032	2	2,282	2,282	0.47	0.68	65.7	33.3	98.9	0.85	0.77	0.85	0.75
28	VH296044	2	2,254	2,254	0.47	0.66	65.8	33.1	98.8	0.85	0.74	0.85	0.75
29	VH296045	2	2,231	2,231	0.50	0.67	71.7	26.1	97.8	0.56	0.73	0.55	0.72
30	VH296076	2	2,300	2,300	0.56	0.73	73.6	24.3	98.0	0.67	0.79	0.66	0.78
31	VH296077	2	2,272	2,272	0.55	0.73	70.7	27.8	98.5	0.78	0.78	0.79	0.79
32	VH296080	2	2,292	2,292	0.38	0.58	60.7	37.3	98.0	1.14	0.74	1.15	0.73
33	VH296084	2	2,272	2,272	0.50	0.71	67.1	30.6	97.7	0.87	0.82	0.87	0.83
34	VH296087	2	2,287	2,287	0.42	0.62	63.8	35.2	98.9	0.77	0.72	0.76	0.72
35	VH296088	2	2,277	2,277	0.46	0.66	64.9	34.0	98.9	0.83	0.76	0.84	0.76
AVERAGE			2,221	2,221	0.47	0.67	67.4	30.6	98.0	0.78	0.76	0.79	0.76

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.4 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Six Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH296308	2	3,545	3,545	0.36	0.51	62.6	35.1	97.7	0.62	0.67	0.62	0.67
2	VH296334	2	552	552	0.58	0.64	76.6	21.6	98.2	0.54	0.63	0.52	0.63
3	VH296362	2	3,085	3,085	0.40	0.56	64.6	33.5	98.1	0.60	0.68	0.63	0.69
4	VH296363	2	1,621	1,621	0.47	0.56	70.6	28.5	99.1	0.56	0.60	0.59	0.61
5	VH295666	2	2,921	2,921	0.67	0.80	80.0	19.3	99.3	0.65	0.73	0.65	0.74
6	VH295667	2	2,901	2,901	0.60	0.76	76.7	22.2	98.9	0.58	0.74	0.59	0.75
AVERAGE			2,438	2,438	0.51	0.64	71.8	26.7	98.5	0.59	0.67	0.60	0.68

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.5 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Seven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH296443	2	892	892	0.51	0.60	72.3	26.6	98.9	0.58	0.62	0.60	0.63
2	VH297773	2	1,097	1,097	0.39	0.49	62.9	33.4	96.3	0.83	0.69	0.84	0.69
3	VH298666	2	111	111	1.00	1.00	100.0	–	100.0	0.12	0.35	0.12	0.35
4	VH295263	2	1,977	1,977	0.60	0.78	74.2	25.2	99.4	0.81	0.79	0.82	0.78
5	VH295264	2	1,837	1,837	0.44	0.63	69.1	28.2	97.3	0.54	0.73	0.54	0.73
6	VH295270	2	2,021	2,021	0.61	0.77	79.8	19.1	98.9	0.46	0.70	0.50	0.72
7	VH295274	2	1,923	1,923	0.45	0.63	71.6	25.9	97.5	0.49	0.70	0.48	0.70
8	VH295305	2	2,010	2,010	0.49	0.68	67.9	29.5	97.4	0.74	0.78	0.74	0.79
9	VH295306	2	1,896	1,896	0.53	0.71	73.9	25.3	99.2	0.52	0.69	0.53	0.70
10	VH295370	2	2,077	2,077	0.69	0.80	84.3	14.4	98.7	0.48	0.72	0.46	0.69
11	VH295371	2	1,988	1,988	0.43	0.48	79.5	18.2	97.6	0.25	0.51	0.26	0.52
12	VH295397	2	2,029	2,029	0.64	0.74	78.0	20.8	98.8	0.76	0.71	0.76	0.70
13	VH295401	2	1,909	1,909	0.56	0.74	72.9	25.5	98.4	0.69	0.78	0.70	0.78
14	VH295414	2	2,048	2,048	0.60	0.73	77.9	20.3	98.1	0.53	0.71	0.54	0.71
15	VH295415	2	1,859	1,859	0.61	0.72	81.6	17.2	98.8	0.39	0.62	0.40	0.63
16	VH295505	2	1,954	1,954	0.57	0.74	71.8	27.0	98.8	0.86	0.78	0.84	0.77
17	VH295506	2	1,896	1,896	0.64	0.78	79.1	20.2	99.3	0.59	0.71	0.60	0.72
18	VH295526	2	1,932	1,932	0.49	0.67	80.1	17.7	97.8	0.34	0.64	0.33	0.64
19	VH295527	2	1,998	1,998	0.61	0.71	83.5	14.3	97.8	0.34	0.62	0.36	0.64
20	VH295574	2	1,959	1,959	0.45	0.63	68.8	28.8	97.7	0.57	0.72	0.56	0.72
21	VH295575	2	1,817	1,817	0.61	0.73	79.7	19.3	99.0	0.46	0.66	0.46	0.66
22	VH295608	2	1,983	1,983	0.64	0.76	81.0	17.9	98.9	0.48	0.67	0.48	0.68
23	VH295613	2	2,092	2,092	0.57	0.75	72.7	26.0	98.6	0.77	0.80	0.76	0.79
24	VH295635	2	1,574	1,574	0.53	0.67	76.6	20.8	97.5	0.45	0.69	0.44	0.69
25	VH295639	2	1,943	1,943	0.64	0.80	77.7	21.6	99.2	0.68	0.78	0.70	0.78
26	VH295717	2	1,673	1,673	0.44	0.59	69.5	27.1	96.6	0.50	0.70	0.52	0.71
27	VH295718	2	2,080	2,080	0.55	0.68	85.3	13.4	98.7	0.23	0.52	0.25	0.55
28	VH295758	2	1,990	1,990	0.45	0.61	69.6	26.2	95.9	0.54	0.73	0.56	0.74
29	VH295759	2	1,923	1,923	0.50	0.67	69.2	28.9	98.1	0.68	0.75	0.68	0.75
30	VH295909	2	2,120	2,120	0.47	0.62	71.4	25.7	97.1	0.51	0.70	0.52	0.70
31	VH295940	2	2,067	2,067	0.44	0.60	66.3	31.7	98.0	0.64	0.71	0.64	0.70
32	VH295941	2	2,083	2,083	0.59	0.71	75.7	22.5	98.2	0.62	0.72	0.61	0.72
33	VH296101	2	2,023	2,023	0.62	0.76	91.0	8.6	99.5	0.17	0.46	0.18	0.47
34	VH296102	2	1,851	1,851	0.48	0.60	70.3	26.1	96.4	0.58	0.71	0.55	0.71
35	VH296115	2	1,877	1,877	0.54	0.73	71.2	26.9	98.1	0.71	0.80	0.71	0.78
36	VH296116	2	1,941	1,941	0.47	0.65	68.2	28.5	96.8	0.65	0.76	0.66	0.77
AVERAGE			1,846	1,846	0.55	0.69	75.7	22.5	98.1	0.54	0.69	0.55	0.69

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.6 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Eight Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH279694	2	373	373	0.42	0.62	78.0	20.4	98.4	0.29	0.57	0.31	0.61
2	VH279941	2	2,009	2,009	0.49	0.60	71.1	27.7	98.9	0.59	0.63	0.59	0.64
3	VH280258	2	1,887	1,887	0.42	0.54	65.5	32.6	98.1	0.75	0.66	0.74	0.66
4	VH280491	2	375	375	0.31	0.49	60.3	38.7	98.9	1.04	0.65	1.07	0.65
5	VH282579	2	1,617	1,617	0.91	0.92	95.9	3.8	99.7	0.33	0.56	0.34	0.57
6	VH295277	2	1,750	1,750	0.56	0.73	71.0	26.7	97.7	0.92	0.81	0.94	0.82
7	VH295278	2	2,116	2,116	0.69	0.81	85.6	13.2	98.8	0.41	0.69	0.41	0.69
8	VH295291	2	1,783	1,783	0.46	0.63	66.2	31.7	98.0	0.72	0.74	0.71	0.74
9	VH295298	2	1,901	1,901	0.52	0.64	68.9	27.9	96.8	0.92	0.75	0.91	0.77
10	VH295299	2	1,772	1,772	0.52	0.69	69.2	28.0	97.3	0.76	0.80	0.75	0.79
11	VH295355	2	1,782	1,782	0.42	0.63	63.2	34.2	97.4	0.74	0.77	0.78	0.79
12	VH295383	2	1,481	1,481	0.43	0.58	69.9	27.2	97.1	0.47	0.68	0.51	0.69
13	VH295463	2	1,660	1,660	0.49	0.69	70.5	27.2	97.7	0.58	0.75	0.63	0.77
14	VH295464	2	1,754	1,754	0.52	0.67	71.5	25.4	96.9	0.63	0.76	0.61	0.76
15	VH295484	2	1,742	1,742	0.37	0.52	68.3	27.8	96.2	0.46	0.68	0.45	0.67
16	VH295489	2	1,894	1,894	0.46	0.59	68.4	28.4	96.8	0.61	0.72	0.58	0.70
17	VH295512	2	1,728	1,728	0.57	0.73	77.3	21.5	98.8	0.49	0.70	0.48	0.69
18	VH295517	2	1,821	1,821	0.42	0.53	67.7	30.1	97.7	0.53	0.65	0.55	0.64
19	VH295567	2	1,686	1,686	0.49	0.64	73.8	24.0	97.9	0.45	0.67	0.46	0.67
20	VH295571	2	1,799	1,799	0.63	0.78	77.7	21.3	99.0	0.59	0.74	0.66	0.76
21	VH295595	2	1,844	1,844	0.75	0.84	88.9	10.5	99.5	0.35	0.61	0.37	0.64
22	VH295599	2	1,732	1,732	0.45	0.60	68.0	27.8	95.8	0.58	0.74	0.61	0.76
23	VH295601	2	2,210	2,210	0.44	0.59	64.9	30.7	95.7	0.68	0.75	0.71	0.77
24	VH295602	2	2,127	2,127	0.56	0.71	73.8	24.8	98.5	0.63	0.72	0.62	0.72
25	VH295622	2	1,750	1,750	0.39	0.54	70.0	27.3	97.3	0.41	0.64	0.44	0.65
26	VH295623	2	1,719	1,719	0.52	0.64	75.3	22.9	98.1	0.46	0.65	0.45	0.64
27	VH295765	2	1,956	1,956	0.58	0.77	72.5	26.5	99.0	0.84	0.82	0.85	0.80
28	VH295766	2	1,878	1,878	0.73	0.83	94.4	4.7	99.1	0.16	0.49	0.17	0.49
29	VH295828	2	2,074	2,074	0.51	0.70	68.5	28.6	97.1	0.82	0.83	0.81	0.81
30	VH295829	2	2,081	2,081	0.63	0.79	76.6	22.4	99.0	0.76	0.79	0.77	0.80
31	VH295975	2	1,611	1,611	0.49	0.67	70.8	28.0	98.8	0.55	0.70	0.58	0.71
32	VH295977	2	1,633	1,633	0.59	0.70	77.3	20.3	97.7	0.53	0.69	0.55	0.71
33	VH296016	2	1,641	1,641	0.34	0.54	63.3	32.8	96.2	0.54	0.72	0.53	0.72
34	VH296021	2	1,669	1,669	0.48	0.64	68.8	28.2	97.0	0.64	0.75	0.61	0.75
35	VH296062	2	1,743	1,743	0.57	0.71	74.9	24.4	99.3	0.60	0.68	0.61	0.68
36	VH296063	2	1,627	1,627	0.58	0.73	75.4	23.2	98.5	0.58	0.73	0.60	0.74
37	VH296094	2	2,159	2,159	0.69	0.82	81.5	17.4	98.8	0.62	0.78	0.66	0.80
38	VH296095	2	1,931	1,931	0.49	0.69	69.4	27.6	97.0	0.65	0.80	0.65	0.80
AVERAGE			1,745	1,745	0.52	0.67	73.0	24.9	97.9	0.60	0.71	0.61	0.71

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.7 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Eleven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH289614	2	2,259	2,259	0.32	0.51	59.1	39.7	98.8	1.13	0.68	1.14	0.67
2	VH289859	2	92	92	0.48	0.66	68.5	31.5	100.0	1.01	0.67	1.04	0.69
3	VH290305	2	75	75	0.48	0.51	69.3	26.7	96.0	0.85	0.67	0.85	0.65
4	VH291067	2	405	405	0.43	0.65	64.7	34.3	99.0	0.64	0.72	0.74	0.75
AVERAGE			708	708	0.43	0.58	65.4	33.0	98.5	0.91	0.69	0.94	0.69

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.8 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Three Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299061	1	1,477	1,477	0.84	0.84	93.4	6.6	100.0	0.29	0.45	0.29	0.45
2	VH299298	2	2,192	2,192	0.82	0.89	93.0	6.0	99.0	0.34	0.67	0.34	0.67
3	VH299352	2	556	556	1.00	1.00	100.0	–	100.0	0.39	0.70	0.39	0.70
4	VH299378	2	488	488	1.00	1.00	100.0	–	100.0	0.39	0.73	0.39	0.73
5	VH299380	1	504	504	1.00	1.00	100.0	–	100.0	0.51	0.50	0.51	0.50
6	VH299381	2	375	375	1.00	1.00	100.0	–	100.0	0.30	0.61	0.30	0.61
7	VH299420	2	2,348	2,348	0.85	0.91	91.6	7.1	98.6	0.64	0.85	0.63	0.85
8	VH299470	2	2,229	2,229	0.83	0.91	91.2	7.4	98.5	0.60	0.85	0.62	0.85
9	VH299544	1	285	285	1.00	1.00	100.0	–	100.0	0.26	0.44	0.26	0.44
10	VH299549	1	2,432	2,432	0.76	0.76	92.1	7.9	100.0	0.21	0.41	0.20	0.40
11	VH299560	2	505	505	1.00	1.00	100.0	–	100.0	0.24	0.57	0.24	0.57
12	VH299632	2	226	226	1.00	1.00	100.0	–	100.0	0.42	0.59	0.42	0.59
13	VH299647	2	2,719	2,719	0.65	0.73	87.0	11.2	98.2	0.29	0.58	0.29	0.59
14	VH299784	2	2,136	2,136	0.72	0.79	89.0	10.0	99.0	0.31	0.58	0.30	0.57
15	VH300001	1	1,773	1,773	0.82	0.82	92.2	7.8	100.0	0.31	0.46	0.31	0.46
16	VH300064	2	2,295	2,295	0.76	0.85	90.7	7.9	98.6	0.36	0.68	0.35	0.67
17	VH300267	1	2,215	2,215	0.79	0.79	93.4	6.6	100.0	0.19	0.39	0.19	0.39
18	VH300360	2	500	500	1.00	1.00	100.0	–	100.0	0.40	0.72	0.40	0.72
19	VH300364	1	481	481	1.00	1.00	100.0	–	100.0	0.51	0.50	0.51	0.50
20	VH300365	2	399	399	1.00	1.00	100.0	–	100.0	0.36	0.61	0.36	0.61
21	VH299059	3	3,183	3,183	0.94	0.98	96.0	3.6	99.7	1.94	1.17	1.95	1.17
22	VH299379	3	3,648	3,648	0.94	0.98	95.7	4.2	99.9	1.87	1.19	1.87	1.19
23	VH299561	2	3,613	3,613	0.94	0.96	99.4	0.5	99.9	0.07	0.33	0.07	0.33
24	VH299646	2	3,527	3,527	0.83	0.91	91.9	6.6	98.6	0.54	0.83	0.54	0.82
25	VH299783	2	3,035	3,035	0.82	0.90	91.0	7.2	98.2	0.57	0.83	0.57	0.83
26	VH299999	3	3,088	3,088	0.93	0.97	95.4	4.0	99.4	1.83	1.22	1.82	1.22
27	VH300362	3	3,853	3,853	0.95	0.98	96.4	3.2	99.7	1.81	1.18	1.82	1.18
AVERAGE			1,855	1,855	0.90	0.92	95.5	4.0	99.5	0.59	0.69	0.59	0.69

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.9 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Four Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299402	2	2,836	2,836	0.76	0.77	96.6	1.1	97.7	0.13	0.46	0.13	0.48
2	VH300007	2	2,413	2,413	0.93	0.94	98.5	0.7	99.1	0.21	0.56	0.21	0.57
3	VH299103	2	2,269	2,269	0.67	0.82	87.4	12.0	99.4	0.32	0.63	0.32	0.63
4	VH299105	2	2,321	2,321	0.50	0.58	92.0	6.1	98.1	0.12	0.41	0.11	0.40
5	VH299107	3	2,335	2,335	0.86	0.95	90.7	9.0	99.7	0.86	0.99	0.85	0.99
6	VH299112	2	2,312	2,312	0.83	0.88	92.8	6.9	99.7	0.33	0.59	0.33	0.59
7	VH299113	2	2,269	2,269	0.72	0.85	86.2	12.9	99.1	0.47	0.75	0.48	0.75
8	VH299181	2	2,023	2,023	0.68	0.82	83.7	14.9	98.6	0.51	0.75	0.50	0.74
9	VH299339	2	2,127	2,127	0.68	0.85	89.8	10.0	99.9	0.27	0.60	0.26	0.60
10	VH299340	2	2,231	2,231	0.79	0.90	91.9	7.5	99.4	0.36	0.70	0.37	0.71
11	VH299342	3	2,194	2,194	0.85	0.94	90.1	9.5	99.6	0.88	0.94	0.89	0.95
12	VH299400	1	378	378	1.00	1.00	100.0	–	100.0	0.23	0.42	0.23	0.42
13	VH299403	2	371	371	1.00	1.00	100.0	–	100.0	0.16	0.49	0.16	0.49
14	VH299405	2	2,309	2,309	0.81	0.88	91.3	5.7	97.0	0.55	0.86	0.55	0.86
15	VH299445	2	2,242	2,242	0.69	0.85	86.9	12.4	99.3	0.38	0.70	0.40	0.71
16	VH299446	2	2,346	2,346	0.90	0.95	96.8	2.6	99.5	0.32	0.69	0.32	0.70
17	VH299448	3	2,350	2,350	0.87	0.96	91.2	8.4	99.6	1.00	1.07	0.99	1.07
18	VH299474	1	2,345	2,345	0.62	0.62	84.0	16.0	100.0	0.29	0.46	0.30	0.46
19	VH299476	1	2,329	2,329	0.47	0.47	76.8	23.2	100.0	0.31	0.46	0.33	0.47
20	VH299504	1	2,551	2,551	0.68	0.68	87.0	13.0	100.0	0.29	0.45	0.29	0.45
21	VH299506	2	67	67	1.00	1.00	100.0	–	100.0	0.27	0.51	0.27	0.51
22	VH299508	1	165	165	1.00	1.00	100.0	–	100.0	0.32	0.47	0.32	0.47
23	VH299512	2	2,391	2,391	0.80	0.90	91.6	7.7	99.2	0.41	0.72	0.41	0.73
24	VH299775	2	488	488	1.00	1.00	100.0	–	100.0	0.59	0.81	0.59	0.81
25	VH299776	2	2,677	2,677	0.77	0.86	86.5	12.3	98.8	0.61	0.78	0.61	0.78
26	VH299823	2	403	403	1.00	1.00	100.0	–	100.0	0.03	0.20	0.03	0.20
27	VH299934	2	419	419	1.00	1.00	100.0	–	100.0	0.10	0.40	0.10	0.40
28	VH300009	2	1,672	1,672	0.79	0.88	89.7	7.0	96.7	0.64	0.91	0.66	0.91
29	VH300038	2	2,660	2,660	0.69	0.76	85.5	13.8	99.4	0.38	0.58	0.38	0.58
30	VH300047	2	386	386	1.00	1.00	100.0	–	100.0	0.15	0.45	0.15	0.45
31	VH300096	1	2,352	2,352	0.65	0.65	87.0	13.0	100.0	0.25	0.44	0.23	0.42
32	VH300098	1	2,334	2,334	0.50	0.50	78.8	21.2	100.0	0.30	0.46	0.31	0.46
33	VH300188	2	2,413	2,413	0.53	0.67	80.6	17.9	98.6	0.33	0.60	0.33	0.60
34	VH300210	2	2,244	2,244	0.65	0.80	88.2	11.5	99.7	0.26	0.56	0.26	0.56
35	VH300211	1	2,263	2,263	0.53	0.62	94.0	5.2	99.2	0.09	0.34	0.08	0.33
36	VH300213	3	2,343	2,343	0.84	0.94	90.8	8.8	99.6	0.62	0.89	0.62	0.89
37	VH300217	1	2,581	2,581	0.66	0.66	86.1	13.9	100.0	0.28	0.45	0.28	0.45
38	VH300219	2	110	110	1.00	1.00	100.0	–	100.0	0.26	0.52	0.26	0.52
39	VH300288	2	2,319	2,319	0.75	0.84	90.0	9.4	99.4	0.33	0.61	0.32	0.60

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
40	VH300290	2	2,297	2,297	0.72	0.84	85.1	14.2	99.3	0.51	0.74	0.53	0.74
41	VH299115	2	1,934	1,934	0.73	0.84	91.2	8.4	99.6	0.26	0.56	0.25	0.56
42	VH299477	2	2,631	2,631	0.88	0.94	92.7	7.2	99.8	0.68	0.79	0.67	0.79
43	VH300099	2	2,523	2,523	0.87	0.92	91.8	7.8	99.6	0.68	0.77	0.68	0.77
AVERAGE			1,916	1,916	0.79	0.85	91.3	10.33	99.5	0.37	0.62	0.37	0.62

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.10 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Five Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299044	2	2,835	2,835	0.59	0.71	91.4	7.6	99.0	0.14	0.44	0.16	0.45
2	VH299046	2	2,866	2,866	0.83	0.90	92.5	4.9	97.4	0.54	0.86	0.55	0.86
3	VH299082	2	2,418	2,418	0.56	0.63	82.4	16.7	99.1	0.30	0.53	0.29	0.52
4	VH299151	2	2,804	2,804	0.64	0.76	92.4	6.8	99.1	0.15	0.45	0.16	0.47
5	VH299169	2	2,854	2,854	0.82	0.91	91.7	6.3	98.0	0.59	0.87	0.58	0.87
6	VH299190	1	3,823	3,823	0.91	0.91	96.0	4.0	100.0	0.34	0.47	0.32	0.47
7	VH299411	2	2,443	2,443	0.55	0.60	87.4	11.0	98.4	0.19	0.47	0.20	0.47
8	VH299412	3	2,274	2,274	0.67	0.80	91.3	6.0	97.3	0.26	0.70	0.27	0.70
9	VH299595	2	165	165	1.00	1.00	100.0	–	100.0	0.05	0.22	0.05	0.22
10	VH299597	2	2,799	2,799	0.64	0.78	88.3	10.1	98.5	0.26	0.59	0.29	0.61
11	VH299601	3	100	100	1.00	1.00	100.0	–	100.0	0.16	0.47	0.16	0.47
12	VH299687	2	2,479	2,479	0.66	0.77	94.7	4.5	99.2	0.11	0.41	0.12	0.43
13	VH299696	2	2,680	2,680	0.57	0.70	91.6	7.2	98.9	0.14	0.45	0.14	0.43
14	VH299699	2	2,745	2,745	0.81	0.87	91.6	4.9	96.5	0.56	0.87	0.56	0.87
15	VH299855	2	352	352	1.00	1.00	100.0	–	100.0	0.05	0.23	0.05	0.23
16	VH299857	2	373	373	1.00	1.00	100.0	–	100.0	0.38	0.69	0.38	0.69
17	VH299860	1	290	290	1.00	1.00	100.0	–	100.0	0.08	0.28	0.08	0.28
18	VH299884	2	74	74	1.00	1.00	100.0	–	100.0	0.10	0.38	0.10	0.38
19	VH299887	2	2,755	2,755	0.65	0.78	90.1	8.5	98.6	0.23	0.57	0.23	0.57
20	VH299891	3	2,660	2,660	0.59	0.74	84.9	11.4	96.2	0.38	0.80	0.37	0.81
21	VH299987	2	2,523	2,523	0.55	0.61	86.0	12.1	98.1	0.22	0.50	0.22	0.50
22	VH299989	3	2,294	2,294	0.63	0.73	90.2	6.2	96.4	0.25	0.68	0.26	0.70
23	VH300078	2	2,395	2,395	0.58	0.65	83.8	15.4	99.2	0.27	0.50	0.28	0.52
24	VH300307	2	2,659	2,659	0.60	0.69	91.2	7.9	99.2	0.15	0.42	0.15	0.42
25	VH300309	2	2,694	2,694	0.83	0.90	91.9	5.7	97.6	0.61	0.89	0.62	0.89
26	VH299043	2	3,139	3,139	0.85	0.92	93.3	6.1	99.5	0.41	0.71	0.42	0.70
27	VH299045	2	3,088	3,088	0.82	0.91	93.2	6.4	99.6	0.34	0.66	0.34	0.66
28	VH299143	2	3,172	3,172	0.84	0.93	93.2	6.5	99.7	0.41	0.72	0.42	0.72
29	VH299164	2	3,060	3,060	0.81	0.89	93.1	6.3	99.4	0.32	0.64	0.32	0.65
30	VH299695	2	2,951	2,951	0.82	0.89	91.1	8.5	99.5	0.44	0.70	0.44	0.70
31	VH299697	2	2,871	2,871	0.77	0.86	91.2	8.1	99.3	0.32	0.63	0.33	0.63
32	VH299861	2	3,527	3,527	0.92	0.96	96.2	3.3	99.5	0.50	0.79	0.50	0.79
33	VH299995	2	3,217	3,217	0.92	0.95	95.5	4.5	100.0	0.71	0.66	0.71	0.65
34	VH300306	2	2,960	2,960	0.80	0.89	91.6	8.0	99.6	0.35	0.65	0.36	0.64
35	VH300308	2	2,820	2,820	0.78	0.87	92.4	7.3	99.7	0.28	0.58	0.28	0.58
AVERAGE			2,347	2,347	0.77	0.84	92.6	6.3	98.9	0.30	0.58	0.30	0.58

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.11 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Six Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299455	1	3,791	3,791	0.81	0.81	95.6	4.4	100.0	0.13	0.34	0.13	0.34
2	VH299521	1	3,798	3,798	0.78	0.78	94.8	5.2	100.0	0.14	0.35	0.14	0.35
3	VH300125	1	3,923	3,923	0.80	0.80	95.0	5.0	100.0	0.14	0.35	0.15	0.35
4	VH300197	1	3,780	3,780	0.82	0.82	95.6	4.4	100.0	0.14	0.35	0.15	0.36
5	VH299283	2	3,896	3,896	0.71	0.87	82.7	16.6	99.4	1.27	0.86	1.28	0.85
6	VH299285	2	3,861	3,861	0.65	0.77	83.8	15.8	99.6	0.39	0.61	0.39	0.62
7	VH299287	2	3,814	3,814	0.39	0.52	78.3	18.9	97.2	0.27	0.56	0.27	0.56
8	VH299454	2	3,711	3,711	0.57	0.75	79.9	17.5	97.3	0.46	0.75	0.46	0.75
9	VH299456	2	3,700	3,700	0.41	0.58	79.5	16.6	96.1	0.30	0.62	0.29	0.62
10	VH299484	2	3,730	3,730	0.68	0.84	79.9	19.0	98.9	1.24	0.85	1.23	0.85
11	VH299485	2	3,744	3,744	0.70	0.83	80.4	18.5	98.9	0.78	0.81	0.81	0.81
12	VH299486	2	3,688	3,688	0.42	0.61	76.1	20.9	96.9	0.36	0.66	0.35	0.64
13	VH299520	2	3,713	3,713	0.54	0.72	78.4	18.8	97.1	0.45	0.74	0.44	0.73
14	VH299522	2	3,749	3,749	0.58	0.75	90.9	7.4	98.3	0.18	0.53	0.19	0.53
15	VH299586	2	3,761	3,761	0.35	0.50	66.6	29.0	95.5	0.47	0.68	0.46	0.68
16	VH299652	2	3,723	3,723	0.53	0.72	77.9	19.2	97.1	0.46	0.75	0.46	0.75
17	VH299655	2	3,751	3,751	0.54	0.72	88.1	9.6	97.8	0.23	0.58	0.23	0.58
18	VH299790	2	3,715	3,715	0.58	0.72	73.4	25.3	98.7	0.84	0.74	0.84	0.74
19	VH299792	2	3,695	3,695	0.65	0.72	85.5	13.6	99.1	0.31	0.55	0.32	0.56
20	VH300114	2	3,876	3,876	0.59	0.78	81.4	16.5	97.9	0.45	0.75	0.44	0.75
21	VH300126	2	3,876	3,876	0.58	0.76	91.3	7.2	98.5	0.18	0.53	0.18	0.52
22	VH300153	2	52	52	0.45	0.26	88.5	7.7	96.2	0.17	0.47	0.10	0.30
23	VH300155	2	3,846	3,846	0.54	0.72	78.0	18.9	96.9	0.46	0.75	0.46	0.75
24	VH300163	2	3,871	3,871	0.57	0.73	88.2	9.3	97.5	0.24	0.59	0.25	0.60
25	VH300196	2	3,707	3,707	0.55	0.73	78.8	18.1	96.9	0.46	0.75	0.46	0.75
26	VH300198	2	3,707	3,707	0.42	0.60	80.1	16.5	96.6	0.29	0.62	0.29	0.61
27	VH300205	2	3,735	3,735	0.59	0.74	73.6	25.5	99.0	0.85	0.74	0.85	0.75
28	VH300206	2	3,638	3,638	1.00	1.00	83.0	15.0	98.0	0.00	1.00	0.00	1.00
29	VH300397	2	3,726	3,726	0.37	0.53	66.3	29.2	95.5	0.50	0.71	0.50	0.70
30	VH299282	1	3,955	3,955	0.96	0.96	98.5	1.5	100.0	0.21	0.41	0.22	0.41
31	VH299482	1	3,803	3,803	0.96	0.96	98.6	1.4	100.0	0.21	0.41	0.21	0.41
32	VH299582	1	3,854	3,854	0.94	0.94	97.0	3.0	100.0	0.36	0.48	0.36	0.48
33	VH299585	1	3,862	3,862	0.85	0.85	94.4	5.6	100.0	0.25	0.43	0.26	0.44
34	VH299788	1	3,816	3,816	0.95	0.95	97.8	2.2	100.0	0.37	0.48	0.37	0.48
35	VH300202	1	3,808	3,808	0.86	0.86	95.0	5.0	100.0	0.23	0.42	0.23	0.42
36	VH300384	1	3,804	3,804	0.93	0.93	96.8	3.2	100.0	0.36	0.48	0.36	0.48
37	VH300390	1	3,791	3,791	0.84	0.84	93.7	6.3	100.0	0.26	0.44	0.27	0.44
AVERAGE			3,683	3,683	0.65	0.75	85.5	12.9	98.4	0.40	0.59	0.40	0.58

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.12 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Seven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299074	1	2,989	2,989	0.91	0.91	97.4	2.6	100.0	0.17	0.37	0.17	0.37
2	VH299871	1	2,815	2,815	0.82	0.82	96.3	3.7	100.0	0.11	0.32	0.12	0.32
3	VH299952	1	2,810	2,810	0.78	0.78	95.4	4.6	100.0	0.12	0.32	0.12	0.32
4	VH300022	1	2,903	2,903	0.91	0.91	97.5	2.5	100.0	0.18	0.38	0.18	0.38
5	VH299055	2	2,834	2,834	0.68	0.80	85.1	12.7	97.8	0.45	0.74	0.43	0.73
6	VH299242	2	2,847	2,847	0.50	0.56	74.5	24.0	98.4	0.45	0.59	0.43	0.59
7	VH299249	1	2,834	2,834	0.83	0.83	96.4	3.6	100.0	0.12	0.32	0.12	0.33
8	VH299577	2	2,796	2,796	0.67	0.73	82.2	17.2	99.4	0.54	0.60	0.53	0.60
9	VH300071	2	2,824	2,824	0.78	0.89	89.6	9.5	99.0	0.49	0.78	0.49	0.78
10	VH300092	1	2,811	2,811	0.68	0.68	93.8	6.2	100.0	0.11	0.31	0.11	0.32
11	VH300449	2	2,832	2,832	0.72	0.83	86.0	11.8	97.8	0.52	0.79	0.50	0.77
12	VH294224	2	151	151	0.55	0.74	92.1	7.9	100.0	0.11	0.38	0.13	0.41
13	VH299227	2	2,834	2,834	0.39	0.50	79.3	19.3	98.7	0.23	0.49	0.25	0.50
14	VH299240	1	2,666	2,666	0.45	0.62	88.2	9.8	98.0	0.15	0.47	0.17	0.49
15	VH299248	2	2,678	2,678	0.46	0.64	89.3	9.1	98.4	0.15	0.47	0.15	0.45
16	VH299574	1	2,597	2,597	0.52	0.66	91.3	7.3	98.6	0.14	0.44	0.13	0.44
17	VH299575	2	2,693	2,693	0.54	0.71	73.0	24.5	97.5	0.63	0.77	0.63	0.78
18	VH299765	1	2,758	2,758	0.41	0.56	91.2	6.9	98.1	0.11	0.40	0.12	0.41
19	VH299768	2	2,807	2,807	0.55	0.71	74.1	23.6	97.7	0.58	0.76	0.59	0.75
20	VH299869	2	2,737	2,737	0.60	0.77	81.8	17.0	98.8	0.41	0.70	0.41	0.69
21	VH299872	2	2,740	2,740	0.44	0.65	83.4	14.5	98.0	0.24	0.57	0.25	0.58
22	VH299927	2	2,746	2,746	0.41	0.48	80.0	18.6	98.7	0.24	0.49	0.23	0.47
23	VH299950	2	2,711	2,711	0.59	0.76	81.1	17.2	98.2	0.42	0.70	0.43	0.71
24	VH299953	2	2,728	2,728	0.44	0.63	83.1	14.6	97.7	0.24	0.57	0.25	0.58
25	VH300070	2	2,735	2,735	0.74	0.86	89.0	9.7	98.7	0.42	0.74	0.42	0.74
26	VH300090	2	2,680	2,680	0.50	0.66	90.3	7.9	98.2	0.15	0.47	0.15	0.47
27	VH300091	2	2,690	2,690	0.64	0.77	79.5	19.1	98.6	0.57	0.74	0.57	0.74
28	VH300259	2	2,876	2,876	0.74	0.87	88.4	10.8	99.2	0.45	0.75	0.44	0.75
29	VH300318	1	2,764	2,764	0.39	0.58	88.8	9.3	98.1	0.14	0.45	0.14	0.44
30	VH300320	2	2,800	2,800	0.55	0.72	72.9	24.9	97.8	0.66	0.77	0.65	0.78
AVERAGE			2,683	2,683	0.60	0.72	86.3	12.4	98.7	0.30	0.55	0.31	0.55

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.13 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Eight Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299320	1	3,833	3,833	0.85	0.85	94.5	5.5	100.0	0.23	0.42	0.23	0.42
2	VH299741	2	3,718	3,718	0.91	0.96	95.8	4.0	99.7	0.47	0.77	0.48	0.77
3	VH299807	1	1,995	1,995	0.91	0.91	96.3	3.7	100.0	0.26	0.44	0.27	0.44
4	VH299901	2	3,706	3,706	0.83	0.88	94.3	5.2	99.5	0.25	0.55	0.26	0.55
5	VH300055	2	3,739	3,739	0.94	0.97	97.0	2.9	99.8	0.50	0.78	0.50	0.78
6	VH300345	2	3,814	3,814	0.80	0.86	92.1	7.6	99.7	0.31	0.57	0.31	0.56
7	VH299087	2	3,619	3,619	0.66	0.81	85.9	13.5	99.4	0.36	0.64	0.35	0.64
8	VH299088	1	3,638	3,638	0.45	0.45	80.8	19.2	100.0	0.22	0.41	0.23	0.42
9	VH299314	2	55	55	0.22	0.09	89.1	7.3	96.4	0.13	0.39	0.06	0.30
10	VH299325	2	3,661	3,661	0.43	0.60	85.9	12.6	98.6	0.18	0.48	0.18	0.48
11	VH299494	2	3,572	3,572	0.49	0.64	85.9	12.1	98.1	0.21	0.53	0.21	0.51
12	VH299669	2	3,682	3,682	0.61	0.80	86.6	13.1	99.6	0.28	0.60	0.28	0.61
13	VH299670	1	3,711	3,711	0.56	0.56	82.0	18.0	100.0	0.29	0.45	0.28	0.45
14	VH299713	2	3,555	3,555	0.49	0.69	82.6	14.8	97.4	0.29	0.63	0.30	0.64
15	VH299739	2	3,606	3,606	0.70	0.86	87.5	11.8	99.3	0.40	0.73	0.40	0.72
16	VH299742	1	3,611	3,611	0.62	0.62	83.2	16.8	100.0	0.31	0.46	0.33	0.47
17	VH299806	2	49	49	0.47	0.65	93.9	6.1	100.0	0.08	0.34	0.06	0.24
18	VH299811	2	3,657	3,657	0.51	0.68	86.0	12.4	98.3	0.22	0.54	0.23	0.54
19	VH299900	2	3,621	3,621	0.66	0.80	85.1	14.3	99.4	0.37	0.65	0.38	0.65
20	VH299902	1	3,602	3,602	0.57	0.57	82.4	17.6	100.0	0.29	0.45	0.29	0.45
21	VH300054	2	3,611	3,611	0.71	0.87	88.1	11.5	99.7	0.38	0.71	0.39	0.71
22	VH300056	1	3,616	3,616	0.61	0.61	82.7	17.3	100.0	0.33	0.47	0.33	0.47
23	VH300081	2	3,552	3,552	0.53	0.68	85.9	12.7	98.5	0.22	0.53	0.24	0.55
24	VH300247	2	3,584	3,584	0.51	0.72	83.6	14.2	97.7	0.30	0.65	0.31	0.65
25	VH300337	2	3,656	3,656	0.64	0.81	88.1	11.6	99.7	0.26	0.58	0.27	0.58
26	VH300340	1	3,665	3,665	0.56	0.56	84.0	16.0	100.0	0.23	0.42	0.24	0.43
AVERAGE			3,313	3,313	0.62	0.71	87.7	11.6	99.3	0.28	0.55	0.28	0.54

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.14 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Eleven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299386	2	3,604	3,604	0.79	0.82	94.5	3.0	97.5	0.24	0.61	0.24	0.61
2	VH299835	1	3,553	3,553	0.93	0.93	98.0	2.0	100.0	0.17	0.38	0.18	0.38
3	VH299836	1	3,570	3,570	0.99	0.99	99.6	0.4	100.0	0.39	0.49	0.39	0.49
4	VH299910	2	3,728	3,728	0.86	0.88	94.8	3.1	97.9	0.34	0.69	0.35	0.69
5	VH299958	2	3,658	3,658	0.67	0.81	94.1	5.0	99.1	0.14	0.48	0.15	0.49
6	VH299961	2	3,703	3,703	0.84	0.86	94.2	3.2	97.3	0.35	0.70	0.35	0.70
7	VH300132	2	3,557	3,557	0.69	0.74	92.0	4.8	96.7	0.23	0.58	0.23	0.58
8	VH300177	2	3,610	3,610	0.93	0.95	97.1	1.7	98.8	0.42	0.76	0.42	0.76
9	VH298928	2	446	446	0.72	0.81	82.3	15.9	98.2	0.75	0.78	0.77	0.78
10	VH300032	1	223	223	0.38	0.38	71.3	28.7	100.0	0.39	0.49	0.35	0.48
11	VH300897	2	376	376	0.32	0.48	59.3	33.5	92.8	0.65	0.76	0.65	0.79
12	VH301145	2	114	114	0.36	0.54	57.9	34.2	92.1	0.94	0.88	0.75	0.80
13	VH301904	2	134	134	0.21	0.43	47.8	46.3	94.0	1.04	0.78	0.98	0.80
14	VH301993	1	85	85	0.44	0.44	71.8	28.2	100.0	0.53	0.50	0.39	0.49
15	VH299022	1	69	69	0.51	0.51	92.8	7.2	100.0	0.06	0.24	0.10	0.30
16	VH299026	1	71	71	0.79	0.79	97.2	2.8	100.0	0.06	0.23	0.09	0.28
17	VH299032	2	61	61	0.53	0.65	93.4	4.9	98.4	0.07	0.31	0.15	0.48
18	VH299912	3	55	55	0.18	0.74	92.7	7.3	100.0	0.09	0.44	0.06	0.30
19	VH299956	1	49	49	0.00	0.00	98.0	2.0	100.0	0.00	0.00	0.02	0.14
AVERAGE			1,614	1,614	0.59	0.67	85.7	12.3	98.0	0.36	0.53	0.35	0.54

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.15 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Three Writing Extended Response (WER)

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295418	2	COV	2,651	2,651	0.33	0.54	56.5	40.7	97.2	0.95	0.75	0.96	0.75
2	VH295561	2	COV	1,819	1,819	0.34	0.53	57.6	40.0	97.6	0.96	0.73	0.95	0.73
3	VH295670	2	COV	2,261	2,261	0.31	0.52	54.8	42.3	97.1	1.02	0.75	1.00	0.75
4	VH295713	2	COV	1,897	1,897	0.30	0.48	54.5	41.6	96.1	1.01	0.75	1.01	0.73
5	VH295950	2	COV	1,015	1,015	0.35	0.57	58.2	39.8	98.0	1.04	0.74	0.97	0.74
6	VH295962	2	COV	1,817	1,817	0.33	0.53	57.3	40.6	97.9	1.00	0.72	1.01	0.73
7	VH295997	2	COV	2,359	2,359	0.31	0.53	55.9	42.1	98.1	0.99	0.73	1.01	0.73
8	VH296068	2	COV	1,102	1,102	0.34	0.55	58.4	39.9	98.4	1.02	0.72	1.02	0.72
9	VH295561	4	DVE	1,819	1,819	0.36	0.59	58.9	36.7	95.7	1.77	0.81	1.77	0.84
10	VH295950	4	DVE	1,015	1,015	0.35	0.63	58.5	37.7	96.3	1.80	0.85	1.76	0.84
11	VH296068	4	DVE	1,102	1,102	0.37	0.62	60.2	36.0	96.2	1.75	0.84	1.73	0.82
12	VH295418	4	EEL	2,651	2,651	0.36	0.57	61.9	34.4	96.3	1.63	0.76	1.62	0.77
13	VH295670	4	EEL	2,260	2,260	0.36	0.58	61.1	36.2	97.3	1.66	0.77	1.65	0.75
14	VH295713	4	EEL	1,896	1,896	0.34	0.53	60.7	34.7	95.4	1.64	0.76	1.65	0.76
15	VH295962	4	EEL	1,817	1,817	0.34	0.56	60.5	35.8	96.3	1.65	0.77	1.66	0.76
16	VH295997	4	EEL	2,359	2,359	0.36	0.57	61.6	35.1	96.6	1.63	0.76	1.64	0.77
17	VH295418	4	POR	2,650	2,650	0.38	0.60	64.1	32.9	96.9	1.59	0.75	1.60	0.76
18	VH295561	4	POR	1,819	1,819	0.34	0.59	57.0	39.0	96.0	1.83	0.80	1.83	0.83
19	VH295670	4	POR	2,260	2,260	0.35	0.58	61.9	35.3	97.2	1.62	0.77	1.61	0.74
20	VH295713	4	POR	1,896	1,896	0.31	0.52	58.5	37.0	95.5	1.64	0.77	1.65	0.76
21	VH295950	4	POR	1,015	1,015	0.36	0.63	58.2	38.4	96.7	1.83	0.85	1.80	0.84
22	VH295962	4	POR	1,817	1,817	0.37	0.58	61.3	35.4	96.7	1.68	0.78	1.67	0.75
23	VH295997	4	POR	2,359	2,359	0.37	0.58	63.5	33.6	97.1	1.59	0.74	1.58	0.75
24	VH296068	4	POR	1,102	1,102	0.35	0.61	58.1	38.1	96.2	1.79	0.85	1.79	0.82
25	VH295418	4	POR	2,650	2,650	0.38	0.60	64.1	32.9	96.9	1.59	0.75	1.60	0.76
AVERAGE				1,865	1,865	0.34	0.57	59.1	37.6	96.8	1.46	0.77	1.46	0.77

Notes and Legend:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

<i>Key to Dimension Types</i>	
• organization/purpose (POR)	• evidence/elaboration (EEL)
• development/elaboration (DEV)	• convention (COV)

Table 8.G.16 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Four WER

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295258	2	COV	1,699	1,699	0.30	0.51	55.6	41.8	97.4	1.14	0.73	1.11	0.72
2	VH295351	2	COV	1,790	1,790	0.36	0.57	59.6	38.7	98.3	1.14	0.72	1.13	0.73
3	VH295426	2	COV	2,024	2,024	0.38	0.57	60.0	37.8	97.8	1.10	0.74	1.10	0.74
4	VH295459	2	COV	1,837	1,837	0.34	0.52	58.5	39.0	97.5	1.22	0.72	1.18	0.71
5	VH295493	2	COV	2,149	2,149	0.33	0.53	57.2	40.3	97.4	1.08	0.72	1.09	0.75
6	VH295522	2	COV	2,163	2,163	0.33	0.53	57.4	40.3	97.6	1.18	0.74	1.21	0.72
7	VH295587	2	COV	1,365	1,365	0.33	0.54	58.0	40.4	98.4	1.22	0.73	1.22	0.70
8	VH295631	2	COV	1,485	1,485	0.28	0.47	55.6	42.2	97.7	1.22	0.69	1.22	0.70
9	VH295644	2	COV	1,527	1,527	0.33	0.55	57.4	40.9	98.3	1.20	0.73	1.19	0.73
10	VH295707	2	COV	1,734	1,734	0.31	0.50	57.0	40.9	97.9	1.16	0.70	1.16	0.70
11	VH295731	2	COV	2,060	2,060	0.37	0.57	59.2	38.7	98.0	1.14	0.74	1.13	0.74
12	VH295775	2	COV	1,812	1,812	0.30	0.50	56.6	41.6	98.2	1.15	0.70	1.13	0.71
13	VH295781	2	COV	1,653	1,653	0.36	0.56	58.9	39.1	98.1	1.11	0.73	1.10	0.72
14	VH295787	2	COV	1,969	1,969	0.35	0.55	58.6	39.6	98.1	1.16	0.73	1.17	0.72
15	VH295858	2	COV	1,375	1,375	0.38	0.55	62.0	36.0	98.0	1.27	0.69	1.25	0.71
16	VH295865	2	COV	1,661	1,661	0.34	0.54	57.1	40.2	97.3	1.06	0.74	1.10	0.74
17	VH295892	2	COV	2,185	2,185	0.32	0.52	57.3	40.4	97.7	1.21	0.72	1.19	0.71
18	VH295956	2	COV	2,146	2,146	0.34	0.55	57.8	40.0	97.8	1.19	0.73	1.16	0.74
19	VH295258	4	DVE	1,698	1,698	0.33	0.58	53.7	39.2	92.9	2.09	0.90	2.12	0.91
20	VH295351	4	DVE	1,790	1,790	0.39	0.67	57.7	38.7	96.4	2.05	0.91	2.06	0.92
21	VH295587	4	DVE	1,365	1,365	0.28	0.61	49.2	45.5	94.7	2.24	0.93	2.27	0.94
22	VH295644	4	DVE	1,526	1,526	0.32	0.59	52.7	41.0	93.7	2.16	0.91	2.17	0.90
23	VH295775	4	DVE	1,811	1,811	0.30	0.57	52.6	41.1	93.7	2.04	0.88	2.02	0.90
24	VH295781	4	DVE	1,653	1,653	0.35	0.62	55.9	39.5	95.4	1.97	0.88	1.99	0.88
25	VH295858	4	DVE	1,375	1,375	0.36	0.67	54.9	41.7	96.7	2.23	0.93	2.24	0.93
26	VH295865	4	DVE	1,661	1,661	0.35	0.63	55.5	40.2	95.7	1.98	0.88	2.01	0.90
27	VH295426	4	EEL	2,024	2,024	0.40	0.64	60.6	35.0	95.6	1.83	0.86	1.83	0.87
28	VH295459	4	EEL	1,837	1,837	0.37	0.64	57.5	38.3	95.8	1.99	0.87	1.98	0.90
29	VH295493	4	EEL	2,149	2,149	0.33	0.59	56.0	39.3	95.3	1.87	0.85	1.83	0.85
30	VH295522	4	EEL	2,163	2,163	0.37	0.63	56.1	39.0	95.1	2.07	0.92	2.07	0.90
31	VH295631	4	EEL	1,485	1,485	0.33	0.56	55.3	39.1	94.4	1.93	0.85	1.94	0.84
32	VH295707	4	EEL	1,734	1,734	0.33	0.57	55.8	39.1	94.9	1.87	0.85	1.86	0.84
33	VH295731	4	EEL	2,061	2,061	0.40	0.64	59.9	36.1	96.0	1.89	0.88	1.87	0.86
34	VH295787	4	EEL	1,969	1,969	0.36	0.65	56.0	39.5	95.5	1.96	0.91	2.01	0.94
35	VH295892	4	EEL	2,185	2,185	0.31	0.59	52.6	42.0	94.6	2.02	0.89	2.03	0.89
36	VH295956	4	EEL	2,146	2,146	0.34	0.61	55.1	40.0	95.1	1.97	0.88	2.00	0.89
37	VH295258	4	POR	1,698	1,698	0.32	0.60	52.4	41.8	94.2	2.17	0.90	2.18	0.92
38	VH295351	4	POR	1,790	1,790	0.37	0.67	55.6	40.7	96.3	2.15	0.92	2.15	0.92
39	VH295426	4	POR	2,024	2,024	0.39	0.64	60.4	35.4	95.8	1.81	0.85	1.80	0.87
40	VH295459	4	POR	1,837	1,837	0.36	0.64	56.2	40.1	96.3	2.01	0.88	2.00	0.88
41	VH295493	4	POR	2,149	2,149	0.33	0.58	56.4	38.7	95.1	1.82	0.84	1.80	0.85

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
42	VH295522	4	POR	2,163	2,163	0.36	0.63	55.0	39.5	94.5	2.04	0.94	2.03	0.93
43	VH295587	4	POR	1,365	1,365	0.33	0.63	52.2	43.2	95.5	2.30	0.92	2.31	0.93
44	VH295631	4	POR	1,485	1,485	0.33	0.57	55.5	39.5	94.9	1.97	0.84	1.98	0.83
45	VH295644	4	POR	1,526	1,526	0.35	0.62	54.2	40.4	94.6	2.23	0.92	2.21	0.90
46	VH295707	4	POR	1,734	1,734	0.33	0.59	54.7	40.7	95.3	1.93	0.85	1.94	0.86
47	VH295731	4	POR	2,060	2,060	0.38	0.65	59.0	37.0	96.1	1.86	0.88	1.85	0.86
48	VH295775	4	POR	1,811	1,811	0.31	0.58	52.8	41.1	94.0	2.09	0.88	2.07	0.90
49	VH295781	4	POR	1,653	1,653	0.35	0.62	55.2	40.0	95.2	2.02	0.88	2.04	0.89
50	VH295787	4	POR	1,969	1,969	0.36	0.66	56.2	39.5	95.6	1.95	0.92	2.00	0.93
51	VH295858	4	POR	1,375	1,375	0.34	0.65	53.2	42.3	95.6	2.27	0.94	2.27	0.94
52	VH295865	4	POR	1,661	1,661	0.33	0.61	54.3	41.5	95.8	2.04	0.88	2.07	0.89
53	VH295892	4	POR	2,185	2,185	0.32	0.58	53.8	40.8	94.6	1.94	0.89	1.94	0.88
54	VH295956	4	POR	2,146	2,146	0.37	0.62	57.1	38.0	95.1	1.93	0.88	1.93	0.89
AVERAGE				1,813	1,813	0.34	0.59	56.2	39.9	96.1	1.73	0.83	1.74	0.84

Notes and Legend:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

<i>Key to Dimension Types</i>	
• organization/purpose (POR)	• evidence/elaboration (EEL)
• development/elaboration (DEV)	• convention (COV)

Table 8.G.17 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Five WER

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295215	2	COV	1,627	1,627	0.30	0.47	57.3	40.0	97.3	1.31	0.69	1.30	0.69
2	VH295230	2	COV	2,072	2,072	0.32	0.53	58.4	39.8	98.2	1.29	0.70	1.29	0.71
3	VH295238	2	COV	1,945	1,945	0.31	0.51	57.0	40.4	97.4	1.24	0.72	1.26	0.72
4	VH295406	2	COV	2,055	2,055	0.33	0.53	58.5	39.1	97.6	1.27	0.72	1.26	0.72
5	VH295431	2	COV	2,048	2,048	0.34	0.54	58.9	39.2	98.1	1.28	0.71	1.30	0.72
6	VH295452	2	COV	1,963	1,963	0.32	0.51	58.4	39.3	97.7	1.31	0.70	1.34	0.71
7	VH295480	2	COV	1,758	1,758	0.31	0.50	58.0	39.6	97.6	1.27	0.69	1.28	0.71
8	VH295543	2	COV	1,944	1,944	0.32	0.52	58.5	39.7	98.2	1.29	0.70	1.32	0.69
9	VH295740	2	COV	1,645	1,645	0.31	0.50	57.6	39.9	97.5	1.27	0.70	1.29	0.70
10	VH295793	2	COV	1,843	1,843	0.30	0.49	57.6	39.5	97.1	1.33	0.71	1.32	0.70
11	VH295810	2	COV	1,760	1,760	0.35	0.50	59.8	37.3	97.0	1.27	0.70	1.28	0.71
12	VH295835	2	COV	1,768	1,768	0.30	0.47	57.0	39.9	96.8	1.27	0.70	1.24	0.71
13	VH295900	2	COV	1,274	1,274	0.33	0.51	60.1	36.9	97.0	1.37	0.71	1.36	0.70
14	VH295920	2	COV	1,704	1,704	0.31	0.50	57.8	39.4	97.2	1.31	0.72	1.31	0.71
15	VH295971	2	COV	2,040	2,040	0.32	0.51	57.9	39.9	97.7	1.26	0.70	1.24	0.71
16	VH296033	2	COV	1,665	1,665	0.32	0.52	58.3	39.8	98.1	1.30	0.71	1.29	0.70
17	VH296047	2	COV	1,698	1,698	0.30	0.47	57.2	39.8	97.0	1.28	0.71	1.28	0.69
18	VH296072	2	COV	1,947	1,947	0.36	0.54	60.5	37.1	97.6	1.28	0.71	1.30	0.71
19	VH296081	2	COV	2,045	2,045	0.30	0.49	58.5	39.3	97.8	1.37	0.68	1.36	0.69
20	VH296090	2	COV	1,754	1,754	0.36	0.53	60.2	37.3	97.5	1.28	0.71	1.29	0.71
21	VH295215	4	DVE	1,627	1,627	0.32	0.60	52.4	41.8	94.2	2.37	0.92	2.33	0.90
22	VH295480	4	DVE	1,758	1,758	0.32	0.60	51.7	42.3	94.0	2.38	0.92	2.40	0.93
23	VH295740	4	DVE	1,645	1,645	0.32	0.63	50.8	43.3	94.1	2.39	0.96	2.40	0.96
24	VH295810	4	DVE	1,760	1,760	0.32	0.60	51.8	42.0	93.8	2.38	0.94	2.39	0.93
25	VH295835	4	DVE	1,768	1,768	0.30	0.59	50.3	43.9	94.2	2.36	0.93	2.36	0.91
26	VH295900	4	DVE	1,274	1,274	0.32	0.62	51.1	42.9	94.0	2.42	0.94	2.43	0.94
27	VH295920	4	DVE	1,704	1,704	0.31	0.61	50.1	43.1	93.3	2.42	0.95	2.42	0.96
28	VH296047	4	DVE	1,698	1,698	0.32	0.59	51.3	41.3	92.6	2.46	0.94	2.44	0.94
29	VH296090	4	DVE	1,755	1,755	0.33	0.61	52.4	41.5	93.9	2.34	0.94	2.33	0.92
30	VH295230	4	EEL	2,072	2,072	0.35	0.67	53.9	42.0	95.9	2.25	0.95	2.23	0.93
31	VH295238	4	EEL	1,945	1,945	0.33	0.63	52.8	41.4	94.2	2.11	0.94	2.12	0.95
32	VH295406	4	EEL	2,055	2,055	0.35	0.63	54.4	40.3	94.7	2.14	0.93	2.14	0.91
33	VH295431	4	EEL	2,048	2,048	0.31	0.62	50.8	43.9	94.8	2.22	0.92	2.22	0.94
34	VH295452	4	EEL	1,963	1,963	0.35	0.65	53.1	41.0	94.1	2.25	0.97	2.25	0.98
35	VH295543	4	EEL	1,944	1,944	0.32	0.63	51.9	43.0	94.8	2.21	0.96	2.22	0.92
36	VH295793	4	EEL	1,843	1,843	0.34	0.62	52.8	41.2	94.0	2.24	0.95	2.21	0.92
37	VH295971	4	EEL	2,040	2,040	0.36	0.64	55.7	39.1	94.8	2.05	0.92	2.06	0.92
38	VH296033	4	EEL	1,665	1,665	0.36	0.66	53.6	41.1	94.7	2.30	0.95	2.30	0.97
39	VH296072	4	EEL	1,947	1,947	0.38	0.68	55.6	39.5	95.1	2.25	0.97	2.25	0.96
40	VH296081	4	EEL	2,045	2,045	0.33	0.63	52.6	42.0	94.5	2.22	0.93	2.23	0.94

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
41	VH295215	4	POR	1,627	1,627	0.31	0.59	51.3	42.8	94.0	2.44	0.91	2.40	0.90
42	VH295230	4	POR	2,072	2,072	0.37	0.67	54.9	41.0	95.8	2.20	0.96	2.19	0.93
43	VH295238	4	POR	1,945	1,945	0.36	0.66	54.7	40.2	94.9	2.11	0.94	2.10	0.97
44	VH295406	4	POR	2,055	2,055	0.37	0.63	55.5	39.0	94.6	2.16	0.93	2.14	0.90
45	VH295431	4	POR	2,048	2,048	0.31	0.61	50.7	42.8	93.5	2.17	0.94	2.17	0.95
46	VH295452	4	POR	1,963	1,963	0.36	0.64	53.5	40.1	93.6	2.27	0.97	2.26	0.98
47	VH295480	4	POR	1,758	1,758	0.30	0.60	50.9	43.7	94.5	2.43	0.91	2.45	0.92
48	VH295543	4	POR	1,944	1,944	0.36	0.65	54.5	40.0	94.4	2.17	0.97	2.17	0.94
49	VH295740	4	POR	1,645	1,645	0.30	0.61	49.6	44.1	93.7	2.43	0.96	2.44	0.96
50	VH295793	4	POR	1,843	1,843	0.30	0.60	49.9	44.3	94.2	2.25	0.96	2.21	0.92
51	VH295810	4	POR	1,760	1,760	0.32	0.61	52.2	42.7	94.9	2.43	0.91	2.42	0.91
52	VH295835	4	POR	1,768	1,768	0.29	0.59	50.5	43.9	94.3	2.39	0.91	2.40	0.90
53	VH295900	4	POR	1,274	1,274	0.27	0.60	48.2	46.5	94.7	2.48	0.93	2.48	0.93
54	VH295920	4	POR	1,704	1,704	0.31	0.62	50.8	43.5	94.3	2.49	0.94	2.45	0.94
55	VH295971	4	POR	2,040	2,040	0.35	0.65	54.8	41.1	95.9	2.13	0.92	2.14	0.92
56	VH296033	4	POR	1,665	1,665	0.34	0.65	52.6	42.9	95.4	2.31	0.94	2.32	0.95
57	VH296047	4	POR	1,698	1,698	0.32	0.60	51.6	41.6	93.3	2.52	0.92	2.46	0.92
58	VH296072	4	POR	1,947	1,947	0.37	0.68	54.5	40.6	95.1	2.26	0.98	2.23	0.97
59	VH296081	4	POR	2,045	2,045	0.34	0.65	53.1	42.0	95.1	2.21	0.94	2.21	0.94
60	VH296090	4	POR	1,755	1,755	0.33	0.60	52.8	41.1	93.9	2.40	0.93	2.39	0.91
AVERAGE				1,828	1,828	0.33	0.59	54.4	41.1	95.4	1.96	0.86	1.96	0.86

Notes and Legend:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

<i>Key to Dimension Types</i>	
• organization/purpose (POR)	• evidence/elaboration (EEL)
• development/elaboration (DEV)	• convention (COV)

Table 8.G.18 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Six WER

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295663	2	COV	470	470	1.00	1.00	100.0	–	100.0	0.96	0.76	0.96	0.76
2	VH295680	2	COV	2,554	2,554	0.99	1.00	99.5	0.4	100.0	1.41	0.80	1.41	0.81
3	VH295693	2	COV	571	571	0.92	0.94	95.6	3.5	99.1	1.46	0.75	1.45	0.75
4	VH295754	2	COV	1,656	1,656	0.89	0.93	94.1	5.4	99.5	1.51	0.72	1.51	0.71
5	VH295824	2	COV	842	842	0.87	0.92	93.9	5.6	99.5	1.57	0.70	1.57	0.70
6	VH295873	2	COV	840	840	1.00	1.00	100.0	–	100.0	1.15	0.75	1.15	0.75
7	VH295936	2	COV	1,269	1,269	0.97	0.98	98.9	1.0	99.9	1.66	0.64	1.66	0.63
8	VH296012	2	COV	844	844	1.00	1.00	99.9	0.1	100.0	1.52	0.73	1.52	0.73
9	VH295663	4	DVE	470	470	1.00	1.00	100.0	–	100.0	1.35	0.67	1.35	0.67
10	VH295873	4	DVE	840	840	1.00	1.00	100.0	–	100.0	1.26	0.56	1.26	0.56
11	VH295680	4	EEL	2,554	2,554	0.99	1.00	99.5	0.5	100.0	1.64	0.77	1.64	0.77
12	VH295693	4	EEL	571	571	0.90	0.92	94.4	5.1	99.5	1.51	0.64	1.53	0.66
13	VH295754	4	EEL	1,656	1,656	0.88	0.93	93.0	6.8	99.8	1.69	0.72	1.68	0.71
14	VH295824	4	EEL	842	842	0.90	0.94	94.4	5.5	99.9	1.62	0.68	1.63	0.69
15	VH295936	4	EEL	1,269	1,269	0.99	0.99	99.1	0.9	100.0	1.80	0.78	1.80	0.78
16	VH296012	4	EEL	844	844	1.00	1.00	99.9	–	99.9	1.62	0.71	1.61	0.70
17	VH295663	4	POR	470	470	1.00	1.00	100.0	–	100.0	1.26	0.61	1.26	0.61
18	VH295680	4	POR	2,554	2,554	0.99	1.00	99.5	0.5	100.0	1.72	0.78	1.72	0.78
19	VH295693	4	POR	571	571	0.90	0.92	94.7	4.7	99.5	1.51	0.66	1.51	0.67
20	VH295754	4	POR	1,656	1,656	0.88	0.92	93.0	6.8	99.8	1.79	0.70	1.79	0.69
21	VH295824	4	POR	842	842	0.90	0.94	94.1	5.8	99.9	1.67	0.70	1.68	0.71
22	VH295873	4	POR	840	840	1.00	1.00	100.0	–	100.0	1.14	0.45	1.14	0.45
23	VH295936	4	POR	1,269	1,269	0.99	0.99	99.1	0.9	100.0	1.85	0.78	1.86	0.78
24	VH296012	4	POR	844	844	1.00	1.00	99.9	–	99.9	1.66	0.72	1.66	0.72
AVERAGE				1,131	1,131	0.96	0.97	97.6	2.2	99.8	1.51	0.70	1.51	0.70

Notes and Legend:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

<i>Key to Dimension Types</i>	
• organization/purpose (POR)	• evidence/elaboration (EEL)
• development/elaboration (DEV)	• convention (COV)

Table 8.G.19 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Seven WER

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295266	2	COV	455	455	0.93	0.96	95.6	4.0	99.6	1.09	0.80	1.09	0.82
2	VH295271	2	COV	328	328	0.99	1.00	99.4	0.6	100.0	1.35	0.76	1.34	0.76
3	VH295309	2	COV	377	377	0.91	0.94	94.4	5.0	99.5	1.25	0.79	1.23	0.79
4	VH295321	2	COV	370	370	1.00	1.00	99.7	0.3	100.0	1.27	0.79	1.27	0.80
5	VH295334	2	COV	422	422	1.00	1.00	99.8	0.2	100.0	1.35	0.73	1.35	0.73
6	VH295372	2	COV	475	475	1.00	1.00	99.8	0.2	100.0	1.31	0.72	1.31	0.72
7	VH295398	2	COV	557	557	1.00	1.00	100.0	–	100.0	1.33	0.74	1.33	0.74
8	VH295410	2	COV	1,092	1,092	1.00	1.00	99.9	0.1	100.0	1.36	0.76	1.37	0.76
9	VH295508	2	COV	305	305	1.00	1.00	100.0	–	100.0	1.11	0.81	1.11	0.81
10	VH295528	2	COV	339	339	1.00	1.00	100.0	–	100.0	1.55	0.65	1.55	0.65
11	VH295576	2	COV	404	404	1.00	1.00	100.0	–	100.0	1.49	0.69	1.49	0.69
12	VH295610	2	COV	320	320	0.89	0.92	93.4	5.9	99.4	1.39	0.75	1.38	0.74
13	VH295636	2	COV	440	440	0.91	0.95	94.3	5.5	99.8	1.31	0.77	1.33	0.76
14	VH295719	2	COV	290	290	0.95	0.96	96.6	3.1	99.7	1.17	0.79	1.16	0.78
15	VH295761	2	COV	279	279	0.99	1.00	99.6	0.4	100.0	1.36	0.71	1.37	0.71
16	VH295906	2	COV	375	375	0.98	0.99	98.4	1.6	100.0	1.26	0.74	1.26	0.75
17	VH295943	2	COV	350	350	0.91	0.93	94.0	4.9	98.9	1.10	0.82	1.09	0.83
18	VH296104	2	COV	341	341	1.00	1.00	100.0	–	100.0	1.23	0.77	1.23	0.77
19	VH296117	2	COV	307	307	0.99	0.99	99.0	1.0	100.0	1.07	0.81	1.07	0.80
20	VH295528	4	DVE	339	339	1.00	1.00	99.7	0.3	100.0	1.80	0.86	1.80	0.86
21	VH295576	4	DVE	404	404	1.00	1.00	99.8	0.2	100.0	2.02	0.87	2.02	0.87
22	VH295610	4	DVE	320	320	0.91	0.96	93.8	5.6	99.4	2.06	0.96	2.04	0.96
23	VH295761	4	DVE	279	279	1.00	1.00	100.0	–	100.0	1.77	0.86	1.77	0.86
24	VH295266	4	EEL	455	455	0.93	0.95	96.9	2.9	99.8	1.33	0.60	1.32	0.58
25	VH295271	4	EEL	328	328	0.99	0.99	99.4	0.6	100.0	1.49	0.74	1.49	0.74
26	VH295309	4	EEL	377	377	0.88	0.92	93.6	5.6	99.2	1.54	0.76	1.54	0.75
27	VH295321	4	EEL	370	370	1.00	1.00	99.7	0.3	100.0	1.51	0.75	1.51	0.75
28	VH295334	4	EEL	422	422	1.00	1.00	99.8	0.2	100.0	1.51	0.77	1.51	0.77
29	VH295372	4	EEL	475	475	1.00	1.00	100.0	–	100.0	1.37	0.65	1.37	0.65
30	VH295398	4	EEL	557	557	1.00	1.00	99.8	0.2	100.0	1.44	0.70	1.44	0.70
31	VH295410	4	EEL	1,092	1,092	1.00	1.00	99.8	0.2	100.0	1.48	0.69	1.48	0.69
32	VH295508	4	EEL	305	305	1.00	1.00	100.0	–	100.0	1.35	0.63	1.35	0.63
33	VH295636	4	EEL	440	440	0.94	0.97	96.6	3.2	99.8	1.56	0.75	1.59	0.77
34	VH295719	4	EEL	290	290	0.94	0.96	97.2	2.8	100.0	1.36	0.63	1.35	0.61
35	VH295906	4	EEL	375	375	0.98	0.98	98.9	0.8	99.7	1.41	0.67	1.41	0.69
36	VH295943	4	EEL	350	350	0.90	0.95	95.4	4.6	100.0	1.41	0.68	1.41	0.69
37	VH296104	4	EEL	341	341	1.00	1.00	100.0	–	100.0	1.49	0.77	1.49	0.77
38	VH296117	4	EEL	307	307	0.97	0.98	98.7	1.3	100.0	1.36	0.60	1.36	0.61
39	VH295266	4	POR	455	455	0.93	0.95	96.9	2.9	99.8	1.32	0.59	1.31	0.57
40	VH295271	4	POR	328	328	0.99	0.99	99.4	0.6	100.0	1.49	0.75	1.49	0.74
41	VH295309	4	POR	377	377	0.87	0.92	93.1	6.1	99.2	1.54	0.76	1.54	0.75

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
42	VH295321	4	POR	370	370	1.00	1.00	99.7	0.3	100.0	1.52	0.77	1.52	0.77
43	VH295334	4	POR	422	422	1.00	1.00	99.8	0.2	100.0	1.55	0.78	1.55	0.78
44	VH295372	4	POR	475	475	1.00	1.00	99.8	0.2	100.0	1.38	0.66	1.39	0.66
45	VH295398	4	POR	557	557	1.00	1.00	99.8	0.2	100.0	1.46	0.72	1.46	0.72
46	VH295410	4	POR	1,092	1,092	1.00	1.00	99.8	0.2	100.0	1.47	0.69	1.47	0.69
47	VH295508	4	POR	305	305	1.00	1.00	100.0	–	100.0	1.35	0.63	1.35	0.63
48	VH295528	4	POR	339	339	1.00	1.00	99.7	0.3	100.0	1.65	0.86	1.65	0.86
49	VH295576	4	POR	404	404	1.00	1.00	99.8	0.2	100.0	1.97	0.88	1.98	0.88
50	VH295610	4	POR	320	320	0.91	0.95	93.4	5.9	99.4	2.00	0.96	1.99	0.95
51	VH295636	4	POR	440	440	0.94	0.97	96.8	3.0	99.8	1.56	0.75	1.59	0.78
52	VH295719	4	POR	290	290	0.95	0.97	97.9	2.1	100.0	1.35	0.61	1.35	0.59
53	VH295761	4	POR	279	279	1.00	1.00	100.0	–	100.0	1.71	0.84	1.71	0.84
54	VH295906	4	POR	375	375	0.97	0.98	98.7	1.1	99.7	1.42	0.70	1.42	0.71
55	VH295943	4	POR	350	350	0.88	0.94	94.3	5.7	100.0	1.41	0.68	1.42	0.69
56	VH296104	4	POR	341	341	1.00	1.00	100.0	–	100.0	1.55	0.80	1.55	0.80
57	VH296117	4	POR	307	307	0.96	0.97	98.0	2.0	100.0	1.35	0.60	1.35	0.60
AVERAGE				412	412	0.97	0.98	98.2	1.6	99.9	1.45	0.74	1.45	0.74

Notes and Legend:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

<i>Key to Dimension Types</i>	
• organization/purpose (POR)	• evidence/elaboration (EEL)
• development/elaboration (DEV)	• convention (COV)

Table 8.G.20 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Eight WER

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295279	2	COV	1,081	1,081	0.63	0.75	84.2	15.4	99.6	1.67	0.58	1.66	0.58
2	VH295294	2	COV	830	830	0.67	0.76	85.3	13.9	99.2	1.64	0.61	1.64	0.60
3	VH295301	2	COV	978	978	1.00	1.00	100.0	–	100.0	1.71	0.52	1.71	0.52
4	VH295357	2	COV	249	249	0.84	0.89	90.4	9.2	99.6	1.32	0.71	1.33	0.71
5	VH295386	2	COV	286	286	0.91	0.93	94.4	5.2	99.7	1.39	0.70	1.36	0.70
6	VH295465	2	COV	270	270	0.72	0.79	83.0	15.9	98.9	1.27	0.71	1.30	0.70
7	VH295486	2	COV	1,104	1,104	0.55	0.71	82.5	16.8	99.4	1.71	0.57	1.70	0.58
8	VH295513	2	COV	493	493	0.64	0.76	78.3	21.1	99.4	1.34	0.70	1.38	0.70
9	VH295568	2	COV	287	287	0.75	0.83	84.7	14.6	99.3	1.27	0.72	1.28	0.71
10	VH295596	2	COV	1,127	1,127	1.00	1.00	100.0	–	100.0	1.64	0.58	1.64	0.58
11	VH295604	2	COV	1,158	1,158	0.63	0.74	83.2	16.1	99.3	1.63	0.61	1.63	0.61
12	VH295624	2	COV	851	851	0.62	0.76	82.6	16.6	99.2	1.60	0.65	1.62	0.64
13	VH295768	2	COV	1,223	1,223	0.54	0.67	81.7	17.7	99.3	1.69	0.55	1.71	0.55
14	VH295831	2	COV	499	499	0.77	0.85	86.4	13.4	99.8	1.34	0.69	1.33	0.70
15	VH295845	2	COV	900	900	0.62	0.73	85.8	13.7	99.4	1.73	0.54	1.72	0.54
16	VH295978	2	COV	452	452	0.69	0.76	81.2	17.5	98.7	1.35	0.69	1.33	0.70
17	VH296017	2	COV	395	395	0.71	0.78	83.3	15.7	99.0	1.41	0.66	1.42	0.67
18	VH296025	2	COV	216	216	0.95	0.97	96.8	3.2	100.0	1.23	0.70	1.23	0.70
19	VH296059	2	COV	826	826	1.00	1.00	99.8	0.2	100.0	1.56	0.66	1.56	0.66
20	VH296097	2	COV	991	991	1.00	1.00	99.9	0.1	100.0	1.64	0.60	1.64	0.59
21	VH295301	4	DVE	978	978	1.00	1.00	100.0	–	100.0	1.90	0.87	1.90	0.87
22	VH295596	4	DVE	1,127	1,127	1.00	1.00	100.0	–	100.0	1.69	0.96	1.69	0.96
23	VH296059	4	DVE	826	826	0.99	1.00	99.4	0.6	100.0	1.91	0.98	1.91	0.98
24	VH296097	4	DVE	991	991	0.99	1.00	99.4	0.6	100.0	2.01	0.94	2.01	0.95
25	VH295279	4	EEL	1,081	1,081	0.61	0.81	73.2	25.8	99.0	1.97	0.88	1.97	0.88
26	VH295294	4	EEL	830	830	0.67	0.85	77.8	21.9	99.8	1.84	0.85	1.86	0.87
27	VH295357	4	EEL	249	249	0.84	0.87	91.6	8.0	99.6	1.45	0.60	1.45	0.62
28	VH295386	4	EEL	286	286	0.85	0.93	93.7	6.3	100.0	1.36	0.67	1.37	0.68
29	VH295465	4	EEL	270	270	0.76	0.87	87.4	12.6	100.0	1.48	0.70	1.48	0.69
30	VH295486	4	EEL	1,104	1,104	0.62	0.82	74.5	25.2	99.7	2.00	0.84	2.02	0.85
31	VH295513	4	EEL	493	493	0.67	0.81	79.5	19.9	99.4	1.69	0.77	1.70	0.78
32	VH295568	4	EEL	287	287	0.77	0.85	89.2	10.8	100.0	1.40	0.62	1.39	0.60
33	VH295604	4	EEL	1,158	1,158	0.64	0.83	75.3	23.9	99.2	1.98	0.89	1.97	0.90
34	VH295624	4	EEL	851	851	0.60	0.78	73.6	25.1	98.7	1.84	0.84	1.85	0.84
35	VH295768	4	EEL	1,223	1,223	0.59	0.81	71.5	27.9	99.3	2.09	0.88	2.11	0.89
36	VH295831	4	EEL	499	499	0.79	0.89	87.4	11.8	99.2	1.64	0.80	1.65	0.84
37	VH295845	4	EEL	900	900	0.58	0.80	71.4	28.3	99.8	1.96	0.86	1.97	0.86
38	VH295978	4	EEL	452	452	0.65	0.81	79.6	19.9	99.6	1.58	0.74	1.61	0.78
39	VH296017	4	EEL	395	395	0.77	0.86	85.3	14.2	99.5	1.78	0.77	1.76	0.78
40	VH296025	4	EEL	216	216	0.92	0.97	96.3	3.7	100.0	1.41	0.73	1.40	0.73

Prompt	Item ID	Score Points	Dimension Type								Rater 1		Rater 2	
				Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
41	VH295279	4	POR	1,081	1,081	0.62	0.81	73.8	25.3	99.2	1.99	0.87	1.99	0.86
42	VH295294	4	POR	830	830	0.67	0.84	77.7	21.9	99.6	1.86	0.84	1.87	0.87
43	VH295301	4	POR	978	978	1.00	1.00	100.0	–	100.0	1.85	0.88	1.85	0.88
44	VH295357	4	POR	249	249	0.84	0.88	91.2	8.4	99.6	1.50	0.64	1.51	0.64
45	VH295386	4	POR	286	286	0.84	0.93	93.0	7.0	100.0	1.39	0.69	1.40	0.69
46	VH295465	4	POR	270	270	0.76	0.88	86.7	13.3	100.0	1.54	0.75	1.56	0.76
47	VH295486	4	POR	1,104	1,104	0.61	0.81	73.5	26.3	99.7	2.02	0.84	2.03	0.84
48	VH295513	4	POR	493	493	0.70	0.83	81.3	18.1	99.4	1.72	0.76	1.73	0.77
49	VH295568	4	POR	287	287	0.80	0.88	89.5	10.5	100.0	1.47	0.65	1.47	0.65
50	VH295596	4	POR	1,127	1,127	1.00	1.00	100.0	–	100.0	1.65	0.95	1.65	0.95
51	VH295604	4	POR	1,158	1,158	0.63	0.82	74.8	24.3	99.1	2.00	0.89	2.00	0.89
52	VH295624	4	POR	851	851	0.60	0.78	73.6	25.0	98.6	1.86	0.84	1.86	0.84
53	VH295768	4	POR	1,223	1,223	0.60	0.81	72.2	27.3	99.5	2.12	0.87	2.13	0.88
54	VH295831	4	POR	499	499	0.80	0.89	87.6	11.8	99.4	1.67	0.79	1.68	0.83
55	VH295845	4	POR	900	900	0.59	0.80	72.4	27.1	99.6	1.97	0.85	1.98	0.85
56	VH295978	4	POR	452	452	0.67	0.82	80.5	19.0	99.6	1.59	0.74	1.61	0.78
57	VH296017	4	POR	395	395	0.75	0.86	84.6	14.9	99.5	1.75	0.77	1.74	0.77
58	VH296025	4	POR	216	216	0.93	0.96	96.8	3.2	100.0	1.40	0.67	1.38	0.65
59	VH296059	4	POR	826	826	0.99	1.00	99.3	0.7	100.0	1.84	0.96	1.84	0.96
60	VH296097	4	POR	991	991	0.99	1.00	99.4	0.6	100.0	1.96	0.94	1.97	0.95
AVERAGE				711	711	0.76	0.86	86.3	13.3	99.6	1.67	0.75	1.68	0.76

Notes and Legend:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

<i>Key to Dimension Types</i>	
• organization/purpose (POR)	• evidence/elaboration (EEL)
• development/elaboration (DEV)	• convention (COV)

Table 8.G.21 Agreement Statistics between Artificial Intelligence (AI) and Human Scoring of Short-Answer Items for ELA, Grade Three

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH279259	2	7,977	7,977	0.53	0.66	75.3	24.0	99.3	0.47	0.61	0.46	0.66
2	VH279357	2	9,053	9,053	0.54	0.71	74.8	24.6	99.4	0.56	0.70	0.48	0.66
3	VH279363	2	1,391	1,391	0.47	0.56	70.7	29.0	99.7	0.52	0.50	0.51	0.65
4	VH279373	2	1,196	1,196	0.42	0.52	65.7	30.4	96.2	0.57	0.67	0.64	0.72
5	VH279393	2	475	475	0.33	0.37	70.3	26.7	97.1	0.27	0.46	0.42	0.62
6	VH279519	2	11,501	11,501	0.57	0.74	73.7	25.5	99.2	0.70	0.75	0.60	0.72
7	VH279575	2	1,509	1,509	0.59	0.70	78.7	20.9	99.5	0.48	0.58	0.42	0.64
8	VH279600	2	3,037	3,037	0.43	0.60	65.1	33.5	98.6	0.71	0.69	0.64	0.72
9	VH280306	2	456	456	0.33	0.35	70.6	26.8	97.4	0.28	0.45	0.38	0.60
10	VH280475	2	183	183	0.41	0.47	71.6	26.8	98.4	0.42	0.56	0.35	0.56
11	VH295225	2	3,077	3,077	0.43	0.59	72.5	26.4	98.9	0.36	0.59	0.45	0.63
12	VH295226	2	3,046	3,046	0.47	0.60	80.4	19.0	99.3	0.25	0.49	0.29	0.55
13	VH295343	2	3,156	3,156	0.43	0.60	69.6	29.8	99.4	0.40	0.59	0.55	0.66
14	VH295421	2	3,172	3,172	0.63	0.82	77.8	20.7	98.6	0.79	0.90	0.71	0.82
15	VH295564	2	3,088	3,088	0.54	0.67	73.0	26.1	99.0	0.61	0.67	0.57	0.69
16	VH295565	2	3,060	3,060	0.56	0.69	78.8	20.8	99.6	0.40	0.57	0.40	0.63
17	VH295657	2	3,164	3,164	0.43	0.61	68.6	29.5	98.1	0.50	0.70	0.54	0.66
18	VH295658	2	3,171	3,171	0.44	0.63	69.5	28.8	98.4	0.60	0.73	0.39	0.63
19	VH295674	2	3,077	3,077	0.49	0.68	67.6	30.1	97.8	0.80	0.80	0.69	0.77
20	VH295675	2	3,126	3,126	0.47	0.68	67.4	30.6	98.0	0.59	0.80	0.69	0.74
21	VH295688	2	3,145	3,145	0.34	0.52	71.0	25.2	96.2	0.22	0.49	0.49	0.72
22	VH295711	2	3,189	3,189	0.39	0.61	61.5	32.8	94.3	0.85	0.89	0.68	0.78
23	VH295712	2	3,202	3,202	0.42	0.59	68.3	29.9	98.2	0.47	0.67	0.53	0.66
24	VH295877	2	3,152	3,152	0.50	0.71	71.0	28.6	99.7	0.53	0.71	0.61	0.71
25	VH295878	2	3,148	3,148	0.32	0.49	58.0	38.2	96.2	0.76	0.75	0.62	0.69
26	VH295947	2	3,156	3,156	0.32	0.53	56.3	40.9	97.2	0.93	0.77	0.72	0.69
27	VH295961	2	3,111	3,111	0.38	0.56	72.2	24.9	97.1	0.29	0.56	0.46	0.69
28	VH295966	2	3,102	3,102	0.45	0.60	83.2	15.2	98.5	0.20	0.48	0.25	0.55
29	VH295995	2	3,112	3,112	0.50	0.71	75.4	24.1	99.5	0.41	0.69	0.46	0.65
30	VH295996	2	3,100	3,100	0.23	0.33	72.1	24.7	96.8	0.14	0.41	0.36	0.59
31	VH296065	2	3,164	3,164	0.48	0.69	70.1	28.5	98.6	0.55	0.73	0.60	0.75
32	VH296067	2	3,162	3,162	0.43	0.63	71.7	26.6	98.2	0.39	0.67	0.48	0.67
AVERAGE			3,302	3,302	0.45	0.60	71.0	27.2	98.2	0.50	0.64	0.51	0.67

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.22 Agreement Statistics between AI and Human Scoring of Short-Answer Items for ELA, Grade Four

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH279392	2	2,180	2,180	0.32	0.42	61.9	37.2	99.1	0.69	0.46	0.78	0.69
2	VH279430	2	6,260	6,260	0.38	0.55	60.2	36.9	97.1	0.89	0.70	0.69	0.74
3	VH279457	2	6,570	6,570	0.52	0.71	69.0	30.3	99.3	0.80	0.73	0.88	0.78
4	VH279487	2	2,288	2,288	0.38	0.58	61.2	36.5	97.7	0.77	0.72	0.68	0.74
5	VH279841	2	976	976	0.44	0.59	66.4	31.9	98.3	0.67	0.66	0.63	0.71
6	VH279845	2	655	655	0.41	0.61	74.5	24.4	98.9	0.37	0.62	0.33	0.59
7	VH280353	2	706	706	0.25	0.43	63.6	33.3	96.9	0.28	0.53	0.51	0.69
8	VH280429	2	523	523	0.29	0.38	66.7	27.5	94.3	0.31	0.58	0.47	0.67
9	VH280454	2	2,242	2,242	0.47	0.62	66.1	33.1	99.1	0.80	0.61	0.82	0.77
10	VH280527	2	7,081	7,081	0.49	0.67	67.6	31.1	98.7	0.77	0.75	0.71	0.74
11	VH280696	2	1,566	1,566	0.43	0.61	64.9	33.1	98.1	0.70	0.74	0.63	0.70
12	VH280803	2	6,464	6,464	0.51	0.70	67.4	31.4	98.8	1.08	0.75	0.98	0.78
13	VH280874	2	6,698	6,698	0.51	0.69	68.5	30.7	99.2	0.88	0.72	0.88	0.76
14	VH282151	2	12,545	12,545	0.41	0.58	66.8	31.6	98.4	0.60	0.70	0.50	0.65
15	VH295349	2	2,582	2,582	0.53	0.74	68.7	30.5	99.2	0.94	0.84	0.86	0.78
16	VH295350	2	2,563	2,563	0.37	0.45	71.2	26.3	97.5	0.34	0.53	0.37	0.62
17	VH295456	2	2,543	2,543	0.60	0.78	76.1	22.8	98.9	0.64	0.79	0.67	0.79
18	VH295458	2	2,579	2,579	0.32	0.51	59.1	34.0	93.1	0.74	0.81	0.58	0.76
19	VH295492	2	2,573	2,573	0.45	0.61	67.2	31.9	99.1	0.56	0.62	0.73	0.71
20	VH295496	2	2,584	2,584	0.50	0.70	68.8	30.5	99.3	0.63	0.75	0.73	0.74
21	VH295590	2	2,565	2,565	0.47	0.71	64.7	33.6	98.3	0.92	0.88	0.87	0.77
22	VH295591	2	2,570	2,570	0.43	0.63	67.7	29.7	97.4	0.43	0.63	0.67	0.78
23	VH295629	2	2,593	2,593	0.39	0.55	66.4	31.5	98.0	0.46	0.62	0.56	0.70
24	VH295630	2	2,573	2,573	0.52	0.71	82.0	16.1	98.1	0.26	0.61	0.37	0.66
25	VH295643	2	2,569	2,569	0.52	0.68	69.9	29.2	99.1	0.66	0.65	0.77	0.77
26	VH295647	2	2,541	2,541	0.51	0.70	69.9	28.7	98.6	0.66	0.78	0.68	0.74
27	VH295704	2	2,586	2,586	0.48	0.69	65.9	32.2	98.1	0.71	0.78	0.88	0.80
28	VH295705	2	2,576	2,576	0.51	0.69	72.4	26.3	98.6	0.48	0.68	0.60	0.74
29	VH295772	2	2,564	2,564	0.53	0.72	73.0	26.4	99.3	0.55	0.73	0.59	0.71
30	VH295773	2	2,583	2,583	0.45	0.49	79.8	17.5	97.3	0.19	0.40	0.34	0.61
31	VH295863	2	2,581	2,581	0.45	0.64	69.6	28.4	98.1	0.42	0.67	0.61	0.72
32	VH295868	2	2,518	2,518	0.55	0.73	72.8	25.0	97.7	0.67	0.83	0.67	0.76
AVERAGE			3,219	3,219	0.45	0.62	68.4	29.7	98.1	0.62	0.68	0.66	0.72

Note:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.23 Agreement Statistics between AI and Human Scoring of Short-Answer Items for ELA, Grade Five

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH288281	2	1,163	1,163	0.36	0.55	60.5	35.8	96.3	0.53	0.65	0.79	0.79
2	VH288299	2	1,715	1,715	0.46	0.64	65.7	32.7	98.4	0.82	0.69	0.71	0.76
3	VH288302	2	1,978	1,978	0.44	0.66	62.8	35.4	98.2	0.95	0.77	1.12	0.79
4	VH288307	2	3,989	3,989	0.48	0.64	66.5	32.1	98.6	0.90	0.67	0.82	0.76
5	VH288476	2	948	948	0.36	0.50	62.2	36.4	98.6	0.67	0.61	0.62	0.69
6	VH288477	2	2,299	2,299	0.46	0.65	64.6	34.5	99.1	0.95	0.67	1.09	0.78
7	VH288479	2	2,128	2,128	0.51	0.72	68.1	31.3	99.3	0.80	0.75	0.90	0.80
8	VH288497	2	2,714	2,714	0.48	0.68	65.8	33.4	99.2	0.79	0.69	0.89	0.81
9	VH288507	2	3,647	3,647	0.51	0.70	68.5	31.0	99.4	0.79	0.69	0.82	0.79
10	VH288518	2	2,844	2,844	0.49	0.68	67.6	31.7	99.3	0.90	0.72	0.95	0.75
11	VH288535	2	5,461	5,461	0.38	0.58	60.2	38.0	98.2	0.90	0.68	0.85	0.77
12	VH288548	2	2,896	2,896	0.35	0.52	58.4	38.3	96.7	0.93	0.72	0.80	0.74
13	VH288568	2	1,378	1,378	0.50	0.68	68.8	30.7	99.5	0.67	0.63	0.84	0.77
14	VH288692	2	1,433	1,433	0.38	0.58	60.1	35.7	95.7	0.76	0.79	0.79	0.79
15	VH288851	2	262	262	0.29	0.54	53.4	44.7	98.1	1.15	0.70	0.80	0.73
16	VH288868	2	266	266	0.31	0.51	56.8	41.4	98.1	0.70	0.60	1.03	0.73
17	VH295738	2	2,266	2,266	0.44	0.65	65.4	33.3	98.8	0.53	0.62	0.78	0.81
18	VH295739	2	2,260	2,260	0.42	0.63	64.6	34.4	98.9	0.55	0.67	0.78	0.73
19	VH295797	2	2,309	2,309	0.49	0.71	70.3	27.1	97.4	0.57	0.82	0.66	0.78
20	VH295798	2	2,284	2,284	0.48	0.69	66.6	31.9	98.5	0.74	0.77	0.83	0.77
AVERAGE			2,212	2,212	0.43	0.62	63.8	34.5	98.3	0.78	0.70	0.84	0.77

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.24 Agreement Statistics between AI and Human Scoring of Short-Answer Items for ELA, Grade Six

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH288262	2	6,232	6,232	0.53	0.64	74.3	25.6	99.9	0.55	0.59	0.52	0.61
2	VH288267	2	2,442	2,442	0.53	0.59	74.8	25.1	99.9	0.58	0.49	0.59	0.61
3	VH296310	2	4,110	4,110	0.46	0.65	66.2	33.3	99.5	1.02	0.72	1.05	0.70
4	VH296445	2	2,341	2,341	0.40	0.58	65.0	33.4	98.4	0.65	0.70	0.49	0.66
5	VH296446	2	1,014	1,014	0.39	0.50	67.7	31.4	99.0	0.55	0.61	0.40	0.56
6	VH296447	2	3,037	3,037	0.50	0.60	72.4	27.1	99.5	0.76	0.60	0.64	0.59
7	VH296451	2	582	582	0.55	0.61	78.7	20.6	99.3	0.39	0.53	0.37	0.56
8	VH296454	2	3,487	3,487	0.43	0.54	67.7	31.5	99.2	0.62	0.60	0.49	0.62
9	VH296504	2	1,471	1,471	0.37	0.50	63.2	34.8	98.0	0.67	0.69	0.63	0.62
10	VH296506	2	3,719	3,719	0.43	0.63	63.3	34.1	97.4	0.85	0.79	0.62	0.72
11	VH296523	2	1,790	1,790	0.40	0.54	65.7	33.3	99.0	0.63	0.67	0.58	0.60
12	VH296628	2	1,542	1,542	0.66	0.79	79.4	20.6	100.0	0.74	0.75	0.65	0.65
13	VH297407	2	6,741	6,741	0.56	0.68	76.6	23.0	99.6	0.54	0.67	0.39	0.57
14	VH295314	2	3,162	3,162	0.42	0.57	73.3	24.4	97.7	0.40	0.62	0.36	0.62
15	VH295315	2	3,126	3,126	0.45	0.64	72.9	26.3	99.2	0.50	0.67	0.34	0.59
16	VH295437	2	3,146	3,146	0.54	0.74	74.9	24.5	99.4	0.48	0.72	0.55	0.72
17	VH295438	2	3,184	3,184	0.51	0.70	80.3	18.5	98.8	0.24	0.50	0.41	0.70
18	VH295555	2	3,182	3,182	0.57	0.75	73.3	25.7	99.0	0.73	0.78	0.69	0.75
19	VH295580	2	3,118	3,118	0.34	0.52	63.9	31.5	95.4	0.66	0.77	0.33	0.58
20	VH295581	2	3,192	3,192	0.57	0.75	84.6	14.4	98.9	0.28	0.61	0.32	0.62
21	VH295677	2	3,136	3,136	0.48	0.64	71.2	28.1	99.3	0.59	0.66	0.47	0.63
22	VH295678	2	3,176	3,176	0.38	0.53	74.6	23.9	98.4	0.28	0.53	0.35	0.60
23	VH295690	2	3,158	3,158	0.41	0.56	67.7	30.4	98.1	0.58	0.67	0.42	0.63
24	VH295691	2	3,133	3,133	0.54	0.70	73.7	25.5	99.2	0.53	0.67	0.60	0.71
25	VH295751	2	3,162	3,162	0.38	0.59	59.3	34.8	94.1	0.97	0.85	0.65	0.77
26	VH295752	2	3,100	3,100	0.46	0.65	68.4	29.3	97.7	0.68	0.76	0.47	0.69
27	VH295821	2	3,186	3,186	0.55	0.74	72.0	27.0	99.0	0.73	0.79	0.64	0.74
28	VH295822	2	3,207	3,207	0.57	0.76	90.2	9.0	99.3	0.14	0.46	0.21	0.52
29	VH295871	2	3,195	3,195	0.64	0.80	85.7	13.2	98.9	0.31	0.65	0.38	0.68
30	VH295872	2	3,138	3,138	0.46	0.65	64.2	33.5	97.7	0.94	0.81	0.70	0.71
31	VH295934	2	3,120	3,120	0.45	0.66	63.3	34.6	98.0	1.06	0.82	0.86	0.74
32	VH295935	2	3,130	3,130	0.35	0.55	60.2	36.2	96.4	0.79	0.76	0.43	0.66
33	VH295982	2	3,194	3,194	0.38	0.60	59.9	35.7	95.6	0.92	0.83	0.56	0.71
34	VH295983	2	3,165	3,165	0.53	0.74	68.8	30.6	99.4	1.03	0.80	0.90	0.79
35	VH296010	2	3,163	3,163	0.49	0.65	71.3	27.8	99.0	0.55	0.65	0.54	0.69
36	VH296011	2	3,124	3,124	0.48	0.61	71.9	27.7	99.6	0.45	0.52	0.51	0.69
37	VH296037	2	3,094	3,094	0.57	0.75	76.0	22.6	98.6	0.60	0.76	0.51	0.73
38	VH296039	2	3,135	3,135	0.45	0.61	70.9	27.5	98.3	0.53	0.67	0.42	0.64
AVERAGE			3,088	3,088	0.48	0.64	71.2	27.3	98.5	0.62	0.68	0.53	0.66

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.25 Agreement Statistics between AI and Human Scoring of Short-Answer Items for ELA, Grade Seven

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH296211	2	2,328	2,328	0.47	0.64	67.6	31.8	99.4	0.84	0.72	0.73	0.65
2	VH297495	2	1,053	1,053	0.46	0.61	70.5	29.1	99.5	0.57	0.62	0.44	0.62
3	VH297599	2	2,522	2,522	0.35	0.45	63.5	34.9	98.4	0.73	0.63	0.64	0.59
4	VH297601	2	3,648	3,648	0.44	0.55	70.9	28.7	99.6	0.84	0.57	0.76	0.59
5	VH297700	2	3,734	3,734	0.49	0.60	71.4	28.5	99.9	0.76	0.57	0.61	0.61
6	VH297722	2	4,377	4,377	0.48	0.59	70.3	29.1	99.4	0.63	0.62	0.57	0.63
7	VH297723	2	524	524	0.57	0.63	77.1	22.7	99.8	0.66	0.54	0.55	0.58
8	VH297730	2	718	718	0.59	0.69	76.7	23.0	99.7	0.64	0.65	0.53	0.58
9	VH297739	2	9,641	9,641	0.48	0.64	68.5	31.0	99.5	0.63	0.70	0.69	0.64
10	VH297772	2	1,196	1,196	0.34	0.51	59.0	38.6	97.7	0.96	0.73	0.82	0.65
11	VH297840	2	7,295	7,295	0.57	0.66	77.1	22.9	100.0	0.52	0.57	0.42	0.58
12	VH297882	2	3,859	3,859	0.37	0.53	64.3	34.0	98.3	0.44	0.63	0.61	0.66
13	VH298382	2	5,848	5,848	0.58	0.72	76.2	23.5	99.7	0.62	0.71	0.48	0.59
14	VH295324	2	2,334	2,334	0.56	0.72	72.2	27.2	99.4	0.81	0.78	0.63	0.66
15	VH295325	2	2,278	2,278	0.55	0.75	72.3	27.0	99.3	0.71	0.76	0.67	0.79
16	VH295338	2	2,351	2,351	0.69	0.84	89.0	10.7	99.7	0.30	0.59	0.29	0.63
17	VH295339	2	2,273	2,273	0.53	0.73	68.9	30.0	98.9	0.86	0.77	0.84	0.82
AVERAGE			3,293	3,293	0.50	0.64	71.5	27.8	99.3	0.68	0.66	0.61	0.64

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.26 Agreement Statistics between AI and Human Scoring of Short-Answer Items for ELA, Grade Eight

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH279615	2	3,129	3,129	0.49	0.65	67.7	30.5	98.2	0.90	0.72	0.73	0.72
2	VH279674	2	2,126	2,126	0.30	0.46	58.5	39.3	97.8	0.97	0.69	1.08	0.63
3	VH279677	2	2,193	2,193	0.43	0.63	63.7	35.4	99.1	0.92	0.72	0.94	0.72
4	VH280208	2	4,750	4,750	0.50	0.64	71.2	28.4	99.7	0.95	0.64	0.89	0.64
5	VH280233	2	6,689	6,689	0.51	0.69	68.4	30.7	99.1	0.90	0.73	0.73	0.73
6	VH280240	2	2,411	2,411	0.55	0.63	75.0	24.7	99.8	0.70	0.57	0.59	0.59
7	VH280246	2	1,046	1,046	0.44	0.50	70.8	29.2	100.0	0.79	0.46	0.62	0.58
8	VH280252	2	674	674	0.40	0.60	62.6	36.1	98.7	0.81	0.72	0.69	0.71
9	VH280255	2	6,375	6,375	0.50	0.63	70.7	28.9	99.6	0.77	0.67	0.77	0.61
10	VH280276	2	3,162	3,162	0.42	0.58	66.9	32.6	99.6	0.82	0.66	0.89	0.62
11	VH280500	2	1,173	1,173	0.41	0.61	62.4	36.7	99.1	0.90	0.73	0.93	0.71
12	VH280507	2	765	765	0.37	0.47	65.9	32.4	98.3	0.54	0.58	0.46	0.63
13	VH280871	2	2,767	2,767	0.25	0.36	50.2	41.7	91.9	0.90	0.70	0.49	0.70
14	VH281238	2	6,551	6,551	0.44	0.58	67.2	31.6	98.7	0.89	0.67	0.66	0.60
15	VH281341	2	49	49	0.55	0.64	75.5	22.4	98.0	0.59	0.67	0.37	0.60
16	VH281717	2	252	252	0.62	0.74	78.2	21.8	100.0	1.04	0.65	1.02	0.64
17	VH282298	2	3,173	3,173	0.60	0.73	77.6	22.1	99.6	0.56	0.69	0.49	0.62
18	VH295384	2	2,120	2,120	0.45	0.61	72.8	25.6	98.4	0.48	0.65	0.37	0.62
19	VH295843	2	2,071	2,071	0.50	0.71	69.1	29.4	98.5	0.73	0.80	0.62	0.74
20	VH295844	2	2,028	2,028	0.40	0.57	68.6	28.1	96.7	0.37	0.62	0.58	0.74
21	VH296023	2	2,061	2,061	0.49	0.69	67.4	31.1	98.4	0.77	0.77	0.72	0.77
22	VH296028	2	2,066	2,066	0.51	0.70	67.8	29.0	96.9	0.94	0.85	0.70	0.77
AVERAGE			2,620	2,620	0.46	0.61	68.1	30.3	98.5	0.78	0.68	0.70	0.67

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.27 Agreement Statistics between AI and Human Scoring of Short-Answer Items for ELA, Grade Eleven

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH279671	2	862	862	0.46	0.63	64.8	32.8	97.7	0.86	0.75	0.76	0.76
2	VH280370	2	459	459	0.55	0.72	71.9	27.9	99.8	0.70	0.68	0.66	0.76
3	VH289615	2	3,619	3,619	0.55	0.73	70.7	29.0	99.8	0.89	0.70	1.02	0.78
4	VH289733	2	297	297	0.39	0.58	61.6	37.0	98.7	1.11	0.70	1.20	0.73
5	VH290304	2	367	367	0.43	0.57	66.8	32.7	99.5	1.03	0.55	1.10	0.71
6	VH290316	2	2,089	2,089	0.30	0.44	58.1	39.4	97.5	0.74	0.57	1.02	0.70
7	VH290420	2	3,789	3,789	0.49	0.66	67.6	31.5	99.1	0.93	0.70	0.84	0.72
8	VH290481	2	676	676	0.52	0.68	70.7	28.4	99.1	0.70	0.69	0.68	0.72
9	VH290483	2	1,378	1,378	0.47	0.68	65.5	33.2	98.7	0.86	0.75	0.87	0.79
10	VH290486	2	573	573	0.47	0.65	67.7	31.9	99.7	0.69	0.64	0.55	0.71
11	VH290487	2	425	425	0.40	0.60	61.4	37.9	99.3	1.10	0.77	1.11	0.66
12	VH290488	2	2,671	2,671	0.48	0.63	67.8	30.9	98.7	0.73	0.63	0.88	0.75
13	VH290560	2	4,524	4,524	0.48	0.67	66.4	32.9	99.3	0.98	0.71	0.98	0.75
14	VH290844	2	635	635	0.54	0.68	70.9	27.9	98.7	1.02	0.71	0.95	0.71
15	VH290848	2	740	740	0.38	0.55	60.9	36.8	97.7	1.10	0.72	1.21	0.70
16	VH290918	2	174	174	0.66	0.81	77.6	22.4	100.0	0.93	0.75	0.98	0.80
17	VH290919	2	4,032	4,032	0.59	0.72	73.5	25.9	99.4	0.93	0.68	0.85	0.76
18	VH290920	2	6,007	6,007	0.61	0.76	75.1	24.6	99.7	0.79	0.71	0.79	0.76
19	VH290940	2	1,875	1,875	0.32	0.50	61.9	37.8	99.7	0.98	0.54	1.20	0.66
20	VH290943	2	328	328	0.48	0.66	66.8	32.0	98.8	1.07	0.73	1.17	0.75
21	VH290944	2	906	906	0.38	0.58	60.8	38.2	99.0	1.07	0.69	1.02	0.73
22	VH290946	2	1,174	1,174	0.54	0.72	70.4	28.8	99.2	0.77	0.74	0.84	0.77
23	VH290947	2	985	985	0.24	0.39	56.0	42.2	98.3	0.91	0.52	1.07	0.71
24	VH290950	2	393	393	0.32	0.51	59.0	39.9	99.0	0.92	0.62	1.04	0.71
25	VH291542	2	84	84	0.49	0.67	70.2	29.8	100.0	0.66	0.72	0.57	0.63
26	VH292277	2	87	87	0.50	0.67	67.8	29.9	97.7	0.87	0.79	0.62	0.70
27	VH293089	2	67	67	0.53	0.67	70.1	28.4	98.5	0.90	0.72	0.79	0.73
28	VH294012	2	79	79	0.53	0.68	68.4	29.1	97.5	0.96	0.84	0.75	0.71
29	VH295242	2	1,736	1,736	0.51	0.72	67.5	31.4	98.9	0.93	0.80	1.06	0.79
30	VH295243	2	1,725	1,725	0.54	0.74	69.7	29.8	99.5	1.05	0.80	1.02	0.78
31	VH295249	2	1,793	1,793	0.48	0.68	65.4	33.3	98.7	1.04	0.79	1.10	0.75
32	VH295250	2	1,777	1,777	0.41	0.63	61.4	36.5	97.9	0.83	0.79	0.88	0.77
33	VH295284	2	1,734	1,734	0.50	0.71	68.2	30.3	98.5	1.40	0.77	1.18	0.77
34	VH295285	2	1,774	1,774	0.36	0.59	57.2	39.2	96.4	0.63	0.72	1.00	0.81
35	VH295363	2	1,749	1,749	0.59	0.75	75.2	22.9	98.1	0.70	0.82	0.64	0.74
36	VH295377	2	1,754	1,754	0.58	0.78	72.3	27.4	99.7	0.94	0.80	0.99	0.80
37	VH295378	2	1,758	1,758	0.60	0.76	74.1	25.7	99.8	0.86	0.77	0.87	0.73
38	VH295390	2	1,668	1,668	0.56	0.77	70.4	29.2	99.6	0.93	0.82	1.06	0.82
39	VH295395	2	1,668	1,668	0.41	0.64	61.2	36.6	97.7	0.65	0.71	0.95	0.81
40	VH295470	2	1,765	1,765	0.56	0.75	71.2	28.2	99.4	1.22	0.80	1.15	0.77

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
41	VH295471	2	1,717	1,717	0.58	0.76	71.8	27.8	99.7	1.10	0.79	1.01	0.78
42	VH295498	2	1,776	1,776	0.41	0.59	72.5	24.8	97.3	0.39	0.66	0.41	0.67
43	VH295499	2	1,724	1,724	0.46	0.69	63.9	34.9	98.8	0.90	0.79	1.12	0.78
44	VH295537	2	1,726	1,726	0.43	0.64	62.5	36.2	98.7	0.80	0.74	0.98	0.76
45	VH295538	2	1,713	1,713	0.55	0.77	70.2	28.9	99.1	1.20	0.87	1.04	0.81
46	VH295547	2	1,744	1,744	0.26	0.46	48.7	44.7	93.4	0.68	0.69	1.16	0.78
47	VH295548	2	1,753	1,753	0.54	0.72	77.2	20.1	97.4	0.48	0.78	0.47	0.70
48	VH295615	2	1,761	1,761	0.58	0.77	72.2	27.2	99.4	0.83	0.82	0.89	0.79
49	VH295620	2	1,754	1,754	0.47	0.67	64.5	32.3	96.8	0.96	0.82	0.97	0.82
50	VH295649	2	1,754	1,754	0.48	0.70	65.4	32.5	97.9	0.95	0.82	1.06	0.82
51	VH295650	2	1,749	1,749	0.58	0.77	72.7	26.6	99.3	1.28	0.81	1.15	0.77
52	VH295697	2	1,771	1,771	0.57	0.78	71.4	28.3	99.7	1.05	0.84	1.05	0.81
53	VH295698	2	1,737	1,737	0.57	0.70	78.8	18.9	97.8	0.38	0.62	0.51	0.73
54	VH295724	2	1,734	1,734	0.38	0.61	58.1	39.2	97.3	0.75	0.75	1.05	0.80
55	VH295744	2	1,765	1,765	0.60	0.78	73.3	25.9	99.2	1.04	0.81	1.05	0.80
56	VH295745	2	1,740	1,740	0.47	0.68	64.8	33.0	97.8	0.79	0.79	0.98	0.80
57	VH295800	2	1,778	1,778	0.34	0.57	56.9	40.9	97.8	0.68	0.70	0.96	0.77
58	VH295802	2	1,834	1,834	0.51	0.71	67.0	31.8	98.8	0.89	0.77	1.09	0.79
59	VH295814	2	1,751	1,751	0.64	0.79	76.4	23.4	99.8	0.84	0.76	0.90	0.74
60	VH295819	2	1,719	1,719	0.40	0.64	59.3	38.4	97.7	0.88	0.77	1.11	0.81
61	VH295850	2	1,741	1,741	0.37	0.58	58.6	38.6	97.2	0.85	0.76	1.01	0.77
62	VH295851	2	1,733	1,733	0.50	0.70	67.9	32.0	99.9	1.09	0.73	1.07	0.75
63	VH295887	2	1,768	1,768	0.58	0.75	72.5	27.1	99.5	0.89	0.74	0.98	0.79
64	VH295888	2	1,759	1,759	0.47	0.68	66.5	31.7	98.2	0.70	0.76	0.77	0.78
65	VH295930	2	1,701	1,701	0.51	0.71	68.0	30.5	98.5	0.82	0.79	0.87	0.79
66	VH295931	2	1,691	1,691	0.43	0.64	62.6	33.9	96.5	0.85	0.85	0.85	0.79
67	VH295988	2	1,776	1,776	0.51	0.70	67.7	31.3	99.0	0.93	0.76	1.01	0.78
68	VH295989	2	1,741	1,741	0.48	0.69	65.9	32.9	98.9	0.97	0.80	0.88	0.75
69	VH296002	2	1,743	1,743	0.51	0.70	67.1	30.1	97.1	1.03	0.86	1.15	0.78
70	VH296003	2	1,723	1,723	0.56	0.76	71.3	28.4	99.7	1.17	0.81	1.20	0.78
71	VH296052	2	1,732	1,732	0.50	0.73	66.7	32.3	99.0	0.83	0.81	0.98	0.82
72	VH296056	2	1,729	1,729	0.55	0.75	69.6	28.7	98.3	1.12	0.87	0.97	0.82
73	VH296109	2	1,718	1,718	0.55	0.75	70.4	29.2	99.6	1.05	0.78	1.15	0.79
74	VH296110	2	1,697	1,697	0.49	0.70	66.6	32.4	99.0	0.73	0.75	0.94	0.79
AVERAGE			1,614	1,614	0.49	0.68	67.2	31.4	98.6	0.90	0.74	0.95	0.76

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.28 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Three

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299060	1	3,078	3,078	0.82	0.82	91.5	8.5	100.0	0.59	0.49	0.60	0.49
2	VH299294	2	3,118	3,118	0.71	0.86	82.1	17.5	99.6	1.25	0.81	1.29	0.81
3	VH299295	1	3,111	3,111	0.93	0.93	96.9	3.1	100.0	0.34	0.47	0.35	0.48
4	VH299297	2	3,113	3,113	0.82	0.91	89.8	9.5	99.3	0.67	0.86	0.63	0.82
5	VH299352	2	3,251	3,251	0.56	0.75	74.5	22.4	96.9	0.63	0.82	0.67	0.84
6	VH299378	2	3,101	3,101	0.82	0.94	92.0	7.7	99.8	0.48	0.79	0.51	0.83
7	VH299380	1	3,085	3,085	0.82	0.82	91.3	8.7	100.0	0.59	0.49	0.57	0.50
8	VH299381	2	2,947	2,947	0.66	0.81	84.3	15.0	99.3	0.45	0.70	0.40	0.69
9	VH299416	2	3,102	3,102	0.83	0.92	94.6	5.1	99.7	0.28	0.63	0.28	0.64
10	VH299417	2	2,992	2,992	0.79	0.89	87.1	12.9	99.9	0.71	0.78	0.65	0.79
11	VH299467	2	3,120	3,120	0.84	0.92	98.2	1.6	99.8	0.10	0.41	0.09	0.39
12	VH299468	2	3,109	3,109	0.80	0.89	88.0	11.8	99.8	0.65	0.76	0.66	0.78
13	VH299544	1	3,115	3,115	0.86	0.86	93.3	6.7	100.0	0.42	0.49	0.40	0.49
14	VH299560	2	3,254	3,254	0.62	0.80	80.8	16.9	97.7	0.58	0.82	0.50	0.80
15	VH299632	2	3,217	3,217	0.84	0.90	91.0	8.8	99.8	0.52	0.64	0.54	0.70
16	VH299781	2	3,073	3,073	0.75	0.81	87.5	11.3	98.8	0.45	0.66	0.42	0.66
17	VH300000	1	3,057	3,057	0.78	0.78	89.2	10.8	100.0	0.55	0.50	0.53	0.50
18	VH300060	2	2,974	2,974	0.61	0.80	74.1	25.6	99.7	1.12	0.78	1.29	0.82
19	VH300062	1	3,091	3,091	0.93	0.93	96.9	3.1	100.0	0.36	0.48	0.37	0.48
20	VH300063	2	3,081	3,081	0.86	0.94	92.7	6.6	99.3	0.64	0.87	0.62	0.86
21	VH300264	1	3,144	3,144	0.89	0.89	94.7	5.3	100.0	0.39	0.49	0.39	0.49
22	VH300360	2	3,108	3,108	0.67	0.86	82.5	17.1	99.6	0.51	0.74	0.63	0.88
23	VH300364	1	3,137	3,137	0.82	0.82	91.4	8.6	100.0	0.58	0.49	0.57	0.50
24	VH300365	2	3,062	3,062	0.70	0.82	84.3	15.1	99.4	0.51	0.70	0.44	0.70
AVERAGE			3,102	3,102	0.78	0.86	88.7	10.8	99.5	0.56	0.65	0.56	0.66

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.29 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Four

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299182	2	2,206	2,206	0.61	0.84	87.4	12.2	99.5	0.31	0.67	0.28	0.63
2	VH299400	1	2,267	2,267	0.78	0.78	90.4	9.6	100.0	0.30	0.46	0.34	0.47
3	VH299403	2	2,164	2,164	0.83	0.92	92.0	7.2	99.2	0.53	0.83	0.49	0.80
4	VH299506	2	2,454	2,454	0.83	0.92	91.6	7.7	99.4	0.52	0.78	0.53	0.80
5	VH299508	1	2,471	2,471	0.92	0.92	96.1	3.9	100.0	0.43	0.49	0.43	0.50
6	VH299775	2	2,444	2,444	0.72	0.87	81.7	17.8	99.5	0.93	0.86	0.95	0.91
7	VH299823	2	2,469	2,469	0.66	0.81	91.1	8.6	99.7	0.18	0.49	0.21	0.53
8	VH299934	2	2,412	2,412	0.71	0.87	89.8	10.0	99.8	0.34	0.67	0.30	0.64
9	VH300006	1	2,202	2,202	0.72	0.72	88.5	11.5	100.0	0.26	0.44	0.31	0.46
10	VH300008	2	2,186	2,186	0.68	0.78	85.3	9.8	95.1	0.57	0.86	0.44	0.77
11	VH300047	2	2,340	2,340	0.63	0.82	89.7	9.0	98.7	0.26	0.64	0.26	0.63
12	VH300185	2	2,432	2,432	0.78	0.90	86.4	13.2	99.6	0.85	0.88	0.81	0.88
13	VH300219	2	2,475	2,475	0.80	0.91	90.4	9.1	99.5	0.51	0.78	0.51	0.81
14	VH300414	1	2,242	2,242	0.49	0.61	74.2	13.3	87.5	0.71	0.89	0.56	0.89
AVERAGE			2,340	2,340	0.72	0.83	88.2	10.2	98.4	0.48	0.70	0.46	0.69

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.30 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Five

Prompt	Item ID	Score Points	Rater1 N	Rater2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent adjacent	Percent Exact + Adjacent	Rater1		Rater2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299078	2	2,748	2,748	0.54	0.72	79.9	17.0	96.9	0.46	0.75	0.36	0.69
2	VH299080	2	2,966	2,966	0.48	0.70	83.2	15.8	99.1	0.24	0.53	0.28	0.62
3	VH299081	3	2,951	2,951	0.51	0.78	73.9	20.1	94.0	0.73	1.04	0.59	1.05
4	VH299409	2	2,964	2,964	0.64	0.81	77.3	22.4	99.7	0.70	0.78	0.73	0.78
5	VH299410	1	2,993	2,993	0.41	0.41	94.7	5.3	100.0	0.04	0.19	0.06	0.23
6	VH299433	1	3,014	3,014	0.64	0.64	90.9	9.1	100.0	0.17	0.37	0.13	0.34
7	VH299434	2	3,004	3,004	0.64	0.81	76.1	23.4	99.5	0.92	0.82	0.92	0.83
8	VH299438	2	2,964	2,964	0.72	0.83	88.5	11.2	99.7	0.35	0.61	0.31	0.60
9	VH299595	2	2,818	2,818	0.69	0.84	84.1	15.2	99.3	0.53	0.76	0.47	0.74
10	VH299601	3	3,016	3,016	0.47	0.76	70.3	23.1	93.4	0.79	1.06	0.63	1.08
11	VH299680	1	3,021	3,021	0.77	0.77	91.7	8.3	100.0	0.25	0.43	0.22	0.41
12	VH299683	2	3,020	3,020	0.64	0.82	76.4	23.2	99.6	0.83	0.82	0.89	0.83
13	VH299685	2	2,995	2,995	0.73	0.83	89.1	10.4	99.6	0.31	0.56	0.33	0.62
14	VH299855	2	2,667	2,667	0.62	0.76	94.8	5.0	99.8	0.10	0.35	0.08	0.34
15	VH299857	2	2,978	2,978	0.74	0.88	85.6	13.7	99.4	0.61	0.83	0.62	0.82
16	VH299860	1	2,822	2,822	0.88	0.88	97.1	2.9	100.0	0.14	0.35	0.13	0.34
17	VH299884	2	2,752	2,752	0.66	0.81	82.0	16.6	98.6	0.54	0.75	0.50	0.76
18	VH299985	2	2,963	2,963	0.64	0.82	76.3	23.2	99.5	0.89	0.82	0.96	0.83
19	VH299993	2	2,918	2,918	0.72	0.87	84.8	14.6	99.4	0.58	0.82	0.58	0.80
20	VH299994	2	2,889	2,889	0.77	0.91	90.2	9.6	99.8	0.44	0.77	0.44	0.78
21	VH300075	2	2,703	2,703	0.58	0.74	80.3	15.8	96.1	0.51	0.80	0.46	0.77
22	VH300076	2	2,972	2,972	0.54	0.73	83.7	15.4	99.1	0.28	0.57	0.29	0.62
23	VH300077	3	2,841	2,841	0.53	0.83	74.0	22.0	95.9	0.76	1.04	0.67	1.11
AVERAGE			2,912	2,912	0.63	0.78	83.7	14.9	98.6	0.48	0.69	0.46	0.69

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.31 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Six

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299453	2	3,743	3,743	0.46	0.63	79.4	17.5	96.9	0.22	0.57	0.40	0.68
2	VH299518	2	3,756	3,756	0.52	0.70	79.8	18.2	98.0	0.28	0.60	0.44	0.70
3	VH299651	2	3,759	3,759	0.57	0.75	81.4	16.7	98.1	0.33	0.66	0.45	0.72
4	VH300109	2	3,846	3,846	0.47	0.63	77.0	18.7	95.7	0.28	0.64	0.48	0.72
5	VH300153	2	3,844	3,844	0.39	0.58	78.5	17.8	96.3	0.18	0.53	0.39	0.67
6	VH300195	2	3,760	3,760	0.34	0.50	76.2	19.5	95.7	0.18	0.51	0.39	0.66
AVERAGE			3,785	3,785	0.46	0.63	78.7	18.1	96.8	0.24	0.58	0.43	0.69

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.32 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Seven

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH292675	2	7,636	7,636	0.52	0.59	93.1	5.9	99.0	0.06	0.26	0.13	0.41
2	VH294180	2	1,218	1,218	0.70	0.86	82.1	16.3	98.4	0.76	0.88	0.75	0.90
3	VH294202	2	9,753	9,753	0.59	0.79	76.2	22.3	98.5	0.63	0.81	0.67	0.84
4	VH294213	3	1,351	1,351	0.45	0.75	60.4	33.9	94.3	1.02	0.99	1.24	1.14
5	VH294224	2	15,034	15,034	0.59	0.71	79.8	18.6	98.4	0.45	0.66	0.41	0.66
6	VH294235	2	286	286	0.39	0.64	57.0	41.6	98.6	0.70	0.63	1.03	0.90
7	VH294236	2	671	671	0.52	0.71	70.6	25.8	96.4	0.72	0.85	0.72	0.82
8	VH294786	3	1,822	1,822	0.30	0.65	47.6	44.0	91.6	1.56	1.01	1.62	1.14
9	VH294788	3	1,533	1,533	0.56	0.81	71.6	25.4	97.1	0.75	0.87	0.90	1.09
10	VH299212	1	2,786	2,786	0.29	0.29	81.3	18.7	100.0	0.06	0.24	0.23	0.42
11	VH299923	1	2,755	2,755	0.21	0.21	80.5	19.5	100.0	0.04	0.20	0.22	0.42
AVERAGE			4,077	4,077	0.46	0.64	72.7	24.7	97.5	0.61	0.67	0.72	0.79

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.33 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Eight

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH275810	1	7,287	7,287	0.82	0.82	91.1	8.9	100.0	0.40	0.49	0.41	0.49
2	VH275814	1	298	298	0.85	0.85	92.6	7.4	100.0	0.40	0.49	0.40	0.49
3	VH276527	2	1,400	1,400	0.64	0.83	81.4	17.1	98.4	0.60	0.85	0.57	0.82
4	VH276633	1	3,553	3,553	0.70	0.70	88.2	11.8	100.0	0.29	0.45	0.25	0.44
5	VH277006	2	2,327	2,327	0.72	0.89	82.9	16.9	99.8	0.78	0.88	0.83	0.90
6	VH299314	2	3,702	3,702	0.73	0.88	89.1	10.6	99.6	0.37	0.70	0.39	0.71
7	VH299493	2	3,673	3,673	0.50	0.77	65.8	34.0	99.8	1.15	0.79	0.84	0.90
8	VH299711	2	3,693	3,693	0.44	0.73	61.6	38.0	99.6	1.18	0.78	0.81	0.87
9	VH299806	2	3,724	3,724	0.74	0.89	89.6	10.2	99.7	0.35	0.68	0.40	0.72
10	VH300085	2	3,669	3,669	0.60	0.83	75.2	24.1	99.3	0.93	0.91	0.80	0.87
11	VH300245	2	3,645	3,645	0.48	0.76	64.5	35.3	99.8	1.17	0.78	0.86	0.88
AVERAGE			3,361	3,361	0.66	0.81	80.2	19.5	99.6	0.69	0.71	0.60	0.74

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.34 Agreement Statistics between AI and Human Scoring of Short-Answer Items for Mathematics, Grade Eleven

Prompt	Item ID	Score Points	Rater1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater1		Rater 2	
										Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH299072	3	264	264	0.27	0.66	45.1	48.5	93.6	1.25	0.89	1.43	1.19
2	VH299079	2	594	594	0.67	0.83	82.8	13.8	96.6	0.65	0.91	0.64	0.86
3	VH299971	2	352	352	0.50	0.63	76.1	19.0	95.2	0.30	0.53	0.55	0.84
4	VH301325	2	283	283	0.54	0.71	72.1	24.4	96.5	0.59	0.77	0.76	0.85
5	VH301769	1	480	480	0.56	0.56	80.0	20.0	100.0	0.27	0.45	0.39	0.49
6	VH299022	1	3,670	3,670	0.77	0.77	93.8	6.2	100.0	0.15	0.35	0.18	0.38
7	VH299026	1	3,625	3,625	0.98	0.98	99.3	0.7	100.0	0.31	0.46	0.31	0.46
8	VH299387	3	3,480	3,480	0.49	0.77	83.3	14.3	97.6	0.32	0.75	0.33	0.76
9	VH299552	1	3,443	3,443	0.64	0.64	85.7	14.3	100.0	0.28	0.45	0.27	0.45
10	VH299555	2	3,386	3,386	0.61	0.79	89.0	9.8	98.8	0.26	0.61	0.22	0.57
11	VH299659	1	3,327	3,327	0.46	0.46	91.6	8.4	100.0	0.06	0.23	0.11	0.31
12	VH299834	1	3,407	3,407	0.68	0.68	87.3	12.7	100.0	0.28	0.45	0.27	0.45
13	VH299838	2	3,398	3,398	0.46	0.67	85.7	12.3	98.0	0.27	0.60	0.17	0.50
14	VH299905	1	3,409	3,409	0.60	0.60	91.9	8.1	100.0	0.11	0.32	0.11	0.32
15	VH299912	3	3,492	3,492	0.49	0.82	86.4	11.4	97.9	0.29	0.78	0.27	0.72
16	VH299956	1	3,430	3,430	0.48	0.48	90.2	9.8	100.0	0.09	0.29	0.12	0.33
17	VH299965	3	3,479	3,479	0.53	0.83	87.2	10.8	98.0	0.30	0.80	0.30	0.78
18	VH299977	2	3,397	3,397	0.48	0.56	68.0	28.2	96.1	0.63	0.61	0.89	0.73
19	VH299980	2	3,370	3,370	0.42	0.55	64.7	31.3	96.0	0.53	0.66	0.77	0.75
20	VH300129	1	3,251	3,251	0.54	0.54	92.1	7.9	100.0	0.07	0.26	0.11	0.32
21	VH300133	3	3,412	3,412	0.46	0.74	85.1	11.8	96.9	0.26	0.71	0.31	0.77
22	VH300174	1	3,506	3,506	0.63	0.63	85.6	14.4	100.0	0.29	0.46	0.23	0.42
23	VH300222	2	3,391	3,391	0.56	0.77	73.1	25.9	99.0	0.65	0.77	0.75	0.84
24	VH300224	2	3,417	3,417	0.44	0.57	65.4	32.2	97.6	0.72	0.63	0.91	0.74
25	VH300226	2	3,376	3,376	0.32	0.48	58.6	36.5	95.1	0.44	0.62	0.79	0.75
26	VH300237	2	3,494	3,494	0.62	0.74	76.3	23.2	99.4	1.08	0.65	1.13	0.73
27	VH300238	1	3,424	3,424	0.51	0.51	88.7	11.3	100.0	0.10	0.30	0.16	0.37
28	VH300239	2	3,307	3,307	0.57	0.67	86.1	13.5	99.6	0.25	0.50	0.19	0.46
AVERAGE			2,888	2,888	0.55	0.67	81.1	17.2	98.3	0.39	0.56	0.45	0.61

Notes:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Table 8.G.35 Interrater Reliability and Descriptive Statistics for the Ratings between AI and Human Scoring Items for ELA, Grade Three WER

Prompt	Item ID	Score Points	Dimension Type	Rater1 N	Rater2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295222	2	COV	2,551	2,551	0.20	0.37	48.6	46.1	94.8	1.02	0.75	0.99	0.71
2	VH295344	2	COV	2,836	2,836	0.27	0.49	52.8	44.1	96.9	1.21	0.69	0.96	0.76
3	VH295659	2	COV	2,764	2,764	0.23	0.46	50.5	47.0	97.5	1.21	0.65	0.92	0.73
4	VH295684	2	COV	2,027	2,027	0.31	0.50	56.6	40.8	97.4	1.08	0.70	0.92	0.71
5	VH295880	2	COV	2,016	2,016	0.26	0.50	50.2	46.2	96.4	1.27	0.77	0.95	0.72
6	VH295912	2	COV	2,232	2,232	0.27	0.50	52.3	44.3	96.6	1.26	0.74	0.99	0.73
7	VH295684	4	DVE	2,025	2,025	0.24	0.54	45.0	48.0	93.0	1.89	1.04	1.69	0.77
8	VH295880	4	DVE	2,016	2,016	0.25	0.58	45.1	47.0	92.2	1.90	1.11	1.75	0.83
9	VH295222	4	EEL	2,551	2,551	0.19	0.43	46.9	46.0	92.9	1.12	0.81	1.58	0.70
10	VH295344	4	EEL	2,836	2,836	0.36	0.59	59.6	38.0	97.6	1.64	0.79	1.64	0.75
11	VH295659	4	EEL	2,763	2,763	0.39	0.60	63.9	34.6	98.5	1.45	0.72	1.57	0.71
12	VH295912	4	EEL	2,228	2,228	0.24	0.47	51.8	43.8	95.6	1.37	0.73	1.62	0.75
13	VH295222	4	POR	2,551	2,551	0.17	0.41	46.3	46.6	92.8	1.04	0.77	1.54	0.70
14	VH295344	4	POR	2,836	2,836	0.36	0.57	59.7	37.6	97.3	1.61	0.77	1.64	0.76
15	VH295659	4	POR	2,763	2,763	0.33	0.56	58.0	39.6	97.6	1.67	0.79	1.54	0.69
16	VH295684	4	POR	2,025	2,025	0.23	0.55	42.8	48.9	91.7	2.01	1.10	1.73	0.79
17	VH295880	4	POR	2,016	2,016	0.27	0.61	46.4	47.1	93.6	1.92	1.11	1.77	0.83
18	VH295912	4	POR	2,228	2,228	0.27	0.52	53.8	42.0	95.8	1.37	0.76	1.62	0.77
AVERAGE				2,404	2,404	0.27	0.51	51.7	43.8	95.5	1.45	0.82	1.41	0.74

Notes and Legend:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Key to Dimension Types

– organization/purpose (POR)	– evidence/elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Table 8.G.36 Interrater Reliability and Descriptive Statistics for the Ratings between AI and Human Scoring Items for ELA, Grade Six WER

Prompt	Item ID	Score Points	Dimension Type	Rater1 N	Rater2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater1		Rater2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295316	2	COV	2,857	2,857	0.33	0.55	55.7	41.7	97.4	1.11	0.71	1.42	0.75
2	VH295439	2	COV	2,690	2,690	0.38	0.56	59.6	36.7	96.2	1.11	0.75	1.43	0.72
3	VH295557	2	COV	2,638	2,638	0.40	0.57	62.4	32.7	95.1	1.20	0.82	1.43	0.70
4	VH295583	2	COV	2,841	2,841	0.39	0.60	61.2	34.5	95.7	1.16	0.81	1.43	0.74
5	VH295984	2	COV	3,022	3,022	0.46	0.65	68.2	29.1	97.3	1.33	0.77	1.45	0.74
6	VH296040	2	COV	2,947	2,947	0.39	0.60	61.9	34.1	95.9	1.18	0.80	1.39	0.77
7	VH295439	4	DVE	2,690	2,690	0.47	0.78	61.2	36.7	97.9	2.08	1.12	2.15	0.92
8	VH295557	4	DVE	2,638	2,638	0.42	0.77	56.1	40.7	96.7	2.27	1.23	2.30	0.96
9	VH295316	4	EEL	2,857	2,857	0.37	0.67	55.9	41.0	96.9	1.95	0.98	1.90	0.84
10	VH295583	4	EEL	2,841	2,841	0.32	0.64	52.9	44.0	96.9	1.58	0.92	1.89	0.80
11	VH295984	4	EEL	3,022	3,022	0.47	0.71	64.7	34.3	99.0	1.84	0.83	1.88	0.81
12	VH296040	4	EEL	2,947	2,947	0.41	0.68	59.9	38.4	98.3	1.76	0.88	1.83	0.80
13	VH295316	4	POR	2,857	2,857	0.34	0.66	53.9	42.7	96.6	1.95	0.99	1.88	0.84
14	VH295439	4	POR	2,690	2,690	0.45	0.78	59.3	38.7	98.0	2.12	1.14	2.13	0.92
15	VH295557	4	POR	2,638	2,638	0.43	0.78	56.1	40.8	97.0	2.26	1.24	2.29	0.96
16	VH295583	4	POR	2,841	2,841	0.35	0.66	55.0	41.6	96.6	1.79	1.01	1.89	0.81
17	VH295984	4	POR	3,022	3,022	0.43	0.71	61.2	37.7	98.8	2.06	0.90	1.93	0.81
18	VH296040	4	POR	2,947	2,947	0.42	0.68	60.9	37.3	98.2	1.74	0.88	1.82	0.80
AVERAGE				2,833	2,833	0.40	0.67	59.2	37.9	97.1	1.69	0.93	1.80	0.81

Notes and Legend:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Key to Dimension Types

– organization/purpose (POR)	– evidence/elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Table 8.G.37 Interrater Reliability and Descriptive Statistics for the Ratings between AI and Human Scoring Items for ELA, Grade Eleven WER

Prompt	Item ID	Score Points	Dimension Type	Rater1 N	Rater2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent adjacent	Percent Exact + Adjacent	Rater1		Rater2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
1	VH295245	2	COV	1,687	1,687	0.38	0.61	60.2	37.2	97.4	1.17	0.82	1.29	0.73
2	VH295252	2	COV	1,583	1,583	0.37	0.58	59.9	37.0	96.9	1.16	0.79	1.31	0.74
3	VH295286	2	COV	1,702	1,702	0.36	0.59	57.6	38.4	96.1	1.01	0.82	1.26	0.77
4	VH295365	2	COV	1,702	1,702	0.47	0.68	66.6	31.4	98.1	1.23	0.82	1.35	0.73
5	VH295379	2	COV	1,708	1,708	0.41	0.63	63.3	33.5	96.8	1.26	0.83	1.34	0.75
6	VH295391	2	COV	1,616	1,616	0.44	0.66	64.2	33.8	98.1	1.29	0.81	1.25	0.76
7	VH295473	2	COV	1,673	1,673	0.42	0.62	64.5	32.0	96.5	1.30	0.81	1.37	0.74
8	VH295501	2	COV	1,733	1,733	0.41	0.60	61.6	33.6	95.2	1.10	0.84	1.32	0.75
9	VH295533	2	COV	1,662	1,662	0.46	0.65	66.1	30.1	96.2	1.20	0.82	1.34	0.76
10	VH295550	2	COV	1,671	1,671	0.44	0.63	65.8	30.7	96.5	1.30	0.81	1.38	0.73
11	VH295617	2	COV	1,675	1,675	0.42	0.65	61.6	36.5	98.0	1.05	0.81	1.23	0.76
12	VH295652	2	COV	1,715	1,715	0.35	0.60	56.7	39.4	96.2	1.01	0.83	1.34	0.75
13	VH295700	2	COV	1,691	1,691	0.40	0.61	61.3	35.2	96.5	1.13	0.82	1.32	0.75
14	VH295726	2	COV	1,692	1,692	0.38	0.61	58.9	39.0	97.9	1.03	0.76	1.29	0.75
15	VH295747	2	COV	1,672	1,672	0.40	0.62	61.4	35.1	96.5	1.13	0.84	1.30	0.76
16	VH295803	2	COV	1,700	1,700	0.42	0.63	63.1	34.9	98.0	1.20	0.79	1.30	0.72
17	VH295816	2	COV	1,613	1,613	0.38	0.61	59.3	37.0	96.3	1.09	0.86	1.33	0.73
18	VH295852	2	COV	1,720	1,720	0.43	0.65	63.7	33.3	97.0	1.16	0.83	1.32	0.76
19	VH295884	2	COV	2,041	2,041	0.34	0.48	55.5	33.7	89.2	0.91	0.87	1.28	0.77
20	VH295927	2	COV	1,686	1,686	0.38	0.61	60.1	37.3	97.5	1.20	0.81	1.27	0.75
21	VH295990	2	COV	1,708	1,708	0.43	0.65	62.9	34.5	97.5	1.12	0.83	1.29	0.75
22	VH296004	2	COV	1,673	1,673	0.43	0.64	64.4	32.8	97.2	1.30	0.82	1.33	0.74
23	VH296053	2	COV	1,678	1,678	0.46	0.67	66.3	31.9	98.2	1.30	0.79	1.31	0.74
24	VH296111	2	COV	1,659	1,659	0.41	0.62	62.8	34.1	96.9	1.25	0.81	1.30	0.76
25	VH295245	4	EEL	1,687	1,687	0.43	0.76	58.5	39.3	97.8	2.11	1.03	2.22	0.98
26	VH295252	4	EEL	1,583	1,583	0.36	0.70	52.4	42.7	95.1	2.22	1.05	2.10	1.00
27	VH295286	4	EEL	1,700	1,700	0.41	0.75	56.5	40.6	97.1	2.15	1.06	2.12	0.99
28	VH295365	4	EEL	1,702	1,702	0.39	0.75	54.1	42.4	96.4	2.24	1.13	2.12	1.01
29	VH295379	4	EEL	1,708	1,708	0.43	0.74	58.8	38.6	97.4	2.28	0.92	2.21	1.01
30	VH295391	4	EEL	1,616	1,616	0.40	0.74	56.6	42.1	98.6	2.02	0.90	2.09	1.00
31	VH295473	4	EEL	1,673	1,673	0.41	0.73	57.1	40.9	98.0	2.05	0.91	2.20	1.00
32	VH295501	4	EEL	1,733	1,733	0.25	0.62	44.5	48.7	93.2	1.61	0.95	2.12	1.02
33	VH295533	4	EEL	1,662	1,662	0.44	0.75	59.3	38.7	98.0	2.13	0.94	2.16	0.99
34	VH295550	4	EEL	1,671	1,671	0.44	0.77	58.3	39.0	97.3	2.26	1.06	2.20	1.03
35	VH295617	4	EEL	1,675	1,675	0.38	0.74	54.6	42.4	97.1	1.96	1.08	2.00	0.95
36	VH295652	4	EEL	1,715	1,715	0.32	0.68	51.2	45.5	96.7	1.79	0.86	2.15	0.98
37	VH295700	4	EEL	1,691	1,691	0.42	0.74	56.4	41.0	97.4	2.20	1.07	2.21	1.01
38	VH295726	4	EEL	1,692	1,692	0.39	0.74	55.8	42.3	98.1	1.97	1.02	2.03	0.95
39	VH295747	4	EEL	1,672	1,672	0.36	0.74	51.4	45.1	96.5	2.05	1.18	2.01	0.99
40	VH295803	4	EEL	1,700	1,700	0.41	0.75	56.2	40.2	96.5	2.13	1.10	2.08	0.97

Prompt	Item ID	Score Points	Dimension Type	Rater1 N	Rater2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent adjacent	Percent Exact + Adjacent	Rater1		Rater2	
											Item Score Mean	Item Score SD	Item Score Mean	Item Score SD
41	VH295816	4	EEL	1,613	1,613	0.38	0.75	53.9	43.6	97.5	1.94	1.09	2.14	0.98
42	VH295852	4	EEL	1,720	1,720	0.46	0.76	60.7	37.3	98.0	2.12	0.97	2.19	0.99
43	VH295884	4	EEL	2,041	2,041	0.29	0.49	44.5	42.1	86.7	1.67	1.21	2.16	0.99
44	VH295927	4	EEL	1,686	1,686	0.38	0.69	55.9	42.0	97.9	1.97	0.86	2.00	0.96
45	VH295990	4	EEL	1,708	1,708	0.41	0.77	56.7	41.3	98.0	2.06	1.08	2.11	0.99
46	VH296004	4	EEL	1,673	1,673	0.40	0.74	55.9	40.8	96.7	2.14	1.03	2.12	1.00
47	VH296053	4	EEL	1,678	1,678	0.40	0.77	54.5	41.8	96.4	2.19	1.19	2.16	1.01
48	VH296111	4	EEL	1,659	1,659	0.44	0.74	59.3	37.4	96.7	2.20	1.02	2.15	0.95
49	VH295245	4	POR	1,687	1,687	0.30	0.68	50.1	47.2	97.3	1.91	0.88	2.30	0.93
50	VH295252	4	POR	1,583	1,583	0.38	0.72	55.3	42.1	97.3	2.13	0.96	2.23	0.97
51	VH295286	4	POR	1,700	1,700	0.41	0.75	56.5	41.2	97.7	2.22	1.06	2.21	0.96
52	VH295365	4	POR	1,702	1,702	0.39	0.74	55.6	42.4	98.0	2.15	1.02	2.23	0.97
53	VH295379	4	POR	1,708	1,708	0.43	0.74	59.3	38.3	97.6	2.30	0.95	2.30	0.96
54	VH295391	4	POR	1,616	1,616	0.42	0.77	58.0	41.2	99.3	1.99	0.95	2.19	0.98
55	VH295473	4	POR	1,673	1,673	0.44	0.75	60.2	38.6	98.7	2.16	0.90	2.26	0.97
56	VH295501	4	POR	1,733	1,733	0.28	0.65	45.8	48.2	94.0	1.72	1.00	2.21	1.01
57	VH295533	4	POR	1,662	1,662	0.47	0.78	61.5	36.6	98.1	2.19	1.01	2.24	0.98
58	VH295550	4	POR	1,671	1,671	0.48	0.79	61.3	36.5	97.8	2.24	1.08	2.27	1.00
59	VH295617	4	POR	1,675	1,675	0.42	0.76	58.1	40.1	98.3	1.99	1.02	2.13	0.93
60	VH295652	4	POR	1,715	1,715	0.42	0.76	57.0	40.3	97.3	2.24	1.11	2.27	0.96
61	VH295700	4	POR	1,691	1,691	0.41	0.74	56.8	41.0	97.9	2.16	1.04	2.27	0.99
62	VH295726	4	POR	1,692	1,692	0.39	0.75	55.2	43.1	98.3	2.10	1.07	2.18	0.95
63	VH295747	4	POR	1,672	1,672	0.41	0.77	55.4	42.1	97.5	2.09	1.18	2.15	0.98
64	VH295803	4	POR	1,700	1,700	0.42	0.77	57.2	41.0	98.2	2.12	1.07	2.19	0.97
65	VH295816	4	POR	1,613	1,613	0.40	0.77	54.9	42.5	97.5	2.15	1.17	2.24	0.97
66	VH295852	4	POR	1,720	1,720	0.43	0.75	59.6	39.1	98.7	2.08	0.91	2.28	0.96
67	VH295884	4	POR	2,041	2,041	0.31	0.50	45.3	39.9	85.2	1.83	1.35	2.29	0.97
68	VH295927	4	POR	1,686	1,686	0.45	0.74	59.5	38.1	97.6	2.23	1.03	2.20	0.94
69	VH295990	4	POR	1,708	1,708	0.41	0.77	56.6	41.3	97.9	2.14	1.09	2.23	0.97
70	VH296004	4	POR	1,673	1,673	0.46	0.75	60.1	36.7	96.8	2.24	1.01	2.23	0.98
71	VH296053	4	POR	1,678	1,678	0.40	0.78	54.2	43.4	97.6	2.28	1.21	2.22	0.98
72	VH296111	4	POR	1,659	1,659	0.43	0.73	60.0	38.2	98.1	2.06	0.87	2.20	0.95
AVERAGE				1,694	1,694	0.40	0.69	57.8	39.0	96.8	1.78	0.96	1.89	0.90

Notes and Legend:

- Numbers indicate students who received valid ratings from AI machine (Rater 1).
- Rater 2 is the human rater.

Key to Dimension Types

– organization/purpose (POR)	– evidence/elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Appendix 8.H: Analyses in Support of Validity Evidence

Table 8.H.1 Total Testing Time (In Minutes) at Each Ability Level, English Language Arts/Literacy (ELA)

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	112,829	157.51	93.53	2.91	1286.40	23.93	59.75	91.10	138.64	202.98	278.37	464.99
	Q 2	114,269	199.65	98.52	14.32	1348.37	56.19	97.27	131.09	180.76	245.68	323.56	530.37
	Q 3	114,867	215.33	100.95	18.57	1685.40	71.11	112.82	146.16	195.40	260.52	339.60	560.70
	Q 4	114,607	217.49	99.85	25.36	1673.89	78.86	118.23	150.17	196.77	260.19	337.53	568.52
4	Q 1	118,004	171.67	100.65	3.49	1354.22	26.16	67.29	101.69	152.07	218.99	297.29	509.75
	Q 2	118,138	214.03	103.15	13.72	1332.43	65.15	108.19	142.86	193.54	261.64	342.59	566.17
	Q 3	117,347	227.58	104.34	18.71	1615.14	79.05	121.76	156.19	206.69	273.96	357.24	583.69
	Q 4	119,135	231.71	103.88	37.94	1501.91	87.06	128.42	161.45	209.57	276.62	359.12	592.57
5	Q 1	115,742	172.55	97.26	2.99	1677.37	28.42	71.77	105.02	153.47	218.56	296.56	493.65
	Q 2	115,514	213.41	99.98	10.64	2151.49	69.72	111.36	144.45	193.88	259.63	337.61	545.45
	Q 3	115,194	224.67	100.82	34.03	1784.02	81.87	122.68	155.59	204.28	269.89	348.42	566.02
	Q 4	117,167	226.02	98.64	36.42	2290.95	88.33	128.05	159.31	205.95	268.49	346.52	563.57
6	Q 1	114,208	174.20	99.56	3.72	1455.92	27.89	73.03	107.05	154.03	218.58	298.13	511.34
	Q 2	115,151	222.13	106.36	26.52	2142.33	73.18	116.00	149.76	199.77	269.11	352.87	583.53
	Q 3	113,301	237.68	107.89	34.30	1647.50	88.26	130.78	164.65	214.86	284.42	369.97	605.42
	Q 4	116,132	243.82	106.31	38.50	1663.54	98.93	140.08	172.45	220.99	287.86	373.03	614.59
7	Q 1	113,571	154.51	86.39	2.65	1306.99	23.67	64.55	95.84	138.16	194.13	263.02	443.68
	Q 2	113,465	196.67	90.48	19.57	1805.90	64.82	104.86	135.29	178.51	237.39	309.15	501.61
	Q 3	115,203	211.73	89.95	32.35	1604.45	81.56	121.15	151.28	193.80	251.42	321.71	516.32
	Q 4	114,463	226.40	91.44	37.26	1896.68	95.74	137.22	166.37	208.49	264.76	332.68	542.75
8	Q 1	111,815	155.53	86.74	3.10	1382.51	22.62	64.53	96.41	139.52	196.06	265.52	439.64
	Q 2	112,199	199.14	90.37	10.24	2270.74	66.48	107.02	137.45	181.36	240.59	311.28	503.18
	Q 3	113,135	216.23	92.47	33.01	1808.80	82.65	123.85	154.22	197.44	257.07	329.17	528.98
	Q 4	113,038	233.25	96.60	45.50	1654.15	97.82	139.13	168.97	212.95	273.82	349.15	566.38
11	Q 1	107,784	123.98	74.20	1.44	1552.70	10.60	42.72	71.94	112.23	161.57	217.22	360.42
	Q 2	108,864	177.14	77.41	18.94	1091.77	55.10	94.26	124.32	164.43	213.70	273.74	435.45
	Q 3	107,356	199.03	78.74	25.29	1516.79	75.59	117.02	146.44	184.68	234.69	297.62	463.69
	Q 4	109,762	204.57	74.62	38.70	1481.23	91.32	129.32	155.99	189.86	235.90	295.88	460.89

Table 8.H.2 Total Testing Time (In Minutes) at Each Ability Level, Mathematics

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	113,411	99.39	56.45	3.18	799.71	20.48	43.61	61.25	86.83	123.35	169.72	294.17
	Q 2	114,249	117.37	59.41	15.12	835.71	38.31	59.83	77.21	103.48	141.90	191.77	324.98
	Q 3	115,130	123.98	61.29	16.06	925.75	43.77	64.92	82.47	109.42	149.09	200.55	339.55
	Q 4	115,911	125.18	61.72	20.76	925.39	45.06	66.03	83.60	110.31	149.87	202.19	342.09
4	Q 1	117,358	100.02	57.54	3.55	809.23	19.07	44.01	61.98	87.16	123.60	170.66	302.19
	Q 2	117,848	115.21	60.25	17.32	1196.81	37.63	58.22	74.88	100.62	138.67	188.96	328.79
	Q 3	119,425	122.74	62.34	17.40	1204.89	43.02	64.04	81.23	107.69	147.03	198.54	346.66
	Q 4	119,928	130.68	65.16	24.07	1177.11	47.43	69.36	87.47	114.97	155.88	210.44	365.51
5	Q 1	115,658	117.56	68.13	3.53	1196.72	20.55	50.93	72.70	103.13	145.51	199.89	354.91
	Q 2	116,996	138.09	71.78	10.26	1347.79	42.98	69.30	90.38	121.55	166.76	224.78	394.70
	Q 3	115,294	150.15	74.59	5.74	1528.78	51.28	78.44	100.25	133.29	180.58	240.82	412.25
	Q 4	117,495	166.66	77.83	24.95	1660.24	62.12	90.95	114.35	149.38	198.66	261.61	442.91
6	Q 1	114,895	119.66	64.59	3.44	1217.04	20.78	53.79	77.05	107.54	147.79	198.96	339.68
	Q 2	114,714	142.50	66.23	14.22	1003.66	50.16	77.56	98.15	128.31	169.54	223.95	375.83
	Q 3	115,438	149.18	68.06	18.35	1121.71	56.83	83.07	103.54	133.97	177.03	232.49	392.29
	Q 4	115,361	157.66	72.08	27.21	1279.43	62.79	89.20	109.97	141.24	185.38	244.24	422.04
7	Q 1	113,926	96.48	50.32	2.40	1305.90	17.42	44.13	63.08	87.80	119.03	157.78	263.79
	Q 2	114,513	111.86	50.20	8.58	1317.44	39.44	61.73	78.26	101.72	133.48	173.23	281.99
	Q 3	114,181	121.29	52.00	20.30	1111.17	47.57	69.50	86.44	110.58	143.59	184.70	300.32
	Q 4	115,509	135.77	55.99	28.36	1489.89	56.54	80.49	98.83	124.49	159.24	202.82	327.07
8	Q 1	112,546	99.86	56.23	2.60	2653.25	13.77	40.94	62.34	90.53	125.27	168.65	285.62
	Q 2	112,519	122.98	57.70	1.94	1320.74	38.58	64.60	84.28	111.52	148.45	193.71	315.81
	Q 3	113,510	139.26	61.84	14.38	1479.83	50.89	77.49	97.74	126.63	166.25	215.30	347.10
	Q 4	112,865	157.00	68.05	20.73	2014.32	62.83	91.17	112.17	142.55	184.48	238.53	395.63
11	Q 1	107,061	74.54	46.88	1.38	843.50	6.73	24.27	42.01	66.59	96.99	132.20	230.07
	Q 2	107,747	98.78	47.25	4.09	730.34	24.79	48.72	66.54	90.68	121.05	156.88	256.07
	Q 3	108,843	118.65	49.90	12.13	827.43	40.83	66.61	85.02	110.03	141.90	179.53	287.87
	Q 4	108,478	140.67	51.40	21.62	857.18	59.79	87.61	106.97	131.97	163.39	202.42	314.64

Table 8.H.3 Computer Adaptive Test (CAT) Testing Time (In Minutes) at Each Ability Level, ELA

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	112,829	75.29	42.59	0.10	896.01	12.53	30.69	46.13	67.09	94.94	129.06	217.36
	Q 2	114,269	99.54	46.67	0.06	910.67	30.76	52.32	68.28	90.72	120.21	155.82	259.27
	Q 3	114,867	107.76	47.35	0.05	1038.02	39.78	61.03	76.48	98.47	127.87	163.49	273.54
	Q 4	114,607	104.15	46.44	0.38	1228.96	42.35	60.90	74.72	94.71	121.70	155.85	268.19
4	Q 1	118,004	82.12	44.62	0.07	706.50	14.34	35.40	52.01	74.12	102.68	137.35	229.86
	Q 2	118,138	105.24	46.81	0.14	928.22	35.52	57.90	73.97	96.27	125.90	161.60	266.02
	Q 3	117,347	111.91	47.18	1.74	874.92	44.23	65.14	80.61	102.57	132.12	168.17	275.74
	Q 4	119,135	109.10	46.70	0.14	1022.05	45.63	64.65	78.91	99.39	127.50	163.22	272.56
5	Q 1	115,742	82.37	42.76	0.87	1177.82	15.56	37.82	54.04	74.98	101.84	134.75	222.57
	Q 2	115,514	102.65	45.29	4.91	1344.12	37.18	57.93	72.94	94.01	122.05	156.06	254.66
	Q 3	115,194	107.43	44.93	12.70	1014.20	43.91	63.57	77.99	98.32	126.54	159.79	262.87
	Q 4	117,167	103.46	43.48	10.57	1175.18	44.93	62.46	75.69	94.61	120.41	152.42	255.41
6	Q 1	114,208	89.19	46.87	1.05	836.65	14.75	39.06	57.95	81.55	111.29	146.67	241.91
	Q 2	115,151	112.91	49.70	5.68	1417.13	39.14	62.71	79.72	103.86	134.98	172.53	280.14
	Q 3	113,301	118.20	48.30	14.45	1030.18	47.54	69.30	85.70	109.00	139.38	176.47	286.44
	Q 4	116,132	114.79	45.82	11.91	704.59	49.39	69.75	84.18	105.34	133.87	169.91	275.97
7	Q 1	113,571	80.80	42.67	0.08	687.41	11.36	34.16	52.14	74.36	101.54	133.56	217.80
	Q 2	113,465	100.89	43.17	1.53	696.55	33.07	56.18	71.98	93.27	121.03	153.72	243.82
	Q 3	115,203	106.02	41.42	0.15	831.72	43.31	63.80	78.25	98.41	124.80	156.04	246.66
	Q 4	114,463	108.01	40.38	1.07	796.71	48.62	68.04	81.57	100.56	125.22	155.07	247.16
8	Q 1	111,815	82.33	43.48	0.06	897.11	11.50	34.82	53.15	75.89	103.58	135.59	221.29
	Q 2	112,199	102.38	43.22	0.16	1073.31	34.62	57.41	73.15	94.96	122.87	155.17	245.51
	Q 3	113,135	108.20	42.03	1.30	965.18	44.14	65.09	79.86	100.57	127.56	159.43	247.88
	Q 4	113,038	110.18	41.40	1.61	785.48	49.19	68.87	82.76	102.10	128.21	160.16	249.73
11	Q 1	107,784	67.84	39.10	0.19	994.27	6.00	22.99	40.64	63.01	88.22	116.60	189.70
	Q 2	108,864	90.79	36.59	4.97	529.00	29.02	50.97	66.22	85.37	108.64	136.14	207.76
	Q 3	107,356	96.40	34.18	1.39	642.58	39.76	60.06	73.52	90.71	112.60	139.26	206.83
	Q 4	109,762	94.88	30.43	0.24	764.84	45.40	63.27	74.91	89.68	108.31	132.36	195.14

Table 8.H.4 CAT Testing Time (In Minutes) at Each Ability Level, Mathematics

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	113,411	62.17	35.65	2.23	501.84	12.72	27.29	38.37	54.17	76.69	106.50	185.29
	Q 2	114,249	75.04	38.36	9.49	677.45	25.17	38.55	49.29	65.81	90.18	122.93	209.26
	Q 3	115,130	80.43	40.60	3.29	695.32	28.79	42.18	53.25	70.40	96.48	130.80	223.63
	Q 4	115,911	82.66	42.14	11.59	734.54	29.99	43.31	54.57	72.08	98.71	134.89	232.91
4	Q 1	117,358	63.10	37.07	0.37	590.18	12.04	27.49	38.89	54.69	77.51	108.65	192.85
	Q 2	117,848	74.34	39.71	1.65	863.95	24.12	37.47	48.09	64.57	89.22	122.95	213.89
	Q 3	119,425	82.13	42.49	6.06	778.00	28.71	42.67	53.90	71.66	98.27	133.64	236.06
	Q 4	119,928	91.65	46.62	15.60	834.98	33.03	48.14	60.84	80.22	109.40	148.39	258.62
5	Q 1	115,658	67.95	39.09	2.63	851.84	12.03	29.64	42.60	59.70	83.79	115.21	201.67
	Q 2	116,996	79.69	40.89	8.13	695.86	25.42	40.85	52.70	70.32	95.80	129.18	223.96
	Q 3	115,294	87.87	42.64	5.63	927.48	31.61	47.14	59.42	78.09	105.15	139.59	238.47
	Q 4	117,495	100.06	45.71	16.00	1255.24	38.77	55.64	69.44	89.91	119.06	155.55	259.52
6	Q 1	114,895	76.26	41.74	2.59	702.86	12.13	33.11	48.88	68.66	94.72	127.24	218.04
	Q 2	114,714	90.82	41.76	10.71	692.11	31.86	49.72	62.92	81.94	108.25	141.57	238.02
	Q 3	115,438	93.71	41.43	7.84	624.84	36.89	53.20	65.94	84.71	111.01	143.99	239.93
	Q 4	115,361	97.64	42.86	11.07	785.12	39.38	56.07	69.10	88.13	115.08	149.68	250.14
7	Q 1	113,926	69.91	36.61	1.74	1189.01	11.27	30.96	45.61	64.10	87.02	114.42	189.44
	Q 2	114,513	80.86	35.24	0.05	601.89	28.16	45.13	57.30	74.06	96.48	123.87	199.83
	Q 3	114,181	88.27	36.56	13.60	834.71	34.71	51.47	63.68	81.07	104.50	132.84	213.01
	Q 4	115,509	100.75	40.69	0.39	1048.52	42.33	60.42	73.96	92.55	118.15	149.54	239.61
8	Q 1	112,546	70.05	39.47	1.10	844.05	8.19	27.42	43.36	63.81	88.86	119.05	197.88
	Q 2	112,519	86.34	39.79	1.64	803.28	25.91	45.46	59.54	78.93	104.66	135.45	218.31
	Q 3	113,510	97.12	41.74	12.34	1129.41	35.49	54.95	69.06	88.88	116.11	148.34	235.42
	Q 4	112,865	109.64	46.54	16.05	1553.96	44.61	64.28	78.91	99.76	129.05	165.16	271.38
11	Q 1	107,061	51.29	31.73	0.95	552.22	4.67	16.05	29.10	46.55	67.10	90.38	154.70
	Q 2	107,747	68.28	31.24	2.88	508.34	17.36	34.46	47.12	63.53	83.42	106.48	171.13
	Q 3	108,843	81.77	32.78	7.23	548.72	28.91	47.05	59.70	76.49	97.17	121.69	191.24
	Q 4	108,478	98.94	35.05	12.42	685.10	41.91	62.34	76.07	93.25	114.38	141.54	215.46

Table 8.H.5 Performance Task (PT) Testing Time (In Minutes) at Each Ability Level, ELA

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	PT1	5	Q 1	40,626	81.65	63.85	0.32	745.54	4.53	19.22	35.71	65.59	110.20	163.92	302.08
			Q 2	40,725	98.39	66.32	0.39	741.38	12.37	31.96	51.20	83.40	128.25	182.77	323.05
			Q 3	40,860	105.68	66.70	0.29	1007.31	17.76	39.26	59.21	91.13	135.40	188.55	334.30
			Q 4	41,317	110.59	64.66	0.29	866.64	23.92	46.09	65.75	97.10	139.18	188.90	338.26
	PT2	5	Q 1	40,560	84.02	65.56	0.11	798.70	4.54	19.66	36.67	68.07	113.75	168.28	310.69
			Q 2	40,645	101.28	66.61	0.13	881.54	12.67	33.55	53.93	87.39	131.63	184.43	326.16
			Q 3	40,792	108.29	67.10	0.12	810.25	17.94	40.59	61.14	94.27	138.56	191.34	335.49
			Q 4	40,887	114.14	66.85	0.19	1047.92	23.81	47.30	68.20	100.00	143.49	195.82	343.29
	PT3	4	Q 1	32,146	80.85	65.01	0.60	736.18	4.62	17.78	34.26	64.59	109.52	162.58	299.83
			Q 2	32,697	100.92	68.82	0.21	973.99	12.19	32.01	52.14	85.87	131.79	187.29	341.95
			Q 3	32,768	109.27	69.40	0.50	799.91	18.49	40.46	61.20	94.21	139.49	193.65	351.96
			Q 4	32,549	115.53	66.86	2.92	807.98	24.65	48.79	69.30	101.14	144.87	197.38	350.86
4	PT1	4	Q 1	26,127	90.14	69.54	0.11	904.59	5.17	22.27	41.08	74.23	120.47	176.32	331.83
			Q 2	25,976	109.64	71.10	0.27	753.62	16.15	38.69	60.37	94.54	140.97	195.75	348.88
			Q 3	26,373	115.61	68.12	0.45	1000.24	22.84	46.82	68.53	101.95	145.40	199.68	348.17
			Q 4	26,325	121.83	68.26	1.68	1022.69	30.21	55.25	75.65	107.34	149.79	205.20	360.59
	PT2	5	Q 1	32,650	91.77	70.49	0.15	823.62	5.38	22.98	42.11	74.93	122.79	180.65	334.27
			Q 2	33,113	112.48	71.91	0.28	917.37	16.97	39.87	61.89	96.71	145.98	202.90	358.69
			Q 3	32,953	120.53	72.41	0.15	889.85	23.00	47.95	70.23	105.03	152.87	209.69	373.28
			Q 4	33,128	129.62	71.19	0.27	905.47	31.47	57.92	80.50	114.52	161.01	217.57	375.83
	PT3	5	Q 1	32,636	88.38	69.39	0.08	903.52	5.00	21.42	39.64	71.36	119.11	173.81	333.07
			Q 2	32,399	106.95	70.40	0.18	887.27	15.39	37.51	57.85	90.86	138.54	193.04	345.98
			Q 3	32,969	114.44	71.14	0.09	1079.51	22.35	45.69	66.32	98.81	144.26	199.59	361.59
			Q 4	32,883	119.57	67.58	0.19	1074.63	29.09	53.49	74.00	105.02	148.09	200.43	355.88
	PT4	4	Q 1	26,218	87.46	67.57	0.14	795.44	4.67	21.78	39.56	70.61	117.65	173.81	323.69
			Q 2	26,278	105.61	68.47	0.63	712.21	16.30	37.36	56.97	90.33	136.95	191.76	341.00
			Q 3	25,938	111.00	66.38	0.41	963.44	20.91	43.97	64.27	96.26	141.89	195.88	340.43
			Q 4	26,658	118.23	66.94	5.90	968.92	27.80	51.53	71.79	103.83	148.48	201.08	345.14

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
5	PT1	5	Q 1	28,654	87.83	65.80	0.12	852.77	5.61	23.08	41.10	71.49	117.53	172.25	308.15
			Q 2	29,245	107.22	66.76	0.12	990.85	17.83	40.02	60.03	92.26	137.74	191.50	331.90
			Q 3	28,890	111.06	63.42	0.15	999.31	23.42	46.82	66.89	97.69	139.93	190.72	324.83
			Q 4	29,238	114.62	60.63	0.12	681.61	28.00	52.91	72.69	102.14	142.60	190.60	323.10
	PT2	5	Q 1	28,829	93.48	70.85	0.51	723.20	5.26	24.12	43.53	75.88	125.31	183.64	338.69
			Q 2	28,667	114.35	70.65	1.59	874.15	18.54	43.51	65.13	99.37	145.95	202.80	354.94
			Q 3	29,036	122.61	72.29	0.84	1018.28	25.45	51.61	73.78	106.98	153.30	209.22	369.80
			Q 4	29,239	130.65	71.84	0.89	899.57	33.18	59.44	81.86	115.50	161.45	217.61	374.75
	PT3	5	Q 1	28,854	91.19	68.21	0.24	803.32	5.74	23.71	42.39	74.84	121.96	178.07	319.98
			Q 2	28,656	113.29	70.64	1.02	1038.51	18.59	42.83	64.25	98.44	144.60	199.75	352.11
			Q 3	28,997	120.78	71.03	0.37	1077.97	25.48	50.54	72.13	105.40	151.28	208.60	368.09
			Q 4	29,261	126.27	69.32	0.30	1165.70	32.60	58.43	79.60	110.84	155.35	211.23	362.19
	PT4	5	Q 1	28,960	87.90	63.08	0.37	963.13	6.32	24.70	42.78	72.87	117.76	168.94	302.01
			Q 2	28,966	108.08	63.82	0.14	714.64	19.42	42.20	62.33	95.08	138.49	188.78	321.19
			Q 3	28,857	114.07	64.35	1.72	789.05	25.82	48.27	68.72	100.08	143.96	195.24	334.79
			Q 4	29,268	119.25	62.97	0.30	669.96	31.47	55.81	75.72	106.29	146.28	197.97	332.13
6	PT1	5	Q 1	40,512	88.83	68.63	0.05	1057.78	5.14	24.61	42.66	71.51	116.01	173.25	335.47
			Q 2	40,921	112.27	72.23	0.10	1054.16	20.37	43.75	63.67	94.84	142.08	199.99	372.88
			Q 3	41,291	121.46	73.49	0.64	1293.62	27.90	52.90	72.62	104.11	151.17	208.92	375.88
			Q 4	41,148	131.21	72.81	3.78	1230.86	36.68	62.55	82.68	114.50	160.68	218.64	385.13
	PT2	5	Q 1	40,888	83.76	64.93	0.11	900.32	4.38	22.53	40.17	67.32	109.48	164.38	314.63
			Q 2	40,869	107.15	68.19	0.65	1029.95	17.94	41.74	60.86	91.04	135.43	191.08	344.89
			Q 3	40,757	117.61	67.51	0.28	1000.89	26.58	51.90	71.54	102.15	146.21	200.91	353.43
			Q 4	41,128	129.13	69.15	0.27	1123.82	36.13	62.22	83.19	114.17	157.62	211.44	371.58
	PT3	4	Q 1	32,727	82.33	66.77	0.13	991.98	4.96	22.76	39.00	64.40	106.19	163.39	316.91
			Q 2	32,847	107.52	71.39	0.16	1252.59	17.86	40.63	59.57	90.07	136.96	193.35	358.30
			Q 3	32,720	119.19	75.09	0.06	1124.29	26.17	50.09	69.75	101.58	148.87	205.10	381.39
			Q 4	32,984	126.29	72.98	0.07	992.46	34.56	59.36	78.92	109.57	154.22	209.28	383.88

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
7	PT1	5	Q 1	30,006	75.38	57.53	0.08	780.79	3.21	19.42	36.07	62.07	98.74	146.14	280.86
			Q 2	29,867	98.26	60.38	0.11	926.78	15.87	39.05	57.69	84.89	124.11	171.32	307.21
			Q 3	30,394	110.10	60.78	0.16	877.68	25.20	49.92	69.16	97.24	136.01	183.86	322.32
			Q 4	30,182	125.70	63.29	2.99	932.60	35.73	62.67	83.19	113.24	152.96	202.17	345.63
	PT2	4	Q 1	23,942	73.02	56.81	0.09	648.45	3.81	19.28	34.65	58.40	94.66	143.76	274.43
			Q 2	23,983	94.79	60.60	0.33	898.87	15.31	36.97	54.26	80.43	119.22	169.85	304.57
			Q 3	23,939	106.27	60.65	3.09	979.28	25.11	48.32	66.46	92.32	130.72	179.13	317.93
			Q 4	24,053	121.05	64.37	2.98	986.00	35.49	60.97	79.43	107.03	146.12	193.85	350.78
	PT3	5	Q 1	29,881	75.25	57.45	0.12	728.19	3.65	19.94	36.51	61.33	97.96	146.69	281.38
			Q 2	30,028	97.30	61.99	0.07	1348.66	14.56	38.12	55.81	83.31	123.04	171.40	311.47
			Q 3	30,045	105.20	60.76	0.23	1223.71	23.50	47.34	65.52	92.04	130.12	177.35	312.83
			Q 4	30,287	116.30	62.00	0.81	1255.43	33.13	58.48	76.58	103.13	140.44	186.59	330.00
	PT4	5	Q 1	29,919	70.90	56.84	0.12	861.39	3.33	18.64	33.52	56.57	90.91	140.35	276.26
			Q 2	29,844	92.68	59.23	0.35	719.23	14.64	35.95	53.26	78.30	116.31	165.93	302.11
			Q 3	30,034	101.40	57.59	0.12	926.01	22.75	45.08	62.89	88.95	125.16	171.12	303.05
			Q 4	30,298	111.16	55.84	2.94	1129.78	32.96	56.61	74.67	99.65	134.24	177.38	296.30
8	PT1	5	Q 1	26,883	70.70	54.38	0.18	669.11	2.67	18.16	33.94	57.75	92.15	137.86	263.77
			Q 2	26,844	93.02	56.67	0.40	746.52	15.76	37.80	55.27	80.12	116.17	162.96	290.33
			Q 3	26,643	103.01	58.20	0.07	1382.72	24.53	47.55	64.74	90.30	126.48	171.87	304.24
			Q 4	27,229	116.95	60.14	0.07	715.42	34.77	59.27	77.21	103.02	142.09	189.17	332.35
	PT2	5	Q 1	26,681	76.43	59.17	0.05	726.35	2.89	19.35	36.28	62.24	99.40	151.71	283.61
			Q 2	26,672	101.60	63.08	0.05	1555.00	17.15	40.54	59.42	87.16	128.02	178.40	317.73
			Q 3	26,931	112.60	62.75	0.05	910.44	26.91	51.90	70.60	97.84	138.92	189.97	334.23
			Q 4	26,947	130.33	67.75	5.96	1267.79	37.60	65.49	84.97	115.12	158.65	212.60	369.12
	PT3	5	Q 1	26,812	71.39	53.97	0.10	665.10	3.10	18.54	34.55	58.85	93.83	139.50	254.24
			Q 2	26,691	93.06	56.22	0.61	708.78	14.44	37.15	55.40	81.02	117.95	162.05	280.52
			Q 3	26,961	103.96	57.85	0.23	1126.07	23.45	47.29	66.07	91.69	128.35	173.13	299.34
			Q 4	26,861	118.68	60.78	0.09	1111.27	34.32	59.99	78.80	105.36	144.07	191.63	335.43
	PT4	4	Q 1	21,294	74.39	57.12	0.29	897.62	3.28	19.30	35.57	60.70	96.98	145.63	273.70
			Q 2	21,151	100.06	62.65	0.34	987.03	15.71	40.11	58.58	85.77	126.37	175.04	318.32
			Q 3	21,482	112.52	63.82	2.58	800.71	25.85	51.35	70.62	97.96	139.00	187.98	345.19
			Q 4	21,378	128.93	73.03	0.67	1544.84	37.04	63.24	82.91	113.13	155.49	209.05	384.56
PT5	2	Q 1	10,596	73.47	56.62	0.07	955.14	3.54	19.03	36.15	60.38	96.21	139.40	278.72	
		Q 2	10,635	97.70	63.01	1.23	774.76	16.64	38.62	56.37	83.11	121.45	173.26	323.36	

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
			Q 3	10,687	110.63	68.04	1.09	1497.81	24.85	47.85	66.74	93.67	137.11	192.30	344.66
			Q 4	10,809	119.57	65.46	2.96	776.18	35.14	58.62	77.49	103.98	142.95	199.40	343.90
			Q 1	22,613	56.42	46.05	0.06	736.77	1.14	9.31	22.81	46.11	78.25	114.26	212.71
	PT1	5	Q 2	22,600	88.50	52.26	0.08	577.20	8.10	32.69	53.17	79.29	112.62	155.07	259.59
			Q 3	22,864	106.68	54.89	0.13	646.14	20.16	49.92	70.56	96.12	131.36	174.94	291.82
			Q 4	22,828	117.96	54.50	1.05	830.51	36.65	64.58	83.15	105.62	140.86	184.59	309.54
			Q 1	18,002	54.58	44.47	0.16	555.95	1.09	8.98	22.44	45.21	74.68	108.75	204.91
	PT2	4	Q 2	18,078	82.67	48.46	0.15	662.84	8.35	31.19	49.62	74.93	104.05	142.15	242.45
			Q 3	18,069	97.63	49.49	0.14	503.35	19.67	45.75	64.59	89.46	118.96	159.40	260.79
			Q 4	18,171	101.26	46.87	1.28	591.26	28.81	53.68	71.20	92.94	119.85	158.97	263.15
			Q 1	22,509	56.70	48.31	0.08	600.51	0.93	8.54	22.37	46.27	77.27	114.65	225.36
	PT3	5	Q 2	22,764	89.66	54.78	0.07	700.96	7.25	32.78	52.57	80.24	113.44	158.17	273.95
11			Q 3	22,760	107.11	57.07	0.19	1192.34	19.74	49.00	70.18	96.09	132.17	177.64	298.68
			Q 4	22,743	114.58	55.22	1.17	785.18	33.66	61.05	79.84	103.03	135.89	181.29	310.88
			Q 1	22,151	54.42	44.79	0.05	620.29	0.99	8.59	22.07	44.79	75.40	109.04	207.15
	PT4	5	Q 2	22,441	83.37	50.15	0.17	651.84	7.89	30.38	49.33	75.26	105.70	144.55	254.01
			Q 3	22,104	99.38	51.78	0.66	627.25	19.76	46.28	65.41	90.41	121.15	161.96	280.08
			Q 4	22,579	106.96	50.55	1.31	1118.92	32.52	58.09	75.25	97.58	126.04	166.50	284.45
			Q 1	22,456	57.91	45.63	0.08	637.88	1.29	11.65	25.83	48.58	78.30	112.72	216.26
	PT5	5	Q 2	22,596	86.17	51.19	0.07	615.33	8.98	34.14	52.83	77.30	106.84	146.66	275.65
			Q 3	22,604	101.29	52.53	0.28	606.28	22.51	49.43	67.98	91.03	121.39	163.13	296.39
			Q 4	22,834	106.53	49.44	0.47	718.58	33.28	58.39	75.56	96.96	125.36	164.59	282.38

Table 8.H.6 PT Testing Time (In Minutes) at Each Ability Level, Mathematics

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	PT1	4	Q 1	32,335	36.04	28.30	0.06	566.58	2.75	10.51	17.49	28.84	46.52	69.76	135.40
			Q 2	33,083	42.15	29.42	0.03	639.43	6.11	15.56	23.00	35.04	52.95	76.46	146.13
			Q 3	32,565	43.32	28.40	0.05	574.08	7.58	17.66	24.83	36.40	53.89	76.76	143.69
			Q 4	33,122	41.25	25.46	0.06	530.15	9.07	17.93	24.60	35.00	51.04	71.38	130.91
	PT2	6	Q 1	49,077	33.81	25.62	0.05	385.73	3.11	10.84	17.37	27.28	42.69	64.27	129.04
			Q 2	48,494	37.69	25.86	0.06	471.50	5.51	14.36	20.89	31.26	47.01	68.14	133.12
			Q 3	50,021	38.71	25.56	0.05	402.17	6.66	15.32	21.99	32.42	48.12	69.12	132.22
			Q 4	49,246	38.02	24.29	0.06	373.83	7.69	15.86	22.07	32.10	46.86	66.77	127.69
	PT3	4	Q 1	32,543	43.73	32.12	0.04	413.71	3.11	13.60	23.01	36.20	55.85	81.51	159.97
			Q 2	32,442	49.75	31.77	0.05	430.38	6.87	20.50	29.13	42.26	61.50	87.31	167.22
			Q 3	32,773	51.04	30.88	0.05	460.37	8.95	22.60	31.07	43.60	62.49	88.11	161.49
			Q 4	33,000	50.21	28.66	0.05	409.05	10.29	23.50	31.53	43.43	60.82	84.77	151.65
4	PT1	6	Q 1	36,972	40.44	30.31	0.07	472.86	2.70	12.74	21.27	33.42	51.24	74.99	151.70
			Q 2	37,611	45.82	30.76	0.04	641.21	7.06	18.66	26.32	38.47	56.33	80.92	156.77
			Q 3	37,849	46.67	30.46	0.05	600.45	8.74	19.88	27.48	39.28	57.06	81.22	157.48
			Q 4	37,607	45.64	29.13	0.05	725.99	9.36	19.82	27.17	38.47	55.72	79.19	151.89
	PT2	5	Q 1	30,890	36.86	27.12	0.06	437.23	3.48	12.18	19.25	30.16	46.71	70.01	133.28
			Q 2	31,543	40.58	27.93	0.05	372.34	6.11	15.86	22.59	33.32	50.31	73.74	144.33
			Q 3	31,123	40.55	26.55	0.06	467.65	7.29	16.72	23.30	33.75	50.22	71.82	139.46
			Q 4	31,442	39.57	24.58	0.04	316.14	8.54	17.32	23.55	33.41	48.45	69.25	131.90
	PT3	4	Q 1	24,452	35.09	25.61	0.05	583.98	2.74	11.36	18.75	29.24	44.61	65.47	127.86
			Q 2	25,010	38.77	25.31	0.04	441.67	6.81	15.72	22.31	32.63	48.16	68.33	131.06
			Q 3	24,992	37.43	24.45	0.06	455.98	7.76	15.62	21.66	31.39	46.14	66.10	126.06
			Q 4	24,949	35.07	22.93	0.05	349.80	7.16	14.26	20.08	29.48	43.44	62.30	115.31
PT4	4	Q 1	24,848	33.43	25.36	0.06	568.92	2.60	10.87	17.50	27.05	42.36	62.71	123.98	
		Q 2	24,785	35.87	24.26	0.05	407.41	5.85	13.96	20.09	29.63	44.58	65.22	123.01	
		Q 3	25,370	34.85	23.22	0.05	350.89	6.32	13.87	19.62	28.73	43.24	63.22	120.26	
		Q 4	25,116	32.39	21.84	0.06	358.87	6.90	12.86	18.19	26.67	40.02	58.13	112.43	
5	PT1	4	Q 1	30,836	50.93	37.52	0.04	729.10	3.13	15.61	26.85	42.99	64.64	94.21	184.91
			Q 2	30,981	60.54	39.76	0.03	780.80	7.06	24.33	35.40	51.30	74.91	106.86	206.09
			Q 3	31,145	64.95	41.33	0.06	844.77	9.50	26.87	38.43	55.28	80.20	114.07	211.85
			Q 4	30,992	70.75	42.27	0.04	565.38	12.47	31.68	43.63	60.97	86.13	120.51	225.28

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
	PT2	3	Q 1	23,048	36.16	25.82	0.05	394.96	2.81	11.98	19.43	30.35	45.81	66.21	129.68
			Q 2	23,462	42.17	28.19	0.05	380.70	5.88	16.34	23.95	35.48	52.16	75.83	145.11
			Q 3	23,126	43.18	28.01	0.05	348.42	6.64	17.32	24.76	36.44	53.63	76.95	144.49
			Q 4	23,520	42.50	27.26	0.07	325.58	7.25	17.73	24.79	35.71	52.36	74.76	145.16
	PT3	4	Q 1	30,591	50.10	38.86	0.05	731.22	2.99	14.70	25.03	40.62	63.71	95.06	195.26
			Q 2	31,501	60.23	41.87	0.05	676.24	6.81	22.56	33.50	50.14	74.88	108.69	213.55
			Q 3	31,035	66.28	44.83	0.07	707.91	8.91	25.85	37.80	55.57	81.67	118.22	235.10
			Q 4	31,081	73.85	46.21	0.05	858.13	11.40	31.85	44.68	63.20	89.89	128.14	240.58
	PT4	4	Q 1	31,018	58.44	40.64	0.06	522.43	4.40	20.28	32.74	49.61	73.29	104.00	209.27
			Q 2	31,031	66.84	41.60	0.04	487.60	8.16	28.01	39.96	57.39	82.18	116.80	216.67
			Q 3	30,892	70.31	42.26	0.04	787.62	10.13	30.91	43.13	60.52	85.99	121.16	222.86
			Q 4	31,184	72.25	41.26	0.05	553.54	10.69	33.46	45.55	63.05	88.09	121.64	217.84
6	PT1	6	Q 1	56,933	43.58	30.93	0.04	574.53	2.82	14.10	24.02	36.93	54.95	78.89	154.63
			Q 2	57,814	52.03	33.20	0.04	835.75	7.84	22.18	31.39	44.50	63.53	89.29	174.15
			Q 3	57,560	56.72	36.16	0.05	721.98	10.30	24.82	34.25	48.33	68.90	96.93	190.62
			Q 4	57,716	65.41	44.42	0.07	737.38	12.60	28.26	38.39	54.17	78.05	114.24	236.31
	PT2	6	Q 1	57,361	43.17	30.62	0.05	620.07	2.67	14.07	23.54	36.58	54.95	78.83	150.58
			Q 2	57,540	51.36	32.52	0.07	615.46	7.90	21.26	30.43	43.89	63.17	89.39	168.52
			Q 3	57,839	54.17	34.40	0.03	689.75	9.43	23.01	31.95	46.07	66.53	94.39	180.42
			Q 4	57,645	54.63	32.77	0.05	549.91	13.05	25.24	33.84	46.75	65.93	92.10	177.42
	PT1	6	Q 1	42,960	24.95	20.08	0.04	534.55	1.59	7.56	12.72	20.35	31.45	46.35	97.25
			Q 2	42,599	28.74	21.33	0.04	740.98	4.22	9.98	15.10	23.65	35.92	52.58	106.55
			Q 3	43,001	29.82	21.84	0.05	388.97	4.79	9.69	15.19	24.58	38.02	55.21	108.86
			Q 4	43,445	31.44	23.58	0.06	441.37	4.39	8.46	14.24	26.87	41.50	59.08	114.91
PT2	6	Q 1	42,497	30.57	23.65	0.03	445.26	1.85	8.53	15.28	25.20	38.94	58.19	115.49	
		Q 2	42,843	36.25	25.06	0.05	1076.43	4.52	13.35	20.44	30.40	45.44	65.25	124.67	
		Q 3	42,999	39.26	25.77	0.05	817.55	5.97	15.90	22.96	33.29	48.51	69.06	131.28	
		Q 4	43,136	42.59	25.10	0.04	706.49	8.59	19.64	26.54	37.11	52.07	70.98	131.52	
PT3	4	Q 1	28,469	23.01	16.74	0.04	325.74	1.39	6.83	12.21	19.43	29.42	42.76	84.56	
		Q 2	28,603	26.56	16.74	0.05	295.89	3.98	10.87	15.73	22.92	33.04	46.02	85.97	
		Q 3	28,645	28.60	16.65	0.05	296.20	5.80	12.90	17.79	25.00	35.10	48.43	87.30	
		Q 4	28,932	28.90	15.69	0.06	214.13	7.88	14.16	18.67	25.34	35.03	47.35	85.01	

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
8	PT1	6	Q 1	55,924	26.31	21.45	0.04	550.18	1.10	6.91	12.95	21.45	33.57	49.63	105.00
			Q 2	56,827	30.80	22.26	0.04	523.47	3.28	11.18	17.05	25.55	38.06	55.57	112.72
			Q 3	56,670	34.85	23.43	0.04	507.86	5.71	14.07	20.13	29.15	42.62	61.88	121.01
			Q 4	56,508	36.98	23.09	0.04	394.90	8.51	16.68	22.53	31.41	44.69	62.81	124.31
	PT2	6	Q 1	55,997	33.41	26.35	0.06	1809.20	1.43	8.92	16.76	27.99	43.21	63.08	123.49
			Q 2	56,362	42.53	27.78	0.06	937.02	4.95	16.45	24.74	36.73	53.23	74.23	140.11
			Q 3	56,221	49.35	30.61	0.04	529.72	8.13	20.88	29.63	42.59	61.09	84.66	158.68
			Q 4	56,931	57.56	33.14	0.06	671.56	12.26	26.99	36.68	50.52	69.65	95.13	174.00
11	PT1	2	Q 1	17,414	29.44	23.67	0.06	385.05	0.95	4.75	12.50	25.14	40.00	57.54	111.08
			Q 2	17,624	38.43	24.03	0.08	277.27	2.31	13.40	22.84	34.48	48.97	65.95	122.39
			Q 3	17,547	45.13	24.23	0.12	343.72	5.98	20.87	29.66	40.82	55.67	73.73	128.79
			Q 4	17,649	48.67	23.79	0.11	322.55	11.27	25.26	33.10	44.28	58.77	76.93	128.61
	PT2	4	Q 1	35,860	19.79	17.50	0.05	233.43	0.70	3.59	8.15	15.75	25.92	39.74	86.30
			Q 2	36,136	25.23	18.60	0.04	302.18	1.74	7.79	13.27	21.09	31.97	46.62	95.61
			Q 3	36,337	30.81	19.68	0.06	240.33	3.54	11.94	18.04	26.59	38.23	53.68	103.52
			Q 4	36,370	34.45	18.65	0.06	283.92	6.88	16.68	22.41	30.62	41.81	56.30	100.75
	PT3	6	Q 1	54,127	23.72	22.06	0.04	626.77	0.82	3.48	8.52	18.32	31.98	49.21	104.17
			Q 2	54,248	31.59	23.21	0.06	295.91	1.78	8.72	15.95	26.58	40.88	59.30	114.43
			Q 3	54,312	38.28	24.84	0.04	450.86	3.37	13.74	22.12	33.30	48.19	67.47	128.12
			Q 4	54,505	44.15	24.10	0.05	485.96	6.44	20.66	28.74	39.63	54.09	71.99	129.19

Appendix 8.I: Correlations between Content Areas

Notes for the tables in Appendix 8.I:

- Numbers in **bold** font are the sample sizes to calculate the correlations.
- R denotes the correlation coefficient.

Table 8.I.1 Correlations for Gender

Grade	Content Area	Male		Female	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	233,566	0.81	223,346	0.81
	Mathematics	234,692	232,991	224,358	222,879
4	ELA	241,625	0.82	231,315	0.82
	Mathematics	242,581	241,032	232,322	230,867
5	ELA	235,979	0.83	227,929	0.81
	Mathematics	236,943	235,418	228,756	227,415
6	ELA	234,565	0.83	224,496	0.83
	Mathematics	235,427	233,832	225,249	223,928
7	ELA	233,491	0.83	223,593	0.82
	Mathematics	234,222	232,479	224,180	222,721
8	ELA	229,516	0.81	220,967	0.8
	Mathematics	230,168	228,351	221,433	220,048
11	ELA	221,104	0.79	212,957	0.78
	Mathematics	220,371	218,186	211,977	210,134

Table 8.I.2 Correlations for Primary Ethnicity

Grade	Content Area	American Indian or Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Filipino	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size	Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	2,347	0.78	40,098	0.8	2,160	0.79	9,574	0.79
	Mathematics	2,350	2,342	40,779	40,038	2,160	2,153	9,625	9,560
4	ELA	2,457	0.78	41,577	0.8	2,195	0.79	10,781	0.78
	Mathematics	2,456	2,450	42,181	41,531	2,202	2,189	10,836	10,762
5	ELA	2,409	0.79	41,776	0.8	2,293	0.78	11,182	0.78
	Mathematics	2,401	2,396	42,318	41,727	2,295	2,288	11,232	11,168
6	ELA	2,446	0.79	42,584	0.81	2,337	0.8	11,767	0.8
	Mathematics	2,448	2,436	43,118	42,545	2,345	2,328	11,804	11,749
7	ELA	2,459	0.8	42,333	0.8	2,207	0.79	12,438	0.8
	Mathematics	2,456	2,439	42,791	42,282	2,221	2,196	12,468	12,417
8	ELA	2,559	0.76	41,115	0.78	2,335	0.77	12,490	0.77
	Mathematics	2,559	2,545	41,521	41,039	2,335	2,322	12,524	12,460
11	ELA	2,562	0.75	40,041	0.76	2,291	0.76	13,547	0.76
	Mathematics	2,527	2,507	40,143	39,762	2,268	2,248	13,528	13,461

Table 8.I.3 Correlations for Primary Ethnicity (continued)

Grade	Content Area	Hispanic or Latino		Black or Black or African American		White		Two or More Races	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size	Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	253,019	0.77	25,266	0.77	105,287	0.79	19,161	0.81
	Mathematics	254,035	252,489	25,225	25,147	105,473	105,037	19,403	19,104
4	ELA	262,425	0.77	25,989	0.78	108,827	0.79	18,689	0.81
	Mathematics	263,441	261,920	25,966	25,875	108,913	108,542	18,908	18,630
5	ELA	254,218	0.77	25,649	0.78	109,284	0.79	17,097	0.81
	Mathematics	255,193	253,703	25,619	25,534	109,349	108,990	17,292	17,027
6	ELA	247,216	0.79	25,781	0.8	110,423	0.81	16,507	0.83
	Mathematics	248,003	246,530	25,715	25,634	110,492	110,070	16,751	16,468
7	ELA	244,680	0.78	25,949	0.79	111,549	0.8	15,469	0.82
	Mathematics	245,424	243,653	25,865	25,744	111,508	111,083	15,669	15,386
8	ELA	241,501	0.75	26,629	0.76	109,734	0.78	14,120	0.79
	Mathematics	242,153	240,394	26,577	26,394	109,636	109,206	14,296	14,039
11	ELA	226,582	0.75	25,714	0.75	110,343	0.76	12,981	0.78
	Mathematics	225,631	223,488	25,499	25,187	109,797	108,875	12,955	12,792

Table 8.I.4 Correlations for English Fluency

Grade	Content Area	English Only		Initially Fluent English Proficient		English Learner		Reclassified Fluent English Proficient	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size	Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	266,391	0.81	16,549	0.8	133,000	0.72	40,017	0.71
	Mathematics	266,105	265,753	16,536	16,514	134,964	132,683	40,001	39,973
4	ELA	269,477	0.81	18,584	0.8	122,642	0.7	61,381	0.7
	Mathematics	269,100	268,770	18,588	18,565	124,525	122,397	61,347	61,319
5	ELA	260,661	0.81	18,627	0.8	96,940	0.66	86,989	0.72
	Mathematics	260,328	259,950	18,627	18,601	98,699	96,683	86,979	86,916
6	ELA	255,191	0.83	20,516	0.81	79,620	0.68	102,956	0.75
	Mathematics	254,814	254,382	20,522	20,493	81,307	79,326	102,884	102,793
7	ELA	251,788	0.82	22,015	0.82	64,103	0.63	118,319	0.75
	Mathematics	251,220	250,614	21,999	21,966	65,731	63,716	118,179	118,060
8	ELA	245,367	0.8	21,068	0.8	54,951	0.6	128,332	0.74
	Mathematics	244,794	244,060	21,049	21,001	56,390	54,586	128,217	127,994
11	ELA	238,969	0.78	33,905	0.78	39,407	0.55	121,017	0.73
	Mathematics	237,378	235,530	33,731	33,571	39,857	38,608	120,465	119,868

Table 8.I.5 Correlations for English Fluency (continued)

Grade	Content Area	To Be Determined		English Proficiency Unknown	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	248	0.83	707	0.79
	Mathematics	465	247	979	700
4	ELA	197	0.82	659	0.8
	Mathematics	388	195	955	653
5	ELA	179	0.79	512	0.76
	Mathematics	329	178	737	505
6	ELA	239	0.84	539	0.79
	Mathematics	392	238	757	528
7	ELA	234	0.81	625	0.74
	Mathematics	392	232	881	612
8	ELA	188	0.8	577	0.72
	Mathematics	314	187	837	571
11	ELA	220	0.73	543	0.67
	Mathematics	240	213	677	530

Table 8.I.6 Correlations for Economic Status

Grade	Content Area	Not Economically Disadvantaged		Economically Disadvantaged	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	165,789	0.79	291,123	0.76
	Mathematics	166,655	165,514	292,395	290,356
4	ELA	171,165	0.79	301,775	0.77
	Mathematics	171,868	170,859	303,035	301,040
5	ELA	171,214	0.79	292,694	0.76
	Mathematics	171,814	170,885	293,885	291,948
6	ELA	173,320	0.81	285,741	0.79
	Mathematics	173,932	172,956	286,744	284,804
7	ELA	175,996	0.81	281,088	0.78
	Mathematics	176,414	175,451	281,988	279,749
8	ELA	174,508	0.79	275,975	0.75
	Mathematics	174,880	173,860	276,721	274,539
11	ELA	184,477	0.77	249,584	0.75
	Mathematics	183,797	182,313	248,551	246,007

Table 8.I.7 Correlations for Special Education Services Status

Grade	Content Area	No Special Education Services		With Special Education Services	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	409,372	0.8	47,540	0.76
	Mathematics	411,695	408,640	47,355	47,230
4	ELA	420,304	0.8	52,636	0.78
	Mathematics	422,453	419,593	52,450	52,306
5	ELA	410,213	0.79	53,695	0.76
	Mathematics	412,198	409,483	53,501	53,350
6	ELA	408,171	0.81	50,890	0.75
	Mathematics	409,921	407,207	50,755	50,553
7	ELA	408,281	0.8	48,803	0.73
	Mathematics	409,813	406,866	48,589	48,334
8	ELA	404,192	0.78	46,291	0.69
	Mathematics	405,507	402,579	46,094	45,820
11	ELA	396,227	0.77	37,834	0.66
	Mathematics	394,955	391,419	37,393	36,901

Table 8.I.8 Correlations for Migrant Status

Grade	Content Area	Change School or LEA		Remain in the Same School or LEA	
		Sample Size	R and Sample Size	Sample Size	R and Sample Size
3	ELA	4,434	0.71	452,478	0.81
	Mathematics	4,483	4,424	454,567	451,446
4	ELA	4,609	0.73	468,331	0.81
	Mathematics	4,660	4,597	470,243	467,302
5	ELA	4,522	0.74	459,386	0.81
	Mathematics	4,589	4,513	461,110	458,320
6	ELA	3,976	0.77	455,085	0.83
	Mathematics	4,035	3,965	456,641	453,795
7	ELA	3,703	0.74	453,381	0.82
	Mathematics	3,769	3,691	454,633	451,509
8	ELA	3,821	0.73	446,662	0.8
	Mathematics	3,878	3,804	447,723	444,595
11	ELA	3,255	0.74	430,806	0.78
	Mathematics	3,266	3,206	429,082	425,114

Chapter 9: Quality Control Procedures

The California Department of Education (CDE), Smarter Balanced Assessment Consortium, and Educational Testing Service (ETS) implemented rigorous quality control procedures throughout the test development, administration, scoring, and analyses processes. As part of this effort, ETS staff worked with its Office of Professional Standards Compliance, which publishes and maintains the *ETS Standards for Quality and Fairness* (ETS, 2014). These *Standards* support the goal of delivering technically sound, fair, and useful products and services; and assisting the public and auditors evaluate those products and services. Quality control procedures are outlined in this chapter.

9.1. Quality Control of Item Development

Item writers hired to develop Smarter Balanced assessment items were trained in Smarter Balanced policies on sensitivity and bias guidelines, and guidelines for accessibility to ensure that the items allow the widest possible range of students to demonstrate their content knowledge (Smarter Balanced, 2016). A group of educators reviewed the items and performance tasks for accessibility, bias/sensitivity, and content prior to their administration in the 2013–14 field test.

To further ensure the quality of Smarter Balanced assessment items, in early May 2013, Smarter Balanced recruited a panel of English language arts/literacy (ELA) and mathematics content experts and decision-makers with expertise in the needs of students with disabilities and students who were English learners. This panel reviewed item specifications, item types, items, and performance tasks, and made recommendations for item development and item-quality criteria.

After the 2012–13 pilot test, staff from the Smarter Balanced Assessment Consortium used statistical criteria to flag items that were potentially problematic due to content, bias, and/or accessibility.

For more information regarding the steps taken by the Smarter Balanced Assessment Consortium to ensure quality during item development, please refer to Chapter 3 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2016).

9.2. Quality Control of Test Assembly and Delivery

The assembly of all test forms must conform to blueprints that represent a set of constraints and specifications. There were separate specifications for the ELA assessments and mathematics assessments. These blueprints are critical to the formation of valid assessments and can be found in Appendix 2.A on page 23.

The Smarter Balanced Assessment Consortium conducted computer simulations to evaluate the test delivery system and the adaptive testing algorithm. Two sets of simulations studies were conducted:

1. the simulation study conducted prior to the 2013–14 Smarter Balanced field test that is described in Chapter 4 of the *2013–14 Technical Smarter Balanced Report* (Smarter Balanced, 2016); and
2. the simulation study conducted prior to the 2015–16 CAASPP operational administration that is described in *Chapter 4: Test Assembly* on page 108 of this current technical report.

9.3. Quality Control of Test Materials

9.3.1 Developing Assessments

9.3.1.1 Online Assessments

The steps taken to develop and ensure the quality of the online assessments is described in 5.2.2 *Test Delivery*, which starts on page 115.

9.3.1.2 Paper-Pencil Forms

Test forms and response booklets received from the Smarter Balanced Assessment Consortium are carefully reviewed by ETS staff to ensure that they meet quality standards. Each document is reviewed for accuracy, completeness, and alignment with supporting materials.

Print-ready PDFs received for the paper versions of the Smarter Balanced summative assessments undergo a stringent quality control process to ensure that there is adequate space for student identification and demographic information in addition to a place for a student barcode label.

9.3.1.3 Test Administration Manuals

ETS staff consult with internal subject matter experts and conduct validation checks to verify that test instruction manuals accurately match the test booklets and testing processes. Copy editors and content editors review each document for spelling, grammar, accuracy, and adherence to CDE style. Manuals received from Smarter Balanced are customized to fit the California Assessment of Student Performance and Progress (CAASPP) System specifications. Each document must be approved by the CDE before it can be published to the CAASPP Portal at <http://www.caaspp.org/>. Only nonsecure documents are posted to this Web site.

9.3.2 Collecting Test Materials

9.3.2.1 Online Assessments

During the 2015–16 CAASPP administration, there were no collectable materials associated with online testing.

9.3.2.2 Paper-Pencil Forms

Once the paper-pencil tests are administered at test sites whose local educational agencies (LEAs) had received prior approval from the CDE, LEAs must return scorable and nonscorable materials within five working days after the last day of each test administration period. The freight-return kits provided to LEAs contain color-coded labels identifying scorable and nonscorable materials and labels with bar-code information identifying the school and district. The LEAs pack all materials into cartons, apply the appropriate labels, and then number the cartons prior to returning the materials to the processing center by means of their assigned carrier. The use of the color-coded labels streamlines the return process.

9.3.3 Processing Test Materials

9.3.3.1 Online Assessments

Online tests were submitted by students are transmitted from the American Institutes for Research (AIR) to ETS each day. Each system checks for the completeness of the student record and stopped records that were identified as having an error. (For example, the system would identify a test part that is missing a content registration ID, a unique identifier

that matches the student's opportunities—computer adaptive testing [CAT] and performance task [PT]—in final scoring.)

Test responses were separated for human scoring between ETS and Measurement Incorporated (MI) and the reader's ratings were delivered to ETS scoring systems for merging with machine-scored items, final scoring, and scoring quality checks.

9.3.3.2 Paper-Pencil Forms

Upon receipt of the test materials, ETS personnel examine each shipment for a number of conditions, including physical damage, shipping errors, and omission of materials. The number of students recorded on the student and grade identification (SGID) sheet is compared to the number of answer documents returned to ETS.

ETS's image scanning process captures security information electronically and compares scorable material quantities reported on the SGIDs to actual documents scanned. LEAs are contacted by phone if there are any missing shipments or the quantity of materials returned appears to be less than expected.

9.4. Quality Control of Psychometric Processes

9.4.1 Development of Scoring Specifications

A number of measures are taken to ascertain that the scoring keys are applied to the student responses as intended and the student scores are computed accurately. ETS builds and reviews the scoring system models based on the Smarter Balanced Assessment Consortium scoring specifications and CDE requirements (AIR, 2014 and 2015). Machine-scored item responses and demographic information are collected and provided electronically to ETS in a master student data file. Human-scored item responses are sent electronically to the ETS Online Network for Evaluation or MI scoring centers for scoring by trained, qualified raters. Record counts are verified against the counts obtained during security check-in from the document processing staff to ensure all students are accounted for in the file.

Once the record counts are reviewed, the machine-scored item responses are scored against the appropriate answer key provided by the Smarter Balanced Assessment Consortium. In addition, the student's original response string is stored for data verification and auditing purposes.

The Smarter Balanced Assessment Consortium provided the specifications for scoring the assessments well in advance of the receipt of student response data. These specifications contain detailed scoring procedures, along with the procedures for determining whether a student has attempted a test and whether that student response data should be included in the statistical analyses and calculations for computing summary data. Standard quality inspections are performed on all data files, including the evaluation of each student data record for correctness and completeness. Student results are kept confidential and secure at all times.

9.4.2 Development of Scoring Procedures

ETS's enterprise score key management system (eSKM) utilizes scoring procedures specified by psychometricians and provides scoring services. Following scoring, a series of quality control checks are carried out by ETS psychometricians to ensure the accuracy of each score.

9.4.2.1 Enterprise Score Key Management System (eSKM) Processing

ETS developed two independent and parallel scoring structures to produce students' scores: the eSKM¹ scoring system, which collects, scores, and delivers individual students' scores to the ETS reporting system; and the parallel scoring system developed by ETS Technology and Information Processing Services (TIPS), which scores individual students' responses. The two scoring systems independently apply the same scoring algorithms and specifications. ETS psychometricians verify the eSKM scoring by comparing all individual student scores from TIPS and resolving any discrepancies. This process redundancy is an internal quality control step and is in place to verify the accuracy of scoring. Students' scores are reported only when the two parallel systems produce identical results.

When scores do not match, the mismatch is investigated by ETS's Statistical Analysis and eSKM teams and resolved. The mismatch could be a result of a Smarter Balanced and CDE decision not to score an item because a problem was identified in a particular item or rubric. ETS applies the problem item notification (PIN) not to score the item through the systematic process in eSKM and a mismatch is possible, if TIPS is still in the process of applying the PIN in the parallel system when the student score is being compared. This real-time scoring check is designed to continually detect mismatches and track remediation.

ETS's Centralized Repository Distribution System and Enterprise Service Bus departments collect and parse .xml files that contain student response data from AIR and send constructed-response (CR) item responses to ETS and MI for human scoring. After receiving the results of human scoring, eSKM merges student scores from the CAT and PT test components, calculates individual student scores, and generates student scores in the approved statistical extract format on a daily basis. These data extracts are sent to ETS's Data Quality Services for data validation. Following validation, the student response statistical extracts are made available to the psychometricians.

9.4.2.2 Psychometric Processing

Psychometricians verify the eSKM scoring by comparing the parallel scoring programs, conducting extensive analyses to resolve any discrepancies, and verifying the accuracy of all student scores and reported results. In particular, psychometricians check variables such as total scale scores, achievement levels, number of scored items, and performance levels of claims. To investigate discrepancies, theta scores and completeness are also checked (See 7.4 *Student Test Scores* on page 146 for definitions of these scores). All scores must comply with the ETS scoring specifications and the parallel scoring process to ensure the quality and accuracy of scoring, and to support the transfer of scores into the database of the student records scoring system before student reports are generated. In addition to parallel scoring for both online and paper-pencil assessments, ETS provides verification of answer keys and item analysis for paper-pencil assessments.

9.5. Quality Control of Constructed-Response (CR) Scoring

Rater qualifications, rater certifications, and daily rater calibrations are all processes used to control the reliability of CR scoring. Raters are led through a training period by trained assessment development staff, content scoring leaders, group scoring leaders, and scoring leaders for an assigned grade level and specific prompt types prior to the annual scoring period. In the training period, raters are trained to appropriately apply the rubrics by using the Smarter Balanced–provided benchmark sample papers.

¹ The eSKM system produces the ETS scores of record.

Trained raters are scheduled to score in four or eight hour shifts. Scoring leaders are qualified raters who have the responsibility of providing feedback to raters in order to provide additional content support and offer corrective mentoring for struggling raters.

Each rater is assigned a secure user ID and password to log on to the scoring system and is required to sign a confidentiality agreement. System access for the rater is restricted to the hours that he or she is scheduled to work.

Prior to starting a shift, a rater must take and pass a calibration test that demonstrates sufficient training in Smarter Balanced scoring criteria and ability to score accurately. Ten percent of responses are scored twice (i.e., “read behind”) in order to check agreement among raters. Scoring leaders read behind raters throughout a shift and enter their own scores on responses that raters have read. Results of interrater reliability are shown in Appendix 8.G on page 480.

To ensure the quality of machine scoring with artificial intelligence (AI), ETS and MI maintain a quality assurance system through 10 percent of AI-scored items being scored by a human rater and used for agreement sample analysis. The results of the agreement analysis are presented in section 8.6.4.8 *Interrater Agreement* on page 318.

9.6. Quality Control of Paper-Pencil Scoring

If an LEA is approved to administer the paper-pencil version of the Smarter Balanced summative assessments, the completed student answer documents are routed for scoring. Quality control of paper-pencil tests is ensured by an independent group that signs into eSKM and checks scoring keys. This group must sign off and approve the keys in order for scoring to commence for the administration. This team also creates scoring stencils to be used during the administration to overlay on top of a student’s answer document to verify the score computed by eSKM is accurate.

9.7. Quality Control of Reporting

To ensure the quality of CAASPP Smarter Balanced online summative test results, for both individual student and summary reports, four general areas are evaluated:

1. Comparison of report formats with input sources from the CDE-approved samples;
2. Validation of the report data through quality control checks performed by ETS’s Data Quality Services and Resolutions teams, as well as running of all student score reports through ETS’s patented QC Integrator software;
3. Evaluation of the production of all printed reports by verifying the print quality, comparing number of report copies, sequence of report order, and offset characteristics to the CDE requirements; and
4. Proofreading of the pilot and production reports by the CDE and ETS prior to any LEA mailings.

All reports are required to include a single, accurate LEA code, a charter school number (if applicable), a school district name, and a school name. All elements conform to the CDE’s official county/district/school (CDS) code and naming records. From the start of processing through scoring and reporting, the CDS Master File is used to verify and confirm accurate codes and names. CDE provides a revised LEA Master File to ETS throughout the year as updates become available.

After the reports are validated against the CDE's requirements, a set of reports for pilot districts are provided to the CDE and ETS for review and approval. Paper reports are sent on the actual report forms, organized as they are expected to look in production. The CDE and ETS review and approve the report package after a thorough examination.

Upon the CDE's approval of the reports generated for the pilot districts, ETS proceeds with the first batch of report production. The first production batch is selected to validate a subset of LEAs that contain key reporting characteristics (e.g., academic achievement) and demographics of the state. The first production batch incorporates CDE-selected LEAs and provides the final check prior to generating all reports and mailing them to the LEAs.

9.7.1 Exclusion of Student Scores from Summary Reports

ETS provides specifications to the CDE that document when to exclude student scores from summary reports. These specifications include the logic for handling submitted tests and answer documents that, for example, indicate the student tested but responded to no items, was absent, was not tested due to parent/guardian request, or did not complete the test due to illness. The methods for handling other anomalies are also covered in the specifications. These anomalies are described in more detail in *7.6.2 Special Cases* on page 161.

9.8. End-to-End Operational Tests

ETS conducts end-to-end testing prior to the start of the test administration. The purpose of this testing is to verify that all systems, processes, and resources are ready for the operational administration.

9.8.1 Online Assessments

ETS employs a number of strategies to verify ongoing systems performance, including monitoring of system availability and online system usage. Time is allotted for user acceptance testing to confirm that the systems meet requirements and to make identified corrections before final deployment. To accomplish system acceptance and sign-off, ETS deploys systems to a staging area, which mirrors the final production environment, for operational and user acceptance testing. Final approval by the CDE triggers final deployment of the system.

9.8.2. Paper-Pencil Tests

To begin this quality control process, the ETS resolutions team members complete response documents by marking responses on response booklets for fictitious students in selected schools and across several LEAs. They mark response booklets with answers that are all correct, all incorrect, and other test response combinations. These response combinations are the expected results across achievement levels and score ranges. The response booklets are sent for processing, batching, and scanning. Once released from scanning, the test results are sent through the system for scoring and reporting. Student score reports are created along with data files for subject matter experts in the teams to review and verify.

Individual student score reports were generated based on the fictitious students and 100 percent quality control was demonstrated by ETS's Resolution staff.

References

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Chapter 10: Historical Comparisons

Historical comparisons are performed to identify the trends in student performance and test characteristics over time. Such comparisons were performed for the two most recent administration years of California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced test administration—2014–15 and 2015–16, with 2014–15 as the base school year. The comparisons consist of cross-sectional comparisons, which are made between the current year and the previous year for the same grades in a content area (English language arts/literacy [ELA] and mathematics); and longitudinal comparisons, which are made between the current year and the previous year for the same students.

The indicators of student performance include the mean and standard deviation of scale scores and the percentage of students classified into achievement levels for an overall test and performance levels for claims. Test characteristics are compared by examining the reliability and standard error of measurement (SEM) for each test.

10.1 Student Performances

10.1.1 Cross-Sectional Comparisons on the Overall Tests

In cross-sectional comparisons, cohorts of students from the same grades are compared across the 2014–15 and 2015–16 CAASPP administrations. For example, students enrolled in grade three for the 2014–15 CAASPP administration are compared with students enrolled in grade three for the 2015–16 CAASPP administration. As noted in Table 7.6 on page 150 of *Chapter 7: Scoring and Reporting*, the reporting scale ranges from 2114 to 2795 for ELA and from 2189 to 2862 for mathematics. The difference in scale score and percentage of students meeting or exceeding standards is derived by using the current year's (2015–16) values minus the previous year's (2014–15) values for the same grade; a positive value indicates an increase in 2015–16 and a negative value indicates a decrease in 2015–16. It is noteworthy that individual achievement level percentages may not sum to 100 or the combined achievement level percentage due to rounding.

10.1.1.1 Summary Statistics

Table 10.A.1 on page 550 contains the number of students assessed, the number of students with valid scores, the means and standard deviations of students' scale scores in 2014–15 and 2015–16 for each test, as well as the differences in scale scores between 2014–15 and 2015–16. Note that the 2014–15 results are based on the 2014–15 final P2 data.

10.1.1.2 Achievement Levels of Overall Students

Scale cut scores are used to classify student results into one of four achievement levels: *Standard Not Met*, *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded*. Refer to Table 7.8 in Chapter 7 for the achievement level scale score ranges for each test. The percentages of students of each achievement level and qualifying for the *Standard Met* and *Standard Exceeded* levels, as well as the differences in the percentages of the students in *Standard Met* and *Standard Exceeded* between 2014–15 and 2015–16, are presented in Table 10.A.2; note that this information may differ slightly from information found on the California Department of Education (CDE) CAASPP Public Reporting Web site at <http://caaspp.cde.ca.gov/> due to different dates on which data were accessed.

10.1.1.3 Scale Score Distributions

Table 10.A.3 and Table 10.A.4 starting on page 552 show the distribution of scale scores observed in 2014–15 and 2015–16 for each grade and content area. Frequency counts are provided for each scale score interval of 30. A blank indicates that there are no obtainable scale scores beyond the scale score range. The scale score ranges for each grade on the vertical scale are those defined by the Smarter Balanced Assessment Consortium. Refer to Table 7.6 on page 150 of Chapter 7 for the scale score ranges.

10.1.1.4 Achievement Levels of Selected Subgroups

Table 10.A.5 through Table 10.A.18, which start on page 554, provide statistics summarizing student achievement by content area and grade for selected subgroups of students. In the tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, economic status (disadvantaged or not), need for special education services, migrant status, the use of designated supports (using designated supports or not), and the use of accommodations (using accommodations or not). The tables show, for each demographic subgroup, the numbers of students with a valid scale score, scale score means and standard deviations, and the percentage of students in each achievement level, for 2015–16 and 2014–15 respectively, as well as the differences in the percentages of Standard Met or Standard Exceeded between 2015–16 and 2014–15.

10.1.2 Cross-Sectional Comparisons on Claims

10.1.2.1 Summary Statistics

Table 10.B.1 through Table 10.B.4, which start on page 568, contain the number of students assessed, the number of students with valid scores, the means and standard deviations of students' scale scores in 2015–16 and 2014–15 on each claim by grade and content area. The claims are on the same scale as the total test in which the claims are included. Refer to the score ranges of the total test (Table 7.6) for the score ranges of claims.

10.1.2.2 Performance Levels of Overall Students

Table 10.B.5 and Table 10.B.6, which start on page 571, present the percentages of each performance level of each claim in 2015–16 and 2014–15. Student results on each claim are classified into one of three performance levels: Below Standard, Near Standard, and Above Standard. Refer to Table 7.8 in Chapter 7 for the achievement level scale score ranges for each test. Refer to subsection 7.4.2.2 *Performance Levels for Claims*, which starts on page 153 in Chapter 7, for the details regarding the classification of performance levels on claims.

10.1.2.3 Performance Levels of Selected Subgroups

Table 10.B.7 through Table 10.B.55, which start on page 573, show the statistics summarizing student performance by content area and grade for selected subgroups of students. Table 10.B.7 through Table 10.B.34 are calculated from the data for the ELA assessments; Table 10.B.35 through Table 10.B.55 are calculated from the data for mathematics. In these tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, economic status (disadvantaged or not), need for special education services, migrant status, the use of designated supports (using designated supports or not), and the use of accommodations (using accommodations or not). The tables show, for each demographic subgroup, the numbers of students with a valid scale score, scale score means and standard deviations, and the percentage of students in each claim performance level, for 2015–16 and 2014–15 respectively, as well as

the differences in the percentages of Near Standard or Above Standard between the 2015–16 and 2014–15 CAASPP Smarter Balanced administrations.

10.1.3 Longitudinal Comparisons on the Overall Tests

For longitudinal comparisons, the data are gathered and compared for the same students across 2015–16 and 2014–15. Through vertical scaling, scores on tests at different grade levels of the same content area were placed on a common scale. For Smarter Balanced Summative Assessments, reporting scores on a vertical scale allows student progress to be tracked for a particular content area across grade levels. The difference in scale scores or percentages of meeting or exceeding standards is derived by using the current year's (2015–16) values minus the previous year's (2014–15) values for the same students. Therefore, a positive value indicates an increase in 2015–16 and a negative value indicates a decrease in 2015–16. Individual achievement level percentages may not sum to 100 or the combined achievement level percentage due to rounding.

10.1.3.1 Summary Statistics

Table 10.C.1 on page 622 contains the number of students assessed, the number of students with valid scores, the means and standard deviations of students' scale scores in 2015–16 and 2014–15 for each test, as well as the differences in scale scores between 2015–16 and 2014–15.

10.1.3.2 Achievement Levels of Overall Students

The percentages of students of each achievement level and qualifying for the Standard Met and Standard Exceeded levels, as well as the differences in the percentages of the students in Standard Met and Standard Exceeded between 2015–16 and 2014–15 are presented in Table 10.C.2 on page 622.

10.1.3.3 Scale Score Distributions

Table 10.C.3 and Table 10.C.4, which start on page 623, show the distribution of scale scores observed in 2015–16 and 2014–15 on the same students per each grade and content area. Frequency counts are provided for each scale score interval of 30.

10.1.3.4 Achievement Levels of Selected Groups

Table 10.C.5 through Table 10.C.14, which start on page 625, provide statistics summarizing student performance by content area and grade for selected groups of students. In the tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, economic status (disadvantaged or not), need for special education services, migrant status, the use of designated supports (using designated supports or not), and the use of accommodations (using accommodations or not). The tables show, for each demographic group, the numbers of students with valid scale scores in both 2015–16 and 2014–15, scale score means and standard deviations, and the percentage of students in each achievement level, for 2015–16 and 2014–15 respectively, as well as the differences in the percentages of Standard Met and Standard Exceeded between 2015–16 and 2014–15.

10.1.4 Longitudinal Comparisons on Claims

10.1.4.1 Summary Statistics

Table 10.D.1 through Table 10.D.4, which start on page 635, contain the number of students assessed, the number of students with valid scores, the means and standard deviations of students' scale scores in 2015–16 and 2014–15 on each claim by grade and content area, as well as the differences in the scale scores between 2015–16 and 2014–15.

The claims are on the same scale as the total test in which the claims are included. Refer to the score ranges of the total test (Table 7.6) for the score ranges of claims.

10.1.4.2 Performance Levels of Overall Students

Table 10.D.5 and Table 10.D.6 on page 637 present the percentages of each performance level of each claim in 2015–16 and 2014–15. Student results on each claim are classified into one of three achievement levels: Below Standard, Near Standard, and Above Standard. Refer to Table 7.8 in Chapter 7 for the achievement level scale score ranges for each test. The percentages of students of each performance level, as well as the differences in the percentages of Near Standard or Above Standard between 2015–16 and 2014–15. Refer to *7.4.2.2 Performance Levels for Claims in Chapter 7: Scoring and Reporting* for the details regarding the classification of achievement levels on claims.

10.1.4.3 Performance Levels of Selected Subgroups

Table 10.D.7 through Table 10.D.41, which start on page 638, show the statistics summarizing student performance by content area and grade for selected subgroups of students. Data in Table 10.D.7 through Table 10.D.26 are calculated from the data for the ELA assessments; data in Table 10.D.27 through Table 10.D.41 are calculated from the data for mathematics. In these tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, economic status (disadvantaged or not), need for special education services, migrant status, the use of designated supports (using designated supports or not), and the use of accommodations (using accommodations or not). The tables show, for each demographic subgroup, the numbers of students with a valid scale score, scale score means and standard deviations, and the percentage of students in each performance level, for 2015–16 and 2014–15 respectively, as well as the differences in the percentages of Near Standard or Above Standard between 2015–16 and 2014–15.

10.2 Test Characteristics

The marginal reliabilities and standard errors of measurement (SEM) expressed in theta score units for each test are presented in Table 10.E.1 on page 673; those for each claim appear in Table 10.E.2 on page 674. Reliabilities are affected by both item characteristics and student characteristics. Refer to sections *8.5.2 Marginal Reliability* and *8.5.3 Standard Error of Measurement* for the methods used to calculate marginal reliability and SEM, respectively.

Appendix 10.A Cross-Sectional Comparisons of the Overall Group and Subgroups on the Overall Tests

Notes:

1. The difference in scale score (SS) and percentage of meeting or exceeding standards is derived by using the current year’s (2015–16) values minus the previous year’s (2014–15) values for the same grade. Therefore, a positive value indicates an increase in 2015–16 and a negative value indicates a decrease in 2015–16.
2. For consistency, the 2014–15 and 2015–16 results were based on the P2 data.
3. Individual achievement level percentages may not sum to 100 or the combined achievement level percentage due to rounding.
4. To protect privacy when the number of students in a subgroup is 10 or fewer, the summary statistics of performance are not reported and are presented as asterisks.

Table 10.A.1 Summary Statistics of the Total Test Across 2015–16 and 2014–15, Cross-Sectional Comparison

Content Area	Grade	2015–16				2014–15				SS Difference
		N Tested	N Valid	SS Mean	SS SD	N Tested	N Valid	SS Mean	SS SD	
English Language Arts/Literacy (ELA)	3	458,000	456,912	2414	90	474,570	472,364	2403	87	11
	4	473,961	472,940	2454	96	464,809	462,454	2446	93	8
	5	464,966	463,908	2496	97	462,145	459,957	2487	95	9
	6	460,355	459,061	2519	97	459,185	455,906	2512	92	7
	7	458,836	457,084	2542	100	453,277	449,124	2532	96	10
	8	452,711	450,483	2559	99	455,428	450,776	2553	95	6
	11	439,631	434,061	2600	111	432,806	420,309	2592	109	8
Mathematics	3	460,360	459,050	2425	82	476,374	474,048	2415	80	10
	4	476,167	474,903	2460	83	466,346	464,207	2454	81	6
	5	466,943	465,699	2485	92	463,612	461,352	2480	89	5
	6	462,223	460,676	2509	107	460,397	457,281	2504	102	5
	7	460,573	458,402	2525	112	454,412	450,078	2518	109	7
	8	454,079	451,601	2541	120	456,372	451,543	2534	116	7
	11	438,482	432,348	2568	125	430,210	418,474	2560	125	8

Table 10.A.2 Percentage of Each Achievement Level Across 2014–15 and 2015–16, Cross-Sectional Comparison

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded		% Standard Met/ Exceeded Difference
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	
ELA	3	36	32	26	25	20	21	18	22	38	42	4
	4	39	36	21	20	21	21	19	23	40	44	4
	5	34	31	21	21	27	28	17	21	45	49	4
	6	28	26	29	26	29	31	13	17	43	47	4
	7	31	28	25	24	32	33	12	15	44	48	4
	8	26	25	29	27	33	34	12	14	45	49	4
	11	20	19	24	22	33	33	23	26	56	59	3
Mathematics	3	33	29	27	26	26	28	14	18	40	45	5
	4	31	28	35	33	22	23	13	15	35	38	3
	5	41	39	29	28	15	16	15	17	30	33	3
	6	36	35	31	30	18	18	15	17	33	35	2
	7	37	34	29	30	19	19	15	17	34	36	2
	8	41	39	26	25	17	17	16	19	33	36	3
	11	45	43	25	25	18	20	11	13	30	32	2

Table 10.A.3 SS Distributions Across 2014–15 and 2015–16 for ELA (Grades Three through Eight and Grade Eleven), Cross-Sectional Comparison

SS Distributions	ELA Grade 3		ELA Grade 4		ELA Grade 5		ELA Grade 6		ELA Grade 7		ELA Grade 8		ELA Grade 11	
	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16
2790–2819													10,268	13,554
2760–2789											4,094	7,474	11,598	14,736
2730–2759									6,638	11,102	6,908	9,443	20,594	24,693
2700–2729					4,205	6,000	7,144	11,001	9,217	13,144	14,906	17,393	30,485	34,249
2670–2699					7,102	9,110	10,928	14,050	18,189	23,053	25,253	28,592	37,785	41,172
2640–2669			8,016	11,276	14,055	17,151	20,478	24,964	29,433	33,648	36,781	39,622	42,392	45,418
2610–2639	3,723	6,283	10,476	13,811	23,360	27,437	31,641	36,636	38,941	42,735	45,256	47,070	43,781	44,761
2580–2609	6,452	9,467	19,054	23,320	33,778	38,336	41,371	45,494	46,809	48,360	49,290	49,433	41,755	41,168
2550–2579	13,775	18,184	28,864	34,114	43,268	46,271	48,924	50,804	49,933	49,774	49,912	47,665	38,224	36,453
2520–2549	23,775	28,455	39,714	44,667	49,680	51,003	55,392	53,533	48,676	48,392	50,551	46,316	33,747	31,911
2490–2519	35,494	37,669	47,733	50,298	50,458	50,382	56,219	51,172	46,236	44,501	47,839	42,804	29,010	27,764
2460–2489	45,172	45,631	51,418	52,095	49,661	47,734	50,808	45,776	43,424	40,107	40,936	36,959	24,342	23,335
2430–2459	52,464	51,682	51,939	51,142	48,146	45,884	43,752	39,560	38,818	34,504	31,648	29,695	19,898	19,416
2400–2429	57,165	54,218	51,702	48,294	45,522	42,295	34,776	31,206	31,344	27,944	22,346	21,502	15,716	15,310
2370–2399	58,238	52,393	47,551	44,385	38,664	34,312	24,997	23,315	21,613	19,975	13,910	14,027	10,738	10,193
2340–2369	55,088	49,451	42,237	38,835	26,580	22,958	15,828	15,274	11,853	11,486	6,888	7,403	5,866	5,678
2310–2339	47,863	42,787	32,267	29,414	14,898	13,481	8,225	8,780	5,174	5,368	2,756	3,238	2,665	2,577
2280–2309	37,335	32,172	18,812	18,409	6,673	6,942	3,501	4,481	1,872	1,968	1,502	1,847	1,445	1,673
2250–2279	22,197	18,041	8,447	8,390	2,535	2,949	1,209	1,924	954	1,023				
2220–2249	9,467	7,212	2,915	3,087	861	1,022	448	698						
2190–2219	2,877	2,330	912	985	511	641	265	393						
2160–2189	880	646	270	272										
2130–2159	257	178	127	146										
2100–2129	142	113												

Table 10.A.4 SS Distributions Across 2014–15 and 2015–16 for Mathematics (Grades Three through Eight and Grade Eleven), Cross-Sectional Comparison

SS Distributions	Mathematics Grade 3		Mathematics Grade 4		Mathematics Grade 5		Mathematics Grade 6		Mathematics Grade 7		Mathematics Grade 8		Mathematics Grade 11	
	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16
2850–2879													4,655	4,923
2820–2849													4,391	4,870
2790–2819											6,905	10,021	7,081	7,935
2760–2789									5,126	6,337	6,048	7,461	10,168	11,777
2730–2759							5,317	7,970	5,496	6,975	9,871	11,754	14,229	16,707
2700–2729					3,438	4,644	5,790	7,538	10,432	12,842	15,432	17,239	18,729	21,403
2670–2699					4,919	6,085	11,380	13,748	16,979	19,915	21,162	22,991	23,770	26,928
2640–2669			5,940	8,709	10,333	12,177	18,567	20,768	23,920	26,512	27,577	28,376	28,564	31,200
2610–2639	3,861	5,230	8,020	10,692	19,208	21,887	27,333	29,404	32,135	34,113	32,967	33,715	33,373	36,630
2580–2609	6,102	8,275	16,914	20,396	29,895	32,757	38,276	40,320	39,387	40,191	37,691	37,262	36,936	38,672
2550–2579	11,802	15,378	27,290	31,704	39,106	41,473	47,119	46,695	44,080	46,523	42,030	40,525	37,643	36,915
2520–2549	22,427	26,854	39,368	43,399	46,222	48,002	53,579	51,973	47,911	52,314	44,739	43,585	37,026	36,294
2490–2519	38,246	42,875	53,452	56,452	53,364	53,120	55,159	52,637	48,724	47,869	44,039	43,341	35,574	35,311
2460–2489	55,094	57,195	62,998	63,751	56,288	54,790	50,473	47,807	43,808	38,722	40,555	39,166	33,567	32,550
2430–2459	66,862	66,477	67,095	65,191	58,069	55,211	41,601	38,694	37,842	33,106	34,621	33,488	28,661	28,583
2400–2429	69,177	65,230	62,981	60,763	53,967	50,924	31,923	30,069	30,069	26,246	28,856	26,977	22,870	22,285
2370–2399	67,336	59,781	52,623	48,854	39,757	38,022	24,376	23,119	22,611	22,235	22,550	21,027	16,275	16,307
2340–2369	55,207	46,235	34,310	32,997	23,691	23,123	17,834	17,831	16,146	17,796	15,655	14,612	10,492	10,354
2310–2339	35,540	29,217	18,013	17,756	12,646	12,596	11,907	12,730	10,660	12,451	9,799	9,019	6,127	5,886
2280–2309	20,011	16,181	8,756	8,433	6,135	6,159	7,329	8,379	6,180	7,378	5,234	5,020	8,343	6,818
2250–2279	10,729	9,280	3,950	3,626	2,584	2,713	4,126	4,976	8,572	6,877	5,812	6,022		
2220–2249	6,000	5,359	1,517	1,387	974	1,172	5,192	6,018						
2190–2219	3,197	2,969	980	793	756	844								
2160–2189	2,457	2,514												

Table 10.A.5 Summary Statistics and Percentage of Achievement Levels Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Three and 2014–15 ELA Grade Three

	2015–16 ELA Grade 3									2014–15 ELA Grade 3									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	456,912	2414	90	32	25	21	22	42	472,364	2403	87	36	26	20	18	38	11	4	
Male	233,566	2405	90	36	25	19	19	39	241,400	2393	87	41	26	18	15	34	12	5	
Female	223,346	2423	89	28	26	22	25	46	230,964	2413	87	31	27	21	20	42	10	4	
American Indian or Alaska Native	2,347	2390	84	41	28	19	12	32	2,536	2379	82	47	26	18	10	27	11	5	
Asian	40,098	2472	88	13	18	23	46	69	40,772	2460	86	15	20	25	40	65	12	4	
Native Hawaiian or Other Pacific Islander	2,160	2401	84	36	29	20	16	36	2,219	2395	80	37	30	21	12	33	6	3	
Filipino	9,574	2459	81	14	22	26	38	64	10,739	2446	79	16	24	28	31	59	13	5	
Hispanic or Latino	253,019	2390	82	41	28	18	12	31	261,665	2379	78	46	29	17	9	25	11	6	
Black or African American	25,266	2379	84	47	26	16	11	27	26,399	2369	81	52	25	15	8	23	10	4	
White	105,287	2450	87	18	22	25	35	60	109,712	2439	85	21	24	26	30	55	11	5	
Two or more races	19,161	2444	91	22	22	23	33	57	18,322	2433	88	24	24	24	29	52	11	5	
English learner	133,000	2364	73	54	28	12	5	18	151,215	2361	74	55	28	12	5	17	3	1	
English only	266,391	2428	90	27	24	23	27	49	270,648	2417	88	30	26	22	22	44	11	5	
Reclassified fluent English proficient	40,017	2460	68	8	26	32	34	66	31,097	2447	66	11	30	33	26	59	13	7	
Initially fluent English proficient	16,549	2479	83	10	18	24	48	72	18,153	2466	82	13	20	25	42	67	13	5	
Economically disadvantaged	291,123	2387	81	43	28	18	11	29	294,442	2376	78	47	29	16	8	24	11	5	
Not econ. disadvantaged	165,789	2462	85	14	20	25	40	66	177,922	2448	84	18	23	26	33	59	14	7	
Migrant	4,434	2361	75	56	26	13	6	18	4,647	2352	73	60	26	11	4	14	9	4	
Not migrant	452,478	2415	90	32	25	21	22	43	467,717	2403	87	36	26	20	18	38	12	5	
Special education services	47,540	2347	85	66	18	9	7	17	44,870	2339	83	68	18	9	6	15	8	2	
No special education services	409,372	2422	88	28	26	22	24	45	427,494	2410	85	33	27	21	19	40	12	5	
Using designated supports	61,337	2353	78	61	23	10	6	16	46,074	2338	75	68	20	8	4	12	15	4	
No designated supports	395,575	2424	88	28	26	22	24	46	426,290	2410	86	33	27	21	19	40	14	6	
Using accommodations	10,622	2318	66	80	14	5	2	6	4,022	2319	72	77	15	5	2	8	-1	-2	
No accommodations	446,290	2416	89	31	25	21	22	43	468,342	2404	87	36	26	20	18	38	12	5	

Table 10.A.6 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Four

	2015–16 ELA Grade 4									2014–15 ELA Grade 4									% Std Met/ Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Mean	SD	Std Not Met	Std Nearly Met	Std Met	SS Diff		
All Students	472,940	2454	96	36	20	21	23	44	462,454	2446	93	39	21	21	19	40	8	4	
Male	241,625	2444	96	40	20	20	19	40	235,468	2435	93	44	21	19	16	35	9	5	
Female	231,315	2465	94	31	21	22	26	48	226,986	2457	91	34	22	22	22	44	8	4	
American Indian or Alaska Native	2,457	2427	91	46	22	19	13	32	2,450	2423	88	49	22	18	12	30	4	2	
Asian	41,577	2517	92	15	14	23	48	71	41,094	2510	91	16	16	24	44	68	7	3	
Native Hawaiian or Other Pacific Islander	2,195	2446	88	37	25	22	17	38	2,287	2435	84	41	26	20	13	33	11	5	
Filipino	10,781	2504	84	16	17	27	39	67	11,151	2491	84	19	20	28	33	61	13	6	
Hispanic or Latino	262,425	2429	88	45	23	19	13	32	252,820	2419	83	50	23	17	10	27	10	5	
Black or African American	25,989	2415	90	52	21	16	11	27	25,978	2407	86	56	20	15	8	23	8	4	
White	108,827	2492	91	21	18	25	36	61	109,878	2483	89	23	20	26	31	57	9	4	
Two or more races	18,689	2486	96	24	18	24	34	58	16,796	2478	93	26	19	24	30	55	8	3	
English learner	122,642	2391	75	64	21	11	4	15	119,900	2384	71	68	20	9	3	11	7	4	
English only	269,477	2469	95	30	20	23	27	50	261,423	2460	93	33	21	23	24	47	9	3	
Reclassified fluent English proficient	61,381	2497	71	13	24	33	31	64	61,915	2484	71	17	27	32	24	56	13	8	
Initially fluent English proficient	18,584	2523	86	12	14	24	49	73	18,131	2512	86	14	17	26	43	69	11	4	
Economically disadvantaged	301,775	2425	87	47	23	19	12	31	285,624	2416	83	51	23	17	9	26	9	5	
Not econ. disadvantaged	171,165	2506	88	16	17	26	41	67	176,830	2493	88	20	19	26	35	62	13	5	
Migrant	4,609	2398	83	60	21	14	6	20	4,491	2392	77	62	22	12	4	16	6	4	
Not migrant	468,331	2455	96	36	20	21	23	44	457,963	2446	93	39	21	21	19	40	9	4	
Special education services	52,636	2373	90	72	13	9	6	15	48,751	2370	87	74	13	8	5	14	3	1	
No special education services	420,304	2465	92	31	21	23	25	47	413,703	2455	89	35	22	22	21	43	10	4	
Using designated supports	65,468	2381	84	68	17	10	5	15	45,476	2366	77	76	14	7	3	10	15	5	
No designated supports	407,472	2466	92	31	21	23	25	48	416,978	2454	90	35	22	22	21	43	12	5	
Using accommodations	12,402	2342	70	85	10	4	1	5	4,370	2349	75	82	10	5	2	7	-7	-2	
No accommodations	460,538	2457	95	34	21	22	23	45	458,084	2447	93	39	21	21	19	40	10	5	

Table 10.A.7 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Five

	2015–16 ELA Grade 5									2014–15 ELA Grade 5									% Std Met/ Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	463,908	2496	97	31	21	28	21	49	459,957	2487	95	34	21	27	17	45	9	4	
Male	235,979	2482	98	36	21	26	17	43	234,796	2474	95	39	21	25	14	39	8	4	
Female	227,929	2509	95	25	20	30	24	54	225,161	2501	92	28	22	30	21	50	8	4	
American Indian or Alaska Native	2,409	2466	94	42	22	23	12	36	2,519	2452	89	48	23	21	8	29	14	7	
Asian	41,776	2561	93	12	13	29	47	75	42,192	2551	93	14	14	31	42	72	10	3	
Native Hawaiian or Other Pacific Islander	2,293	2482	91	34	22	29	14	43	2,392	2473	87	37	25	26	12	38	9	5	
Filipino	11,182	2543	85	13	17	35	35	70	11,781	2530	85	16	19	36	29	65	13	5	
Hispanic or Latino	254,218	2470	89	39	24	26	11	37	246,912	2461	85	43	24	24	8	32	9	5	
Black or African American	25,649	2452	93	48	22	22	9	31	26,381	2447	89	50	22	21	7	28	5	3	
White	109,284	2531	92	18	17	33	32	65	112,275	2523	91	20	19	34	28	62	8	3	
Two or more races	17,097	2526	97	20	17	31	31	63	15,505	2519	94	22	19	31	28	59	7	4	
English learner	96,940	2419	74	64	23	12	2	13	100,224	2414	70	67	21	10	1	11	5	2	
English only	260,661	2509	97	26	19	30	25	55	257,439	2501	95	28	20	30	21	52	8	3	
Reclassified fluent English proficient	86,989	2526	74	13	24	40	23	63	81,061	2518	73	15	26	39	20	58	8	5	
Initially fluent English proficient	18,627	2564	86	9	14	31	46	77	20,243	2547	88	13	16	33	37	71	17	6	
Economically disadvantaged	292,694	2466	89	41	24	25	10	36	279,684	2457	85	45	24	23	8	31	9	5	
Not econ. disadvantaged	171,214	2546	89	14	15	33	38	71	180,273	2534	90	16	17	34	32	66	12	5	
Migrant	4,522	2441	86	51	23	21	5	26	4,463	2433	80	56	23	17	4	21	8	5	
Not migrant	459,386	2496	97	31	21	28	21	49	455,494	2488	95	34	21	28	18	45	8	4	
Special education services	53,695	2404	89	71	14	10	4	15	50,498	2401	86	73	14	9	4	13	3	2	
No special education services	410,213	2508	92	25	21	31	23	53	409,459	2498	90	29	22	30	19	49	10	4	
Using designated supports	61,627	2413	86	66	18	12	4	16	44,554	2398	78	75	15	8	2	10	15	6	
No designated supports	402,281	2508	92	25	21	31	23	54	415,403	2497	91	29	22	30	19	48	11	6	
Using accommodations	13,422	2374	73	84	11	5	1	5	4,625	2380	74	82	11	5	1	7	-6	-2	
No accommodations	450,486	2499	95	29	21	29	21	50	455,332	2488	94	33	22	28	18	45	11	5	

Table 10.A.8 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Six

	2015–16 ELA Grade 6									2014–15 ELA Grade 6							% Std Met/ Std Exc Diff	
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc		SS Diff
All Students	459,061	2519	97	26	26	31	17	47	455,906	2512	92	28	29	29	13	43	7	4
Male	234,565	2505	98	32	27	28	13	41	232,676	2499	93	34	29	26	11	37	6	4
Female	224,496	2534	93	21	26	34	20	53	223,230	2525	89	22	29	33	16	49	9	4
American Indian or Alaska Native	2,446	2484	94	38	29	24	8	32	2,499	2484	89	39	30	24	7	31	0	1
Asian	42,584	2586	91	10	15	34	41	76	41,772	2577	89	10	17	36	36	72	9	4
Native Hawaiian or Other Pacific Islander	2,337	2508	90	29	29	30	11	41	2,300	2502	85	29	33	29	9	38	6	3
Filipino	11,767	2568	84	10	20	39	31	69	12,423	2554	83	12	24	40	24	64	14	5
Hispanic or Latino	247,216	2494	89	34	31	27	8	35	243,331	2486	84	36	33	24	6	30	8	5
Black or African American	25,781	2476	94	43	28	23	7	30	26,372	2474	88	43	30	21	5	27	2	3
White	110,423	2553	90	15	22	37	26	63	112,538	2545	86	16	25	38	21	59	8	4
Two or more races	16,507	2548	95	18	22	34	26	60	14,671	2538	91	20	25	35	20	56	10	4
English learner	79,620	2434	76	62	28	9	1	10	76,123	2430	70	66	27	7	1	7	4	3
English only	255,191	2532	96	22	25	33	20	53	253,149	2525	91	23	28	33	16	49	7	4
Reclassified fluent English proficient	102,956	2542	76	13	31	40	16	56	104,144	2529	74	16	36	36	12	48	13	8
Initially fluent English proficient	20,516	2578	88	9	19	36	36	72	21,505	2566	86	11	22	36	30	67	12	5
Economically disadvantaged	285,741	2490	90	36	30	26	8	34	275,549	2483	84	38	33	24	6	29	7	5
Not econ. disadvantaged	173,320	2568	88	11	20	38	31	69	180,357	2555	86	13	23	38	25	64	13	5
Migrant	3,976	2465	87	45	31	20	3	24	3,927	2461	82	48	31	18	3	21	4	3
Not migrant	455,085	2520	97	26	26	31	17	47	451,979	2512	92	28	29	30	13	43	8	4
Special education services	50,890	2419	87	69	20	9	2	11	47,416	2420	82	71	19	8	2	10	-1	1
No special education services	408,171	2532	91	21	27	33	18	52	408,490	2522	87	23	30	32	15	47	10	5
Using designated supports	53,509	2431	88	63	23	11	2	13	36,490	2418	76	72	21	6	1	7	13	6
No designated supports	405,552	2531	92	22	27	33	18	52	419,416	2520	89	24	30	32	14	46	11	6
Using accommodations	15,659	2393	74	81	15	4	0	4	11,212	2398	69	82	14	4	0	4	-5	0
No accommodations	443,402	2524	95	25	27	32	17	49	444,694	2515	91	27	29	30	14	44	9	5

Table 10.A.9 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Seven

	2015–16 ELA Grade 7									2014–15 ELA Grade 7									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	457,084	2542	100	28	24	33	15	48	449,124	2532	96	31	25	32	12	44	10	4	
Male	233,491	2527	101	33	25	30	12	42	228,703	2518	97	36	25	29	10	38	9	4	
Female	223,593	2557	96	22	24	36	18	54	220,421	2546	93	25	26	35	14	49	11	5	
American Indian or Alaska Native	2,459	2512	95	39	26	28	8	36	2,671	2502	92	42	27	26	6	31	10	5	
Asian	42,333	2612	93	10	14	36	40	76	40,437	2601	92	11	15	39	35	74	11	2	
Native Hawaiian or Other Pacific Islander	2,207	2529	92	30	28	31	10	41	2,334	2521	87	32	31	31	7	37	8	4	
Filipino	12,438	2588	87	12	19	43	26	69	12,448	2576	85	14	21	45	20	65	12	4	
Hispanic or Latino	244,680	2513	92	36	28	28	7	35	240,077	2504	87	40	29	26	5	31	9	4	
Black or African American	25,949	2499	96	44	26	24	6	30	26,786	2491	90	47	26	23	4	27	8	3	
White	111,549	2579	92	15	20	41	24	65	110,880	2568	90	17	22	41	19	61	11	4	
Two or more races	15,469	2570	99	19	20	37	23	61	13,491	2562	94	20	22	38	19	57	8	4	
English learner	64,103	2443	72	71	22	7	1	7	65,495	2438	68	74	20	5	0	6	5	1	
English only	251,788	2556	98	23	23	36	19	54	246,806	2546	95	25	24	36	15	50	10	4	
Reclassified fluent English proficient	118,319	2554	82	18	30	39	13	51	115,252	2544	80	21	32	37	10	47	10	4	
Initially fluent English proficient	22,015	2599	92	11	18	38	33	71	20,517	2586	90	13	20	40	27	67	13	4	
Economically disadvantaged	281,088	2511	92	38	28	27	7	34	269,934	2501	88	41	29	25	5	30	10	4	
Not econ. disadvantaged	175,996	2591	91	12	18	41	29	70	179,190	2577	90	15	21	42	23	64	14	6	
Migrant	3,703	2485	88	48	28	21	3	24	3,739	2477	85	52	27	19	2	21	8	3	
Not migrant	453,381	2542	100	28	24	33	15	48	445,385	2532	96	31	25	32	12	44	10	4	
Special education services	48,803	2441	84	71	18	9	2	11	45,007	2437	81	74	16	8	2	9	4	2	
No special education services	408,281	2554	94	23	25	35	17	52	404,117	2542	92	26	26	34	13	47	12	5	
Using designated supports	45,038	2452	87	66	20	11	2	14	31,270	2434	76	75	17	7	1	8	18	6	
No designated supports	412,046	2551	96	24	25	35	17	52	417,854	2539	94	28	26	34	13	46	12	6	
Using accommodations	16,194	2419	70	82	14	4	0	4	9,593	2416	69	84	12	4	0	4	3	0	
No accommodations	440,890	2546	98	26	25	34	16	49	439,531	2534	95	30	26	32	12	44	12	5	

Table 10.A.10 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Eight

	2015–16 ELA Grade 8									2014–15 ELA Grade 8									% Std Met/ Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/ Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/ Exc	SS Diff		
All Students	450,483	2559	99	25	27	34	14	49	450,776	2553	95	26	29	33	12	45	6	4	
Male	229,516	2543	101	30	27	31	12	42	229,904	2537	96	32	29	30	9	39	6	3	
Female	220,967	2576	95	18	26	38	18	56	220,872	2568	91	20	29	37	14	52	8	4	
American Indian or Alaska Native	2,559	2531	96	34	29	29	8	37	2,593	2525	90	34	33	27	6	33	6	4	
Asian	41,115	2630	93	8	14	39	38	77	40,664	2619	91	9	17	41	33	74	11	3	
Native Hawaiian or Other Pacific Islander	2,335	2547	90	27	30	34	9	43	2,305	2539	87	29	33	31	7	38	8	5	
Filipino	12,490	2605	86	10	20	45	25	70	12,952	2595	83	11	23	48	19	66	10	4	
Hispanic or Latino	241,501	2533	91	31	31	30	7	37	239,394	2527	86	33	34	28	5	33	6	4	
Black or African American	26,629	2517	96	40	28	26	6	32	27,785	2513	91	40	31	24	5	28	4	4	
White	109,734	2594	94	14	22	42	23	64	112,207	2586	90	14	24	42	19	61	8	3	
Two or more races	14,120	2585	99	17	23	39	21	60	12,876	2581	95	17	24	39	19	59	4	1	
English learner	54,951	2457	71	68	26	6	0	7	58,050	2457	67	68	26	5	0	6	0	1	
English only	245,367	2573	99	21	25	37	18	55	246,299	2566	94	21	27	37	15	52	7	3	
Reclassified fluent English proficient	128,332	2569	83	16	32	40	12	51	124,490	2562	79	17	36	38	9	47	7	4	
Initially fluent English proficient	21,068	2615	91	9	19	41	30	72	20,995	2603	90	11	22	41	26	67	12	5	
Economically disadvantaged	275,975	2530	92	33	31	29	7	36	267,415	2524	87	34	33	27	5	32	6	4	
Not econ. disadvantaged	174,508	2605	92	11	20	42	27	69	183,361	2594	90	13	23	42	22	64	11	5	
Migrant	3,821	2504	90	43	31	23	4	26	3,893	2502	85	44	32	20	3	23	2	3	
Not migrant	446,662	2560	99	24	27	34	15	49	446,883	2553	95	25	29	34	12	45	7	4	
Special education services	46,291	2457	84	68	21	9	2	11	44,300	2457	80	69	21	8	1	10	0	1	
No special education services	404,192	2571	94	20	27	37	16	53	406,476	2563	90	21	30	36	13	49	8	4	
Using designated supports	41,300	2469	88	62	24	12	2	14	29,114	2454	77	70	22	7	1	8	15	6	
No designated supports	409,183	2569	95	21	27	37	16	52	421,662	2559	92	23	30	35	13	48	10	4	
Using accommodations	14,046	2434	71	79	17	4	0	4	8,954	2436	69	78	17	4	0	4	-2	0	
No accommodations	436,437	2563	97	23	27	35	15	50	441,822	2555	94	25	29	34	12	46	8	4	

Table 10.A.11 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 ELA Grade Eleven and 2014–15 ELA Grade Eleven

	2015–16 ELA Grade 11									2014–15 ELA Grade 11									% Std Met/ Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	434,061	2600	111	19	22	33	26	59	420,309	2592	109	20	24	33	23	56	8	3	
Male	221,104	2585	115	23	23	31	22	53	213,274	2577	113	25	25	31	20	50	8	3	
Female	212,957	2616	104	14	22	36	29	65	207,035	2607	103	15	24	36	26	62	9	3	
American Indian or Alaska Native	2,562	2573	109	25	26	33	17	50	2,608	2571	108	25	27	31	17	48	2	2	
Asian	40,041	2668	103	8	11	29	52	81	38,588	2657	105	9	14	30	48	78	11	3	
Native Hawaiian or Other Pacific Islander	2,291	2577	106	23	25	34	17	51	2,372	2573	105	24	28	33	16	48	4	3	
Filipino	13,547	2648	91	7	15	39	39	78	13,736	2635	93	8	18	40	34	74	13	4	
Hispanic or Latino	226,582	2574	105	23	27	34	16	50	217,831	2566	102	25	29	33	13	46	8	4	
Black or African American	25,714	2549	110	32	27	28	13	40	25,304	2546	107	33	28	28	11	39	3	1	
White	110,343	2632	106	12	17	35	36	71	108,490	2624	105	13	19	35	33	68	8	3	
Two or more races	12,981	2624	110	14	18	34	34	68	11,380	2619	108	14	20	35	32	66	5	2	
English learner	39,407	2471	80	62	28	8	1	9	39,312	2469	78	63	29	7	1	8	2	1	
English only	238,969	2612	110	16	21	34	30	64	231,435	2604	109	17	22	34	27	61	8	3	
Reclassified fluent English proficient	121,017	2606	94	12	26	40	22	62	112,722	2596	92	14	29	39	18	57	10	5	
Initially fluent English proficient	33,905	2646	100	8	16	36	40	76	35,941	2633	100	10	19	36	35	71	13	5	
Economically disadvantaged	249,584	2571	107	25	27	33	16	49	230,770	2563	104	26	29	32	13	45	8	4	
Not econ. disadvantaged	184,477	2639	104	10	17	34	39	73	189,539	2626	105	12	19	35	34	69	13	4	
Migrant	3,255	2545	104	32	29	28	10	38	3,368	2536	98	34	33	26	7	33	9	5	
Not migrant	430,806	2600	111	18	22	33	26	59	416,941	2592	109	20	24	33	23	56	8	3	
Special education services	37,834	2484	96	58	26	13	3	16	34,110	2480	94	60	26	11	3	14	4	2	
No special education services	396,227	2611	106	15	22	35	28	63	386,199	2602	105	16	24	35	24	59	9	4	
Using designated supports	26,724	2510	108	48	26	18	8	26	22,805	2495	101	54	27	14	5	20	15	6	
No designated supports	407,337	2606	108	17	22	34	27	61	397,504	2597	107	18	24	34	24	58	9	3	
Using accommodations	5,884	2461	86	68	23	8	1	9	4,319	2459	89	69	22	7	2	9	2	0	
No accommodations	428,177	2602	110	18	22	34	26	60	415,990	2593	108	19	24	33	23	56	9	4	

Table 10.A.12 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Three and 2014–15 Mathematics Grade Three

	2015–16 Mathematics Grade 3									2014–15 Mathematics Grade 3									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	459,050	2425	82	29	26	28	18	45	474,048	2415	80	33	27	26	14	40	10	5	
Male	234,692	2425	85	29	25	27	19	46	242,318	2415	83	33	26	26	15	41	10	5	
Female	224,358	2424	79	29	27	28	16	45	231,730	2415	77	33	28	26	13	39	9	6	
American Indian or Alaska Native	2,350	2401	78	39	27	24	9	34	2,531	2390	77	44	27	22	7	29	11	5	
Asian	40,779	2488	78	9	15	30	46	76	41,351	2478	78	11	17	32	41	72	10	4	
Native Hawaiian or Other Pacific Islander	2,160	2413	76	32	29	27	12	39	2,226	2409	73	34	30	26	10	36	4	3	
Filipino	9,625	2463	71	12	21	37	30	67	10,853	2452	70	15	23	38	24	62	11	5	
Hispanic or Latino	254,035	2403	74	37	29	25	9	34	262,529	2393	71	42	30	22	6	28	10	6	
Black or African American	25,225	2385	79	46	28	20	7	26	26,394	2378	75	50	27	18	5	22	7	4	
White	105,473	2454	77	16	22	35	28	62	109,846	2445	76	19	23	35	23	58	9	4	
Two or more races	19,403	2447	84	21	22	31	27	58	18,318	2440	80	22	24	32	23	54	7	4	
English learner	134,964	2387	72	46	30	19	6	24	152,814	2383	71	49	29	17	5	22	4	2	
English only	266,105	2434	82	25	24	30	21	51	270,333	2425	80	28	26	29	17	46	9	5	
Reclassified fluent English proficient	40,001	2467	62	7	23	41	28	69	31,069	2455	62	11	27	40	22	62	12	7	
Initially fluent English proficient	16,536	2483	76	9	17	31	42	73	18,142	2473	76	11	20	33	36	69	10	4	
Economically disadvantaged	292,395	2401	75	38	29	24	9	33	295,403	2391	72	43	30	21	6	27	10	6	
Not econ. disadvantaged	166,655	2467	76	12	20	35	33	68	178,645	2455	76	16	22	35	27	62	12	6	
Migrant	4,483	2386	70	47	29	20	5	25	4,715	2376	68	52	29	16	3	19	10	6	
Not migrant	454,567	2425	82	29	26	28	18	46	469,333	2415	80	33	27	26	14	40	10	6	
Special education services	47,355	2359	91	61	19	14	7	20	44,780	2353	89	64	18	12	6	18	6	2	
No special education services	411,695	2432	77	25	26	30	19	48	429,268	2422	76	30	27	28	15	43	10	5	
Using designated supports	67,515	2369	82	55	24	16	5	21	55,358	2360	81	61	22	13	4	17	9	4	
No designated supports	391,535	2434	78	24	26	30	20	50	418,690	2422	77	29	27	28	15	43	12	7	
Using accommodations	3,805	2318	81	78	14	6	2	8	3,301	2314	78	81	12	5	2	7	4	1	
No accommodations	455,245	2426	81	28	26	28	18	46	470,747	2416	79	33	27	26	14	40	10	6	

Table 10.A.13 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Four

	2015–16 Mathematics Grade 4									2014–15 Mathematics Grade 4									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc			
All Students	474,903	2460	83	28	33	23	15	38	464,207	2454	81	31	35	22	13	35	6	3	
Male	242,581	2462	86	28	32	23	17	40	236,373	2454	84	31	33	22	14	36	8	4	
Female	232,322	2459	79	28	35	23	14	37	227,834	2453	77	30	36	22	12	34	6	3	
American Indian or Alaska Native	2,456	2436	78	38	34	20	7	27	2,444	2433	78	38	37	18	7	25	3	2	
Asian	42,181	2530	81	8	19	28	44	72	41,639	2522	80	9	22	29	40	69	8	3	
Native Hawaiian or Other Pacific Islander	2,202	2453	75	29	37	24	10	34	2,280	2443	71	33	41	19	7	27	10	7	
Filipino	10,836	2502	73	11	28	34	27	61	11,279	2490	73	13	33	32	22	54	12	7	
Hispanic or Latino	263,441	2437	73	37	38	19	7	26	253,846	2430	71	40	38	17	5	22	7	4	
Black or African American	25,966	2421	76	46	34	15	5	20	25,943	2416	74	48	35	14	4	17	5	3	
White	108,913	2493	79	15	30	31	25	56	109,959	2485	76	16	32	31	21	52	8	4	
Two or more races	18,908	2486	85	19	29	28	24	52	16,817	2481	82	19	32	28	21	49	5	3	
English learner	124,525	2413	68	50	36	11	3	14	121,514	2407	66	54	34	9	2	11	6	3	
English only	269,100	2471	83	24	32	26	18	44	261,176	2464	81	26	34	25	15	40	7	4	
Reclassified fluent English proficient	61,347	2494	67	10	36	33	21	54	61,904	2486	65	11	40	32	17	49	8	5	
Initially fluent English proficient	18,588	2521	79	9	24	29	38	67	18,135	2511	79	11	27	29	33	63	10	4	
Economically disadvantaged	303,035	2435	74	38	37	18	7	25	286,647	2428	71	41	38	16	5	21	7	4	
Not econ. disadvantaged	171,868	2506	79	12	27	31	31	62	177,560	2495	78	14	30	31	25	56	11	6	
Migrant	4,660	2418	68	47	37	13	3	16	4,528	2413	66	50	35	12	2	14	5	2	
Not migrant	470,243	2461	83	28	33	23	15	38	459,679	2454	81	30	35	22	13	35	7	3	
Special education services	52,450	2393	84	63	23	9	5	14	48,680	2389	84	64	23	9	4	13	4	1	
No special education services	422,453	2469	79	24	35	25	17	41	415,527	2461	77	27	36	23	14	37	8	4	
Using designated supports	71,262	2401	77	57	29	10	4	14	52,422	2390	75	64	26	8	3	10	11	4	
No designated supports	403,641	2471	80	23	34	25	17	43	411,785	2462	78	26	36	24	14	38	9	5	
Using accommodations	15,562	2360	66	79	17	3	1	4	11,518	2355	65	82	15	3	1	3	5	1	
No accommodations	459,341	2464	81	27	34	24	16	39	452,689	2456	80	29	35	22	13	35	8	4	

Table 10.A.14 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Five

	2015–16 Mathematics Grade 5									2014–15 Mathematics Grade 5									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	465,699	2485	92	39	28	16	17	33	461,352	2480	89	41	29	15	15	30	5	3	
Male	236,943	2485	96	39	27	16	18	34	235,494	2480	93	41	27	16	16	31	5	3	
Female	228,756	2485	88	39	29	16	16	32	225,858	2481	85	40	30	15	14	29	4	3	
American Indian or Alaska Native	2,401	2460	88	49	28	13	10	23	2,510	2450	82	54	29	10	7	17	10	6	
Asian	42,318	2562	89	13	19	21	47	68	42,707	2555	89	14	21	21	44	65	7	3	
Native Hawaiian or Other Pacific Islander	2,295	2473	83	44	31	14	11	25	2,394	2467	81	45	32	14	9	23	6	2	
Filipino	11,232	2529	81	18	29	24	29	53	11,857	2520	81	22	30	23	25	48	9	5	
Hispanic or Latino	255,193	2458	81	50	30	13	8	20	247,821	2453	78	53	30	11	6	17	5	3	
Black or African American	25,619	2439	83	59	25	10	6	15	26,300	2436	81	60	26	9	5	14	3	1	
White	109,349	2521	87	22	28	23	27	50	112,250	2515	84	23	30	22	24	46	6	4	
Two or more races	17,292	2514	94	27	26	20	27	47	15,513	2510	90	28	28	20	24	44	4	3	
English learner	98,699	2421	72	71	22	5	2	8	101,689	2419	69	73	21	5	2	7	2	1	
English only	260,328	2497	92	33	28	18	20	38	257,010	2492	89	35	29	18	18	36	5	2	
Reclassified fluent English proficient	86,979	2510	76	24	36	21	19	40	81,046	2507	74	25	37	20	17	38	3	2	
Initially fluent English proficient	18,627	2550	88	15	24	21	40	60	20,238	2537	88	19	27	20	34	54	13	6	
Economically disadvantaged	293,885	2456	82	51	29	12	7	20	280,563	2451	79	54	29	11	6	17	5	3	
Not econ. disadvantaged	171,814	2535	87	18	26	23	33	56	180,789	2525	86	21	28	22	29	51	10	5	
Migrant	4,589	2439	77	60	26	10	4	14	4,513	2433	73	63	27	7	3	10	6	4	
Not migrant	461,110	2486	92	39	28	16	17	33	456,839	2481	89	41	29	16	15	31	5	2	
Special education services	53,501	2407	88	74	15	6	5	10	50,363	2406	85	76	15	5	4	9	1	1	
No special education services	412,198	2495	87	34	30	17	19	36	410,989	2489	86	37	30	17	16	33	6	3	
Using designated supports	66,357	2415	82	71	19	6	3	10	50,726	2406	79	76	16	4	3	7	9	3	
No designated supports	399,342	2497	88	34	29	18	19	37	410,626	2489	86	37	30	17	16	33	8	4	
Using accommodations	18,925	2377	70	88	10	2	1	2	13,022	2375	66	89	9	2	1	2	2	0	
No accommodations	446,774	2490	90	37	29	17	18	34	448,330	2483	88	40	29	16	15	31	7	3	

Table 10.A.15 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Six

	2015–16 Mathematics Grade 6									2014–15 Mathematics Grade 6									% Std Met/ Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc			
All Students	460,676	2509	107	35	30	18	17	35	457,281	2504	102	36	31	18	15	33	5	2	
Male	235,427	2505	112	37	28	17	17	35	233,365	2500	106	38	30	17	15	32	5	3	
Female	225,249	2512	102	33	31	19	17	36	223,916	2509	97	34	32	19	15	34	3	2	
American Indian or Alaska Native	2,448	2469	103	49	30	13	8	21	2,498	2475	96	46	32	14	7	22	-6	-1	
Asian	43,118	2599	100	11	18	22	49	71	42,228	2590	96	12	20	23	45	68	9	3	
Native Hawaiian or Other Pacific Islander	2,345	2495	97	39	33	18	11	28	2,300	2496	92	38	35	17	10	27	-1	1	
Filipino	11,804	2559	91	16	28	26	30	56	12,520	2548	90	18	31	26	25	51	11	5	
Hispanic or Latino	248,003	2477	97	45	32	15	8	22	244,068	2474	92	47	33	14	6	20	3	2	
Black or African American	25,715	2454	102	55	28	12	6	17	26,378	2456	97	55	29	11	5	16	-2	1	
White	110,492	2548	98	20	29	25	27	52	112,675	2541	94	21	31	25	23	48	7	4	
Two or more races	16,751	2538	107	25	27	22	26	48	14,614	2532	100	25	30	22	22	45	6	3	
English learner	81,307	2422	89	71	22	5	2	7	77,457	2421	85	73	21	4	2	6	1	1	
English only	254,814	2521	106	30	29	21	20	41	252,908	2517	101	31	31	21	18	38	4	3	
Reclassified fluent English proficient	102,884	2532	86	24	37	22	17	40	104,096	2524	82	25	39	21	14	35	8	5	
Initially fluent English proficient	20,522	2576	100	15	25	22	38	61	21,520	2566	98	17	27	23	34	56	10	5	
Economically disadvantaged	286,744	2475	98	47	32	14	8	22	276,443	2472	93	48	33	13	6	20	3	2	
Not econ. disadvantaged	173,932	2564	98	16	26	25	33	58	180,838	2554	96	18	28	25	29	53	10	5	
Migrant	4,035	2453	93	56	29	11	4	15	3,978	2455	89	56	30	11	3	14	-2	1	
Not migrant	456,641	2509	107	35	30	18	17	36	453,303	2505	102	36	31	18	15	33	4	3	
Special education services	50,755	2398	103	77	15	5	3	8	47,302	2400	99	78	15	5	3	8	-2	0	
No special education services	409,921	2522	100	30	31	20	19	39	409,979	2516	95	31	33	19	16	36	6	3	
Using designated supports	57,648	2414	100	72	19	6	3	9	42,671	2402	93	78	16	4	2	6	12	3	
No designated supports	403,028	2522	101	30	31	20	19	39	414,610	2515	97	32	33	19	16	36	7	3	
Using accommodations	18,317	2365	85	89	9	2	0	2	12,527	2368	80	90	9	1	0	2	-3	0	
No accommodations	442,359	2514	104	33	30	19	18	37	444,754	2508	100	35	32	18	15	34	6	3	

Table 10.A.16 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Seven

	2015–16 Mathematics Grade 7									2014–15 Mathematics Grade 7									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	458,402	2525	112	34	30	19	17	36	450,078	2518	109	37	29	19	15	34	7	2	
Male	234,222	2521	115	36	28	19	17	36	229,238	2515	113	39	28	18	15	34	6	2	
Female	224,180	2529	108	32	31	20	17	37	220,840	2522	105	35	31	19	15	34	7	3	
American Indian or Alaska Native	2,456	2495	107	44	30	16	10	26	2,672	2489	101	46	32	15	7	22	6	4	
Asian	42,791	2623	104	10	17	23	51	73	40,903	2616	103	11	18	24	47	71	7	2	
Native Hawaiian or Other Pacific Islander	2,221	2514	101	36	32	20	11	31	2,333	2508	99	38	33	19	9	28	6	3	
Filipino	12,468	2578	96	15	27	28	29	58	12,549	2566	96	18	28	28	25	53	12	5	
Hispanic or Latino	245,424	2490	100	45	33	16	7	23	240,635	2485	97	48	31	15	6	20	5	3	
Black or African American	25,865	2470	104	53	29	12	6	18	26,735	2466	100	56	28	12	4	16	4	2	
White	111,508	2567	101	19	28	26	26	53	110,744	2559	101	21	29	27	23	50	8	3	
Two or more races	15,669	2554	111	25	27	23	25	48	13,507	2552	107	25	28	24	23	47	2	1	
English learner	65,731	2423	91	75	19	4	2	6	66,813	2424	89	76	18	4	2	6	-1	0	
English only	251,220	2539	109	29	30	22	20	42	246,295	2532	108	32	29	22	17	39	7	3	
Reclassified fluent English proficient	118,179	2539	94	26	37	22	15	37	115,058	2533	92	29	36	21	14	35	6	2	
Initially fluent English proficient	21,999	2592	107	16	25	23	37	60	20,482	2583	107	18	25	24	33	57	9	3	
Economically disadvantaged	281,988	2489	102	45	32	15	7	23	270,568	2484	99	49	31	14	6	20	5	3	
Not econ. disadvantaged	176,414	2582	103	16	26	26	32	58	179,510	2570	104	20	27	26	28	54	12	4	
Migrant	3,769	2466	98	55	29	12	4	16	3,808	2467	94	55	31	11	3	14	-1	2	
Not migrant	454,633	2525	112	34	30	19	17	36	446,270	2519	109	37	29	19	15	34	6	2	
Special education services	48,589	2411	101	77	15	5	3	8	44,932	2411	99	78	14	5	3	7	0	1	
No special education services	409,813	2538	105	29	31	21	19	40	405,146	2530	104	32	31	21	16	37	8	3	
Using designated supports	48,879	2426	102	72	18	7	3	10	37,005	2415	97	78	15	5	2	7	11	3	
No designated supports	409,523	2537	107	30	31	21	19	39	413,073	2528	105	33	30	20	16	36	9	3	
Using accommodations	16,119	2381	82	88	9	2	0	2	10,441	2379	82	90	8	1	0	2	2	0	
No accommodations	442,283	2530	109	32	30	20	18	38	439,637	2522	108	36	30	19	15	35	8	3	

Table 10.A.17 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Eight

	2015–16 Mathematics Grade 8									2014–15 Mathematics Grade 8									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc			
All Students	451,601	2541	120	39	25	17	19	36	451,543	2534	116	41	26	17	16	33	7	3	
Male	230,168	2535	124	41	24	16	19	34	230,291	2528	121	43	25	16	16	32	7	2	
Female	221,433	2547	115	36	27	18	19	37	221,252	2540	111	38	28	18	16	34	7	3	
American Indian or Alaska Native	2,559	2505	110	50	27	14	9	24	2,580	2500	107	52	27	13	8	21	5	3	
Asian	41,521	2650	115	12	15	19	54	73	41,132	2639	113	13	17	20	50	70	11	3	
Native Hawaiian or Other Pacific Islander	2,335	2527	107	40	30	17	12	30	2,314	2519	106	44	30	16	11	26	8	4	
Filipino	12,524	2597	106	19	25	25	32	56	13,050	2587	104	20	27	26	27	53	10	3	
Hispanic or Latino	242,153	2506	105	49	28	14	9	23	239,910	2499	102	52	28	13	7	20	7	3	
Black or African American	26,577	2481	106	59	24	11	6	17	27,642	2477	104	61	23	10	5	16	4	1	
White	109,636	2583	112	24	25	22	29	51	112,063	2574	110	25	26	23	25	48	9	3	
Two or more races	14,296	2569	120	30	25	20	26	46	12,852	2567	116	30	25	20	25	45	2	1	
English learner	56,390	2437	95	78	15	4	2	7	59,312	2435	92	80	15	4	2	6	2	1	
English only	244,794	2554	118	34	26	19	22	40	245,653	2547	116	36	26	19	19	38	7	2	
Reclassified fluent English proficient	128,217	2552	105	34	31	19	17	36	124,346	2546	102	35	32	18	15	33	6	3	
Initially fluent English proficient	21,049	2610	119	20	22	20	39	58	20,983	2597	117	22	24	20	34	54	13	4	
Economically disadvantaged	276,721	2505	107	50	27	14	9	23	267,934	2499	104	52	27	13	8	21	6	2	
Not econ. disadvantaged	174,880	2599	115	21	23	22	34	56	183,609	2585	114	24	25	22	30	52	14	4	
Migrant	3,878	2488	103	55	27	13	6	18	3,945	2481	100	59	25	11	5	15	7	3	
Not migrant	447,723	2542	120	39	25	17	19	36	447,598	2534	116	40	26	17	17	33	8	3	
Special education services	46,094	2425	100	80	13	4	3	7	44,153	2422	98	81	12	4	3	7	3	0	
No special education services	405,507	2554	114	34	27	18	21	39	407,390	2546	112	36	28	18	18	36	8	3	
Using designated supports	45,203	2441	104	75	16	6	4	9	34,547	2426	99	80	13	4	3	7	15	2	
No designated supports	406,398	2552	116	35	27	18	21	39	416,996	2543	113	37	27	18	18	35	9	4	
Using accommodations	14,146	2397	82	90	8	2	0	2	9,984	2392	78	92	7	1	1	2	5	0	
No accommodations	437,455	2546	118	37	26	17	19	37	441,559	2537	115	39	27	17	17	34	9	3	

Table 10.A.18 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eleven and 2014–15 Mathematics Grade Eleven

	2015–16 Mathematics Grade 11									2014–15 Mathematics Grade 11									% Std Met/Std Exc Diff
	2015–16 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	2014–15 N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nearly Met	Std Met	Std Exc	Std Met/Exc	SS Diff		
All Students	432,348	2568	125	43	25	20	13	32	418,474	2560	125	45	25	18	11	30	8	2	
Male	220,371	2563	131	45	23	18	14	32	212,561	2555	131	48	23	17	12	29	8	3	
Female	211,977	2573	118	41	27	21	12	33	205,913	2565	117	43	27	20	10	30	8	3	
American Indian or Alaska Native	2,527	2539	112	53	24	16	7	22	2,557	2531	115	55	24	15	6	21	8	1	
Asian	40,143	2681	120	14	16	27	43	70	38,774	2672	124	16	18	27	40	67	9	3	
Native Hawaiian or Other Pacific Islander	2,268	2547	115	47	28	18	7	25	2,350	2541	114	50	29	14	7	21	6	4	
Filipino	13,528	2623	107	22	27	32	19	51	13,739	2610	110	26	28	30	16	46	13	5	
Hispanic or Latino	225,631	2533	110	54	26	15	5	20	216,870	2525	109	56	26	14	4	18	8	2	
Black or African American	25,499	2507	111	63	22	11	3	15	25,141	2502	110	65	22	11	3	14	5	1	
White	109,797	2604	121	30	25	26	18	45	107,770	2596	123	33	26	25	17	41	8	4	
Two or more races	12,955	2593	126	34	25	24	17	41	11,273	2588	127	36	25	23	16	39	5	2	
English learner	39,857	2451	97	85	10	4	2	5	39,673	2454	97	84	10	4	2	5	-3	0	
English only	237,378	2578	124	39	25	22	14	36	229,654	2570	125	42	25	20	13	33	8	3	
Reclassified fluent English proficient	120,465	2571	111	41	29	20	10	30	112,312	2563	111	44	29	18	9	27	8	3	
Initially fluent English proficient	33,731	2621	125	27	24	25	23	48	35,801	2608	128	31	25	23	21	44	13	4	
Economically disadvantaged	248,551	2533	114	54	25	15	6	21	229,866	2527	112	56	25	14	5	19	6	2	
Not econ. disadvantaged	183,797	2615	124	28	24	26	22	48	188,608	2601	127	32	25	24	19	43	14	5	
Migrant	3,266	2511	107	62	23	12	3	15	3,370	2510	104	63	24	11	2	13	1	2	
Not migrant	429,082	2568	125	43	25	20	13	32	415,104	2561	125	45	25	18	11	30	7	2	
Special education services	37,393	2444	98	85	10	4	1	5	33,766	2445	97	86	10	3	1	5	-1	0	
No special education services	394,955	2580	121	39	26	21	14	35	384,708	2570	122	42	26	20	12	32	10	3	
Using designated supports	30,166	2475	114	75	14	7	3	11	27,727	2471	114	77	13	7	3	10	4	1	
No designated supports	402,182	2575	123	41	25	21	13	34	390,747	2567	123	43	26	19	12	31	8	3	
Using accommodations	6,897	2423	85	92	6	2	0	2	5,885	2423	84	93	5	1	0	2	0	0	
No accommodations	425,451	2570	124	42	25	20	13	33	412,589	2562	124	45	25	19	11	30	8	3	

Appendix 10.B Cross-Sectional Comparisons of the Overall Group and Subgroups on the Claims

Notes:

1. The difference in SS and percentage of near or above standard is derived by using the current year’s (2015–16) values minus the previous year’s (2014–15) values for the same grade. Therefore, a positive value indicates an increase in 2015–16 and a negative value indicates a decrease in 2015–16.
2. For consistency, the 2014–15 and 2015–16 results were based on the P2 data.
3. Individual achievement level percentages may not sum to 100 or the combined performance level percentage due to rounding.

Table 10.B.1 Summary Statistics Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison

Content Area	Grade	2015–16				2014–15				SS Difference
		N Tested	N Valid	Mean	SD	N Tested	N Valid	Mean	SD	
English Language Arts/Literacy (ELA)	3	458,000	456,628	2409	103	474,570	471,701	2398	100	11
	4	473,961	472,729	2444	109	464,809	461,887	2437	109	7
	5	464,966	463,676	2479	110	462,145	459,460	2473	106	6
	6	460,355	458,732	2491	116	459,185	454,614	2485	115	6
	7	458,836	456,709	2527	115	453,277	447,509	2518	111	9
	8	452,711	450,113	2551	110	455,428	449,228	2545	108	6
	11	439,631	433,135	2591	117	432,806	418,743	2592	114	-1
Mathematics	3	460,360	458,933	2428	87	476,374	473,765	2418	84	10
	4	476,167	474,825	2463	88	466,346	463,968	2455	85	8
	5	466,943	465,592	2488	97	463,612	461,109	2483	94	5
	6	462,223	460,403	2511	115	460,397	456,542	2508	109	3
	7	460,573	458,064	2529	116	454,412	448,882	2521	115	8
	8	454,079	451,139	2543	127	456,372	450,413	2535	123	8
	11	438,482	431,999	2570	130	430,210	417,328	2563	132	7

Table 10.B.2 Summary Statistics Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison

Content Area	Grade	2015–16				2014–15				SS
		N Tested	N Valid	Mean	SD	N Tested	N Valid	Mean	SD	Difference
ELA	3	458,000	456,068	2408	104	474,570	470,600	2395	102	13
	4	473,961	472,252	2456	107	464,809	461,022	2446	104	10
	5	464,966	463,320	2498	109	462,145	458,923	2489	107	9
	6	460,355	458,241	2520	106	459,185	453,643	2515	101	5
	7	458,836	455,978	2548	110	453,277	446,705	2540	107	8
	8	452,711	449,347	2563	112	455,428	447,191	2557	105	6
	11	439,631	432,188	2598	128	432,806	415,315	2592	124	6
Mathematics	3	460,360	459,006	2411	98	476,374	473,849	2405	94	6
	4	476,167	474,842	2447	103	466,346	464,003	2441	102	6
	5	466,943	465,684	2465	122	463,612	461,206	2459	122	6
	6	462,223	460,674	2494	126	460,397	457,261	2484	125	10
	7	460,573	458,353	2505	133	454,412	449,920	2490	141	15
	8	454,079	451,468	2506	156	456,372	451,080	2510	145	–4
	11	438,482	431,844	2538	155	430,210	416,653	2528	157	10

Table 10.B.3 Summary Statistics Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison

Content Area	Grade	2015–16				2014–15				SS
		N Tested	N Valid	Mean	SD	N Tested	N Valid	Mean	SD	Difference
ELA	3	458,000	456,694	2419	120	474,570	471,966	2408	117	11
	4	473,961	472,788	2460	125	464,809	462,110	2445	121	15
	5	464,966	463,724	2478	131	462,145	459,576	2469	130	9
	6	460,355	458,781	2530	127	459,185	454,812	2520	127	10
	7	458,836	456,707	2542	125	453,277	447,796	2529	123	13
	8	452,711	450,187	2561	119	455,428	449,466	2548	122	13
	11	439,631	433,424	2594	131	432,806	417,708	2575	135	19
Mathematics	3	460,360	458,901	2418	98	476,374	473,653	2408	95	10
	4	476,167	474,787	2454	96	466,346	463,856	2447	93	7
	5	466,943	465,546	2474	110	463,612	461,024	2468	108	6
	6	462,223	460,605	2502	117	460,397	457,065	2498	115	4
	7	460,573	458,219	2518	125	454,412	449,466	2505	132	13
	8	454,079	451,297	2535	133	456,372	450,822	2529	129	6
	11	438,482	432,217	2564	143	430,210	417,633	2556	141	8

Table 10.B.4 Summary Statistics Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison

Content Area	Grade	2015–16				2014–15				SS Difference
		N Tested	N Valid	Mean	SD	N Tested	N Valid	Mean	SD	
ELA	3	458,000	456,587	2405	120	474,570	471,470	2392	118	13
	4	473,961	472,714	2444	126	464,809	437,269	2432	123	12
	5	464,966	463,908	2514	115	462,145	459,953	2502	114	12
	6	460,355	458,958	2531	117	459,185	455,199	2516	113	15
	7	458,836	456,581	2535	124	453,277	447,512	2525	120	10
	8	452,711	449,932	2553	124	455,428	448,799	2545	120	8
	11	439,631	433,005	2604	133	432,806	417,127	2593	133	11

Table 10.B.5 Percentage of Each Performance Level Across 2014–15 and 2015–16 on Claim 1 and 2, Cross-Sectional Comparison

Content Area	Grade	Claim 1							Claim 2						
		Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard	Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	
ELA	3	41	37	41	43	18	20	4	38	34	44	45	17	21	4
	4	39	37	43	42	18	21	2	35	32	47	46	18	22	3
	5	39	36	42	42	20	22	3	34	31	43	42	23	27	3
	6	38	36	46	46	16	17	2	32	31	47	45	20	24	1
	7	37	34	45	45	18	22	3	30	27	46	46	24	27	3
	8	32	31	46	45	22	24	1	28	28	50	47	21	25	0
	11	21	20	49	51	30	29	1	23	22	46	44	31	35	1
Mathematics	3	40	35	35	35	25	30	5	38	32	42	45	20	23	6
	4	47	44	32	32	21	24	3	39	36	45	45	16	18	3
	5	51	49	30	29	19	22	2	46	46	38	37	16	18	0
	6	47	46	33	31	20	23	1	39	40	46	43	15	18	–1
	7	46	45	33	32	22	24	1	35	37	48	43	17	20	–2
	8	46	45	32	30	21	25	1	32	31	51	49	18	20	1
	11	48	49	33	30	19	21	–1	35	35	50	49	15	16	0

Note: The difference presented in the table may not match the difference between the two years due to rounding.

Table 10.B.6 Percentage of Each Performance Level Across 2014–15 and 2015–16 on Claim 3 and 4, Cross-Sectional Comparison

Content Area	Grade	Claim 3							Claim 4						
		Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard Difference	Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard Difference
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	
ELA	3	24	20	62	63	14	17	4	32	29	50	49	18	22	3
	4	23	19	62	65	15	16	4	31	28	51	50	18	22	3
	5	24	22	61	61	15	17	2	21	18	52	51	27	31	3
	6	19	17	68	68	13	15	2	19	17	59	53	23	29	2
	7	24	20	64	65	12	15	4	25	24	53	50	22	25	1
	8	23	19	65	67	12	15	4	23	23	55	51	22	25	0
	11	21	17	62	62	17	21	4	16	15	51	48	33	37	1
Mathematics	3	28	22	52	53	20	25	6							
	4	39	34	43	44	18	21	5							
	5	41	40	45	44	14	16	1							
	6	34	31	50	51	16	18	3							
	7	19	29	64	51	17	20	-10							
	8	34	28	50	53	17	19	6							
11	30	28	55	56	15	17	2								

Note: The difference presented in the table may not match the difference between the two years due to rounding.

Table 10.B.7 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Three and 2014–15 ELA Grade Three

	2015–16 ELA Grade 3						2014–15 ELA Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,628	2409	103	37	43	20	471,701	2398	100	41	41	18	11	4
Male	233,420	2401	103	40	42	18	241,106	2388	100	45	39	16	13	5
Female	223,208	2417	103	33	45	22	230,595	2408	99	36	43	21	9	3
American Indian or Alaska Native	2,344	2388	95	44	44	12	2,526	2374	96	51	38	12	14	7
Asian	40,077	2464	100	17	44	39	40,744	2454	96	20	43	37	10	3
Native Hawaiian or Other Pacific Islander	2,157	2391	98	43	43	14	2,219	2387	92	43	44	13	4	0
Filipino	9,568	2450	94	20	50	31	10,729	2440	92	22	48	30	10	2
Hispanic or Latino	252,879	2383	95	46	43	11	261,320	2373	92	51	39	10	10	5
Black or African American	25,242	2375	96	50	39	10	26,344	2363	95	56	35	9	12	6
White	105,208	2449	101	22	45	33	109,531	2435	99	26	44	30	14	4
Two or more races	19,153	2441	104	25	44	31	18,288	2429	101	29	43	28	12	4
English learner	132,907	2356	86	58	37	5	151,026	2356	88	59	35	6	0	1
English only	266,227	2425	103	31	45	25	270,228	2412	101	35	42	23	13	4
Reclassified fluent English proficient	40,003	2451	84	16	57	28	31,066	2441	81	19	55	27	10	3
Initially fluent English proficient	16,538	2474	97	15	43	42	18,132	2460	94	17	43	40	14	2
Economically disadvantaged	290,931	2380	94	47	42	11	294,015	2370	92	52	38	10	10	5
Not econ. disadvantaged	165,697	2459	99	18	46	36	177,686	2443	97	23	45	33	16	5
Migrant	4,434	2352	89	60	35	5	4,641	2348	87	63	32	5	4	3
Not migrant	452,194	2409	103	36	44	20	467,060	2398	100	41	41	19	11	5
Special education services	47,484	2349	95	64	29	7	44,772	2340	94	68	25	7	9	4
No special education services	409,144	2416	102	34	45	21	426,929	2404	99	38	42	20	12	4
Using designated supports	61,276	2351	89	62	33	6	45,987	2336	88	69	26	5	15	7
No designated supports	395,352	2418	102	33	45	22	425,714	2404	99	38	42	20	14	5
Using accommodations	10,599	2328	80	74	24	2	4,008	2323	84	76	21	3	5	2
No accommodations	446,029	2411	103	36	44	20	467,693	2398	100	41	41	19	13	5

Table 10.B.8 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Three and 2014–15 ELA Grade Three

	2015–16 ELA Grade 3						2014–15 ELA Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,068	2408	104	34	45	21	470,600	2395	102	38	44	17	13	4
Male	233,119	2396	104	38	43	18	240,517	2383	101	43	43	14	13	5
Female	222,949	2420	102	29	46	25	230,083	2407	101	34	46	20	13	5
American Indian or Alaska Native	2,334	2381	99	42	45	13	2,516	2369	97	49	41	10	12	7
Asian	40,061	2471	99	14	41	45	40,693	2458	100	18	44	39	13	4
Native Hawaiian or Other Pacific Islander	2,153	2402	98	34	48	17	2,212	2393	97	38	47	15	9	4
Filipino	9,563	2459	94	15	46	38	10,704	2445	93	19	50	32	14	4
Hispanic or Latino	252,549	2383	97	42	45	13	260,714	2370	95	48	43	9	13	6
Black or African American	25,170	2373	100	47	41	12	26,246	2362	98	52	39	9	11	5
White	105,110	2442	98	21	47	32	109,275	2430	97	24	49	27	12	3
Two or More Races	19,128	2437	104	24	45	31	18,240	2426	101	26	47	26	11	2
English learner	132,742	2356	92	54	40	7	150,675	2352	92	56	38	6	4	2
English only	265,861	2421	103	29	46	26	269,543	2409	101	32	47	21	12	3
Reclassified fluent English proficient	39,988	2459	79	11	55	34	31,032	2443	79	15	59	26	16	4
Initially fluent English proficient	16,531	2475	93	12	43	45	18,111	2461	95	16	45	39	14	4
Economically disadvantaged	290,496	2380	97	44	44	12	293,285	2367	95	49	42	9	13	5
Not econ. disadvantaged	165,572	2457	96	17	46	38	177,315	2441	97	21	48	31	16	4
Migrant	4,428	2352	93	56	37	6	4,634	2340	92	60	35	4	12	4
Not migrant	451,640	2408	104	34	45	22	465,966	2396	102	38	45	17	12	4
Special education services	47,389	2329	103	66	27	7	44,592	2322	102	69	26	6	7	3
No special education services	408,679	2417	100	30	47	23	426,008	2403	99	35	46	18	14	5
Using designated supports	61,164	2340	97	62	32	6	45,833	2323	95	69	27	4	17	7
No designated supports	394,904	2418	101	30	47	24	424,767	2403	100	35	46	19	15	5
Using accommodations	10,573	2294	87	81	17	2	3,984	2301	94	77	20	3	-7	-4
No accommodations	445,495	2410	103	33	45	22	466,616	2396	102	38	45	17	14	5

Table 10.B.9 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Three and 2014–15 ELA Grade Three

	2015–16 ELA Grade 3						2014–15 ELA Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,694	2419	120	20	63	17	471,966	2408	117	24	62	14	11	4
Male	233,457	2412	123	23	61	16	241,220	2401	119	26	60	13	11	3
Female	223,237	2426	117	18	64	18	230,746	2415	115	21	63	15	11	3
American Indian or Alaska Native	2,344	2396	122	26	61	13	2,528	2386	116	31	60	9	10	5
Asian	40,083	2472	108	9	60	32	40,760	2463	108	10	61	28	9	1
Native Hawaiian or Other Pacific Islander	2,157	2402	117	23	66	11	2,219	2396	112	25	66	10	6	2
Filipino	9,570	2458	102	9	67	24	10,733	2447	103	11	69	20	11	2
Hispanic or Latino	252,912	2394	118	26	64	11	261,459	2382	113	30	62	8	12	4
Black or African American	25,247	2379	123	31	60	9	26,364	2371	117	35	58	7	8	4
White	105,227	2459	111	11	62	27	109,599	2450	110	13	63	24	9	2
Two or more races	19,154	2451	115	13	61	26	18,304	2442	113	15	62	23	9	2
English learner	132,934	2364	116	34	60	6	151,099	2361	111	37	58	5	3	3
English only	266,259	2434	118	16	63	21	270,394	2425	116	19	63	18	9	3
Reclassified fluent English proficient	40,005	2467	92	6	70	24	31,080	2452	92	8	73	19	15	2
Initially fluent English proficient	16,543	2486	99	6	59	35	18,144	2474	102	8	61	31	12	2
Economically disadvantaged	290,977	2390	118	27	63	10	294,176	2379	113	32	61	7	11	5
Not econ. disadvantaged	165,717	2470	106	9	61	30	177,790	2456	108	11	63	26	14	2
Migrant	4,434	2360	119	37	57	6	4,643	2348	112	43	53	4	12	6
Not migrant	452,260	2419	120	20	63	17	467,323	2409	117	24	62	14	10	4
Special education services	47,499	2336	130	47	46	7	44,801	2331	125	51	43	6	5	4
No special education services	409,195	2428	115	17	64	18	427,165	2416	113	21	64	15	12	4
Using designated supports	61,290	2345	123	42	52	6	46,013	2330	118	51	45	4	15	9
No designated supports	395,404	2430	116	17	64	19	425,953	2416	114	21	64	15	14	4
Using accommodations	10,607	2295	116	61	37	2	4,010	2299	113	63	34	2	-4	2
No accommodations	446,087	2422	119	19	63	17	467,956	2409	117	24	62	14	13	5

Table 10.B.10 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Three and 2014–15 ELA Grade Three

	2015–16 ELA Grade 3						2014–15 ELA Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,587	2405	120	29	49	22	471,470	2392	118	32	50	18	13	3
Male	233,402	2396	121	32	48	20	240,992	2383	119	35	49	16	13	3
Female	223,185	2415	118	25	50	24	230,478	2402	117	28	52	20	13	3
American Indian or Alaska Native	2,343	2377	117	37	49	14	2,525	2365	114	41	48	11	12	4
Asian	40,076	2468	113	13	44	43	40,736	2454	115	15	48	37	14	2
Native Hawaiian or Other Pacific Islander	2,157	2389	117	32	51	17	2,219	2381	115	34	52	13	8	2
Filipino	9,568	2456	110	14	49	37	10,724	2440	111	16	54	30	16	2
Hispanic or Latino	252,856	2382	116	35	50	15	261,190	2367	112	39	50	11	15	4
Black or African American	25,240	2363	117	42	46	12	26,330	2354	113	45	45	9	9	3
White	105,196	2440	116	18	49	33	109,465	2428	115	20	52	28	12	2
Two or more races	19,151	2434	120	21	48	31	18,281	2423	118	23	51	27	11	2
English learner	132,894	2355	109	45	47	8	150,960	2349	108	46	47	7	6	1
English only	266,200	2418	120	25	49	26	270,085	2406	118	27	51	21	12	2
Reclassified fluent English proficient	40,003	2460	100	10	55	35	31,047	2441	101	13	60	27	19	3
Initially fluent English proficient	16,537	2475	109	11	44	45	18,129	2460	112	13	48	39	15	2
Economically disadvantaged	290,900	2377	115	37	49	14	293,864	2364	112	41	49	10	13	4
Not econ. disadvantaged	165,687	2455	113	14	48	37	177,606	2439	114	17	52	31	16	3
Migrant	4,434	2352	112	46	46	9	4,638	2341	107	50	44	6	11	4
Not migrant	452,153	2406	120	29	49	22	466,832	2392	118	32	50	18	14	3
Special education services	47,479	2337	116	55	37	8	44,750	2329	113	57	36	7	8	2
No special education services	409,108	2413	118	26	50	24	426,720	2399	117	29	52	19	14	3
Using designated supports	61,269	2346	111	50	42	8	45,966	2328	109	56	38	5	18	6
No designated supports	395,318	2415	119	25	50	25	425,504	2399	117	29	51	19	16	4
Using accommodations	10,598	2309	102	65	32	3	4,004	2310	106	65	31	4	-1	0
No accommodations	445,989	2408	120	28	49	23	467,466	2393	118	32	50	18	15	4

Table 10.B.11 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Four

	2015–16 ELA Grade 4						2014–15 ELA Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	472,729	2444	109	37	42	21	461,887	2437	109	39	43	18	7	2
Male	241,510	2434	109	41	41	18	235,166	2427	109	43	41	16	7	2
Female	231,219	2455	108	33	43	24	226,721	2448	107	34	44	21	7	1
American Indian or Alaska Native	2,455	2418	105	46	40	13	2,447	2414	106	47	42	12	4	1
Asian	41,565	2506	103	17	41	42	41,065	2501	103	18	43	39	5	1
Native Hawaiian or Other Pacific Islander	2,195	2432	101	40	45	14	2,281	2422	102	42	45	13	10	2
Filipino	10,773	2490	97	19	48	33	11,136	2482	98	21	49	29	8	2
Hispanic or Latino	262,335	2418	102	47	41	12	252,549	2409	100	49	41	10	9	2
Black or African American	25,964	2404	105	52	37	11	25,928	2398	103	54	37	9	6	2
White	108,770	2485	105	22	44	33	109,717	2478	105	23	46	30	7	1
Two or more races	18,672	2478	109	25	43	32	16,764	2470	109	27	44	29	8	2
English learner	122,583	2379	89	64	32	4	119,739	2372	89	65	31	3	7	1
English only	269,336	2460	109	31	43	26	261,062	2453	109	32	45	23	7	1
Reclassified fluent English proficient	61,378	2486	87	17	55	28	61,888	2476	88	19	57	23	10	2
Initially fluent English proficient	18,578	2513	99	14	42	43	18,117	2505	100	16	45	39	8	2
Economically disadvantaged	301,630	2414	101	48	40	12	285,280	2406	100	50	41	9	8	2
Not econ. disadvantaged	171,099	2498	101	18	44	38	176,607	2487	103	21	46	33	11	3
Migrant	4,606	2387	95	60	34	6	4,486	2382	93	61	35	4	5	1
Not migrant	468,123	2445	109	37	42	21	457,401	2438	109	38	43	19	7	1
Special education services	52,571	2369	101	69	24	6	48,615	2365	102	70	24	6	4	1
No special education services	420,158	2454	106	33	44	23	413,272	2446	106	35	45	20	8	2
Using designated supports	65,406	2374	96	67	28	5	45,358	2358	93	72	24	3	16	5
No designated supports	407,323	2456	106	32	44	23	416,529	2446	107	35	45	20	10	3
Using accommodations	12,380	2343	84	81	18	2	4,346	2346	92	77	21	3	-3	-4
No accommodations	460,349	2447	108	36	42	22	457,541	2438	108	38	43	19	9	2

Table 10.B.12 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Four

	2015–16 ELA Grade 4						2014–15 ELA Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	472,252	2456	107	32	46	22	461,022	2446	104	35	47	18	10	3
Male	241,259	2441	108	37	45	18	234,706	2432	104	41	45	15	9	4
Female	230,993	2472	104	27	47	26	226,316	2462	102	30	48	22	10	3
American Indian or Alaska Native	2,445	2426	104	42	44	14	2,440	2423	100	44	44	12	3	2
Asian	41,547	2524	103	13	39	48	41,022	2514	100	15	43	42	10	2
Native Hawaiian or Other Pacific Islander	2,193	2454	101	31	50	20	2,272	2443	96	34	51	15	11	3
Filipino	10,765	2514	95	14	45	41	11,114	2497	96	17	50	33	17	3
Hispanic or Latino	262,039	2430	100	40	47	13	252,083	2419	96	45	46	10	11	5
Black or African American	25,920	2418	103	46	42	12	25,840	2408	99	50	41	9	10	4
White	108,682	2492	101	19	48	33	109,512	2482	99	21	50	28	10	2
Two or more races	18,661	2488	105	22	45	33	16,739	2479	102	23	48	28	9	1
English learner	122,429	2391	92	57	39	5	119,490	2384	88	61	36	3	7	4
English only	269,071	2470	106	27	47	26	260,551	2461	103	29	48	22	9	2
Reclassified fluent English proficient	61,332	2500	81	12	58	30	61,816	2486	81	16	60	24	14	4
Initially fluent English proficient	18,568	2525	95	11	43	46	18,093	2512	95	14	47	39	13	3
Economically disadvantaged	301,259	2426	100	42	46	12	284,680	2417	96	46	45	9	9	4
Not econ. disadvantaged	170,993	2508	98	15	46	39	176,342	2494	98	18	49	33	14	3
Migrant	4,595	2396	99	54	39	7	4,477	2390	94	57	39	4	6	3
Not migrant	467,657	2456	107	32	46	22	456,545	2447	104	35	47	18	9	3
Special education services	52,469	2364	106	68	26	6	48,444	2361	103	70	25	5	3	2
No special education services	419,783	2467	102	28	48	24	412,578	2456	99	31	49	20	11	3
Using designated supports	65,303	2376	101	64	31	5	45,217	2360	95	71	26	3	16	7
No designated supports	406,949	2469	102	27	48	25	415,805	2456	100	31	49	20	13	4
Using accommodations	12,351	2328	90	82	16	1	4,325	2340	94	78	20	2	-12	-4
No accommodations	459,901	2459	105	31	47	23	456,697	2447	104	35	47	18	12	4

Table 10.B.13 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Four

	2015–16 ELA Grade 4						2014–15 ELA Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	472,788	2460	125	19	65	16	462,110	2445	121	23	62	15	15	4
Male	241,544	2458	127	20	64	16	235,274	2441	123	25	61	14	17	5
Female	231,244	2463	123	18	66	16	226,836	2450	118	21	63	15	13	3
American Indian or Alaska Native	2,455	2432	125	25	65	10	2,447	2424	118	28	61	10	8	3
Asian	41,568	2516	116	9	61	30	41,076	2507	113	10	58	31	9	1
Native Hawaiian or Other Pacific Islander	2,195	2445	120	21	68	11	2,285	2427	116	27	64	9	18	6
Filipino	10,776	2498	114	10	67	23	11,144	2483	110	13	66	22	15	3
Hispanic or Latino	262,360	2436	122	24	66	10	252,651	2418	115	30	62	8	18	6
Black or African American	25,970	2417	127	30	61	9	25,945	2403	120	35	58	7	14	5
White	108,789	2501	117	11	64	25	109,785	2488	113	13	63	24	13	2
Two or more races	18,675	2493	121	13	64	23	16,777	2479	117	15	62	23	14	2
English learner	122,601	2397	117	34	62	4	119,801	2380	109	41	56	3	17	7
English only	269,372	2475	124	16	65	19	261,202	2461	119	19	63	18	14	3
Reclassified fluent English proficient	61,380	2502	102	7	72	21	61,902	2484	99	10	71	19	18	3
Initially fluent English proficient	18,581	2527	107	6	62	32	18,123	2515	105	8	60	32	12	2
Economically disadvantaged	301,665	2431	122	25	66	10	285,410	2415	116	31	62	8	16	6
Not econ. disadvantaged	171,123	2511	113	9	64	27	176,700	2495	112	11	62	26	16	2
Migrant	4,606	2405	122	31	63	5	4,489	2386	113	40	56	4	19	9
Not migrant	468,182	2461	125	19	65	16	457,621	2446	121	23	62	15	15	4
Special education services	52,579	2375	131	44	50	6	48,661	2365	125	50	45	5	10	6
No special education services	420,209	2471	120	16	67	17	413,449	2455	117	20	64	16	16	4
Using designated supports	65,416	2384	125	40	55	5	45,406	2360	117	50	46	3	24	10
No designated supports	407,372	2473	121	16	67	18	416,704	2455	117	20	64	16	18	4
Using accommodations	12,383	2339	118	55	43	2	4,351	2337	117	58	39	3	2	3
No accommodations	460,405	2464	124	18	66	16	457,759	2446	120	23	62	15	18	5

Table 10.B.14 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Four

	2015–16 ELA Grade 4						2014–15 ELA Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	472,714	2444	126	28	50	22	437,269	2432	123	31	51	18	12	3
Male	241,507	2434	126	31	50	19	222,785	2422	123	34	50	16	12	3
Female	231,207	2454	125	25	51	24	214,484	2443	122	28	52	20	11	3
American Indian or Alaska Native	2,455	2412	124	37	48	15	2,340	2407	120	40	48	12	5	3
Asian	41,565	2512	116	12	45	43	38,916	2501	116	13	48	39	11	1
Native Hawaiian or Other Pacific Islander	2,195	2432	124	30	53	17	2,166	2418	121	35	51	15	14	5
Filipino	10,773	2501	112	12	51	37	10,507	2483	114	16	53	31	18	4
Hispanic or Latino	262,325	2418	122	35	51	14	239,131	2405	117	39	50	11	13	4
Black or African American	25,963	2398	124	41	47	12	24,470	2387	119	45	46	9	11	4
White	108,767	2481	119	17	52	32	103,844	2469	118	19	55	27	12	2
Two or more races	18,671	2477	123	19	50	31	15,895	2465	122	21	52	27	12	2
English learner	122,577	2377	113	49	46	6	113,385	2368	109	53	43	4	9	4
English only	269,330	2458	125	24	51	25	247,144	2446	123	26	53	21	12	2
Reclassified fluent English proficient	61,374	2495	103	10	58	31	58,530	2478	104	14	61	25	17	4
Initially fluent English proficient	18,579	2518	111	10	46	45	17,187	2504	112	12	50	39	14	2
Economically disadvantaged	301,621	2413	122	36	51	13	270,187	2401	117	40	50	10	12	4
Not econ. disadvantaged	171,093	2498	115	13	50	37	167,082	2482	116	16	53	31	16	3
Migrant	4,606	2386	119	46	46	8	4,279	2380	113	49	45	6	6	3
Not migrant	468,108	2445	126	28	50	22	432,990	2433	123	31	51	18	12	3
Special education services	52,570	2360	122	57	36	7	45,981	2355	117	60	34	6	5	3
No special education services	420,144	2455	123	24	52	24	391,288	2441	121	28	53	19	14	4
Using designated supports	65,406	2369	118	53	40	7	42,956	2351	111	61	35	4	18	8
No designated supports	407,308	2456	123	24	52	24	394,313	2441	121	28	53	20	15	4
Using accommodations	12,380	2329	107	69	29	2	4,137	2334	108	68	29	3	-5	-1
No accommodations	460,334	2447	125	27	51	22	433,132	2433	123	31	51	18	14	4

Table 10.B.15 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Five

	2015–16 ELA Grade 5						2014–15 ELA Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	463,676	2479	110	36	42	22	459,460	2473	106	39	42	20	6	3
Male	235,869	2466	110	41	40	19	234,520	2460	106	44	40	16	6	3
Female	227,807	2492	108	31	44	25	224,940	2487	104	33	44	23	5	2
American Indian or Alaska Native	2,407	2450	109	46	40	14	2,511	2441	101	51	38	11	9	5
Asian	41,769	2543	104	16	40	45	42,163	2534	102	18	42	40	9	2
Native Hawaiian or Other Pacific Islander	2,292	2462	103	41	43	16	2,388	2454	100	45	42	13	8	4
Filipino	11,176	2522	98	19	48	33	11,774	2511	97	22	49	29	11	3
Hispanic or Latino	254,105	2452	102	45	42	13	246,669	2446	98	48	40	11	6	3
Black or African American	25,620	2436	104	53	36	11	26,323	2434	100	54	36	10	2	1
White	109,228	2517	106	22	44	34	112,149	2512	103	24	45	31	5	2
Two or more races	17,079	2510	110	26	42	33	15,483	2506	106	26	44	30	4	0
English learner	96,890	2402	86	68	29	3	100,109	2399	82	71	27	2	3	3
English only	260,510	2493	110	31	43	26	257,123	2488	106	33	43	24	5	2
Reclassified fluent English proficient	86,964	2507	91	21	54	25	81,012	2502	88	23	55	22	5	2
Initially fluent English proficient	18,624	2546	99	14	41	45	20,228	2532	100	18	44	38	14	4
Economically disadvantaged	292,543	2449	102	46	41	12	279,346	2443	97	50	40	10	6	4
Not econ. disadvantaged	171,133	2530	103	18	43	38	180,114	2520	101	21	45	34	10	3
Migrant	4,519	2425	98	56	37	7	4,456	2421	90	59	35	6	4	3
Not migrant	459,157	2479	109	36	42	22	455,004	2474	106	38	42	20	5	2
Special education services	53,640	2399	98	70	24	6	50,369	2396	94	73	22	5	3	3
No special education services	410,036	2489	107	32	44	24	409,091	2483	103	34	44	22	6	2
Using designated supports	61,576	2404	95	67	27	5	44,456	2390	88	75	21	3	14	8
No designated supports	402,100	2490	107	31	44	24	415,004	2482	104	35	44	21	8	4
Using accommodations	13,403	2376	84	80	18	2	4,601	2381	82	81	17	2	-5	1
No accommodations	450,273	2482	109	35	43	23	454,859	2474	106	38	42	20	8	3

Table 10.B.16 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Five

	2015–16 ELA Grade 5						2014–15 ELA Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	463,320	2498	109	31	42	27	458,923	2489	107	34	43	23	9	3
Male	235,671	2479	109	37	42	22	234,214	2470	107	40	42	18	9	3
Female	227,649	2517	106	24	43	33	224,709	2507	104	27	45	29	10	3
American Indian or Alaska Native	2,404	2465	107	43	40	18	2,497	2452	102	48	40	13	13	5
Asian	41,761	2567	104	13	34	54	42,142	2557	104	14	37	49	10	1
Native Hawaiian or Other Pacific Islander	2,292	2491	104	32	45	23	2,386	2479	100	36	46	19	12	4
Filipino	11,173	2552	98	14	40	46	11,758	2538	98	17	44	39	14	3
Hispanic or Latino	253,887	2472	102	38	45	17	246,359	2462	98	42	44	14	10	4
Black or African American	25,591	2454	107	46	39	15	26,280	2447	103	49	39	12	7	3
White	109,141	2532	104	19	41	39	112,035	2523	103	21	44	35	9	2
Two or more races	17,071	2529	109	21	40	39	15,466	2520	107	23	42	35	9	2
English learner	96,787	2419	90	60	36	5	99,949	2415	86	63	34	3	4	3
English only	260,302	2511	109	26	42	32	256,808	2502	107	29	43	28	9	3
Reclassified fluent English proficient	86,929	2530	86	15	53	33	80,968	2521	86	17	54	28	9	2
Initially fluent English proficient	18,615	2567	98	11	37	52	20,213	2550	99	15	41	44	17	4
Economically disadvantaged	292,273	2468	102	40	44	16	278,971	2458	98	44	43	13	10	4
Not econ. disadvantaged	171,047	2549	101	15	40	45	179,952	2536	102	18	42	40	13	3
Migrant	4,519	2442	102	49	40	10	4,451	2433	96	53	39	8	9	4
Not migrant	458,801	2498	109	30	42	27	454,472	2489	107	33	43	24	9	3
Special education services	53,546	2395	103	70	24	6	50,244	2393	101	72	23	6	2	2
No special education services	409,774	2511	103	25	45	30	408,679	2500	102	29	46	26	11	4
Using designated supports	61,490	2408	101	65	29	7	44,358	2392	95	72	23	4	16	7
No designated supports	401,830	2511	104	25	44	30	414,565	2499	103	29	45	26	12	4
Using accommodations	13,371	2361	87	83	16	1	4,586	2368	92	81	17	2	-7	-2
No accommodations	449,949	2502	107	29	43	28	454,337	2490	106	33	43	24	12	4

Table 10.B.17 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Five

	2015–16 ELA Grade 5						2014–15 ELA Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	463,724	2478	131	22	61	17	459,576	2469	130	24	61	15	9	2
Male	235,885	2474	131	23	61	16	234,574	2464	132	26	60	14	10	3
Female	227,839	2482	130	21	62	18	225,002	2474	129	22	62	16	8	1
American Indian or Alaska Native	2,408	2449	128	29	60	11	2,511	2432	127	33	59	8	17	4
Asian	41,772	2542	122	10	56	34	42,170	2533	124	11	57	31	9	1
Native Hawaiian or Other Pacific Islander	2,293	2455	128	27	61	12	2,389	2447	125	29	62	9	8	2
Filipino	11,179	2520	120	12	63	25	11,775	2509	121	13	65	21	11	1
Hispanic or Latino	254,130	2451	126	28	62	10	246,732	2440	125	30	61	8	11	2
Black or African American	25,624	2429	130	35	57	8	26,339	2421	129	37	56	7	8	2
White	109,236	2520	122	12	62	26	112,171	2510	124	14	63	23	10	2
Two or more races	17,082	2512	127	15	60	25	15,489	2502	127	16	62	22	10	1
English learner	96,902	2394	114	45	53	3	100,139	2388	112	46	52	2	6	1
English only	260,537	2494	129	18	62	20	257,190	2484	130	20	62	18	10	2
Reclassified fluent English proficient	86,970	2510	113	11	70	19	81,028	2502	114	12	71	17	8	1
Initially fluent English proficient	18,626	2550	115	7	57	35	20,231	2534	119	10	60	30	16	3
Economically disadvantaged	292,573	2446	126	29	62	9	279,433	2436	125	32	61	8	10	3
Not econ. disadvantaged	171,151	2533	119	10	61	29	180,143	2519	122	12	62	25	14	2
Migrant	4,520	2419	125	37	57	6	4,457	2410	120	39	56	4	9	2
Not migrant	459,204	2479	130	22	61	17	455,119	2469	130	24	61	15	10	2
Special education services	53,651	2383	127	51	45	5	50,400	2378	125	52	44	4	5	1
No special education services	410,073	2491	126	18	64	18	409,176	2480	127	21	63	16	11	3
Using designated supports	61,584	2390	124	47	48	4	44,481	2373	119	53	44	3	17	6
No designated supports	402,140	2492	126	18	63	19	415,095	2479	127	21	63	16	13	3
Using accommodations	13,403	2348	112	62	37	1	4,607	2354	116	60	39	2	-6	-2
No accommodations	450,321	2482	129	21	62	17	454,969	2470	130	24	61	15	12	3

Table 10.B.18 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Five

	2015–16 ELA Grade 5						2014–15 ELA Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	463,908	2514	115	18	51	31	459,953	2502	114	21	52	27	12	3
Male	235,979	2501	117	21	51	28	234,793	2490	116	24	52	23	11	3
Female	227,929	2527	111	15	50	35	225,160	2515	111	17	52	30	12	2
American Indian or Alaska Native	2,409	2483	117	25	53	21	2,519	2467	112	30	54	16	16	5
Asian	41,776	2578	102	7	37	56	42,192	2567	104	8	41	51	11	1
Native Hawaiian or Other Pacific Islander	2,293	2501	113	20	54	26	2,392	2493	108	22	56	22	8	2
Filipino	11,182	2564	98	7	44	49	11,781	2549	102	9	49	42	15	2
Hispanic or Latino	254,218	2489	112	23	55	22	246,909	2476	110	27	55	18	13	4
Black or African American	25,649	2470	116	29	53	18	26,381	2460	114	32	53	15	10	3
White	109,284	2548	106	10	46	43	112,275	2537	105	12	50	38	11	2
Two or more races	17,097	2544	111	12	46	42	15,504	2533	109	13	49	37	11	1
English learner	96,940	2434	104	39	54	7	100,224	2426	102	43	51	6	8	4
English only	260,661	2527	113	15	49	36	257,435	2516	112	17	52	31	11	2
Reclassified fluent English proficient	86,989	2549	91	7	54	40	81,061	2539	92	8	58	34	10	1
Initially fluent English proficient	18,627	2582	94	5	39	56	20,243	2564	98	7	45	48	18	2
Economically disadvantaged	292,694	2485	112	24	55	21	279,681	2472	110	28	55	17	13	4
Not econ. disadvantaged	171,214	2564	101	8	43	49	180,272	2549	103	10	48	42	15	2
Migrant	4,522	2459	114	32	53	15	4,463	2446	111	36	52	11	13	4
Not migrant	459,386	2514	115	18	51	32	455,490	2503	114	21	52	27	11	3
Special education services	53,695	2417	116	48	43	9	50,497	2410	114	52	41	7	7	4
No special education services	410,213	2526	109	14	52	34	409,456	2514	109	17	54	29	12	3
Using designated supports	61,627	2428	114	43	48	9	44,553	2407	109	52	42	6	21	9
No designated supports	402,281	2527	109	14	51	35	415,400	2512	110	18	53	29	15	4
Using accommodations	13,422	2386	104	58	39	3	4,625	2386	106	61	36	4	0	3
No accommodations	450,486	2518	113	17	51	32	455,328	2503	113	20	53	27	15	3

Table 10.B.19 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Six

	2015–16 ELA Grade 6						2014–15 ELA Grade 6						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,732	2491	116	36	46	17	454,614	2485	115	38	46	16	6	2
Male	234,386	2480	118	41	44	16	231,996	2474	116	42	44	14	6	1
Female	224,346	2503	113	32	49	19	222,618	2497	112	33	49	18	6	1
American Indian or Alaska Native	2,446	2456	112	49	42	9	2,491	2459	110	46	44	9	-3	-3
Asian	42,566	2559	110	16	47	37	41,677	2554	110	17	47	36	5	1
Native Hawaiian or Other Pacific Islander	2,334	2472	112	43	44	13	2,291	2468	108	43	47	11	4	0
Filipino	11,762	2536	106	20	52	27	12,382	2527	107	22	53	25	9	2
Hispanic or Latino	247,050	2463	109	45	45	10	242,587	2456	107	47	44	8	7	2
Black or African American	25,748	2447	111	52	39	8	26,231	2445	108	52	40	8	2	0
White	110,331	2530	112	23	50	27	112,324	2525	110	24	51	25	5	1
Two or more races	16,495	2523	116	26	47	26	14,631	2516	115	27	49	24	7	1
English learner	79,539	2402	92	71	28	1	75,877	2397	90	73	26	1	5	2
English only	255,001	2506	116	31	48	21	252,487	2501	114	32	48	19	5	1
Reclassified fluent English proficient	102,910	2510	101	26	57	17	103,827	2500	100	29	56	15	10	3
Initially fluent English proficient	20,507	2551	109	17	49	34	21,441	2543	111	20	48	32	8	3
Economically disadvantaged	285,527	2459	109	47	44	9	274,643	2454	107	48	44	8	5	1
Not econ. disadvantaged	173,205	2543	109	19	50	31	179,971	2534	110	21	51	28	9	2
Migrant	3,974	2436	104	56	39	5	3,916	2429	104	58	37	5	7	2
Not migrant	454,758	2491	116	36	46	17	450,698	2486	115	37	46	16	5	1
Special education services	50,818	2400	101	72	25	3	47,179	2398	100	72	25	3	2	0
No special education services	407,914	2502	113	32	49	19	407,435	2495	112	34	49	17	7	2
Using designated supports	53,433	2407	101	69	28	4	36,338	2393	94	74	24	2	14	5
No designated supports	405,299	2502	114	32	49	19	418,276	2493	113	35	48	17	9	3
Using accommodations	15,632	2379	89	80	19	1	11,149	2381	89	79	20	1	-2	-1
No accommodations	443,100	2495	115	35	47	18	443,465	2488	114	37	47	16	7	2

Table 10.B.20 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Six

	2015–16 ELA Grade 6						2014–15 ELA Grade 6						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,241	2520	106	31	45	24	453,643	2515	101	32	47	20	5	1
Male	234,107	2502	107	37	44	19	231,462	2499	101	39	46	16	3	2
Female	224,134	2538	102	25	47	29	222,181	2532	98	26	49	25	6	1
American Indian or Alaska Native	2,438	2482	105	45	42	13	2,481	2483	101	45	44	11	-1	0
Asian	42,558	2590	98	12	37	51	41,645	2582	96	13	41	47	8	1
Native Hawaiian or Other Pacific Islander	2,333	2514	100	32	48	20	2,287	2510	96	32	51	17	4	0
Filipino	11,759	2573	92	13	44	43	12,370	2563	91	15	48	36	10	2
Hispanic or Latino	246,738	2493	100	39	47	14	241,969	2489	94	41	48	11	4	2
Black or African American	25,684	2475	107	47	40	12	26,131	2476	100	47	42	11	-1	0
White	110,263	2553	99	20	46	34	112,151	2546	95	21	50	30	7	1
Two or more races	16,468	2548	104	22	44	34	14,609	2541	100	23	47	30	7	1
English learner	79,408	2433	91	65	33	2	75,666	2433	86	67	31	2	0	2
English only	254,721	2533	105	27	46	28	251,993	2528	100	28	48	24	5	1
Reclassified fluent English proficient	102,849	2543	84	19	56	25	103,617	2533	82	22	58	20	10	3
Initially fluent English proficient	20,493	2579	95	13	42	45	21,391	2569	93	15	46	39	10	2
Economically disadvantaged	285,133	2490	101	41	46	13	273,911	2486	94	42	47	11	4	1
Not econ. disadvantaged	173,108	2569	96	15	44	41	179,732	2559	94	17	48	35	10	2
Migrant	3,966	2462	99	51	42	7	3,907	2463	93	53	41	6	-1	2
Not migrant	454,275	2520	106	31	46	24	449,736	2515	101	32	47	20	5	1
Special education services	50,692	2411	103	73	23	4	46,959	2416	97	73	23	3	-5	0
No special education services	407,549	2533	99	26	48	26	406,684	2526	95	28	50	22	7	2
Using designated supports	53,297	2426	102	67	29	4	36,182	2416	93	74	24	2	10	7
No designated supports	404,944	2532	100	26	48	26	417,461	2524	97	29	49	22	8	3
Using accommodations	15,575	2383	91	84	15	1	11,074	2393	87	83	16	1	-10	-1
No accommodations	442,666	2524	103	29	47	24	442,569	2518	99	31	48	21	6	2

Table 10.B.21 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Six

	2015–16 ELA Grade 6						2014–15 ELA Grade 6						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,781	2530	127	17	68	15	454,812	2520	127	19	68	13	10	2
Male	234,412	2520	130	19	67	14	232,088	2510	130	22	66	12	10	3
Female	224,369	2541	124	14	69	17	222,724	2531	124	16	69	15	10	2
American Indian or Alaska Native	2,446	2494	132	26	64	10	2,494	2493	130	26	65	9	1	0
Asian	42,568	2588	114	7	64	29	41,692	2579	117	8	65	27	9	1
Native Hawaiian or Other Pacific Islander	2,335	2514	126	20	69	12	2,291	2510	122	20	70	10	4	0
Filipino	11,763	2573	112	8	70	23	12,394	2558	115	10	71	19	15	2
Hispanic or Latino	247,072	2505	125	21	69	10	242,694	2494	125	24	67	8	11	3
Black or African American	25,752	2488	131	27	65	8	26,249	2481	129	29	64	7	7	2
White	110,349	2567	118	9	68	23	112,358	2558	118	11	69	20	9	2
Two or more races	16,496	2561	121	11	67	22	14,640	2548	123	13	68	19	13	2
English learner	79,545	2438	120	40	58	2	75,910	2426	118	44	54	2	12	4
English only	255,031	2545	124	14	68	18	252,585	2536	125	15	68	16	9	1
Reclassified fluent English proficient	102,921	2554	108	9	75	16	103,880	2540	110	11	76	13	14	2
Initially fluent English proficient	20,509	2587	110	6	66	28	21,455	2576	114	8	67	25	11	2
Economically disadvantaged	285,557	2501	126	22	68	9	274,781	2491	125	25	67	8	10	3
Not econ. disadvantaged	173,224	2577	114	8	67	25	180,031	2566	117	9	68	22	11	1
Migrant	3,974	2476	127	29	65	6	3,916	2466	126	33	61	6	10	4
Not migrant	454,807	2531	127	17	68	16	450,896	2521	127	19	68	14	10	2
Special education services	50,825	2420	129	48	49	4	47,205	2411	127	52	45	3	9	4
No special education services	407,956	2544	120	13	70	17	407,607	2533	121	15	70	15	11	2
Using designated supports	53,441	2433	129	43	53	4	36,353	2409	123	52	46	2	24	9
No designated supports	405,340	2543	121	13	70	17	418,459	2530	123	16	69	14	13	3
Using accommodations	15,635	2386	118	59	40	1	11,152	2380	117	61	37	1	6	2
No accommodations	443,146	2535	124	15	69	16	443,660	2524	126	18	68	14	11	3

Table 10.B.22 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Six

	2015–16 ELA Grade 6						2014–15 ELA Grade 6						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,958	2531	117	17	53	29	455,199	2516	113	19	59	23	15	2
Male	234,508	2515	119	21	54	25	232,286	2503	114	22	59	19	12	1
Female	224,450	2547	113	14	52	34	222,913	2531	110	15	58	26	16	1
American Indian or Alaska Native	2,446	2494	118	25	57	18	2,497	2487	111	26	60	14	7	1
Asian	42,578	2599	103	6	38	56	41,721	2582	103	7	46	47	17	1
Native Hawaiian or Other Pacific Islander	2,336	2518	115	20	56	24	2,293	2505	112	21	62	18	13	1
Filipino	11,766	2584	101	7	46	48	12,406	2561	102	9	54	37	23	2
Hispanic or Latino	247,168	2506	115	22	57	20	242,906	2492	110	24	61	14	14	2
Black or African American	25,769	2486	120	28	56	16	26,291	2479	113	28	59	12	7	0
White	110,391	2561	108	10	51	39	112,429	2547	105	11	58	31	14	1
Two or more races	16,504	2556	112	12	51	38	14,656	2542	108	13	57	30	14	1
English learner	79,595	2445	109	41	54	6	75,970	2434	103	43	53	4	11	2
English only	255,125	2542	115	15	53	33	252,784	2528	111	16	59	26	14	1
Reclassified fluent English proficient	102,949	2559	99	8	57	35	103,984	2538	98	11	64	25	21	3
Initially fluent English proficient	20,513	2592	101	6	43	51	21,477	2571	103	8	51	41	21	2
Economically disadvantaged	285,670	2502	116	23	57	19	275,043	2488	110	25	61	14	14	2
Not econ. disadvantaged	173,288	2578	104	8	47	45	180,156	2559	103	9	55	36	19	1
Migrant	3,976	2480	115	30	56	13	3,921	2468	111	32	59	10	12	2
Not migrant	454,982	2531	117	17	53	29	451,278	2517	113	19	59	23	14	2
Special education services	50,859	2429	114	48	46	6	47,270	2426	108	48	47	5	3	0
No special education services	408,099	2543	112	14	54	32	407,929	2527	109	15	60	25	16	1
Using designated supports	53,480	2443	115	43	50	7	36,397	2424	105	48	49	4	19	5
No designated supports	405,478	2542	113	14	54	32	418,802	2524	110	16	59	24	18	2
Using accommodations	15,644	2404	104	57	41	2	11,170	2407	101	55	43	2	-3	-2
No accommodations	443,314	2535	115	16	54	30	444,029	2519	112	18	59	23	16	2

Table 10.B.23 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Seven

	2015–16 ELA Grade 7						2014–15 ELA Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,709	2527	115	34	45	22	447,509	2518	111	37	45	18	9	3
Male	233,289	2514	116	38	43	19	227,887	2507	112	42	42	16	7	4
Female	223,420	2540	112	29	47	24	219,622	2530	108	32	47	20	10	3
American Indian or Alaska Native	2,455	2499	111	42	44	14	2,662	2492	108	46	42	12	7	4
Asian	42,316	2597	109	14	40	45	40,368	2587	107	16	43	40	10	2
Native Hawaiian or Other Pacific Islander	2,204	2508	110	40	45	16	2,321	2503	104	41	46	12	5	1
Filipino	12,434	2570	105	18	49	33	12,408	2559	102	21	51	28	11	3
Hispanic or Latino	244,464	2497	107	43	45	12	239,048	2489	103	47	43	10	8	4
Black or African American	25,897	2485	108	48	41	11	26,616	2479	103	51	40	9	6	3
White	111,484	2567	110	20	47	33	110,629	2559	106	22	49	28	8	2
Two or more races	15,455	2558	114	24	45	31	13,457	2551	109	25	48	27	7	1
English learner	64,022	2427	83	73	26	1	65,190	2421	82	78	21	1	6	5
English only	251,584	2543	114	28	46	26	246,026	2535	110	31	47	22	8	3
Reclassified fluent English proficient	118,243	2535	103	27	53	20	114,806	2528	97	30	53	16	7	3
Initially fluent English proficient	22,005	2586	109	16	44	40	20,442	2574	105	19	47	34	12	3
Economically disadvantaged	280,798	2494	107	44	44	12	268,742	2486	103	48	42	9	8	4
Not econ. disadvantaged	175,911	2579	108	17	46	37	178,767	2566	105	20	49	31	13	3
Migrant	3,699	2468	100	55	38	7	3,729	2459	99	59	35	5	9	4
Not migrant	453,010	2527	115	33	45	22	443,780	2519	111	37	45	18	8	4
Special education services	48,711	2435	97	70	26	4	44,697	2427	95	74	22	3	8	4
No special education services	407,998	2538	112	29	47	24	402,812	2528	108	33	47	20	10	4
Using designated supports	44,959	2442	98	67	29	5	31,104	2423	90	76	22	2	19	9
No designated supports	411,750	2536	113	30	47	23	416,405	2525	109	34	47	19	11	4
Using accommodations	16,159	2416	84	78	21	1	9,529	2409	83	82	16	1	7	4
No accommodations	440,550	2531	114	32	46	22	437,980	2521	110	36	46	18	10	4

Table 10.B.24 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Seven

	2015–16 ELA Grade 7						2014–15 ELA Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	455,978	2548	110	27	46	27	446,705	2540	107	30	46	24	8	3
Male	232,917	2529	111	32	46	22	227,466	2521	108	36	45	19	8	4
Female	223,061	2568	105	20	47	33	219,239	2559	103	24	47	29	9	4
American Indian or Alaska Native	2,451	2515	108	38	45	17	2,653	2506	106	42	43	14	9	4
Asian	42,291	2622	100	10	33	57	40,355	2614	99	11	36	53	8	1
Native Hawaiian or Other Pacific Islander	2,198	2544	102	26	51	23	2,314	2536	100	28	53	19	8	2
Filipino	12,415	2602	96	11	43	46	12,404	2592	95	13	45	42	10	2
Hispanic or Latino	243,972	2519	104	34	50	16	238,480	2512	100	38	48	13	7	4
Black or African American	25,844	2503	110	41	44	15	26,533	2497	105	45	43	12	6	4
White	111,371	2584	101	16	45	39	110,521	2574	101	19	46	35	10	3
Two or more races	15,436	2577	108	19	43	38	13,445	2570	104	21	45	35	7	2
English learner	63,864	2446	93	64	34	2	64,998	2444	89	68	30	2	2	4
English only	251,218	2562	108	22	45	32	245,612	2554	106	26	46	28	8	4
Reclassified fluent English proficient	118,068	2562	91	18	56	26	114,640	2554	89	21	56	23	8	3
Initially fluent English proficient	21,981	2606	98	11	40	48	20,419	2596	98	14	43	43	10	3
Economically disadvantaged	280,246	2516	104	35	49	16	268,095	2509	101	40	47	13	7	5
Not econ. disadvantaged	175,732	2599	99	12	42	45	178,610	2586	100	16	45	40	13	4
Migrant	3,694	2489	103	44	47	9	3,722	2484	99	48	45	7	5	4
Not migrant	452,284	2548	110	26	46	27	442,983	2540	107	30	46	24	8	4
Special education services	48,562	2437	102	68	28	4	44,507	2434	98	72	25	4	3	4
No special education services	407,416	2561	103	22	48	30	402,198	2551	102	26	49	26	10	4
Using designated supports	44,834	2451	105	62	32	6	30,971	2432	95	72	25	3	19	10
No designated supports	411,144	2559	105	23	48	30	415,734	2548	104	27	48	25	11	4
Using accommodations	16,102	2411	90	78	21	1	9,476	2409	89	81	17	1	2	3
No accommodations	439,876	2553	107	25	47	28	437,229	2542	106	29	47	24	11	4

Table 10.B.25 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Seven

	2015–16 ELA Grade 7						2014–15 ELA Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,707	2542	125	20	65	15	447,796	2529	123	24	64	12	13	4
Male	233,281	2536	126	22	64	14	228,015	2523	125	26	63	11	13	4
Female	223,426	2549	123	18	66	16	219,781	2536	122	22	65	13	13	4
American Indian or Alaska Native	2,457	2519	123	26	63	10	2,662	2503	121	30	62	8	16	4
Asian	42,316	2601	114	9	63	29	40,384	2588	115	10	65	24	13	1
Native Hawaiian or Other Pacific Islander	2,204	2523	121	24	66	10	2,325	2510	114	27	65	8	13	3
Filipino	12,432	2576	112	11	70	19	12,421	2561	113	14	70	16	15	3
Hispanic or Latino	244,458	2514	121	26	65	9	239,215	2501	119	31	62	7	13	5
Black or African American	25,899	2501	124	30	61	9	26,642	2489	120	35	59	6	12	5
White	111,485	2585	115	11	66	24	110,681	2571	117	13	67	20	14	2
Two or more races	15,456	2572	120	14	65	21	13,466	2561	121	16	66	18	11	2
English learner	64,023	2439	106	49	49	2	65,226	2431	102	54	45	1	8	5
English only	251,583	2559	123	16	65	19	246,172	2545	122	20	65	15	14	4
Reclassified fluent English proficient	118,242	2553	111	14	72	14	114,897	2540	111	18	71	11	13	4
Initially fluent English proficient	22,004	2596	112	8	65	26	20,455	2582	113	11	67	22	14	3
Economically Disadvantaged	280,794	2511	121	27	64	9	268,935	2498	118	31	62	7	13	4
Not econ. disadvantaged	175,913	2592	114	9	65	25	178,861	2575	116	13	67	21	17	4
Migrant	3,697	2484	120	35	59	6	3,730	2473	117	40	55	4	11	5
Not migrant	453,010	2543	124	20	65	15	444,066	2530	123	24	64	12	13	4
Special education services	48,711	2443	116	50	47	3	44,730	2434	113	54	43	3	9	4
No special education services	407,996	2554	120	16	67	17	403,066	2540	120	20	66	13	14	4
Using designated supports	44,956	2451	118	47	49	4	31,127	2431	110	55	42	2	20	8
No designated supports	411,751	2552	121	17	66	16	416,669	2536	121	21	66	13	16	4
Using accommodations	16,157	2417	105	59	40	1	9,538	2411	102	62	36	1	6	3
No accommodations	440,550	2547	123	19	66	16	438,258	2532	123	23	65	13	15	4

Table 10.B.26 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Seven

	2015–16 ELA Grade 7						2014–15 ELA Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	456,581	2535	124	24	50	25	447,512	2525	120	25	53	22	10	1
Male	233,229	2518	125	29	50	21	227,899	2509	122	30	52	18	9	1
Female	223,352	2552	119	19	51	30	219,613	2542	116	20	55	25	10	1
American Indian or Alaska Native	2,454	2502	121	34	50	16	2,662	2492	117	33	55	12	10	-1
Asian	42,305	2611	108	8	39	52	40,368	2600	109	9	44	47	11	1
Native Hawaiian or Other Pacific Islander	2,203	2519	121	27	52	21	2,323	2514	114	26	58	16	5	-1
Filipino	12,430	2587	108	10	49	40	12,409	2575	106	11	53	35	12	1
Hispanic or Latino	244,392	2507	120	31	53	17	239,045	2498	116	32	55	13	9	1
Black or African American	25,886	2486	123	38	48	13	26,610	2482	117	38	51	11	4	0
White	111,459	2568	115	14	51	35	110,636	2558	114	15	54	30	10	1
Two or more races	15,452	2561	121	17	49	34	13,459	2554	117	18	52	30	7	1
English learner	64,001	2432	104	58	39	3	65,186	2431	100	56	41	2	1	-2
English only	251,510	2547	122	20	51	29	246,035	2537	119	21	54	25	10	1
Reclassified fluent English proficient	118,217	2553	110	16	57	27	114,805	2542	109	17	60	22	11	1
Initially fluent English proficient	22,000	2595	112	11	44	45	20,441	2582	113	12	49	40	13	1
Economically disadvantaged	280,704	2503	120	32	52	16	268,741	2495	116	33	54	13	8	1
Not econ. disadvantaged	175,877	2584	112	11	48	41	178,771	2570	112	13	52	35	14	2
Migrant	3,697	2481	119	39	50	11	3,729	2472	114	40	51	9	9	1
Not migrant	452,884	2535	124	24	50	26	443,783	2525	120	25	53	22	10	1
Special education services	48,695	2429	111	60	35	5	44,703	2431	106	58	38	4	-2	-2
No special education services	407,886	2547	119	20	52	28	402,809	2535	117	21	55	24	12	1
Using designated supports	44,943	2441	114	55	39	6	31,106	2429	103	58	39	3	12	3
No designated supports	411,638	2545	120	21	52	28	416,406	2532	118	23	54	23	13	2
Using accommodations	16,151	2407	99	69	30	2	9,533	2413	96	65	33	2	-6	-4
No accommodations	440,430	2539	122	22	51	26	437,979	2527	120	24	54	22	12	2

Table 10.B.27 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Eight

	2015–16 ELA Grade 8						2014–15 ELA Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	450,113	2551	110	31	45	24	449,228	2545	108	32	46	22	6	1
Male	229,328	2538	111	36	43	21	229,080	2532	109	37	44	19	6	1
Female	220,785	2564	107	26	47	27	220,148	2559	104	27	48	25	5	1
American Indian or Alaska Native	2,555	2526	108	40	44	16	2,585	2522	103	40	46	14	4	0
Asian	41,093	2619	103	13	38	49	40,592	2610	100	13	42	45	9	0
Native Hawaiian or Other Pacific Islander	2,333	2536	104	36	45	18	2,298	2530	101	36	48	16	6	0
Filipino	12,486	2594	99	16	47	37	12,910	2586	96	17	50	33	8	1
Hispanic or Latino	241,272	2524	103	39	46	15	238,423	2518	101	41	47	13	6	2
Black or African American	26,593	2510	106	46	42	13	27,622	2507	104	46	42	12	3	0
White	109,673	2588	105	19	45	36	111,962	2582	102	19	48	33	6	0
Two or more races	14,108	2578	109	22	44	33	12,836	2575	106	23	46	32	3	1
English learner	54,868	2448	82	72	26	1	57,784	2447	82	73	26	1	1	1
English only	245,189	2566	109	26	45	29	245,550	2560	107	27	47	26	6	1
Reclassified fluent English proficient	128,237	2559	97	25	53	22	124,034	2553	94	26	55	20	6	1
Initially fluent English proficient	21,056	2606	103	15	42	43	20,931	2595	101	16	46	38	11	1
Economically disadvantaged	275,705	2522	104	40	45	15	266,353	2516	102	41	46	13	6	1
Not econ. disadvantaged	174,408	2597	103	17	44	40	182,875	2588	101	18	47	35	9	1
Migrant	3,817	2496	101	51	39	10	3,880	2493	99	51	42	8	3	0
Not migrant	446,296	2551	110	31	45	24	445,348	2546	108	32	46	22	5	1
Special education services	46,208	2456	95	69	27	4	44,028	2454	94	70	26	4	2	1
No special education services	403,905	2562	106	27	47	27	405,200	2555	104	28	48	24	7	1
Using designated supports	41,250	2465	98	65	30	5	28,976	2450	90	71	26	3	15	6
No designated supports	408,863	2560	107	28	46	26	420,252	2552	105	29	48	23	8	1
Using accommodations	14,021	2436	84	77	21	2	8,903	2435	84	77	21	2	1	0
No accommodations	436,092	2555	109	30	45	25	440,325	2547	107	31	47	22	8	1

Table 10.B.28 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Eight

	2015–16 ELA Grade 8						2014–15 ELA Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	449,347	2563	112	28	47	25	447,191	2557	105	28	50	21	6	0
Male	228,902	2541	112	34	46	19	228,083	2538	105	35	49	16	3	1
Female	220,445	2585	106	21	48	31	219,108	2577	100	22	52	27	8	1
American Indian or Alaska Native	2,552	2530	109	37	47	15	2,572	2527	101	38	50	12	3	1
Asian	41,072	2638	104	10	37	53	40,504	2627	101	11	41	48	11	1
Native Hawaiian or Other Pacific Islander	2,329	2555	103	29	51	20	2,286	2547	98	30	53	17	8	1
Filipino	12,473	2614	97	12	47	41	12,869	2603	93	13	53	34	11	1
Hispanic or Latino	240,798	2536	104	35	50	15	237,095	2530	96	36	52	12	6	1
Black or African American	26,513	2518	111	43	44	14	27,442	2516	103	43	46	11	2	0
White	109,529	2597	106	17	47	36	111,629	2591	100	17	50	32	6	0
Two or more races	14,081	2589	111	20	46	34	12,794	2587	105	20	48	32	2	0
English learner	54,714	2456	90	68	30	2	57,445	2461	83	68	31	1	-5	0
English only	244,807	2576	111	24	47	29	244,586	2571	105	24	50	26	5	0
Reclassified fluent English proficient	128,045	2574	94	21	56	23	123,382	2567	88	21	60	19	7	0
Initially fluent English proficient	21,032	2620	102	12	44	44	20,857	2608	99	14	48	38	12	2
Economically disadvantaged	275,126	2532	106	36	49	15	264,889	2528	97	38	51	12	4	2
Not econ. disadvantaged	174,221	2611	103	14	45	41	182,302	2600	100	15	49	36	11	1
Migrant	3,806	2504	105	46	45	9	3,857	2504	97	48	45	8	0	2
Not migrant	445,541	2563	111	28	47	25	443,334	2558	105	28	50	21	5	0
Special education services	46,046	2449	100	71	26	3	43,698	2454	94	70	26	3	-5	-1
No special education services	403,301	2576	105	23	50	27	403,493	2568	100	24	53	23	8	1
Using designated supports	41,108	2463	106	65	30	5	28,797	2453	92	71	27	2	10	6
No designated supports	408,239	2573	107	24	49	27	418,394	2564	102	26	52	23	9	2
Using accommodations	13,956	2423	88	81	18	1	8,828	2431	86	80	19	1	-8	-1
No accommodations	435,391	2567	109	26	48	26	438,363	2560	103	27	51	22	7	1

Table 10.B.29 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Eight

	2015–16 ELA Grade 8						2014–15 ELA Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	450,187	2561	119	19	67	15	449,466	2548	122	23	65	12	13	4
Male	229,371	2550	122	22	65	13	229,210	2537	125	26	63	11	13	4
Female	220,816	2572	115	15	69	16	220,256	2560	118	19	68	14	12	4
American Indian or Alaska Native	2,556	2538	120	24	65	11	2,588	2520	120	30	62	8	18	6
Asian	41,099	2620	111	8	63	29	40,614	2609	114	9	65	26	11	1
Native Hawaiian or Other Pacific Islander	2,334	2544	114	20	70	10	2,300	2531	118	26	65	9	13	6
Filipino	12,486	2598	107	9	71	20	12,922	2585	111	11	71	17	13	2
Hispanic or Latino	241,321	2535	115	24	67	9	238,556	2522	117	29	65	7	13	5
Black or African American	26,597	2524	120	29	63	8	27,647	2509	122	34	60	7	15	5
White	109,685	2597	114	11	67	22	111,999	2584	117	13	68	19	13	2
Two or more races	14,109	2587	118	13	66	21	12,840	2577	121	16	66	18	10	3
English learner	54,879	2457	102	51	48	1	57,819	2447	102	56	43	1	10	5
English only	245,225	2575	118	16	67	18	245,674	2562	122	19	66	15	13	3
Reclassified fluent English proficient	128,262	2569	105	13	74	12	124,105	2559	108	16	73	11	10	3
Initially fluent English proficient	21,058	2613	108	7	66	26	20,939	2599	114	10	67	23	14	3
Economically disadvantaged	275,759	2533	116	25	67	8	266,518	2519	118	30	64	7	14	5
Not econ. disadvantaged	174,428	2605	111	9	67	24	182,948	2590	116	12	67	20	15	3
Migrant	3,818	2506	115	34	61	5	3,882	2495	116	38	58	4	11	4
Not migrant	446,369	2561	119	19	67	15	445,584	2548	122	22	65	12	13	3
Special education services	46,222	2462	113	51	46	3	44,044	2449	114	57	41	2	13	6
No special education services	403,965	2572	115	15	69	16	405,422	2559	118	19	68	13	13	4
Using designated supports	41,259	2471	115	47	50	3	28,985	2445	110	58	41	2	26	11
No designated supports	408,928	2570	116	16	68	16	420,481	2555	120	20	67	13	15	4
Using accommodations	14,025	2437	103	60	39	1	8,904	2427	102	65	34	1	10	5
No accommodations	436,162	2565	118	17	68	15	440,562	2550	121	22	66	13	15	5

Table 10.B.30 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Eight

	2015–16 ELA Grade 8						2014–15 ELA Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	449,932	2553	124	23	51	25	448,799	2545	120	23	55	22	8	0
Male	229,236	2534	125	29	51	21	228,898	2528	120	28	54	18	6	-1
Female	220,696	2573	119	18	52	30	219,901	2563	116	18	56	26	10	0
American Indian or Alaska Native	2,553	2520	122	32	51	17	2,584	2512	117	31	56	13	8	-1
Asian	41,085	2630	109	8	40	51	40,562	2618	110	9	45	46	12	1
Native Hawaiian or Other Pacific Islander	2,333	2537	120	27	54	19	2,297	2529	117	26	57	16	8	-1
Filipino	12,483	2606	109	10	49	41	12,892	2593	108	11	55	34	13	1
Hispanic or Latino	241,166	2528	120	29	53	17	238,158	2520	114	29	57	14	8	0
Black or African American	26,579	2506	122	37	49	14	27,594	2501	116	35	54	11	5	-2
White	109,632	2584	118	15	51	34	111,881	2576	115	15	56	30	8	0
Two or more races	14,101	2578	122	17	50	33	12,831	2571	118	17	53	30	7	0
English learner	54,832	2448	101	58	39	3	57,719	2450	97	54	44	2	-2	-4
English only	245,101	2564	123	20	51	28	245,357	2556	119	20	55	24	8	0
Reclassified fluent English proficient	128,188	2568	113	17	57	26	123,886	2559	109	17	61	22	9	0
Initially fluent English proficient	21,048	2612	112	10	47	43	20,913	2599	113	11	51	38	13	1
Economically disadvantaged	275,572	2524	120	31	53	17	266,063	2517	115	30	57	13	7	-1
Not econ. disadvantaged	174,360	2599	115	12	49	39	182,736	2586	114	13	54	33	13	1
Migrant	3,814	2500	119	39	49	12	3,878	2498	112	36	54	9	2	-3
Not migrant	446,118	2554	124	23	51	25	444,921	2545	120	23	55	22	9	0
Special education services	46,176	2448	107	59	37	4	43,974	2450	103	55	41	4	-2	-4
No special education services	403,756	2565	120	19	53	28	404,825	2555	117	20	57	23	10	1
Using designated supports	41,227	2462	113	54	40	6	28,941	2448	101	56	41	3	14	2
No designated supports	408,705	2562	121	20	52	27	419,858	2552	118	21	56	23	10	1
Using accommodations	14,011	2427	95	68	31	2	8,887	2433	94	62	37	1	-6	-6
No accommodations	435,921	2557	122	22	52	26	439,912	2547	119	22	56	22	10	0

Table 10.B.31 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 ELA Grade Eleven and 2014–15 ELA Grade Eleven

	2015–16 ELA Grade 11						2014–15 ELA Grade 11						SS Difference	% Near Standard or Above Standard Difference
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		
All Students	433,135	2591	117	20	51	29	418,743	2592	114	21	49	30	-1	1
Male	220,593	2582	121	23	50	27	212,457	2583	116	23	49	28	-1	0
Female	212,542	2601	112	16	53	31	206,286	2602	111	18	50	33	-1	2
American Indian or Alaska Native	2,549	2576	113	22	54	23	2,598	2579	112	24	50	26	-3	2
Asian	39,987	2647	112	10	41	49	38,508	2645	111	11	39	50	2	1
Native Hawaiian or Other Pacific Islander	2,289	2565	114	26	54	20	2,358	2574	110	25	51	24	-9	-1
Filipino	13,527	2625	102	10	53	37	13,689	2623	100	11	50	39	2	1
Hispanic or Latino	226,020	2565	112	25	55	20	216,827	2567	108	26	53	21	-2	1
Black or African American	25,630	2548	116	31	52	17	25,172	2553	113	32	49	19	-5	1
White	110,179	2627	113	12	46	41	108,247	2627	110	13	44	43	0	1
Two or more races	12,954	2618	115	14	47	38	11,344	2620	112	14	45	41	-2	0
English learner	39,269	2468	91	59	39	2	39,085	2474	87	60	38	2	-6	1
English only	238,501	2606	116	17	50	34	230,715	2607	113	17	47	36	-1	0
Reclassified fluent English proficient	120,766	2590	104	16	59	24	112,217	2591	99	17	58	25	-1	1
Initially fluent English proficient	33,843	2631	108	10	49	41	35,834	2629	106	11	47	42	2	1
Economically disadvantaged	248,951	2563	113	26	55	20	229,742	2564	109	27	53	20	-1	1
Not econ. disadvantaged	184,184	2629	112	12	47	41	189,001	2626	110	13	45	42	3	1
Migrant	3,239	2536	111	34	53	13	3,342	2538	104	35	52	13	-2	1
Not migrant	429,896	2591	117	20	51	29	415,401	2593	114	20	49	30	-2	0
Special education services	37,659	2490	107	52	42	6	33,867	2492	104	54	39	7	-2	2
No special education services	395,476	2601	113	17	52	31	384,876	2601	110	18	50	32	0	1
Using designated supports	26,600	2510	115	45	44	10	22,673	2504	108	50	41	9	6	5
No designated supports	406,535	2596	115	18	52	30	396,070	2597	112	19	50	31	-1	1
Using accommodations	5,863	2469	96	60	37	3	4,286	2473	99	62	33	5	-4	2
No accommodations	427,272	2593	117	19	51	29	414,457	2593	113	20	49	30	0	1

Table 10.B.32 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 ELA Grade Eleven and 2014–15 ELA Grade Eleven

	2015–16 ELA Grade 11						2014–15 ELA Grade 11						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	432,188	2598	128	22	44	35	415,315	2592	124	23	46	31	6	1
Male	220,067	2577	132	27	44	29	210,703	2570	128	29	45	26	7	2
Female	212,121	2620	120	16	44	41	204,612	2614	116	17	47	37	6	1
American Indian or Alaska Native	2,542	2564	128	30	47	24	2,575	2564	124	30	47	23	0	0
Asian	39,937	2679	115	8	28	64	38,321	2668	115	9	32	59	11	1
Native Hawaiian or Other Pacific Islander	2,281	2580	125	25	47	28	2,324	2577	121	25	49	26	3	0
Filipino	13,511	2661	106	8	37	56	13,599	2649	107	9	41	50	12	1
Hispanic or Latino	225,464	2570	122	27	49	25	214,691	2563	118	28	50	21	7	1
Black or African American	25,522	2540	129	37	44	19	24,888	2540	123	37	46	17	0	0
White	110,010	2630	122	14	40	45	107,673	2624	119	15	43	42	6	1
Two or more races	12,921	2623	126	17	40	43	11,244	2618	124	17	42	40	5	0
English learner	39,098	2458	103	64	34	2	38,595	2462	100	64	34	2	-4	0
English only	238,012	2610	127	19	42	39	229,090	2604	124	20	45	35	6	1
Reclassified fluent English proficient	120,531	2607	111	16	51	33	111,180	2598	107	17	54	28	9	1
Initially fluent English proficient	33,798	2649	115	11	39	51	35,574	2636	115	12	43	45	13	1
Economically disadvantaged	248,295	2567	125	28	47	24	227,498	2561	120	30	49	21	6	2
Not econ. disadvantaged	183,893	2641	120	13	39	49	187,817	2629	120	15	42	44	12	2
Migrant	3,239	2538	124	37	46	17	3,301	2532	117	38	50	13	6	1
Not migrant	428,949	2599	128	21	44	35	412,014	2592	124	23	46	31	7	2
Special education services	37,482	2465	113	62	33	5	33,450	2467	110	63	32	5	-2	1
No special education services	394,706	2611	122	18	45	38	381,865	2603	120	19	47	34	8	1
Using designated supports	26,430	2498	128	51	37	12	22,425	2486	120	56	35	8	12	5
No designated supports	405,758	2605	125	20	44	36	392,890	2598	122	21	47	33	7	1
Using accommodations	5,841	2441	104	70	27	2	4,243	2443	105	72	25	3	-2	2
No accommodations	426,347	2600	127	21	44	35	411,072	2593	124	22	46	32	7	1

Table 10.B.33 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 ELA Grade Eleven and 2014–15 ELA Grade Eleven

	2015–16 ELA Grade 11						2014–15 ELA Grade 11						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	433,424	2594	131	17	62	21	417,708	2575	135	21	62	17	19	4
Male	220,735	2584	135	19	61	20	211,947	2564	139	24	59	17	20	5
Female	212,689	2603	127	13	65	22	205,761	2585	130	17	65	18	18	4
American Indian or Alaska Native	2,552	2571	131	20	64	15	2,594	2557	137	25	60	15	14	5
Asian	40,004	2648	124	8	55	37	38,446	2630	130	11	58	31	18	3
Native Hawaiian or Other Pacific Islander	2,289	2567	129	21	65	14	2,349	2553	132	24	63	13	14	3
Filipino	13,536	2628	119	8	64	28	13,664	2609	126	11	65	23	19	3
Hispanic or Latino	226,183	2570	128	20	65	15	216,200	2551	131	25	63	12	19	5
Black or African American	25,652	2552	133	26	61	12	25,103	2536	134	31	59	10	16	5
White	110,244	2626	127	11	60	29	108,048	2606	133	14	61	24	20	3
Two or more races	12,964	2617	129	12	61	27	11,304	2601	135	16	60	24	16	4
English learner	39,305	2470	106	50	48	1	38,961	2458	105	56	43	1	12	6
English only	238,650	2606	131	14	62	24	230,208	2587	136	18	62	20	19	4
Reclassified fluent English proficient	120,848	2598	120	12	69	18	111,889	2578	125	17	69	15	20	5
Initially fluent English proficient	33,863	2636	121	8	61	31	35,767	2614	128	12	63	25	22	4
Economically disadvantaged	249,136	2567	129	21	64	14	229,126	2548	131	26	62	11	19	5
Not econ. disadvantaged	184,288	2630	125	10	60	30	188,582	2607	133	14	61	25	23	4
Migrant	3,246	2543	126	28	63	10	3,324	2521	126	33	60	7	22	5
Not migrant	430,178	2594	131	16	62	21	414,384	2575	135	21	62	18	19	5
Special education services	37,696	2488	121	45	50	4	33,748	2471	119	52	45	3	17	7
No special education services	395,728	2604	128	14	64	23	383,960	2584	133	18	63	19	20	4
Using designated supports	26,636	2508	130	40	53	7	22,612	2481	124	49	47	5	27	9
No designated supports	406,788	2599	130	15	63	22	395,096	2580	134	19	63	18	19	4
Using accommodations	5,869	2462	113	55	43	2	4,274	2449	115	60	37	2	13	5
No accommodations	427,555	2595	131	16	63	21	413,434	2576	135	20	62	18	19	4

Table 10.B.34 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Cross-Sectional Comparison: 2015–16 ELA Grade Eleven and 2014–15 ELA Grade Eleven

	2015–16 ELA Grade 11						2014–15 ELA Grade 11						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	433,005	2604	133	15	48	37	417,127	2593	133	16	51	33	11	1
Male	220,533	2586	138	18	50	32	211,667	2576	137	20	52	29	10	2
Female	212,472	2624	126	11	47	42	205,460	2612	126	12	51	37	12	1
American Indian or Alaska Native	2,548	2574	134	20	52	28	2,591	2567	135	21	53	26	7	1
Asian	39,976	2674	112	5	33	61	38,408	2662	117	7	37	56	12	2
Native Hawaiian or Other Pacific Islander	2,288	2581	135	19	52	29	2,345	2574	131	19	56	26	7	0
Filipino	13,525	2659	109	6	41	54	13,637	2643	113	7	46	47	16	1
Hispanic or Latino	225,952	2582	132	18	53	29	215,889	2570	131	20	56	25	12	2
Black or African American	25,623	2549	137	25	53	22	25,061	2542	135	26	55	19	7	1
White	110,143	2630	127	10	44	45	107,905	2621	127	11	47	41	9	1
Two or more races	12,950	2624	131	12	44	44	11,291	2619	128	12	47	41	5	0
English learner	39,250	2477	117	42	53	5	38,905	2471	115	43	53	4	6	1
English only	238,438	2612	132	13	47	40	229,910	2602	132	14	50	36	10	1
Reclassified fluent English proficient	120,726	2618	121	10	52	38	111,722	2605	121	12	56	32	13	2
Initially fluent English proficient	33,835	2652	118	7	41	52	35,709	2636	121	9	45	46	16	2
Economically disadvantaged	248,863	2578	134	19	53	28	228,844	2567	133	20	55	24	11	1
Not econ. disadvantaged	184,142	2640	123	9	43	48	188,283	2626	126	11	46	43	14	2
Migrant	3,238	2557	132	23	56	21	3,321	2542	130	25	58	17	15	2
Not migrant	429,767	2605	133	15	48	37	413,806	2594	133	16	51	33	11	1
Special education services	37,640	2485	124	41	52	8	33,693	2477	123	42	51	7	8	1
No special education services	395,365	2616	128	12	48	40	383,434	2604	129	14	51	35	12	2
Using designated supports	26,589	2515	135	34	52	14	22,582	2496	129	38	52	10	19	4
No designated supports	406,416	2610	131	13	48	38	394,545	2599	131	15	51	34	11	2
Using accommodations	5,862	2466	116	46	50	4	4,268	2460	117	47	48	4	6	1
No accommodations	427,143	2606	132	14	48	37	412,859	2595	132	16	51	33	11	2

Table 10.B.35 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Three and 2014–15 Mathematics Grade Three

	2015–16 Mathematics Grade 3						2014–15 Mathematics Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,933	2428	87	35	35	30	473,765	2418	84	40	35	25	10	5
Male	234,636	2429	90	35	34	31	242,170	2418	88	39	34	26	11	4
Female	224,297	2427	83	35	36	28	231,595	2417	80	40	36	23	10	5
American Indian or Alaska Native	2,350	2402	84	47	34	19	2,529	2391	82	52	33	15	11	5
Asian	40,776	2494	81	12	27	62	41,339	2483	81	14	30	56	11	2
Native Hawaiian or Other Pacific Islander	2,159	2417	80	39	38	23	2,224	2413	76	40	39	21	4	1
Filipino	9,620	2467	74	16	37	47	10,846	2455	73	20	39	41	12	4
Hispanic or Latino	253,978	2407	80	44	37	19	262,388	2396	76	50	35	15	11	6
Black or African American	25,209	2388	84	53	33	15	26,370	2380	81	57	32	11	8	4
White	105,443	2456	82	22	36	43	109,767	2447	80	25	38	38	9	3
Two or more races	19,398	2450	88	26	34	40	18,302	2442	84	28	36	36	8	2
English learner	134,937	2392	78	53	34	14	152,745	2387	76	56	32	12	5	3
English only	266,023	2436	86	31	36	34	270,146	2427	84	35	36	29	9	4
Reclassified fluent English proficient	39,996	2472	68	13	40	47	31,058	2459	67	17	43	39	13	4
Initially fluent English proficient	16,536	2487	80	13	30	57	18,128	2475	79	16	33	51	12	3
Economically disadvantaged	292,306	2404	81	45	36	19	295,223	2394	77	51	35	14	10	6
Not econ. disadvantaged	166,627	2470	81	17	34	49	178,542	2457	80	22	36	42	13	5
Migrant	4,481	2390	76	54	34	13	4,714	2379	73	59	32	8	11	5
Not migrant	454,452	2429	87	35	35	30	469,051	2418	84	40	35	25	11	5
Special education services	47,322	2359	98	66	22	12	44,727	2352	96	68	21	10	7	2
No special education services	411,611	2436	81	32	37	32	429,038	2425	80	37	37	26	11	5
Using designated supports	67,489	2371	89	61	27	11	55,324	2361	88	67	24	9	10	6
No designated supports	391,444	2438	82	31	37	33	418,441	2425	81	36	37	27	13	5
Using accommodations	3,801	2314	87	83	13	4	3,291	2309	85	84	13	3	5	1
No accommodations	455,132	2429	86	35	35	30	470,474	2418	84	40	36	25	11	5

Table 10.B.36 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Three and 2014–15 Mathematics Grade Three

	2015–16 Mathematics Grade 3						2014–15 Mathematics Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	459,006	2411	98	32	45	23	473,849	2405	94	38	42	20	6	6
Male	234,675	2413	100	31	45	24	242,215	2406	96	37	42	21	7	6
Female	224,331	2409	96	32	46	22	231,634	2404	91	38	42	19	5	6
American Indian or Alaska Native	2,350	2389	94	40	46	15	2,529	2382	89	47	41	12	7	7
Asian	40,778	2474	91	12	38	50	41,342	2468	89	15	38	47	6	3
Native Hawaiian or Other Pacific Islander	2,160	2396	96	37	46	17	2,225	2395	89	41	43	16	1	4
Filipino	9,624	2450	86	16	48	36	10,848	2444	83	20	48	33	6	4
Hispanic or Latino	254,012	2387	93	40	46	14	262,438	2381	87	48	42	11	6	8
Black or African American	25,217	2369	95	49	41	10	26,376	2365	90	55	36	8	4	6
White	105,463	2447	91	18	46	36	109,787	2441	87	22	46	33	6	4
Two or more races	19,402	2438	97	22	44	34	18,304	2434	92	26	43	31	4	4
English learner	134,954	2367	91	49	43	8	152,765	2368	86	55	37	8	-1	6
English only	266,075	2423	97	27	46	27	270,203	2417	93	32	44	24	6	5
Reclassified fluent English proficient	39,999	2456	76	11	53	36	31,063	2447	73	16	53	30	9	5
Initially fluent English proficient	16,536	2473	88	12	41	48	18,130	2466	86	15	41	44	7	3
Economically disadvantaged	292,360	2385	93	41	46	13	295,280	2379	87	49	41	10	6	8
Not econ. disadvantaged	166,646	2458	89	15	44	41	178,569	2449	88	20	44	36	9	5
Migrant	4,481	2366	90	49	42	8	4,714	2361	85	57	36	6	5	8
Not migrant	454,525	2411	98	31	45	23	469,135	2405	94	38	42	20	6	7
Special education services	47,345	2347	103	60	31	10	44,742	2345	98	65	26	9	2	5
No special education services	411,661	2418	95	28	47	25	429,107	2411	91	35	44	21	7	7
Using designated supports	67,510	2354	97	55	36	8	55,328	2349	93	62	31	7	5	7
No designated supports	391,496	2421	95	27	47	26	418,521	2412	91	35	44	22	9	8
Using accommodations	3,805	2313	93	74	22	4	3,291	2311	87	80	17	3	2	6
No accommodations	455,201	2412	98	31	45	23	470,558	2406	93	38	42	20	6	7

Table 10.B.37 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Three and 2014–15 Mathematics Grade Three

	2015–16 Mathematics Grade 3						2014–15 Mathematics Grade 3						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,901	2418	98	22	53	25	473,653	2408	95	28	52	20	10	6
Male	234,623	2416	101	23	52	25	242,121	2406	97	29	51	20	10	6
Female	224,278	2420	96	21	55	25	231,532	2411	93	26	54	20	9	5
American Indian or Alaska Native	2,349	2392	94	30	55	15	2,529	2384	90	37	51	12	8	7
Asian	40,773	2483	92	8	38	54	41,331	2473	93	10	42	48	10	2
Native Hawaiian or Other Pacific Islander	2,158	2406	93	24	57	19	2,224	2399	90	30	54	16	7	6
Filipino	9,620	2459	87	10	50	41	10,844	2448	88	14	52	34	11	4
Hispanic or Latino	253,961	2395	93	27	57	15	262,329	2386	88	34	54	11	9	7
Black or African American	25,208	2378	94	35	53	12	26,363	2372	89	43	48	9	6	8
White	105,435	2449	92	13	50	37	109,734	2440	91	17	51	32	9	4
Two or more races	19,397	2442	99	16	48	36	18,299	2435	94	19	50	30	7	3
English learner	134,927	2376	91	33	57	10	152,712	2374	88	39	53	9	2	6
English only	266,005	2428	97	19	52	29	270,072	2419	94	25	52	24	9	6
Reclassified fluent English proficient	39,995	2463	79	7	54	40	31,054	2451	79	10	57	32	12	3
Initially fluent English proficient	16,534	2479	90	8	42	50	18,128	2469	90	11	45	45	10	3
Economically disadvantaged	292,283	2392	93	28	57	15	295,157	2384	88	35	54	11	8	7
Not econ. disadvantaged	166,618	2462	91	10	47	43	178,496	2449	91	15	49	36	13	5
Migrant	4,480	2376	90	33	56	10	4,713	2368	85	41	53	7	8	8
Not migrant	454,421	2418	98	22	53	25	468,940	2409	95	27	52	21	9	5
Special education services	47,315	2357	100	46	44	10	44,713	2354	95	52	39	9	3	6
No special education services	411,586	2425	96	19	54	27	428,940	2414	93	25	53	22	11	6
Using designated supports	67,483	2363	95	38	53	9	55,315	2355	92	45	48	7	8	7
No designated supports	391,418	2427	96	19	53	28	418,338	2416	93	25	53	22	11	6
Using accommodations	3,799	2325	89	59	38	4	3,291	2323	83	66	32	3	2	7
No accommodations	455,102	2418	98	22	53	25	470,362	2409	95	27	52	20	9	5

Table 10.B.38 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Four

	2015–16 Mathematics Grade 4						2014–15 Mathematics Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	474,825	2463	88	44	32	24	463,968	2455	85	47	32	21	8	3
Male	242,536	2465	92	43	31	26	236,250	2456	89	46	31	23	9	3
Female	232,289	2460	84	45	33	22	227,718	2454	80	48	33	19	6	3
American Indian or Alaska Native	2,456	2437	83	54	32	14	2,442	2434	82	56	31	12	3	2
Asian	42,177	2534	85	16	27	58	41,628	2526	84	18	29	53	8	2
Native Hawaiian or Other Pacific Islander	2,202	2456	79	45	35	20	2,276	2446	75	51	34	15	10	6
Filipino	10,836	2506	78	22	36	42	11,271	2493	76	26	39	35	13	4
Hispanic or Latino	263,395	2438	79	55	32	14	253,736	2431	75	59	30	11	7	4
Black or African American	25,961	2422	82	62	27	11	25,923	2417	79	65	27	8	5	3
White	108,893	2495	83	27	36	37	109,888	2486	80	30	37	33	9	3
Two or more races	18,905	2488	89	32	33	36	16,804	2482	86	33	35	32	6	1
English learner	124,502	2415	75	68	25	7	121,453	2409	72	72	22	6	6	4
English only	269,050	2473	88	38	34	28	261,018	2465	85	41	34	25	8	3
Reclassified fluent English proficient	61,343	2497	72	25	41	34	61,892	2488	69	28	43	29	9	3
Initially fluent English proficient	18,588	2524	83	19	31	51	18,132	2513	83	22	33	45	11	3
Economically disadvantaged	302,983	2436	79	56	31	13	286,511	2430	76	60	30	11	6	4
Not econ. disadvantaged	171,842	2509	83	22	34	44	177,457	2497	82	27	36	38	12	5
Migrant	4,659	2419	73	66	27	7	4,525	2414	72	69	25	6	5	3
Not migrant	470,166	2463	88	43	32	24	459,443	2456	85	47	32	21	7	4
Special education services	52,433	2391	93	75	17	9	48,631	2387	92	76	16	8	4	1
No special education services	422,392	2471	83	40	34	26	415,337	2463	81	44	34	23	8	4
Using designated supports	71,243	2401	85	72	21	7	52,384	2388	84	77	17	6	13	5
No designated supports	403,582	2473	84	39	34	27	411,584	2464	81	43	34	23	9	4
Using accommodations	15,555	2356	76	89	9	2	11,507	2351	75	91	8	1	5	2
No accommodations	459,270	2466	86	42	33	25	452,461	2458	84	46	33	21	8	4

Table 10.B.39 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Four

	2015–16 Mathematics Grade 4						2014–15 Mathematics Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	474,842	2447	103	36	45	18	464,003	2441	102	39	45	16	6	3
Male	242,543	2448	105	36	44	20	236,267	2441	105	39	44	17	7	3
Female	232,299	2447	100	36	47	17	227,736	2441	99	39	46	15	6	3
American Indian or Alaska Native	2,456	2424	100	45	43	11	2,443	2419	103	47	42	11	5	2
Asian	42,177	2517	96	14	41	45	41,630	2511	96	16	42	43	6	2
Native Hawaiian or Other Pacific Islander	2,202	2437	97	39	47	14	2,277	2427	95	44	46	11	10	5
Filipino	10,836	2490	88	18	51	30	11,272	2479	90	22	52	25	11	4
Hispanic or Latino	263,403	2421	97	45	45	9	253,746	2414	96	49	43	8	7	4
Black or African American	25,964	2403	99	54	39	7	25,927	2397	99	57	37	6	6	3
White	108,898	2485	95	21	49	30	109,900	2479	93	23	50	27	6	2
Two or more races	18,906	2477	101	26	46	28	16,808	2473	99	27	48	26	4	1
English learner	124,505	2392	94	59	37	4	121,451	2385	94	63	34	3	7	4
English only	269,064	2460	101	31	47	22	261,047	2454	101	33	47	20	6	2
Reclassified fluent English proficient	61,343	2485	80	18	57	25	61,899	2479	80	20	58	21	6	2
Initially fluent English proficient	18,588	2513	90	14	45	41	18,133	2504	92	17	46	37	9	3
Economically disadvantaged	302,996	2419	97	46	44	9	286,533	2412	97	50	43	7	7	4
Not econ. disadvantaged	171,846	2497	93	18	47	35	177,470	2488	94	21	49	31	9	3
Migrant	4,659	2399	96	55	40	5	4,526	2393	95	59	38	4	6	4
Not migrant	470,183	2448	103	36	46	19	459,477	2442	102	39	45	16	6	3
Special education services	52,435	2376	106	67	27	6	48,644	2371	107	68	26	6	5	1
No special education services	422,407	2456	99	32	48	20	415,359	2449	99	35	47	18	7	3
Using designated supports	71,245	2383	101	62	33	5	52,382	2371	100	67	29	4	12	5
No designated supports	403,597	2459	99	32	48	21	411,621	2450	99	35	47	18	9	3
Using accommodations	15,556	2345	92	79	19	1	11,511	2337	93	82	17	1	8	3
No accommodations	459,286	2451	101	35	46	19	452,492	2444	101	38	46	17	7	3

Table 10.B.40 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Four

	2015–16 Mathematics Grade 4						2014–15 Mathematics Grade 4						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	474,787	2454	96	34	44	21	463,856	2447	93	39	43	18	7	5
Male	242,515	2454	98	35	43	22	236,200	2447	95	39	42	19	7	4
Female	232,272	2454	93	34	46	20	227,656	2448	90	38	44	18	6	4
American Indian or Alaska Native	2,456	2429	89	44	44	12	2,442	2426	89	48	40	12	3	4
Asian	42,175	2525	91	12	36	51	41,623	2517	89	15	38	47	8	3
Native Hawaiian or Other Pacific Islander	2,202	2445	89	37	46	17	2,276	2435	84	43	44	12	10	6
Filipino	10,836	2498	86	17	47	37	11,269	2486	85	21	49	30	12	4
Hispanic or Latino	263,377	2430	88	43	45	12	253,684	2423	85	48	42	9	7	5
Black or African American	25,958	2414	89	51	40	9	25,919	2409	86	56	37	7	5	5
White	108,881	2487	91	21	46	33	109,845	2479	88	25	47	29	8	4
Two or more races	18,902	2481	96	25	43	32	16,798	2474	93	28	44	28	7	3
English learner	124,493	2406	83	55	40	5	121,428	2400	80	61	35	4	6	6
English only	269,026	2465	95	30	45	25	260,950	2457	92	34	44	21	8	4
Reclassified fluent English proficient	61,341	2490	81	17	53	30	61,880	2480	79	22	53	25	10	5
Initially fluent English proficient	18,585	2517	91	14	40	46	18,127	2507	90	17	42	41	10	3
Economically disadvantaged	302,962	2428	89	44	45	11	286,453	2421	85	49	42	9	7	5
Not econ. disadvantaged	171,825	2501	90	17	44	39	177,403	2489	89	22	45	33	12	5
Migrant	4,659	2411	85	51	42	7	4,523	2406	81	56	39	5	5	5
Not migrant	470,128	2455	96	34	45	21	459,333	2448	93	39	43	18	7	5
Special education services	52,426	2392	93	63	29	8	48,610	2389	90	66	27	6	3	3
No special education services	422,361	2462	93	31	46	23	415,246	2454	91	36	45	20	8	5
Using designated supports	71,236	2397	89	60	34	6	52,365	2386	87	68	28	4	11	8
No designated supports	403,551	2465	93	30	46	24	411,491	2455	91	35	45	20	10	5
Using accommodations	15,552	2363	77	77	22	1	11,504	2361	75	80	19	1	2	3
No accommodations	459,235	2457	95	33	45	22	452,352	2450	92	38	44	19	7	5

Table 10.B.41 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Five

	2015–16 Mathematics Grade 5						2014–15 Mathematics Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	465,592	2488	97	49	29	22	461,109	2483	94	51	30	19	5	2
Male	236,880	2489	101	48	28	24	235,350	2483	98	51	29	21	6	3
Female	228,712	2487	92	50	30	20	225,759	2483	89	52	30	18	4	2
American Indian or Alaska Native	2,400	2461	94	59	27	14	2,508	2452	88	65	25	10	9	6
Asian	42,315	2568	93	19	27	54	42,699	2560	92	20	29	50	8	1
Native Hawaiian or Other Pacific Islander	2,295	2476	88	54	30	16	2,391	2472	87	56	31	13	4	2
Filipino	11,232	2533	86	28	36	36	11,851	2524	84	31	38	32	9	3
Hispanic or Latino	255,139	2461	86	61	27	11	247,692	2456	83	64	27	9	5	3
Black or African American	25,608	2440	90	69	22	9	26,288	2438	88	70	23	7	2	1
White	109,316	2524	92	32	33	34	112,175	2517	89	34	36	30	7	2
Two or more races	17,287	2516	99	37	30	33	15,505	2512	94	38	33	29	4	1
English learner	98,677	2426	80	78	18	4	101,639	2424	78	79	17	4	2	1
English only	260,253	2499	97	44	30	26	256,858	2494	94	46	32	23	5	2
Reclassified fluent English proficient	86,970	2513	82	38	37	26	81,014	2510	79	39	38	23	3	1
Initially fluent English proficient	18,627	2552	93	24	30	46	20,231	2539	92	29	32	39	13	5
Economically disadvantaged	293,823	2459	87	62	27	11	280,410	2454	84	64	27	9	5	2
Not econ. disadvantaged	171,769	2538	92	27	32	40	180,699	2527	91	31	34	35	11	4
Migrant	4,588	2444	84	69	24	7	4,511	2438	80	72	23	5	6	3
Not migrant	461,004	2488	97	49	29	22	456,598	2483	94	51	30	19	5	2
Special education services	53,478	2407	96	80	13	6	50,317	2406	94	81	13	6	1	1
No special education services	412,114	2498	92	45	31	24	410,792	2492	90	47	32	21	6	2
Using designated supports	66,333	2417	90	78	16	5	50,690	2408	88	81	14	4	9	3
No designated supports	399,259	2500	93	45	31	25	410,419	2492	90	47	32	21	8	2
Using accommodations	18,915	2375	79	92	7	1	13,008	2372	77	93	6	1	3	1
No accommodations	446,677	2493	95	47	30	23	448,101	2486	93	50	30	20	7	3

Table 10.B.42 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Five

	2015–16 Mathematics Grade 5						2014–15 Mathematics Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	465,684	2465	122	46	37	18	461,206	2459	122	46	38	16	6	0
Male	236,932	2463	125	46	36	18	235,402	2457	125	47	37	16	6	1
Female	228,752	2466	118	46	38	17	225,804	2461	118	46	39	15	5	0
American Indian or Alaska Native	2,401	2438	121	54	36	10	2,508	2427	116	58	35	7	11	4
Asian	42,318	2548	108	19	36	45	42,703	2541	110	20	38	42	7	1
Native Hawaiian or Other Pacific Islander	2,295	2450	116	51	37	12	2,393	2442	114	53	37	10	8	2
Filipino	11,232	2515	104	25	45	29	11,852	2506	107	28	46	26	9	3
Hispanic or Latino	255,188	2433	116	57	34	9	247,741	2426	115	59	34	7	7	2
Black or African American	25,617	2409	119	66	28	6	26,292	2407	117	66	29	5	2	0
White	109,341	2510	108	28	44	28	112,208	2504	109	29	46	25	6	1
Two or more races	17,292	2501	117	32	41	27	15,509	2495	116	33	43	24	6	1
English learner	98,698	2382	112	77	20	2	101,657	2380	110	77	21	2	2	0
English only	260,315	2480	119	39	40	21	256,919	2475	119	40	41	19	5	1
Reclassified fluent English proficient	86,978	2496	99	33	47	20	81,028	2492	101	33	49	18	4	0
Initially fluent English proficient	18,627	2539	104	21	40	40	20,235	2525	109	24	42	34	14	3
Economically disadvantaged	293,881	2430	117	58	33	8	280,467	2424	116	60	34	7	6	2
Not econ. disadvantaged	171,803	2524	106	24	43	34	180,739	2514	109	26	45	29	10	2
Migrant	4,589	2408	115	67	28	5	4,512	2399	113	69	27	4	9	2
Not migrant	461,095	2465	122	45	37	18	456,694	2459	122	46	38	16	6	1
Special education services	53,496	2372	124	77	18	5	50,331	2371	121	77	18	4	1	0
No special education services	412,188	2477	116	41	39	19	410,875	2470	117	43	40	17	7	2
Using designated supports	66,354	2379	120	76	20	4	50,699	2368	117	79	18	3	11	3
No designated supports	399,330	2479	116	41	40	20	410,507	2470	117	43	40	17	9	2
Using accommodations	18,924	2338	108	89	11	1	13,009	2339	105	88	11	1	-1	-1
No accommodations	446,760	2470	120	44	38	18	448,197	2462	120	45	39	16	8	1

Table 10.B.43 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Five

	2015–16 Mathematics Grade 5						2014–15 Mathematics Grade 5						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	465,546	2474	110	40	44	16	461,024	2468	108	41	45	14	6	1
Male	236,854	2473	112	41	43	17	235,304	2466	111	42	44	14	7	1
Female	228,692	2475	107	39	45	16	225,720	2470	106	40	46	14	5	1
American Indian or Alaska Native	2,399	2449	105	49	41	10	2,506	2437	103	53	40	7	12	4
Asian	42,312	2554	103	15	42	43	42,693	2546	104	16	45	39	8	1
Native Hawaiian or Other Pacific Islander	2,295	2459	103	44	45	11	2,390	2453	102	46	46	8	6	2
Filipino	11,230	2521	100	22	52	27	11,851	2510	101	24	52	23	11	2
Hispanic or Latino	255,118	2445	101	50	42	8	247,644	2438	99	52	42	6	7	2
Black or African American	25,605	2428	102	58	37	6	26,285	2426	100	57	38	5	2	-1
White	109,304	2512	105	25	49	26	112,153	2505	103	26	51	23	7	1
Two or more races	17,283	2505	110	29	45	25	15,502	2500	108	29	48	22	5	0
English learner	98,667	2407	93	67	30	2	101,620	2403	92	68	30	2	4	1
English only	260,226	2486	109	35	46	19	256,811	2481	108	36	47	17	5	1
Reclassified fluent English proficient	86,965	2500	96	28	54	18	81,002	2494	95	29	55	16	6	1
Initially fluent English proficient	18,625	2542	103	18	45	37	20,225	2527	106	21	47	31	15	3
Economically disadvantaged	293,799	2443	101	51	42	7	280,357	2437	100	52	42	6	6	1
Not econ. disadvantaged	171,747	2527	103	21	48	31	180,667	2516	104	23	50	26	11	2
Migrant	4,588	2425	98	59	37	4	4,511	2418	95	60	37	3	7	1
Not migrant	460,958	2475	110	40	44	16	456,513	2468	108	41	45	14	7	1
Special education services	53,472	2399	103	71	25	4	50,299	2399	101	70	26	4	0	-1
No special education services	412,074	2484	107	36	46	18	410,725	2476	106	38	47	15	8	2
Using designated supports	66,328	2405	99	67	29	3	50,672	2396	98	70	27	3	9	3
No designated supports	399,218	2486	107	35	46	18	410,352	2477	106	37	47	15	9	2
Using accommodations	18,913	2373	88	82	17	1	13,003	2373	86	81	18	1	0	-1
No accommodations	446,633	2478	108	38	45	17	448,021	2471	108	40	46	14	7	2

Table 10.B.44 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Six

	2015–16 Mathematics Grade 6						2014–15 Mathematics Grade 6						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	460,403	2511	115	46	31	23	456,542	2508	109	47	33	20	3	1
Male	235,275	2506	119	48	30	22	232,946	2502	113	49	31	20	4	1
Female	225,128	2516	109	44	33	23	223,596	2513	104	45	34	20	3	1
American Indian or Alaska Native	2,447	2469	111	61	27	12	2,494	2476	104	60	28	12	-7	-1
Asian	43,107	2607	105	16	27	56	42,186	2598	101	17	30	52	9	1
Native Hawaiian or Other Pacific Islander	2,344	2499	105	51	33	16	2,296	2501	98	50	35	15	-2	-1
Filipino	11,799	2565	98	25	37	38	12,502	2554	96	28	39	33	11	3
Hispanic or Latino	247,875	2479	105	58	30	12	243,636	2476	100	60	30	10	3	2
Black or African American	25,677	2456	110	66	25	9	26,305	2459	104	65	26	8	-3	-1
White	110,416	2551	105	30	37	33	112,532	2545	100	31	39	30	6	1
Two or more races	16,738	2542	113	34	34	32	14,591	2536	107	36	36	28	6	2
English learner	81,243	2422	98	81	16	3	77,289	2421	94	82	15	3	1	1
English only	254,649	2524	113	40	33	26	252,541	2520	107	42	35	23	4	2
Reclassified fluent English proficient	102,848	2536	95	37	39	24	103,924	2529	89	40	40	21	7	3
Initially fluent English proficient	20,515	2581	107	24	32	45	21,494	2571	104	26	34	40	10	2
Economically disadvantaged	286,555	2477	106	59	29	12	275,941	2475	101	60	30	10	2	1
Not econ. disadvantaged	173,848	2568	105	25	35	40	180,601	2558	101	28	37	35	10	3
Migrant	4,033	2454	102	68	24	7	3,977	2457	98	68	26	6	-3	0
Not migrant	456,370	2512	115	46	31	23	452,565	2508	109	47	33	20	4	1
Special education services	50,687	2397	110	83	12	4	47,172	2399	107	84	12	4	-2	1
No special education services	409,716	2525	107	41	34	25	409,370	2520	102	43	35	22	5	2
Using designated supports	57,580	2413	108	80	15	5	42,562	2401	101	85	12	3	12	5
No designated supports	402,823	2525	109	41	34	25	413,980	2519	104	44	35	22	6	3
Using accommodations	18,287	2362	92	93	6	1	12,492	2365	88	94	6	1	-3	1
No accommodations	442,116	2517	111	44	32	23	444,050	2512	107	46	33	20	5	2

Table 10.B.45 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Six

	2015–16 Mathematics Grade 6						2014–15 Mathematics Grade 6						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	460,674	2494	126	40	43	18	457,261	2484	125	39	46	15	10	-1
Male	235,425	2492	129	40	41	18	233,349	2482	129	40	45	15	10	0
Female	225,249	2496	122	39	44	17	223,912	2487	121	38	48	14	9	-1
American Indian or Alaska Native	2,448	2453	125	53	38	9	2,498	2454	121	49	43	8	-1	-4
Asian	43,118	2587	112	14	38	48	42,226	2574	114	15	42	43	13	1
Native Hawaiian or Other Pacific Islander	2,345	2476	117	45	44	11	2,300	2471	118	43	47	10	5	-2
Filipino	11,804	2546	107	21	50	29	12,519	2532	110	22	54	24	14	1
Hispanic or Latino	248,003	2460	118	50	41	8	244,058	2451	118	49	44	6	9	-1
Black or African American	25,715	2433	124	60	34	6	26,377	2430	123	57	37	5	3	-3
White	110,490	2537	114	25	48	27	112,670	2527	114	24	52	24	10	-1
Two or more races	16,751	2526	123	30	44	26	14,613	2517	121	29	49	23	9	-1
English learner	81,307	2398	115	73	24	2	77,451	2390	114	72	27	2	8	-1
English only	254,812	2508	123	35	44	21	252,898	2499	123	34	48	18	9	-1
Reclassified fluent English proficient	102,884	2520	103	30	52	18	104,093	2506	105	31	55	14	14	1
Initially fluent English proficient	20,522	2566	111	19	43	38	21,520	2551	115	20	48	33	15	1
Economically disadvantaged	286,744	2458	120	51	40	8	276,429	2449	119	50	43	6	9	-1
Not econ. disadvantaged	173,930	2553	113	21	46	33	180,832	2539	115	22	50	28	14	1
Migrant	4,035	2435	117	59	36	5	3,978	2429	118	57	40	4	6	-2
Not migrant	456,639	2494	126	40	43	18	453,283	2485	125	39	46	15	9	-1
Special education services	50,754	2374	124	78	18	3	47,298	2372	123	76	21	3	2	-2
No special education services	409,920	2509	118	35	45	19	409,963	2497	119	35	49	16	12	0
Using designated supports	57,647	2389	125	73	24	3	42,667	2372	120	74	24	2	17	1
No designated supports	403,027	2509	119	35	45	20	414,594	2496	120	35	48	16	13	0
Using accommodations	18,316	2338	107	88	11	1	12,526	2339	105	86	14	0	-1	-2
No accommodations	442,358	2500	122	38	44	18	444,735	2489	124	38	47	15	11	0

Table 10.B.46 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Six

	2015–16 Mathematics Grade 6						2014–15 Mathematics Grade 6						SS Difference	% Near Standard or Above Standard Difference
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		
All Students	460,605	2502	117	31	51	18	457,065	2498	115	34	50	16	4	3
Male	235,391	2499	120	33	50	18	233,237	2493	118	36	48	16	6	3
Female	225,214	2506	114	30	53	18	223,828	2502	111	32	52	16	4	2
American Indian or Alaska Native	2,447	2468	111	41	50	9	2,497	2470	108	43	49	9	-2	2
Asian	43,117	2589	111	11	42	47	42,220	2583	110	13	43	44	6	2
Native Hawaiian or Other Pacific Islander	2,345	2488	108	35	53	12	2,298	2487	107	38	51	12	1	3
Filipino	11,803	2551	106	16	54	30	12,513	2541	106	20	54	26	10	4
Hispanic or Latino	247,970	2471	108	39	52	9	243,944	2467	105	43	49	7	4	4
Black or African American	25,706	2454	109	47	47	7	26,356	2452	107	50	44	6	2	3
White	110,473	2541	112	19	53	28	112,631	2535	110	22	53	25	6	3
Two or more races	16,744	2532	119	23	50	27	14,606	2526	115	25	51	24	6	2
English learner	81,285	2422	98	58	40	2	77,416	2418	96	63	35	2	4	5
English only	254,774	2516	117	27	52	21	252,794	2511	114	30	51	19	5	3
Reclassified fluent English proficient	102,877	2520	105	23	59	18	104,049	2513	102	26	58	16	7	3
Initially fluent English proficient	20,521	2568	113	15	47	38	21,512	2559	113	18	48	34	9	3
Economically disadvantaged	286,693	2469	108	40	51	9	276,302	2466	106	44	49	7	3	4
Not econ. disadvantaged	173,912	2556	112	16	50	33	180,763	2547	110	19	51	29	9	3
Migrant	4,035	2447	104	48	48	4	3,978	2447	100	51	45	4	0	3
Not migrant	456,570	2503	117	31	51	18	453,087	2498	115	34	50	16	5	3
Special education services	50,734	2411	105	64	32	3	47,262	2408	104	68	28	3	3	4
No special education services	409,871	2514	114	27	53	20	409,803	2508	112	30	52	17	6	3
Using designated supports	57,627	2420	106	58	39	4	42,637	2406	101	66	31	2	14	8
No designated supports	402,978	2514	114	27	53	20	414,428	2507	112	31	52	17	7	4
Using accommodations	18,308	2386	92	74	25	1	12,514	2382	90	78	21	0	4	4
No accommodations	442,297	2507	116	29	52	19	444,551	2501	114	33	51	16	6	4

Table 10.B.47 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Seven

	2015–16 Mathematics Grade 7						2014–15 Mathematics Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,064	2529	116	45	32	24	448,882	2521	115	46	33	22	8	1
Male	234,037	2526	120	46	30	24	228,629	2518	119	47	31	22	8	1
Female	224,027	2532	111	43	33	24	220,253	2524	110	45	34	21	8	2
American Indian or Alaska Native	2,450	2497	112	54	32	14	2,664	2492	106	56	32	12	5	2
Asian	42,779	2630	108	15	25	60	40,866	2622	108	16	27	58	8	1
Native Hawaiian or Other Pacific Islander	2,218	2518	105	47	34	19	2,328	2510	104	48	36	15	8	1
Filipino	12,465	2582	100	24	37	39	12,524	2571	102	26	38	36	11	2
Hispanic or Latino	245,226	2494	105	57	31	12	239,868	2488	103	58	31	11	6	1
Black or African American	25,830	2474	109	64	26	10	26,622	2467	107	65	27	8	7	1
White	111,445	2570	105	28	37	36	110,537	2562	105	29	38	33	8	1
Two or more races	15,651	2557	115	33	33	34	13,473	2555	112	33	35	32	2	0
English learner	65,671	2426	97	84	13	3	66,571	2425	97	83	14	3	1	-1
English only	251,026	2543	114	38	34	28	245,710	2535	113	40	35	25	8	2
Reclassified fluent English proficient	118,117	2544	98	39	38	23	114,741	2538	98	40	39	21	6	1
Initially fluent English proficient	21,986	2596	111	24	31	45	20,443	2586	111	25	33	42	10	1
Economically disadvantaged	281,745	2493	107	57	30	13	269,700	2487	105	58	31	11	6	1
Not econ. disadvantaged	176,319	2586	107	24	34	42	179,182	2573	109	27	36	37	13	3
Migrant	3,768	2469	105	67	26	8	3,793	2469	102	65	28	7	0	-2
Not migrant	454,296	2529	116	44	32	24	445,089	2522	115	46	33	22	7	2
Special education services	48,508	2412	107	83	12	4	44,730	2411	106	83	13	4	1	0
No special education services	409,556	2542	109	40	34	26	404,152	2533	109	42	35	23	9	2
Using designated supports	48,802	2427	108	80	15	5	36,865	2413	105	83	13	4	14	3
No designated supports	409,262	2541	111	40	34	26	412,017	2531	111	42	34	23	10	2
Using accommodations	16,092	2381	88	93	6	1	10,389	2377	89	93	6	1	4	0
No accommodations	441,972	2534	113	43	33	25	438,493	2525	113	45	33	22	9	2

Table 10.B.48 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Seven

	2015–16 Mathematics Grade 7						2014–15 Mathematics Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,353	2505	133	37	43	20	449,920	2490	141	35	48	17	15	-2
Male	234,191	2504	134	38	42	20	229,155	2489	143	35	47	18	15	-3
Female	224,162	2506	131	37	43	20	220,765	2492	139	34	49	17	14	-3
American Indian or Alaska Native	2,455	2478	125	44	44	12	2,671	2457	134	42	49	9	21	-2
Asian	42,791	2607	122	13	34	53	40,902	2596	128	12	39	49	11	-1
Native Hawaiian or Other Pacific Islander	2,220	2486	126	42	44	14	2,333	2477	133	37	52	11	9	-5
Filipino	12,468	2560	119	20	47	34	12,545	2543	128	20	52	28	17	0
Hispanic or Latino	245,390	2467	123	48	43	9	240,530	2452	132	44	48	8	15	-4
Black or African American	25,861	2444	123	56	37	7	26,718	2431	131	51	44	6	13	-5
White	111,502	2554	120	22	47	31	110,717	2539	130	21	52	27	15	-1
Two or more races	15,666	2539	130	28	43	29	13,504	2530	136	24	50	26	9	-4
English learner	65,721	2396	111	74	23	2	66,779	2385	121	67	31	2	11	-7
English only	251,190	2522	130	32	45	24	246,221	2507	139	30	50	21	15	-2
Reclassified fluent English proficient	118,173	2517	118	31	50	18	115,014	2503	128	29	55	16	14	-2
Initially fluent English proficient	21,997	2577	126	19	41	41	20,478	2562	134	19	45	36	15	0
Economically disadvantaged	281,953	2465	123	49	42	10	270,455	2451	132	45	48	8	14	-4
Not econ. disadvantaged	176,400	2568	122	19	44	37	179,465	2550	132	19	49	32	18	0
Migrant	3,769	2441	119	56	39	5	3,804	2432	127	49	47	4	9	-7
Not migrant	454,584	2505	133	37	43	20	446,116	2491	141	34	48	17	14	-3
Special education services	48,573	2391	118	75	21	4	44,896	2380	126	68	28	3	11	-7
No special education services	409,780	2518	128	33	45	22	405,024	2503	137	31	50	19	15	-2
Using designated supports	48,862	2405	119	71	25	4	36,985	2382	125	68	29	3	23	-3
No designated supports	409,491	2517	129	33	45	22	412,935	2500	138	32	50	19	17	-1
Using accommodations	16,114	2362	99	85	14	1	10,427	2349	109	78	22	1	13	-7
No accommodations	442,239	2510	131	35	44	21	439,493	2494	140	34	49	18	16	-1

Table 10.B.49 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Seven

	2015–16 Mathematics Grade 7						2014–15 Mathematics Grade 7						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	458,219	2518	125	29	51	20	449,466	2505	132	19	64	17	13	-10
Male	234,121	2511	129	31	49	20	228,910	2499	136	21	62	17	12	-10
Female	224,098	2525	121	26	54	21	220,556	2513	128	17	66	17	12	-9
American Indian or Alaska Native	2,453	2487	123	37	51	12	2,670	2471	128	25	65	9	16	-12
Asian	42,786	2618	114	8	38	54	40,888	2606	123	6	46	48	12	-2
Native Hawaiian or Other Pacific Islander	2,219	2509	116	30	55	15	2,331	2496	124	20	68	12	13	-10
Filipino	12,468	2573	110	13	53	34	12,534	2555	119	10	63	27	18	-3
Hispanic or Latino	245,315	2484	116	37	53	10	240,231	2472	123	24	68	8	12	-13
Black or African American	25,843	2466	118	44	48	8	26,680	2455	124	28	66	6	11	-16
White	111,473	2558	117	17	52	31	110,639	2544	127	12	62	26	14	-5
Two or more races	15,662	2547	124	21	50	29	13,493	2538	132	14	61	25	9	-7
English learner	65,702	2421	107	59	39	3	66,683	2419	114	37	61	2	2	-22
English only	251,107	2532	124	25	51	24	246,009	2518	132	17	63	20	14	-8
Reclassified fluent English proficient	118,147	2532	112	22	59	19	114,888	2518	122	15	69	16	14	-7
Initially fluent English proficient	21,994	2585	120	14	46	41	20,465	2572	130	9	56	35	13	-5
Economically disadvantaged	281,857	2483	117	37	52	10	270,115	2471	124	24	68	8	12	-13
Not econ. disadvantaged	176,362	2575	117	14	49	37	179,351	2557	128	11	59	30	18	-3
Migrant	3,769	2461	113	43	51	6	3,797	2457	118	26	69	5	4	-17
Not migrant	454,450	2519	125	28	51	20	445,669	2506	132	19	64	17	13	-9
Special education services	48,539	2410	112	66	31	4	44,826	2410	119	41	56	3	0	-25
No special education services	409,680	2531	121	24	54	22	404,640	2516	130	16	65	19	15	-8
Using designated supports	48,829	2424	114	56	40	4	36,917	2414	117	39	59	3	10	-17
No designated supports	409,390	2529	122	25	52	22	412,549	2514	131	17	65	18	15	-8
Using accommodations	16,101	2383	95	75	24	1	10,412	2385	107	47	52	1	-2	-28
No accommodations	442,118	2523	124	27	52	21	439,054	2508	132	18	64	17	15	-9

Table 10.B.50 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Eight

	2015–16 Mathematics Grade 8						2014–15 Mathematics Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	451,139	2543	127	45	30	25	450,413	2535	123	46	32	21	8	1
Male	229,923	2538	131	47	29	24	229,758	2529	128	49	30	21	9	2
Female	221,216	2549	123	43	32	25	220,655	2541	118	44	34	22	8	1
American Indian or Alaska Native	2,558	2506	117	56	29	15	2,572	2499	114	59	30	12	7	3
Asian	41,500	2657	121	15	23	61	41,081	2644	118	16	27	57	13	1
Native Hawaiian or Other Pacific Islander	2,331	2530	115	46	35	18	2,306	2520	114	51	33	16	10	5
Filipino	12,515	2602	113	24	35	41	13,017	2590	111	26	38	36	12	2
Hispanic or Latino	241,871	2508	114	56	30	14	239,210	2500	110	58	31	11	8	2
Black or African American	26,536	2481	114	66	25	10	27,553	2477	112	67	25	8	4	1
White	109,550	2585	119	30	34	36	111,857	2575	116	32	37	31	10	2
Two or more races	14,278	2570	127	36	32	32	12,817	2568	123	35	34	31	2	-1
English learner	56,308	2438	104	81	14	4	59,120	2436	102	82	14	4	2	1
English only	244,560	2556	126	40	32	28	245,092	2547	122	42	34	25	9	2
Reclassified fluent English proficient	128,094	2555	114	41	35	24	124,038	2548	109	42	37	21	7	1
Initially fluent English proficient	21,033	2613	126	26	29	45	20,923	2599	124	28	33	39	14	2
Economically disadvantaged	276,395	2506	116	57	29	14	267,171	2500	112	58	30	11	6	1
Not econ. disadvantaged	174,744	2602	122	26	32	42	183,242	2587	120	29	35	36	15	3
Migrant	3,875	2491	111	61	28	11	3,934	2483	108	64	28	8	8	3
Not migrant	447,264	2544	127	45	30	25	446,479	2536	123	46	32	22	8	1
Special education services	46,006	2425	106	83	12	4	43,966	2422	106	84	12	4	3	1
No special education services	405,133	2557	122	41	32	27	406,447	2547	119	42	34	23	10	1
Using designated supports	45,143	2441	111	79	16	6	34,448	2426	107	83	13	4	15	4
No designated supports	405,996	2555	124	41	32	27	415,965	2544	120	43	34	23	11	2
Using accommodations	14,117	2397	88	92	7	1	9,951	2392	86	93	6	1	5	1
No accommodations	437,022	2548	125	44	31	25	440,462	2538	122	45	33	22	10	1

Table 10.B.51 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Eight

	2015–16 Mathematics Grade 8						2014–15 Mathematics Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	451,468	2506	156	31	49	20	451,080	2510	145	32	51	18	–4	1
Male	230,095	2504	158	32	48	20	230,059	2508	147	33	49	18	–4	1
Female	221,373	2509	153	30	51	19	221,021	2511	143	30	52	17	–2	0
American Indian or Alaska Native	2,558	2475	144	37	52	11	2,580	2478	137	39	51	10	–3	2
Asian	41,513	2622	146	11	36	52	41,118	2617	140	12	39	49	5	1
Native Hawaiian or Other Pacific Islander	2,334	2486	145	34	54	13	2,311	2489	137	35	54	11	–3	1
Filipino	12,523	2562	146	18	50	32	13,040	2560	134	18	54	28	2	0
Hispanic or Latino	242,078	2466	144	39	51	10	239,620	2471	133	40	52	8	–5	1
Black or African American	26,562	2444	141	46	47	7	27,601	2452	131	46	48	6	–8	0
White	109,609	2558	147	19	50	31	111,975	2558	137	20	53	28	0	1
Two or more races	14,291	2542	154	23	49	28	12,835	2548	142	23	51	27	–6	0
English learner	56,368	2391	128	61	36	2	59,247	2401	121	63	35	2	–10	2
English only	244,721	2524	154	27	50	23	245,399	2526	143	27	52	21	–2	0
Reclassified fluent English proficient	128,185	2512	147	28	55	18	124,228	2517	134	27	57	16	–5	–1
Initially fluent English proficient	21,046	2583	152	16	45	39	20,959	2578	143	17	48	35	5	1
Economically disadvantaged	276,627	2465	145	40	51	10	267,622	2471	135	40	51	8	–6	0
Not econ. disadvantaged	174,841	2572	149	17	47	35	183,458	2566	140	19	50	31	6	2
Migrant	3,878	2444	141	44	50	6	3,938	2449	131	46	49	5	–5	2
Not migrant	447,590	2507	156	31	49	20	447,142	2510	145	31	51	18	–3	0
Special education services	46,062	2391	130	62	34	3	44,073	2399	125	64	33	3	–8	2
No special education services	405,406	2520	153	27	51	22	407,007	2521	142	28	53	19	–1	1
Using designated supports	45,179	2400	136	59	37	4	34,502	2396	128	64	33	3	4	5
No designated supports	406,289	2518	153	28	51	21	416,578	2519	142	29	52	19	–1	1
Using accommodations	14,135	2365	114	70	29	1	9,971	2370	108	73	26	1	–5	3
No accommodations	437,333	2511	155	30	50	20	441,109	2513	144	31	51	18	–2	1

Table 10.B.52 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Eight

	2015–16 Mathematics Grade 8						2014–15 Mathematics Grade 8						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	451,297	2535	133	28	53	19	450,822	2529	129	34	50	17	6	6
Male	230,002	2527	137	31	50	18	229,941	2521	132	36	47	16	6	5
Female	221,295	2545	128	25	55	20	220,881	2538	124	30	52	18	7	5
American Indian or Alaska Native	2,558	2495	125	40	50	10	2,576	2495	120	43	48	9	0	3
Asian	41,506	2645	126	9	38	53	41,105	2634	124	11	40	49	11	2
Native Hawaiian or Other Pacific Islander	2,333	2523	124	31	56	14	2,308	2516	120	36	52	12	7	5
Filipino	12,520	2591	120	14	54	31	13,030	2582	117	17	55	28	9	3
Hispanic or Latino	241,979	2501	121	36	55	9	239,462	2496	117	42	50	8	5	6
Black or African American	26,543	2479	121	44	49	7	27,585	2477	117	50	44	6	2	6
White	109,574	2575	127	19	53	28	111,927	2566	124	23	52	25	9	4
Two or more races	14,284	2562	133	22	52	26	12,829	2561	129	25	50	25	1	3
English learner	56,339	2437	113	56	41	3	59,201	2435	109	63	35	3	2	7
English only	244,635	2548	132	26	53	22	245,287	2541	128	30	50	19	7	4
Reclassified fluent English proficient	128,140	2545	122	24	58	18	124,146	2541	117	28	56	16	4	4
Initially fluent English proficient	21,037	2604	132	15	47	38	20,942	2593	128	19	48	34	11	4
Economically disadvantaged	276,505	2500	123	36	54	10	267,450	2496	118	42	49	8	4	6
Not econ. disadvantaged	174,792	2592	129	16	50	34	183,372	2579	127	21	50	29	13	5
Migrant	3,877	2485	119	39	54	7	3,937	2477	114	48	46	6	8	9
Not migrant	447,420	2536	133	28	53	19	446,885	2530	129	33	50	17	6	5
Special education services	46,031	2425	115	63	34	3	44,031	2423	111	69	28	3	2	6
No special education services	405,266	2548	129	25	55	21	406,791	2541	125	30	52	18	7	5
Using designated supports	45,166	2439	119	53	43	4	34,480	2427	113	62	35	3	12	9
No designated supports	406,131	2546	130	26	54	21	416,342	2538	126	31	51	18	8	5
Using accommodations	14,125	2400	101	71	29	1	9,964	2397	95	78	22	1	3	7
No accommodations	437,172	2540	131	27	53	20	440,858	2532	128	33	50	17	8	6

Table 10.B.53 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eleven and 2014–15 Mathematics Grade Eleven

	2015–16 Mathematics Grade 11						2014–15 Mathematics Grade 11						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	431,999	2570	130	49	30	21	417,328	2563	132	48	33	19	7	-1
Male	220,188	2564	135	51	28	21	211,977	2556	139	51	30	19	8	0
Female	211,811	2576	123	46	32	22	205,351	2570	124	46	35	19	6	0
American Indian or Alaska Native	2,526	2540	116	59	28	13	2,545	2532	123	58	30	11	8	-1
Asian	40,120	2687	124	16	25	58	38,686	2679	130	17	29	54	8	1
Native Hawaiian or Other Pacific Islander	2,268	2551	122	53	33	14	2,338	2545	122	53	34	13	6	0
Filipino	13,525	2627	111	27	38	35	13,702	2614	116	29	42	29	13	2
Hispanic or Latino	225,423	2535	116	60	29	11	216,194	2528	117	59	32	9	7	-1
Black or African American	25,461	2510	117	68	24	8	25,039	2505	120	66	26	7	5	-2
White	109,731	2606	124	36	34	30	107,579	2597	130	37	36	27	9	1
Two or more races	12,945	2595	131	40	32	28	11,245	2590	133	40	35	26	5	0
English learner	39,790	2451	106	87	10	3	39,523	2455	109	84	13	3	-4	-3
English only	237,206	2580	129	45	31	24	229,089	2572	132	45	34	21	8	0
Reclassified fluent English proficient	120,387	2575	116	48	33	19	111,978	2567	119	47	37	16	8	-1
Initially fluent English proficient	33,707	2624	129	33	32	35	35,709	2612	134	34	35	31	12	1
Economically disadvantaged	248,322	2535	119	60	28	12	229,158	2529	120	59	31	10	6	-1
Not econ. disadvantaged	183,677	2618	128	33	33	34	188,170	2604	134	36	35	30	14	3
Migrant	3,261	2512	113	67	25	8	3,364	2513	112	65	29	6	-1	-2
Not migrant	428,738	2571	130	48	30	22	413,964	2563	132	48	33	19	8	0
Special education services	37,341	2442	106	88	9	3	33,609	2443	108	86	11	2	-1	-2
No special education services	394,658	2582	125	45	32	23	383,719	2573	129	45	34	20	9	0
Using designated supports	30,107	2475	121	78	15	6	27,639	2471	123	76	17	6	4	-2
No designated supports	401,892	2577	127	46	31	23	389,689	2569	130	46	34	20	8	0
Using accommodations	6,890	2420	93	93	6	1	5,861	2418	95	93	6	1	2	0
No accommodations	425,109	2573	129	48	30	22	411,467	2565	131	48	33	19	8	0

Table 10.B.54 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eleven and 2014–15 Mathematics Grade Eleven

	2015–16 Mathematics Grade 11						2014–15 Mathematics Grade 11						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	431,844	2538	155	35	49	16	416,653	2528	157	35	50	15	10	0
Male	220,102	2538	160	36	47	17	211,651	2528	162	36	48	16	10	0
Female	211,742	2537	150	34	51	14	205,002	2528	153	34	52	14	9	0
American Indian or Alaska Native	2,524	2509	147	42	48	10	2,544	2502	149	40	51	9	7	-2
Asian	40,104	2652	148	13	43	44	38,628	2643	152	14	44	42	9	1
Native Hawaiian or Other Pacific Islander	2,268	2508	146	41	50	9	2,334	2497	153	42	48	10	11	1
Filipino	13,521	2591	141	21	56	23	13,669	2578	146	22	56	21	13	1
Hispanic or Latino	225,342	2499	142	43	49	7	215,820	2489	144	43	50	7	10	0
Black or African American	25,450	2467	140	53	43	5	25,002	2461	142	51	45	5	6	-2
White	109,697	2581	151	24	52	23	107,436	2571	154	25	53	22	10	1
Two or more races	12,938	2568	155	28	51	21	11,220	2562	157	27	52	21	6	-1
English learner	39,767	2415	125	68	30	2	39,468	2412	128	66	32	2	3	-2
English only	237,130	2551	155	32	50	18	228,764	2541	157	32	51	17	10	0
Reclassified fluent English proficient	120,347	2537	145	34	53	13	111,737	2526	148	34	54	12	11	0
Initially fluent English proficient	33,693	2594	153	23	51	26	35,657	2578	159	24	51	25	16	1
Economically disadvantaged	248,235	2500	145	44	48	8	228,788	2490	147	43	49	8	10	-1
Not econ. disadvantaged	183,609	2589	153	24	51	26	187,865	2573	158	25	51	23	16	1
Migrant	3,257	2477	140	51	44	5	3,359	2467	140	49	47	4	10	-2
Not migrant	428,587	2538	155	35	49	16	413,294	2528	157	35	50	15	10	0
Special education services	37,311	2414	125	69	29	2	33,567	2409	127	66	32	2	5	-3
No special education services	394,533	2549	152	32	51	17	383,086	2538	156	32	52	16	11	0
Using designated supports	30,089	2442	142	61	35	5	27,610	2431	145	60	35	5	11	-1
No designated supports	401,755	2545	153	33	50	16	389,043	2535	156	33	51	15	10	0
Using accommodations	6,882	2395	114	74	25	1	5,856	2387	114	73	26	1	8	-1
No accommodations	424,962	2540	154	35	50	16	410,797	2530	157	34	51	15	10	-1

Table 10.B.55 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Cross-Sectional Comparison: 2015–16 Mathematics Grade Eleven and 2014–15 Mathematics Grade Eleven

	2015–16 Mathematics Grade 11						2014–15 Mathematics Grade 11						% Near Standard or Above Standard Difference	
	2015–16 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard	2014–15 N Valid Scores	SS Mean	SS SD	Below Standard	Near Standard	Above Standard		SS Difference
All Students	432,217	2564	143	28	56	17	417,633	2556	141	30	55	15	8	2
Male	220,292	2559	148	30	53	17	212,133	2552	145	32	53	15	7	2
Female	211,925	2568	138	25	59	16	205,500	2560	136	28	58	14	8	3
American Indian or Alaska Native	2,527	2532	136	33	57	10	2,547	2526	132	37	54	8	6	4
Asian	40,139	2677	138	9	43	48	38,719	2665	138	10	46	44	12	1
Native Hawaiian or Other Pacific Islander	2,268	2543	132	31	59	10	2,340	2539	131	33	57	10	4	2
Filipino	13,525	2617	131	14	60	26	13,716	2603	132	17	60	23	14	3
Hispanic or Latino	225,549	2529	130	34	58	8	216,362	2522	128	36	57	7	7	2
Black or African American	25,485	2509	128	41	54	6	25,066	2504	126	43	52	5	5	2
White	109,771	2598	142	20	56	24	107,634	2588	141	22	56	22	10	2
Two or more races	12,953	2589	146	23	55	23	11,249	2582	144	24	55	20	7	1
English learner	39,827	2465	119	51	46	2	39,558	2467	117	52	46	2	-2	1
English only	237,313	2574	143	26	56	19	229,219	2564	142	28	55	17	10	2
Reclassified fluent English proficient	120,440	2563	135	26	60	14	112,087	2555	133	28	59	13	8	2
Initially fluent English proficient	33,726	2614	146	18	54	28	35,739	2602	145	21	54	25	12	3
Economically disadvantaged	248,460	2530	133	34	57	9	229,351	2524	130	36	56	8	6	2
Not econ. disadvantaged	183,757	2609	144	19	54	27	188,282	2595	144	22	55	24	14	3
Migrant	3,264	2512	126	38	56	5	3,366	2506	126	40	55	5	6	2
Not migrant	428,953	2564	143	28	56	17	414,267	2556	141	30	55	15	8	2
Special education services	37,370	2460	117	56	42	2	33,644	2461	115	56	42	2	-1	0
No special education services	394,847	2573	142	25	57	18	383,989	2564	140	27	57	16	9	2
Using designated supports	30,138	2485	131	43	52	5	27,663	2482	130	44	51	5	3	1
No designated supports	402,079	2570	142	26	56	18	389,970	2561	140	29	56	16	9	3
Using accommodations	6,896	2446	109	60	39	1	5,869	2447	107	61	39	1	-1	1
No accommodations	425,321	2566	143	27	56	17	411,764	2557	141	29	56	15	9	2

Appendix 10.C Longitudinal Comparison of the Overall Group and Subgroups on the Overall Tests

Table 10.C.1 Number of Students, Scale Score (SS) Means, and Standard Deviations (SDs) Across 2015–16 and 2014–15, Longitudinal Comparison

Content Area	Grade	N		2015–16		2014–15		SS Difference
		Tested	N Valid	Mean	SD	Mean	SD	
English Language Arts/Literacy (ELA)	3 to 4	455,561	454,784	2455	95	2404	87	51
	4 to 5	447,846	447,026	2496	96	2446	93	50
	5 to 6	442,557	441,534	2520	96	2487	94	33
	6 to 7	440,059	438,650	2543	99	2513	91	30
	7 to 8	434,395	432,617	2561	98	2533	96	28
Mathematics	3 to 4	456,716	455,723	2461	83	2416	79	45
	4 to 5	449,084	448,073	2486	92	2454	80	32
	5 to 6	443,449	442,165	2509	107	2480	89	29
	6 to 7	440,815	439,058	2526	111	2505	101	21
	7 to 8	434,753	432,776	2543	119	2520	109	23

Notes:

1. The difference in SS and percentage of meeting or exceeding standards is derived by using the current year's (2015–16) values minus the previous year's (2014–15) values for the same students. Therefore, a positive value indicates an increase in 2015–16 and a negative value indicates a decrease in 2015–16.
2. The 2014–15 and 2015–16 results were based on P2 data. Students who have scores for both 2014–15 and 2015–16 were included in the analysis.

Table 10.C.2 Percentage of Each Achievement Level Across 2014–15 and 2015–16, Longitudinal Comparison

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded		% Standard Met/ Standard Exceeded Difference
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	
ELA	3 to 4	36	35	27	21	20	21	18	23	38	44	6
	4 to 5	39	30	21	21	21	28	19	21	40	49	9
	5 to 6	34	26	22	26	27	31	17	17	45	47	2
	6 to 7	28	27	29	25	30	33	13	15	43	48	5
	7 to 8	30	24	26	27	32	35	12	15	44	49	5
Mathematics	3 to 4	33	28	27	34	26	23	14	15	40	38	-2
	4 to 5	30	39	35	28	22	16	13	17	35	33	-2
	5 to 6	41	35	29	30	15	18	15	17	30	36	6
	6 to 7	36	34	31	30	18	19	15	17	33	37	4
	7 to 8	37	38	29	26	19	17	15	19	34	36	2

Notes:

1. The 2014–15 and 2015–16 results were based on P2 data. Students who have scores for both 2014–15 and 2015–16 were included in the analysis.
2. Individual achievement level percentages may not sum to 100 or the combined achievement level percentage due to rounding.

Table 10.C.3 SS Distributions Across 2014–15 and 2015–16 for ELA (Grades Four through Eight), Longitudinal Comparison

SS Distributions	ELA Grade 4		ELA Grade 5		ELA Grade 6		ELA Grade 7		ELA Grade 8	
	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16
2790–2819										
2760–2789									1	7,311
2730–2759							2	10,795	6,441	9,229
2700–2729			1	5,828	3,974	10,626	6,895	12,740	8,982	16,909
2670–2699				8,850	6,715	13,567	10,543	22,294	17,717	27,823
2640–2669	1	10,893	7,755	16,642	13,396	24,102	19,860	32,483	28,616	38,451
2610–2639	3,595	13,347	10,181	26,596	22,291	35,403	30,571	41,355	37,870	45,683
2580–2609	6,229	22,515	18,431	37,108	32,419	43,939	40,009	46,844	45,397	47,924
2550–2579	13,266	32,951	28,034	44,887	41,582	49,159	47,329	48,064	48,315	46,027
2520–2549	22,959	43,180	38,450	49,364	47,799	51,768	53,548	46,788	47,157	44,769
2490–2519	34,306	48,638	46,339	48,802	48,719	49,538	54,270	42,936	44,699	41,246
2460–2489	43,670	50,306	49,841	46,236	47,948	44,210	49,047	38,538	41,831	35,397
2430–2459	50,790	49,376	50,411	44,442	46,491	38,179	42,138	33,030	37,236	28,147
2400–2429	55,448	46,817	50,186	40,892	43,945	29,961	33,363	26,442	29,775	20,066
2370–2399	56,425	42,844	45,964	32,904	37,150	22,218	23,762	18,542	20,234	12,754
2340–2369	53,179	37,273	40,817	21,700	25,310	14,218	14,824	10,379	11,004	6,539
2310–2339	45,984	27,912	30,898	12,434	13,983	7,994	7,596	4,798	4,749	2,781
2280–2309	35,454	17,087	17,860	6,272	6,226	4,023	3,196	1,734	1,727	1,561
2250–2279	20,864	7,633	7,926	2,625	2,335	1,692	1,073	888	863	
2220–2249	8,785	2,776	2,715	895	794	601	393		2	
2190–2219	2,660	878	847	549	457	336	231		1	
2160–2189	808	233	247							
2130–2159	235	125	123							
2100–2129	126									

Table 10.C.4 SS Distributions Across 2014–15 and 2015–16 for Mathematics (Grades Four through Eight), Longitudinal Comparison

SS Distributions	Mathematics Grade 4		Mathematics Grade 5		Mathematics Grade 6		Mathematics Grade 7		Mathematics Grade 8	
	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16
2850–2879										
2820–2849										
2790–2819									1	9,763
2760–2789							2	6,138	4,974	7,249
2730–2759						7,640	5,099	6,759	5,361	11,435
2700–2729				4,492	3,232	7,232	5,591	12,414	10,147	16,742
2670–2699				5,897	4,652	13,202	11,031	19,219	16,515	22,332
2640–2669	1	8,316	5,696	11,787	9,820	19,950	17,965	25,594	23,253	27,532
2610–2639	3,706	10,270	7,763	21,128	18,295	28,305	26,418	32,928	31,184	32,688
2580–2609	5,888	19,655	16,405	31,678	28,620	38,896	37,005	38,832	38,219	36,090
2550–2579	11,405	30,551	26,475	40,093	37,594	45,078	45,526	44,961	42,666	39,162
2520–2549	21,641	41,884	38,226	46,417	44,404	50,271	51,726	50,467	46,281	42,017
2490–2519	37,012	54,494	51,782	51,321	51,367	50,777	53,146	46,149	47,084	41,661
2460–2489	53,276	61,559	61,019	52,956	54,210	46,123	48,637	37,193	42,173	37,519
2430–2459	64,716	62,937	65,061	53,333	56,038	37,202	39,935	31,669	36,299	31,815
2400–2429	66,918	58,491	60,923	49,002	51,901	28,864	30,615	24,990	28,634	25,485
2370–2399	65,058	46,768	50,720	36,391	38,049	22,062	23,271	20,935	21,412	19,637
2340–2369	53,028	31,331	32,975	21,905	22,499	16,884	16,808	16,565	15,186	13,493
2310–2339	33,858	16,589	17,036	11,770	11,872	11,942	11,150	11,450	9,933	8,222
2280–2309	18,888	7,704	8,166	5,660	5,653	7,760	6,787	6,649	5,656	4,576
2250–2279	9,956	3,276	3,618	2,469	2,376	4,583	3,755	6,146	7,792	5,358
2220–2249	5,429	1,212	1,343	1,029	911	5,394	4,590		6	
2190–2219	2,808	686	863	745	672		1			
2160–2189	2,135		2							

Table 10.C.5 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Three

	2015–16 ELA Grade 4								2014–15 ELA Grade 3								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	454,784	2455	95	35	21	21	23	44	2404	87	36	27	20	18	38	51	6
Male	232,149	2445	95	40	20	20	20	40	2394	87	40	26	19	15	34	51	6
Female	222,635	2466	94	31	21	22	26	48	2413	86	31	27	21	20	42	53	6
American Indian or Alaska Native	2,337	2427	90	46	22	19	13	32	2381	82	46	26	18	10	28	46	4
Asian	39,322	2520	90	14	14	23	49	72	2461	86	15	20	25	40	65	59	7
Native Hawaiian or Other Pacific Islander	2,072	2448	87	36	25	22	17	39	2397	80	36	30	21	12	34	51	5
Filipino	10,252	2506	83	15	17	27	40	68	2448	78	16	25	29	31	60	58	8
Hispanic or Latino	255,400	2430	87	45	23	19	13	32	2380	78	45	29	17	9	26	50	6
Black or African American	24,475	2416	90	52	21	16	11	27	2371	80	51	26	15	8	23	45	4
White	103,512	2493	90	20	18	25	36	62	2440	84	20	24	26	30	56	53	6
Two or more races	17,414	2488	95	23	18	24	35	59	2434	88	23	24	24	29	53	54	6
English learner	117,252	2392	74	64	22	11	4	15	2344	64	65	26	7	2	9	48	6
English only	258,825	2469	95	30	20	23	28	51	2418	87	29	26	23	22	45	51	6
Reclassified fluent English proficient	60,978	2497	71	13	24	33	31	64	2439	65	13	33	32	22	54	58	10
Initially fluent English proficient	17,699	2523	86	12	14	24	49	73	2466	82	13	20	25	42	67	57	6
Economically disadvantaged	292,071	2426	87	46	23	19	12	31	2377	78	47	29	16	8	24	49	7
Not econ. disadvantaged	162,713	2507	88	16	17	26	42	68	2452	82	16	23	27	35	61	55	7
Migrant	4,355	2402	82	58	21	14	7	21	2351	72	60	26	11	3	15	51	6
Not migrant	450,429	2456	95	35	21	21	23	44	2404	87	36	27	20	18	38	52	6
Special education services	50,396	2374	90	72	13	9	6	15	2333	79	72	16	7	5	12	41	3
No special education services	404,388	2465	91	31	21	23	25	48	2412	84	31	28	22	19	41	53	7
Using designated supports	62,525	2382	84	68	17	10	5	15	2337	73	69	20	7	4	11	45	4
No designated supports	392,259	2467	92	30	21	23	25	49	2414	84	30	28	22	20	42	53	7
Using accommodations	11,733	2343	70	85	10	4	1	5	2305	62	85	11	3	1	4	38	1
No accommodations	443,051	2458	94	34	21	22	23	45	2406	86	35	27	20	18	39	52	6

Table 10.C.6 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Four

	2015–16 ELA Grade 5								2014–15 ELA Grade 4								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	447,026	2496	96	30	21	28	21	49	2446	93	39	21	21	19	40	50	9
Male	227,274	2483	97	36	21	26	17	44	2436	93	44	21	19	16	36	47	8
Female	219,752	2510	94	25	21	30	24	55	2457	91	34	22	22	22	44	53	11
American Indian or Alaska Native	2,295	2467	94	42	22	24	13	36	2424	87	48	22	18	12	30	43	6
Asian	39,756	2564	91	11	13	29	48	76	2510	90	16	16	24	44	68	54	8
Native Hawaiian or Other Pacific Islander	2,187	2484	90	34	22	29	14	44	2437	84	40	26	20	14	34	47	10
Filipino	10,665	2544	84	12	17	36	35	71	2492	83	19	20	29	33	62	52	9
Hispanic or Latino	247,662	2471	88	39	24	26	11	38	2420	83	50	23	17	10	27	51	11
Black or African American	24,255	2453	92	47	22	22	9	31	2408	85	56	21	15	8	24	45	7
White	104,191	2533	91	17	17	33	33	66	2484	88	22	20	27	31	58	49	8
Two or more races	16,015	2528	96	20	17	31	32	63	2480	93	25	19	25	31	56	48	7
English learner	92,051	2420	72	64	23	12	2	13	2369	64	78	17	5	1	6	51	7
English only	250,814	2510	96	26	19	30	25	55	2461	92	32	21	23	24	47	49	8
Reclassified fluent English proficient	86,407	2526	74	13	24	40	23	63	2471	72	22	29	29	20	49	55	14
Initially fluent English proficient	17,735	2564	86	10	14	31	46	77	2512	86	14	17	26	43	69	52	8
Economically disadvantaged	283,522	2467	88	40	24	26	10	36	2417	83	51	23	17	9	26	50	10
Not econ. disadvantaged	163,504	2547	89	13	15	33	38	72	2497	86	18	18	27	37	64	50	8
Migrant	4,253	2445	85	50	23	22	6	27	2392	78	62	22	12	4	16	53	11
Not migrant	442,773	2497	96	30	21	28	21	49	2447	93	39	21	21	19	40	50	9
Special education services	51,610	2405	89	71	14	10	4	15	2363	82	78	12	7	4	11	42	4
No special education services	395,416	2508	91	25	22	31	23	53	2457	88	34	23	22	21	43	51	10
Using designated supports	58,987	2414	86	66	18	12	4	16	2369	78	75	14	7	3	11	45	5
No designated supports	388,039	2509	92	25	21	31	23	54	2458	89	33	23	23	21	44	51	10
Using accommodations	12,799	2374	72	84	11	4	1	5	2335	65	89	7	3	1	4	39	1
No accommodations	434,227	2500	95	29	21	29	21	50	2449	91	37	22	21	20	41	51	9

Table 10.C.7 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Five

	2015–16 ELA Grade 6								2014–15 ELA Grade 5								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	441,534	2520	96	26	26	31	17	47	2487	94	34	22	27	17	45	33	2
Male	225,228	2506	98	31	27	28	14	42	2474	94	39	21	25	14	39	32	3
Female	216,306	2535	93	21	26	34	20	54	2501	92	28	22	30	21	50	34	4
American Indian or Alaska Native	2,321	2484	94	38	29	24	8	32	2454	91	47	22	21	9	30	30	2
Asian	40,442	2589	89	9	15	35	42	77	2551	92	14	14	31	42	72	38	5
Native Hawaiian or Other Pacific Islander	2,223	2510	89	28	30	30	12	42	2473	87	37	25	26	12	38	37	4
Filipino	11,252	2570	83	10	20	39	31	70	2531	84	15	19	36	30	66	39	4
Hispanic or Latino	240,628	2495	89	33	31	28	8	36	2461	85	43	24	24	8	33	34	3
Black or African American	24,296	2477	94	42	28	23	7	30	2447	88	50	22	21	7	28	30	2
White	105,009	2554	90	15	22	37	26	63	2523	90	19	19	34	28	62	31	1
Two or more races	15,363	2549	94	17	22	34	26	60	2519	94	22	18	32	27	60	30	0
English learner	75,120	2435	74	61	29	9	1	10	2399	63	77	17	5	1	6	36	4
English only	244,749	2533	95	22	25	33	20	53	2502	94	28	20	30	21	52	31	1
Reclassified fluent English proficient	102,149	2542	76	13	31	40	16	56	2506	74	20	28	36	16	52	36	4
Initially fluent English proficient	19,499	2578	88	10	18	36	36	72	2547	88	13	16	33	37	71	31	1
Economically disadvantaged	276,744	2491	89	35	31	27	8	34	2458	85	45	24	23	8	31	33	3
Not econ. disadvantaged	164,790	2569	87	11	20	38	31	69	2537	88	15	17	34	33	67	32	2
Migrant	3,752	2470	85	43	32	21	4	25	2432	81	57	22	17	4	21	38	4
Not migrant	437,782	2521	96	26	26	31	17	48	2488	94	33	22	28	17	45	33	3
Special education services	48,826	2420	87	69	20	9	2	11	2393	79	77	13	7	2	10	27	1
No special education services	392,708	2533	90	21	27	34	18	52	2499	89	28	23	30	19	49	34	3
Using designated supports	50,980	2432	87	63	24	11	2	13	2400	78	74	15	9	3	11	32	2
No designated supports	390,554	2532	91	21	27	33	18	52	2499	90	28	22	30	19	49	33	3
Using accommodations	14,918	2393	73	81	15	3	0	4	2368	64	88	9	3	0	3	25	1
No accommodations	426,616	2525	94	24	27	32	17	49	2491	92	32	22	28	18	46	34	3

Table 10.C.8 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Six

	2015–16 ELA Grade 7							2014–15 ELA Grade 6							% Std Met/Std Exc Diff		
	N Valid Scores	SS Mean	SS SD	Mean	SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met		Std Met	SS Diff
All Students	438,650	2543	99	27	25	33	15	48	2513	91	28	29	30	13	43	30	5
Male	223,678	2529	100	33	25	30	13	42	2500	92	33	29	27	11	37	29	5
Female	214,972	2558	96	22	24	36	18	54	2526	89	22	29	33	16	49	32	5
American Indian or Alaska Native	2,313	2513	95	38	26	28	8	35	2485	88	39	31	23	7	31	28	4
Asian	40,405	2616	91	9	14	36	41	77	2577	89	10	17	37	36	73	39	4
Native Hawaiian or Other Pacific Islander	2,114	2531	91	29	29	32	10	42	2504	85	29	32	30	9	39	27	3
Filipino	11,925	2590	87	12	19	43	26	70	2556	82	12	24	40	24	64	34	6
Hispanic or Latino	237,234	2515	91	36	29	29	7	36	2487	83	36	33	25	6	31	28	5
Black or African American	24,341	2500	96	43	26	24	7	31	2475	87	43	30	21	6	27	25	4
White	105,958	2580	92	15	20	41	24	65	2546	86	16	25	38	21	59	34	6
Two or more races	14,360	2573	97	18	20	38	24	62	2540	90	19	25	36	21	56	33	6
English learner	59,429	2444	70	70	23	6	0	7	2418	65	73	23	4	0	4	26	3
English only	241,156	2557	98	23	23	36	19	55	2526	90	23	28	33	16	50	31	5
Reclassified fluent English proficient	117,089	2554	82	18	30	39	13	52	2523	74	18	37	34	11	45	31	7
Initially fluent English proficient	20,951	2600	92	11	17	38	34	72	2566	86	11	22	36	30	67	34	5
Economically disadvantaged	271,007	2512	91	37	28	28	7	35	2484	84	37	33	24	6	30	28	5
Not econ. disadvantaged	167,643	2593	90	12	18	41	29	70	2558	85	12	23	39	26	65	35	5
Migrant	3,475	2491	86	45	30	22	3	25	2461	82	48	31	18	3	20	30	5
Not migrant	435,175	2543	99	27	24	33	15	48	2513	91	28	29	30	13	43	30	5
Special education services	46,506	2442	84	71	18	9	2	11	2416	78	73	19	7	2	8	26	3
No special education services	392,144	2555	94	22	25	36	17	53	2524	86	23	30	32	15	47	31	6
Using designated supports	42,513	2453	87	66	21	11	2	14	2425	80	69	21	8	2	10	28	4
No designated supports	396,137	2553	95	23	25	35	17	52	2522	88	23	30	32	15	47	31	5
Using accommodations	15,461	2419	70	81	14	4	0	4	2394	66	84	14	2	0	3	25	1
No accommodations	423,189	2547	97	25	25	34	16	50	2517	89	26	30	31	14	44	30	6

Table 10.C.9 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Seven

	2015–16 ELA Grade 8								2014–15 ELA Grade 7								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	432,617	2561	98	24	27	35	15	49	2533	96	30	26	32	12	44	28	5
Male	220,006	2545	100	30	27	31	12	43	2519	97	36	26	29	10	39	26	4
Female	212,611	2578	94	18	26	38	18	56	2546	93	25	26	35	14	50	32	6
American Indian or Alaska Native	2,409	2533	95	32	30	29	8	38	2504	92	41	26	26	6	32	29	6
Asian	39,370	2633	91	7	14	39	39	78	2602	91	11	15	39	35	74	31	4
Native Hawaiian or Other Pacific Islander	2,204	2549	89	26	31	34	9	44	2522	87	31	31	31	7	38	27	6
Filipino	11,992	2607	85	9	20	46	25	71	2578	84	13	21	45	20	65	29	6
Hispanic or Latino	233,858	2535	90	31	32	31	7	38	2505	87	40	29	26	5	31	30	7
Black or African American	24,843	2519	95	39	28	27	6	33	2493	90	46	27	23	4	27	26	6
White	104,849	2595	93	14	22	42	23	65	2569	89	17	22	42	20	61	26	4
Two or more races	13,092	2589	97	16	22	40	22	62	2562	94	20	23	39	19	57	27	5
English learner	50,318	2458	70	67	26	6	0	6	2427	63	81	16	3	0	3	31	3
English only	235,310	2574	98	20	25	38	18	55	2548	95	25	24	36	15	51	26	4
Reclassified fluent English proficient	126,846	2570	83	16	32	40	12	52	2538	80	24	33	34	9	43	32	9
Initially fluent English proficient	20,124	2616	91	9	19	41	31	72	2587	90	13	20	40	27	67	29	5
Economically disadvantaged	265,476	2532	91	32	31	30	7	37	2503	88	41	29	25	5	30	29	7
Not econ. disadvantaged	167,141	2607	91	11	20	42	27	69	2580	89	14	20	42	23	66	27	3
Migrant	3,564	2511	88	40	32	24	4	28	2476	85	53	28	18	2	20	35	8
Not migrant	429,053	2562	98	24	27	35	15	50	2533	96	30	26	32	12	44	29	6
Special education services	43,977	2458	83	68	21	9	2	11	2434	78	76	16	7	1	8	24	3
No special education services	388,640	2573	93	19	27	38	16	54	2544	91	25	27	35	13	48	29	6
Using designated supports	38,825	2470	88	61	24	12	3	15	2443	81	71	18	9	2	11	27	4
No designated supports	393,792	2570	95	20	27	37	16	53	2541	93	26	26	34	13	47	29	6
Using accommodations	13,373	2434	70	79	17	4	0	4	2412	65	86	11	3	0	3	22	1
No accommodations	419,244	2565	96	22	27	36	15	51	2536	94	29	26	33	12	45	29	6

Table 10.C.10 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Three

	2015–16 Mathematics Grade 4								2014–15 Mathematics Grade 3								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	455,723	2461	83	28	34	23	15	38	2416	79	33	27	26	14	40	45	-2
Male	232,630	2463	86	28	32	23	17	40	2416	82	33	26	26	15	41	47	-1
Female	223,093	2460	79	28	35	23	14	37	2415	76	33	28	26	13	40	45	-3
American Indian or Alaska Native	2,333	2437	77	38	35	20	7	27	2393	77	43	27	23	7	30	44	-3
Asian	39,792	2531	80	8	19	28	45	73	2479	78	11	17	32	41	72	52	1
Native Hawaiian or Other Pacific Islander	2,076	2455	74	28	37	24	10	35	2410	73	33	30	27	10	37	45	-2
Filipino	10,287	2504	72	10	28	34	28	62	2454	68	14	23	39	25	63	50	-1
Hispanic or Latino	255,924	2438	73	36	38	19	7	26	2394	71	42	30	22	6	28	44	-2
Black or African American	24,424	2422	76	45	34	15	5	20	2379	75	50	27	18	5	23	43	-3
White	103,503	2494	78	14	30	31	25	56	2447	75	18	23	35	23	59	47	-3
Two or more races	17,384	2489	83	18	29	29	25	53	2442	80	22	24	32	23	55	47	-2
English learner	118,836	2413	67	50	36	11	3	14	2369	65	58	28	12	2	14	44	0
English only	258,225	2471	83	24	32	26	18	44	2426	79	27	26	30	17	47	45	-3
Reclassified fluent English proficient	60,944	2494	67	10	36	33	21	54	2448	61	13	30	38	19	57	46	-3
Initially fluent English proficient	17,687	2521	79	9	24	29	38	67	2473	75	11	20	33	36	69	48	-2
Economically disadvantaged	292,880	2436	74	37	37	18	7	25	2392	72	43	30	21	6	27	44	-2
Not econ. disadvantaged	162,843	2507	78	11	26	32	31	62	2459	74	14	21	36	29	64	48	-2
Migrant	4,460	2420	67	45	38	13	3	17	2376	67	52	29	16	3	19	44	-2
Not migrant	451,263	2462	83	28	33	23	15	39	2416	79	33	27	26	14	41	46	-2
Special education services	50,129	2394	84	63	23	9	5	15	2347	84	68	17	11	5	15	47	0
No special education services	405,594	2469	78	24	35	25	17	41	2424	74	28	28	28	15	44	45	-3
Using designated supports	67,270	2402	76	57	29	10	4	14	2357	76	63	22	11	3	15	45	-1
No designated supports	388,453	2471	79	23	34	25	17	43	2426	75	28	28	29	16	45	45	-2
Using accommodations	14,803	2361	66	79	17	3	1	4	2314	69	84	12	4	1	4	47	0
No accommodations	440,920	2464	81	26	34	24	16	40	2419	77	31	27	27	15	42	45	-2

Table 10.C.11 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Four

	2015–16 Mathematics Grade 5								2014–15 Mathematics Grade 4								% Std Met/ Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	448,073	2486	92	39	28	16	17	33	2454	80	30	35	22	13	35	32	-2
Male	227,834	2486	95	39	27	16	18	34	2455	84	31	33	22	14	36	31	-2
Female	220,239	2486	87	39	30	16	16	32	2454	76	30	36	22	12	34	32	-2
American Indian or Alaska Native	2,287	2461	88	49	28	14	10	24	2434	77	37	38	18	7	25	27	-1
Asian	40,190	2564	88	12	19	21	48	68	2522	80	9	22	29	40	69	42	-1
Native Hawaiian or Other Pacific Islander	2,180	2474	83	43	31	14	12	26	2444	71	32	40	20	8	27	30	-1
Filipino	10,709	2531	80	17	29	24	29	54	2492	71	12	33	33	22	55	39	-1
Hispanic or Latino	248,388	2459	80	50	30	13	8	20	2430	70	40	38	17	5	22	29	-2
Black or African American	24,191	2439	83	59	25	10	6	15	2417	73	47	35	14	4	18	22	-3
White	104,141	2523	86	22	28	23	28	50	2486	76	16	32	31	21	52	37	-2
Two or more races	15,987	2517	92	26	26	20	28	48	2482	82	19	32	28	22	50	35	-2
English learner	93,523	2421	70	71	22	5	2	7	2395	61	62	31	6	1	7	26	0
English only	250,359	2497	92	33	28	18	20	39	2465	80	25	34	25	15	41	32	-2
Reclassified fluent English proficient	86,435	2510	76	24	36	21	19	40	2476	66	16	42	28	14	42	34	-2
Initially fluent English proficient	17,732	2550	88	15	24	21	40	60	2512	79	11	27	29	34	63	38	-3
Economically disadvantaged	284,431	2457	81	51	29	12	7	20	2429	71	41	38	16	5	21	28	-1
Not econ. disadvantaged	163,642	2537	86	18	26	23	34	56	2499	76	13	29	32	26	58	38	-2
Migrant	4,350	2441	77	59	27	10	4	14	2412	66	51	35	12	2	14	29	0
Not migrant	443,723	2486	92	38	28	16	17	33	2455	80	30	35	22	13	35	31	-2
Special education services	51,385	2408	88	74	15	6	5	10	2384	79	68	21	7	3	11	24	-1
No special education services	396,688	2496	87	34	30	18	19	36	2463	76	26	37	24	14	38	33	-2
Using designated supports	62,800	2416	81	71	19	6	3	9	2391	73	64	26	8	2	10	25	-1
No designated supports	385,273	2497	88	33	30	18	19	37	2465	77	25	36	24	15	39	32	-2
Using accommodations	18,165	2377	69	88	10	2	1	2	2354	63	83	14	2	0	3	23	-1
No accommodations	429,908	2490	89	37	29	17	18	34	2458	78	28	36	23	13	36	32	-2

Table 10.C.12 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Five

	2015–16 Mathematics Grade 6								2014–15 Mathematics Grade 5								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	442,165	2509	107	35	30	18	17	36	2480	89	41	29	15	15	30	29	6
Male	225,514	2506	111	36	29	18	17	35	2480	93	41	27	16	16	31	26	4
Female	216,651	2513	102	33	31	19	17	36	2481	85	40	30	15	14	29	32	7
American Indian or Alaska Native	2,313	2470	103	49	30	13	8	22	2453	83	53	29	11	7	18	17	4
Asian	40,840	2601	98	10	18	22	50	72	2555	88	14	21	21	44	65	46	7
Native Hawaiian or Other Pacific Islander	2,222	2497	95	37	34	18	11	29	2467	81	45	32	14	9	23	30	6
Filipino	11,275	2561	90	15	28	26	31	56	2522	80	21	30	24	25	49	39	7
Hispanic or Latino	241,116	2478	96	45	32	15	8	22	2453	77	53	30	11	6	18	25	4
Black or African American	24,161	2456	102	54	28	12	6	18	2437	81	60	26	9	5	14	19	4
White	104,887	2549	97	19	29	25	27	52	2516	83	23	30	22	24	47	33	5
Two or more races	15,351	2542	104	23	28	22	27	49	2510	90	27	28	21	24	45	32	4
English learner	76,510	2422	87	72	22	5	2	6	2407	65	79	17	3	1	4	15	2
English only	244,059	2522	106	29	29	21	20	41	2492	89	35	30	18	18	36	30	5
Reclassified fluent English proficient	102,080	2532	86	24	37	22	17	40	2496	75	31	37	18	14	32	36	8
Initially fluent English proficient	19,498	2576	100	15	25	22	38	60	2536	88	19	27	20	34	54	40	6
Economically disadvantaged	277,358	2476	97	46	32	14	8	22	2452	78	53	29	11	6	17	24	5
Not econ. disadvantaged	164,807	2565	97	16	26	25	34	58	2529	85	20	28	23	30	52	36	6
Migrant	3,831	2456	93	55	30	11	4	15	2431	73	64	26	7	3	10	25	5
Not migrant	438,334	2510	107	35	30	18	17	36	2481	89	41	29	16	15	31	29	5
Special education services	48,589	2399	102	77	15	5	3	8	2398	79	80	13	4	3	7	1	1
No special education services	393,576	2523	99	30	31	20	19	39	2491	85	36	31	17	16	33	32	6
Using designated supports	54,223	2414	100	72	19	6	3	9	2407	76	76	17	5	2	7	7	2
No designated supports	387,942	2523	101	30	31	20	19	39	2491	86	36	31	17	17	34	32	5
Using accommodations	17,469	2366	84	89	9	2	0	2	2374	64	91	8	1	0	2	-8	0
No accommodations	424,696	2515	103	33	31	19	18	37	2485	87	39	30	16	15	32	30	5

Table 10.C.13 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Six

	2015–16 Mathematics Grade 7								2014–15 Mathematics Grade 6								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	439,058	2526	111	34	30	19	17	37	2505	101	36	31	18	15	33	21	4
Male	223,883	2523	115	35	28	19	17	36	2501	106	38	30	17	15	32	22	4
Female	215,175	2530	107	32	31	20	17	37	2510	97	34	32	19	15	34	20	3
American Indian or Alaska Native	2,301	2497	106	44	31	16	10	26	2477	96	46	32	14	8	22	20	4
Asian	40,780	2625	103	9	17	23	51	74	2591	96	11	20	23	45	68	34	6
Native Hawaiian or Other Pacific Islander	2,120	2516	100	35	33	20	12	32	2497	92	38	34	17	11	28	19	4
Filipino	11,960	2580	95	15	27	29	30	58	2551	87	17	31	27	26	52	29	6
Hispanic or Latino	237,480	2492	99	44	33	16	7	23	2475	91	46	33	14	6	20	17	3
Black or African American	24,253	2472	104	52	30	12	6	18	2458	96	54	30	11	5	16	14	2
White	105,905	2568	100	18	28	27	27	53	2543	93	20	31	25	24	49	25	4
Two or more races	14,259	2559	108	23	28	24	26	50	2535	99	24	30	23	23	46	24	4
English learner	60,627	2423	89	75	19	4	1	6	2409	81	79	18	3	1	3	14	3
English only	240,499	2540	109	28	30	22	20	42	2518	100	30	31	21	18	39	22	3
Reclassified fluent English proficient	116,963	2540	94	26	37	22	15	37	2518	83	28	39	20	13	33	22	4
Initially fluent English proficient	20,941	2593	107	15	25	23	37	60	2566	97	16	27	23	34	57	27	3
Economically disadvantaged	271,472	2491	101	45	32	15	7	23	2473	92	47	33	14	6	20	18	3
Not econ. disadvantaged	167,586	2584	102	15	26	26	33	59	2557	94	17	28	25	30	55	27	4
Migrant	3,567	2470	97	54	30	13	4	16	2452	90	58	29	10	3	13	18	3
Not migrant	435,491	2527	111	33	30	20	17	37	2506	101	36	31	18	15	33	21	4
Special education services	46,192	2412	101	77	15	5	3	8	2396	95	80	14	4	2	6	16	2
No special education services	392,866	2540	104	29	32	21	19	40	2518	94	31	33	20	17	36	22	4
Using designated supports	45,352	2427	101	72	19	7	3	10	2408	95	75	18	5	2	7	19	3
No designated supports	393,706	2538	106	29	31	21	19	40	2517	96	31	33	20	17	36	21	4
Using accommodations	15,334	2382	82	88	9	2	0	2	2367	80	90	8	1	0	2	15	0
No accommodations	423,724	2532	108	32	31	20	18	38	2510	99	34	32	19	16	34	22	4

Table 10.C.14 Summary Statistics and Percentage of Achievement Level for Selected Groups Across 2015–16 and 2014–15, Longitudinal Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Seven

	2015–16 Mathematics Grade 8								2014–15 Mathematics Grade 7								% Std Met/Std Exc Diff
	N Valid Scores	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Mean	SS SD	Std Not Met	Std Nly Met	Std Met	Std Exc	Std Met/Exc	SS Diff	
All Students	432,776	2543	119	38	26	17	19	36	2520	109	37	29	19	15	34	23	2
Male	220,083	2537	123	41	24	16	19	35	2517	112	38	28	19	15	34	20	1
Female	212,693	2549	114	36	27	18	19	38	2523	105	35	31	20	15	34	26	4
American Indian or Alaska Native	2,406	2507	109	49	27	14	10	24	2490	101	45	32	15	7	23	17	1
Asian	39,788	2652	113	11	15	19	55	74	2616	103	11	18	24	47	71	36	3
Native Hawaiian or Other Pacific Islander	2,194	2530	107	39	30	18	13	31	2510	98	38	34	19	9	29	20	2
Filipino	12,026	2599	105	18	24	25	32	57	2569	94	18	28	29	25	54	30	3
Hispanic or Latino	234,007	2508	105	49	28	14	9	23	2486	97	48	32	15	6	21	22	2
Black or African American	24,756	2484	106	58	24	11	6	17	2468	100	55	28	12	5	17	16	0
White	104,521	2585	111	23	25	23	29	52	2561	100	21	29	27	24	51	24	1
Two or more races	13,078	2575	117	28	25	20	27	47	2552	106	25	28	24	23	47	23	0
English learner	51,660	2436	93	79	15	4	2	6	2413	85	81	15	3	1	4	23	2
English only	234,447	2556	118	33	26	19	22	41	2534	107	31	29	22	18	40	22	1
Reclassified fluent English proficient	126,576	2552	105	33	31	19	17	36	2527	94	32	36	20	13	32	25	4
Initially fluent English proficient	20,069	2611	119	20	22	20	39	59	2583	106	18	25	24	33	57	28	2
Economically disadvantaged	265,805	2507	107	50	27	14	9	23	2486	98	48	31	15	6	21	21	2
Not econ. disadvantaged	166,971	2601	114	20	23	22	35	57	2574	102	18	26	26	29	55	27	2
Migrant	3,662	2493	102	54	27	13	6	19	2465	95	56	30	12	3	15	28	4
Not migrant	429,114	2543	119	38	26	17	19	36	2520	109	36	29	19	15	34	23	2
Special education services	43,744	2426	100	80	13	4	3	7	2408	96	80	14	4	2	6	18	1
No special education services	389,032	2556	114	33	27	19	21	39	2532	103	32	31	21	16	37	24	2
Using designated supports	41,936	2441	103	75	16	6	3	9	2422	98	75	17	6	2	8	19	1
No designated supports	390,840	2554	115	34	27	18	21	39	2530	104	32	31	21	16	37	24	2
Using accommodations	13,385	2398	81	90	8	2	0	2	2380	80	90	8	1	0	2	18	0
No accommodations	419,391	2548	117	37	26	18	20	37	2524	106	35	30	20	15	35	24	2

Appendix 10.D Longitudinal Comparison of the Overall Group and Subgroups on Claims

Table 10.D.1 Number of Students, Scale Score (SS) Means, and Standard Deviations (SDs) Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison

Content Area	Grade	N Tested	N Valid	2015–16		2014–15		SS Difference
				Mean	SD	Mean	SD	
English Language Arts/Literacy (ELA)	3 to 4	455,561	453,995	2445	109	2398	100	47
	4 to 5	447,846	446,329	2479	109	2438	108	41
	5 to 6	442,557	440,806	2492	116	2473	106	19
	6 to 7	440,059	437,141	2528	115	2486	115	42
	7 to 8	434,395	430,822	2553	110	2519	111	34
Mathematics	3 to 4	456,716	455,405	2463	87	2419	83	44
	4 to 5	449,084	447,763	2489	96	2456	85	33
	5 to 6	443,449	441,709	2512	114	2483	94	29
	6 to 7	440,815	438,090	2530	115	2509	108	21
	7 to 8	434,753	431,318	2545	126	2523	114	22

Table 10.D.2 Number of Students, SS Means, and SDs Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison

Content Area	Grade	N Tested	N Valid	2015–16		2014–15		SS Difference
				Mean	SD	Mean	SD	
ELA	3 to 4	455,561	452,570	2457	106	2396	101	61
	4 to 5	447,846	445,217	2499	109	2447	104	52
	5 to 6	442,557	439,906	2521	105	2489	106	32
	6 to 7	440,059	435,623	2550	109	2516	100	34
	7 to 8	434,395	429,436	2565	110	2541	107	24
Mathematics	3 to 4	456,716	455,495	2448	102	2406	93	42
	4 to 5	449,084	447,870	2465	122	2441	102	24
	5 to 6	443,449	442,030	2495	125	2459	121	36
	6 to 7	440,815	438,996	2506	132	2485	125	21
	7 to 8	434,753	432,529	2508	155	2492	141	16

Table 10.D.3 Number of Students, SS Means, and SDs Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison

Content Area	Grade	N Tested	N Valid	2015–16		2014–15		SS
				Mean	SD	Mean	SD	Difference
ELA	3 to 4	455,561	454,296	2461	125	2409	117	52
	4 to 5	447,846	446,573	2479	130	2446	120	33
	5 to 6	442,557	440,959	2531	126	2469	130	62
	6 to 7	440,059	437,323	2544	124	2521	127	23
	7 to 8	434,395	431,143	2562	119	2530	123	32
Mathematics	3 to 4	456,716	455,268	2455	95	2409	95	46
	4 to 5	449,084	447,616	2475	109	2448	92	27
	5 to 6	443,449	441,806	2503	117	2468	108	35
	6 to 7	440,815	438,706	2520	125	2499	115	21
	7 to 8	434,753	431,977	2537	132	2507	132	30

Table 10.D.4 Number of Students, SS Means, and SDs Across 2015–16 and 2014–15 on Claim 4, Longitudinal Comparison

Content Area	Grade	N Tested	N Valid	2015–16		2014–15		SS
				Mean	SD	Mean	SD	Difference
ELA	3 to 4	455,561	453,726	2445	126	2393	118	52
	4 to 5	447,846	422,828	2515	114	2433	123	82
	5 to 6	442,557	441,430	2532	117	2502	114	30
	6 to 7	440,059	437,569	2536	123	2517	113	19
	7 to 8	434,395	430,668	2555	123	2526	120	29

Table 10.D.5 Percentage of Each Performance Level Across 2014–15 and 2015–16 on Claims 1 and 2, Longitudinal Comparison

Content Area	Grade	Claim 1							Claim 2						
		Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard Difference	Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard Difference
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	
ELA	3 to 4	41	37	41	42	18	21	4	38	32	45	46	17	22	6
	4 to 5	39	36	43	42	19	22	3	35	30	47	43	18	27	5
	5 to 6	39	36	42	47	20	17	3	33	31	43	46	23	24	2
	6 to 7	37	33	47	45	16	22	4	32	26	48	47	20	27	6
	7 to 8	37	30	45	45	18	25	7	30	27	46	48	24	25	3
Mathematics	3 to 4	40	43	36	32	25	24	–3	37	36	42	46	20	19	1
	4 to 5	47	49	32	29	21	22	–2	39	45	45	37	16	18	–6
	5 to 6	51	46	30	32	19	23	5	46	40	38	43	15	18	6
	6 to 7	47	44	33	32	20	24	3	39	37	46	43	15	20	2
	7 to 8	45	44	33	31	22	25	1	34	31	48	49	18	20	3

Table 10.D.6 Percentage of Each Performance Level Across 2014–15 and 2015–16 on Claims 3 and 4, Longitudinal Comparison

Content Area	Grade	Claim 3							Claim 4						
		Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard Difference	Below Standard		Near Standard		Above Standard		% Near Standard or Above Standard Difference
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	
ELA	3 to 4	24	19	62	65	14	16	5	32	28	50	50	18	22	4
	4 to 5	23	22	62	62	15	17	1	31	18	51	51	18	32	13
	5 to 6	24	16	61	68	15	15	8	21	17	53	53	27	29	4
	6 to 7	19	20	68	65	14	15	–1	19	24	59	51	23	26	–5
	7 to 8	24	18	64	67	12	15	6	25	23	54	51	22	26	2
Mathematics	3 to 4	27	34	52	45	20	21	–7							
	4 to 5	39	40	43	44	18	16	–1							
	5 to 6	41	31	45	51	14	18	10							
	6 to 7	34	28	50	51	16	21	6							
	7 to 8	19	28	64	53	17	19	–9							

Table 10.D.7 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Three

	2015–16 ELA Grade 4						2014–15 ELA Grade 3						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	453,995	2445	109	37	42	21	2398	100	41	41	18	47	4
Male	231,790	2435	108	41	41	18	2388	100	45	39	16	47	4
Female	222,205	2456	108	33	43	24	2409	99	36	43	21	47	3
American Indian or Alaska Native	2,327	2419	104	46	40	13	2376	97	50	38	12	43	4
Asian	39,288	2509	101	16	41	42	2454	96	20	43	38	55	4
Native Hawaiian or Other Pacific Islander	2,071	2434	101	39	46	15	2389	93	43	44	13	45	4
Filipino	10,237	2492	96	18	48	33	2441	91	22	48	30	51	4
Hispanic or Latino	254,988	2419	101	46	41	12	2374	92	50	39	10	45	4
Black or African American	24,407	2405	105	52	37	11	2364	95	55	35	9	41	3
White	103,303	2486	104	22	44	34	2436	99	25	44	31	50	3
Two or more races	17,374	2479	108	25	43	32	2430	101	28	43	29	49	3
English learner	117,058	2379	89	64	32	4	2338	80	68	29	3	41	4
English only	258,319	2460	109	31	43	26	2413	101	34	43	23	47	3
Reclassified fluent English proficient	60,914	2486	87	17	55	28	2433	81	21	56	23	53	4
Initially fluent English proficient	17,674	2513	99	15	42	43	2460	94	17	43	40	53	2
Economically disadvantaged	291,551	2415	101	48	41	12	2371	92	52	39	10	44	4
Not econ. disadvantaged	162,444	2499	101	18	44	38	2447	95	21	45	34	52	3
Migrant	4,346	2390	94	59	35	6	2347	87	63	32	5	43	4
Not migrant	449,649	2446	109	37	42	21	2399	100	40	41	19	47	3
Special education services	50,230	2370	101	69	24	6	2333	92	71	23	6	37	2
No special education services	403,765	2454	106	33	44	23	2406	98	37	43	20	48	4
Using designated supports	62,355	2375	96	66	28	5	2334	87	71	25	4	41	5
No designated supports	391,640	2456	106	32	44	24	2409	98	36	43	21	47	4
Using accommodations	11,686	2343	84	81	18	1	2309	78	83	16	2	34	2
No accommodations	442,309	2448	108	36	43	22	2401	100	40	42	19	47	4

Table 10.D.8 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Three

	2015–16 ELA Grade 4						2014–15 ELA Grade 3						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	452,570	2457	106	32	46	22	2396	101	38	45	17	61	6
Male	231,040	2442	107	37	45	18	2384	101	43	43	14	58	6
Female	221,530	2473	104	26	47	26	2408	101	33	46	20	65	7
American Indian or Alaska Native	2,309	2427	103	42	45	14	2372	97	48	42	11	55	6
Asian	39,228	2528	100	12	39	49	2458	99	17	44	39	70	5
Native Hawaiian or Other Pacific Islander	2,064	2456	100	30	49	20	2396	96	38	47	15	60	7
Filipino	10,209	2516	94	13	45	42	2447	92	18	50	32	69	5
Hispanic or Latino	254,145	2431	99	40	47	13	2371	94	47	43	9	60	7
Black or African American	24,284	2419	103	46	43	12	2364	97	51	40	9	55	5
White	103,006	2493	100	19	48	34	2432	97	24	49	28	61	5
Two or more races	17,325	2490	104	21	46	33	2427	101	26	47	27	63	5
English learner	116,640	2393	91	56	39	5	2333	85	65	32	3	60	9
English only	257,466	2471	106	27	47	27	2411	101	32	47	21	60	5
Reclassified fluent English proficient	60,789	2500	81	12	58	30	2435	79	18	60	23	65	6
Initially fluent English proficient	17,645	2525	95	11	43	46	2461	95	15	46	39	64	4
Economically disadvantaged	290,532	2428	99	41	46	12	2368	94	49	43	9	60	8
Not econ. disadvantaged	162,038	2510	98	14	46	40	2446	95	19	48	32	64	5
Migrant	4,332	2401	97	52	40	7	2340	91	61	35	4	61	9
Not migrant	448,238	2458	106	32	46	22	2396	101	38	45	17	62	6
Special education services	49,945	2365	106	68	26	6	2315	99	72	23	5	50	4
No special education services	402,625	2468	101	27	49	24	2406	97	34	47	19	62	7
Using designated supports	62,060	2377	100	63	31	5	2322	93	69	27	4	55	6
No designated supports	390,510	2470	102	27	48	25	2408	98	33	48	19	62	6
Using accommodations	11,595	2328	89	82	16	1	2284	84	84	15	1	44	2
No accommodations	440,975	2460	105	30	47	23	2399	100	37	45	18	61	7

Table 10.D.9 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Three

	2015–16 ELA Grade 4						2014–15 ELA Grade 3						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	454,296	2461	125	19	65	16	2409	117	24	62	14	52	5
Male	231,926	2459	127	20	64	16	2402	118	26	61	13	57	6
Female	222,370	2464	123	18	66	16	2416	114	21	63	15	48	3
American Indian or Alaska Native	2,329	2433	124	25	65	10	2388	115	29	61	9	45	4
Asian	39,307	2518	114	8	61	31	2463	107	10	61	29	55	2
Native Hawaiian or Other Pacific Islander	2,072	2446	121	20	68	11	2397	112	24	66	10	49	4
Filipino	10,244	2500	113	10	67	23	2448	102	11	69	20	52	1
Hispanic or Latino	255,147	2437	122	23	66	10	2383	112	30	62	8	54	7
Black or African American	24,429	2418	126	30	62	9	2372	117	35	58	7	46	5
White	103,382	2502	116	10	64	25	2451	110	13	63	25	51	3
Two or more races	17,386	2494	121	12	64	23	2443	113	15	62	23	51	3
English learner	117,131	2398	116	33	62	4	2342	107	44	53	2	56	11
English only	258,504	2476	123	16	65	19	2426	115	19	63	18	50	3
Reclassified fluent English proficient	60,943	2502	102	7	72	21	2445	92	9	74	17	57	2
Initially fluent English proficient	17,688	2527	107	6	62	32	2474	101	8	62	31	53	2
Economically disadvantaged	291,730	2433	122	24	66	10	2380	113	31	61	7	53	7
Not econ. disadvantaged	162,566	2513	113	8	64	28	2460	105	10	63	27	53	2
Migrant	4,349	2409	120	30	64	6	2347	113	43	53	4	62	13
Not migrant	449,947	2462	125	19	65	16	2409	117	23	62	14	53	4
Special education services	50,271	2376	131	44	50	6	2324	122	54	41	5	52	10
No special education services	404,025	2472	120	16	67	17	2419	112	20	65	16	53	4
Using designated supports	62,396	2385	125	39	55	5	2331	117	50	46	4	54	11
No designated supports	391,900	2473	120	15	67	18	2421	112	19	65	16	52	4
Using accommodations	11,695	2339	118	55	43	2	2286	108	68	31	1	53	13
No accommodations	442,601	2464	123	18	66	16	2412	115	22	63	15	52	4

Table 10.D.10 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Longitudinal Comparison: 2015–16 ELA Grade Four and 2014–15 ELA Grade Three

	2015–16 ELA Grade 4						2014–15 ELA Grade 3						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	453,726	2445	126	28	50	22	2393	118	32	50	18	52	4
Male	231,659	2435	126	30	50	20	2383	119	35	49	16	52	5
Female	222,067	2455	125	25	51	24	2402	117	28	52	20	53	3
American Indian or Alaska Native	2,326	2412	124	37	48	15	2366	115	41	47	11	46	4
Asian	39,280	2515	114	11	45	44	2454	115	15	48	37	61	4
Native Hawaiian or Other Pacific Islander	2,070	2435	124	29	53	18	2382	115	34	52	14	53	5
Filipino	10,232	2503	111	12	51	38	2442	110	16	54	30	61	4
Hispanic or Latino	254,835	2419	121	34	51	14	2368	112	39	50	11	51	5
Black or African American	24,386	2399	124	41	47	12	2355	113	45	46	10	44	4
White	103,231	2482	119	16	51	32	2430	115	20	53	28	52	4
Two or more races	17,366	2478	122	18	50	32	2423	119	22	51	27	55	4
English learner	116,984	2378	112	48	46	6	2330	101	54	43	3	48	6
English only	258,157	2458	125	23	51	26	2407	118	27	51	22	51	4
Reclassified fluent English proficient	60,883	2495	103	10	58	31	2433	101	14	61	24	62	4
Initially fluent English proficient	17,672	2517	112	10	45	45	2460	112	13	48	39	57	3
Economically disadvantaged	291,367	2415	121	36	51	13	2364	112	40	50	10	51	4
Not econ. disadvantaged	162,359	2499	115	13	50	37	2443	112	16	52	32	56	3
Migrant	4,344	2390	119	45	47	8	2339	108	51	44	6	51	6
Not migrant	449,382	2445	126	27	51	22	2393	118	32	50	18	52	5
Special education services	50,199	2360	122	57	36	7	2321	110	60	34	6	39	3
No special education services	403,527	2455	122	24	52	24	2402	116	28	52	19	53	4
Using designated supports	62,319	2370	118	53	41	7	2324	107	58	38	5	46	5
No designated supports	391,407	2457	123	24	52	24	2403	116	28	52	20	54	4
Using accommodations	11,678	2330	107	68	29	2	2295	99	71	27	2	35	3
No accommodations	442,048	2448	125	26	51	22	2395	117	31	51	18	53	5

Table 10.D.11 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Four

	2015–16 ELA Grade 5						2014–15 ELA Grade 4						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	446,329	2479	109	36	42	22	2438	108	39	43	19	41	3
Male	226,921	2466	110	41	41	19	2427	108	42	41	16	39	1
Female	219,408	2493	107	31	44	25	2449	107	34	45	21	44	3
American Indian or Alaska Native	2,291	2450	110	46	40	15	2416	104	47	41	12	34	1
Asian	39,728	2546	102	15	40	45	2502	103	17	44	39	44	2
Native Hawaiian or Other Pacific Islander	2,181	2463	104	41	43	16	2423	102	41	46	13	40	0
Filipino	10,651	2523	98	19	48	34	2483	97	21	50	30	40	2
Hispanic or Latino	247,305	2453	102	45	42	13	2410	100	48	42	10	43	3
Black or African American	24,188	2436	104	52	36	11	2398	103	53	38	9	38	1
White	104,012	2518	106	22	44	34	2479	104	23	47	30	39	1
Two or more races	15,973	2511	110	25	42	33	2473	108	26	45	29	38	1
English learner	91,903	2402	86	68	30	3	2357	83	73	25	1	45	5
English only	250,367	2493	110	31	43	26	2454	108	32	45	23	39	1
Reclassified fluent English proficient	86,319	2507	91	21	54	25	2462	90	24	56	19	45	3
Initially fluent English proficient	17,721	2547	99	14	41	45	2505	100	16	45	39	42	2
Economically disadvantaged	283,059	2450	102	46	42	12	2407	100	50	41	9	43	4
Not econ. disadvantaged	163,270	2531	103	18	43	39	2491	101	19	47	34	40	1
Migrant	4,244	2429	98	54	38	8	2381	95	61	35	5	48	7
Not migrant	442,085	2480	109	36	42	22	2438	108	38	43	19	42	2
Special education services	51,430	2399	97	70	24	6	2357	98	73	22	4	42	3
No special education services	394,899	2490	106	31	45	24	2448	105	34	46	20	42	3
Using designated supports	58,826	2404	95	67	28	5	2360	95	72	25	4	44	5
No designated supports	387,503	2491	107	31	44	25	2449	105	33	46	21	42	2
Using accommodations	12,732	2376	83	80	18	2	2333	83	84	15	1	43	4
No accommodations	433,597	2482	108	34	43	23	2441	108	37	44	19	41	3

Table 10.D.12 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Four

	2015–16 ELA Grade 5						2014–15 ELA Grade 4						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	445,217	2499	109	30	43	27	2447	104	35	47	18	52	5
Male	226,332	2481	108	36	42	22	2432	104	40	45	15	49	4
Female	218,885	2518	105	24	43	33	2462	101	29	49	22	56	5
American Indian or Alaska Native	2,280	2467	106	42	40	18	2424	100	44	44	12	43	2
Asian	39,686	2570	102	12	34	55	2515	100	14	43	42	55	2
Native Hawaiian or Other Pacific Islander	2,173	2493	104	31	45	23	2445	96	33	51	15	48	2
Filipino	10,632	2554	97	13	40	47	2499	94	16	50	34	55	3
Hispanic or Latino	246,665	2473	101	37	45	17	2420	96	44	46	10	53	7
Black or African American	24,081	2456	106	45	40	15	2409	99	50	42	9	47	5
White	103,759	2534	104	19	41	40	2484	98	21	50	29	50	2
Two or more races	15,941	2531	108	21	40	40	2481	102	23	49	29	50	2
English learner	91,631	2421	89	59	36	5	2367	84	69	29	1	54	10
English only	249,710	2512	109	26	42	32	2462	103	29	48	23	50	3
Reclassified fluent English proficient	86,168	2530	86	15	53	33	2474	82	20	60	20	56	5
Initially fluent English proficient	17,689	2568	98	11	37	53	2512	95	14	47	39	56	3
Economically disadvantaged	282,255	2469	101	39	44	17	2417	96	46	45	9	52	7
Not econ. disadvantaged	162,962	2551	101	14	40	46	2499	96	17	49	34	52	3
Migrant	4,236	2446	100	48	41	11	2390	95	57	38	5	56	9
Not migrant	440,981	2500	109	30	43	28	2448	104	35	47	18	52	5
Special education services	51,173	2396	103	70	24	6	2354	99	73	23	4	42	3
No special education services	394,044	2512	102	25	45	30	2459	98	30	50	20	53	5
Using designated supports	58,589	2410	101	64	29	7	2363	96	70	27	4	47	6
No designated supports	386,628	2513	103	25	45	30	2460	99	30	50	21	53	5
Using accommodations	12,646	2361	87	83	16	1	2324	86	85	14	1	37	2
No accommodations	432,571	2503	106	29	43	28	2451	102	34	48	19	52	5

Table 10.D.13 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Four

	2015–16 ELA Grade 5						2014–15 ELA Grade 4						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	446,573	2479	130	22	62	17	2446	120	23	62	15	33	1
Male	227,028	2475	131	23	61	16	2441	123	25	61	14	34	2
Female	219,545	2483	129	20	62	18	2450	118	21	63	15	33	1
American Indian or Alaska Native	2,290	2451	128	28	61	11	2426	116	28	62	10	25	0
Asian	39,739	2545	119	9	56	35	2507	112	10	58	32	38	1
Native Hawaiian or Other Pacific Islander	2,186	2456	128	27	62	12	2429	117	26	64	10	27	-1
Filipino	10,659	2522	119	11	64	25	2485	109	12	66	22	37	1
Hispanic or Latino	247,429	2452	126	27	63	10	2418	115	29	62	8	34	2
Black or African American	24,206	2430	130	34	57	8	2404	120	35	58	7	26	1
White	104,077	2521	122	12	62	26	2489	113	13	63	24	32	1
Two or more races	15,987	2514	127	14	60	25	2481	117	15	62	24	33	1
English learner	91,955	2395	114	44	53	2	2364	105	47	51	2	31	3
English only	250,517	2494	128	18	62	20	2462	119	19	63	18	32	1
Reclassified fluent English proficient	86,355	2510	113	11	70	19	2471	101	13	72	16	39	2
Initially fluent English proficient	17,727	2551	115	7	57	36	2515	104	8	60	32	36	1
Economically disadvantaged	283,218	2448	126	29	62	9	2415	115	30	62	8	33	1
Not econ. disadvantaged	163,355	2534	118	10	61	29	2499	110	10	62	27	35	0
Migrant	4,249	2424	124	35	59	6	2387	114	40	56	4	37	5
Not migrant	442,324	2480	130	21	62	17	2446	120	23	62	15	34	2
Special education services	51,482	2384	127	51	45	5	2359	122	52	44	4	25	1
No special education services	395,091	2492	125	18	64	18	2457	115	19	64	16	35	1
Using designated supports	58,879	2392	124	47	49	4	2364	117	49	48	4	28	2
No designated supports	387,694	2493	126	18	63	19	2458	116	19	64	17	35	1
Using accommodations	12,744	2348	112	62	37	1	2326	110	63	36	1	22	1
No accommodations	433,829	2483	128	20	62	17	2449	119	22	63	15	34	2

Table 10.D.14 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Longitudinal Comparison: 2015–16 ELA Grade Five and 2014–15 ELA Grade Four

	2015–16 ELA Grade 5						2014–15 ELA Grade 4						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	422,828	2515	114	18	51	32	2433	123	31	51	18	82	13
Male	215,105	2502	117	21	51	28	2423	123	34	50	16	79	13
Female	207,723	2528	110	14	50	35	2443	122	27	52	20	85	13
American Indian or Alaska Native	2,194	2484	117	25	54	21	2409	119	39	49	12	75	14
Asian	37,674	2581	99	6	37	57	2502	116	13	48	39	79	7
Native Hawaiian or Other Pacific Islander	2,078	2502	113	19	54	27	2419	121	34	51	15	83	15
Filipino	10,048	2566	96	7	44	50	2485	112	15	54	31	81	8
Hispanic or Latino	234,301	2490	112	22	55	22	2406	117	39	51	11	84	17
Black or African American	22,881	2471	115	28	53	18	2387	119	45	46	9	84	17
White	98,509	2549	105	10	46	44	2471	117	18	55	27	78	8
Two or more races	15,143	2545	110	11	46	43	2467	122	21	52	27	78	10
English learner	87,116	2435	104	38	55	7	2351	103	60	38	2	84	22
English only	237,207	2527	113	15	49	36	2447	122	26	53	21	80	11
Reclassified fluent English proficient	81,668	2550	91	7	54	40	2464	107	18	61	21	86	11
Initially fluent English proficient	16,821	2582	94	5	39	57	2504	112	12	50	39	78	7
Economically disadvantaged	268,208	2486	112	24	55	21	2402	117	40	50	10	84	16
Not econ. disadvantaged	154,620	2565	100	7	43	50	2486	114	15	53	32	79	8
Migrant	4,042	2463	112	31	54	15	2380	113	49	44	6	83	18
Not migrant	418,786	2515	114	17	51	32	2433	123	31	51	18	82	14
Special education services	48,749	2418	116	48	44	9	2348	114	63	32	5	70	15
No special education services	374,079	2527	108	14	52	35	2444	120	27	54	20	83	13
Using designated supports	55,612	2429	113	42	48	9	2352	111	60	35	4	77	18
No designated supports	367,216	2528	109	14	51	35	2445	120	26	54	20	83	12
Using accommodations	12,090	2386	104	58	39	3	2321	102	74	25	1	65	16
No accommodations	410,738	2519	112	16	51	32	2436	122	29	52	19	83	13

Table 10.D.15 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Five

	2015–16 ELA Grade 6						2014–15 ELA Grade 5						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	440,806	2492	116	36	47	17	2473	106	39	42	20	19	3
Male	224,833	2480	118	41	44	16	2460	106	44	40	16	20	3
Female	215,973	2503	113	31	49	19	2487	104	33	44	23	16	2
American Indian or Alaska Native	2,313	2455	111	49	42	9	2443	102	51	38	12	12	2
Asian	40,404	2561	108	15	47	38	2534	102	18	42	40	27	3
Native Hawaiian or Other Pacific Islander	2,216	2474	113	42	45	13	2455	100	44	43	13	19	2
Filipino	11,240	2537	105	20	53	28	2513	96	22	49	29	24	2
Hispanic or Latino	240,244	2463	109	45	45	10	2446	97	48	41	11	17	3
Black or African American	24,216	2447	111	52	39	8	2435	100	54	36	10	12	2
White	104,840	2531	111	23	50	27	2512	103	24	45	31	19	1
Two or more races	15,333	2524	116	26	48	26	2507	105	26	44	30	17	0
English learner	74,971	2402	91	71	28	1	2385	76	79	20	1	17	8
English only	244,307	2507	116	31	48	21	2489	106	32	43	24	18	1
Reclassified fluent English proficient	102,035	2510	101	26	57	17	2490	89	28	54	19	20	2
Initially fluent English proficient	19,476	2551	109	17	48	34	2532	99	18	44	38	19	1
Economically disadvantaged	276,246	2460	109	46	45	9	2443	97	50	40	11	17	4
Not econ. disadvantaged	164,560	2544	109	19	50	31	2523	100	20	45	35	21	1
Migrant	3,746	2440	103	55	40	5	2420	90	60	34	6	20	5
Not migrant	437,060	2492	116	36	47	17	2474	106	38	42	20	18	2
Special education services	48,650	2400	101	72	25	3	2388	88	77	19	4	12	5
No special education services	392,156	2503	113	32	49	19	2484	103	34	45	22	19	2
Using designated supports	50,810	2408	101	68	28	4	2392	88	75	22	4	16	7
No designated supports	389,996	2502	113	32	49	19	2484	103	34	44	22	18	2
Using accommodations	14,854	2379	89	80	19	1	2368	76	86	13	1	11	6
No accommodations	425,952	2495	115	35	48	18	2477	105	37	43	20	18	2

Table 10.D.16 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Five

	2015–16 ELA Grade 6						2014–15 ELA Grade 5						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	439,906	2521	105	31	46	24	2489	106	33	43	23	32	2
Male	224,325	2504	107	36	45	19	2471	106	40	42	18	33	4
Female	215,581	2539	101	24	47	29	2507	103	27	45	28	32	3
American Indian or Alaska Native	2,294	2483	105	45	43	13	2454	103	47	40	13	29	2
Asian	40,379	2593	96	11	37	52	2557	104	14	37	49	36	3
Native Hawaiian or Other Pacific Islander	2,213	2516	99	31	48	21	2479	101	36	45	19	37	5
Filipino	11,226	2575	91	13	44	43	2539	97	16	44	40	36	3
Hispanic or Latino	239,706	2495	99	38	48	14	2462	98	42	44	14	33	4
Black or African American	24,126	2476	106	47	41	12	2448	102	48	40	12	28	1
White	104,666	2554	99	19	46	35	2524	102	21	44	35	30	2
Two or more races	15,296	2550	103	21	44	35	2521	107	23	42	35	29	2
English learner	74,752	2435	90	65	33	2	2399	82	71	27	2	36	6
English only	243,774	2533	105	26	46	28	2503	106	28	43	28	30	2
Reclassified fluent English proficient	101,916	2543	84	19	56	25	2509	86	21	55	24	34	2
Initially fluent English proficient	19,448	2579	95	13	42	45	2549	99	15	41	44	30	2
Economically disadvantaged	275,558	2491	100	40	47	13	2459	98	43	44	13	32	3
Not econ. disadvantaged	164,348	2570	95	15	44	41	2539	100	17	43	41	31	2
Migrant	3,736	2467	96	49	43	7	2431	97	54	38	8	36	5
Not migrant	436,170	2521	105	30	46	24	2489	106	33	43	24	32	3
Special education services	48,436	2412	102	73	23	4	2385	95	76	21	4	27	3
No special education services	391,470	2534	98	25	49	26	2502	100	28	46	26	32	3
Using designated supports	50,610	2427	102	67	29	4	2395	94	72	24	4	32	5
No designated supports	389,296	2533	99	26	48	26	2501	102	28	46	26	32	2
Using accommodations	14,771	2383	90	84	15	1	2357	81	86	13	1	26	2
No accommodations	425,135	2526	103	29	47	25	2493	104	31	44	24	33	2

Table 10.D.17 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Five

	2015–16 ELA Grade 6						2014–15 ELA Grade 5						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	440,959	2531	126	16	68	15	2469	130	24	61	15	62	8
Male	224,908	2521	129	19	67	14	2464	131	25	61	14	57	6
Female	216,051	2542	123	14	69	17	2474	129	22	62	15	68	8
American Indian or Alaska Native	2,314	2493	132	26	64	10	2433	127	32	59	8	60	6
Asian	40,412	2591	112	6	64	30	2533	123	11	58	31	58	5
Native Hawaiian or Other Pacific Islander	2,218	2516	125	19	69	12	2445	126	29	62	9	71	10
Filipino	11,242	2574	111	7	70	23	2510	120	13	65	22	64	6
Hispanic or Latino	240,326	2506	125	21	69	10	2441	125	30	62	8	65	9
Black or African American	24,235	2489	131	26	65	9	2422	129	36	56	7	67	10
White	104,874	2568	117	9	68	23	2511	123	14	63	23	57	5
Two or more races	15,338	2563	120	11	67	23	2503	127	16	62	22	60	5
English learner	74,997	2440	119	39	59	2	2371	107	53	46	1	69	14
English only	244,396	2545	124	14	68	18	2485	129	20	62	18	60	6
Reclassified fluent English proficient	102,068	2554	108	9	75	16	2489	116	15	70	14	65	6
Initially fluent English proficient	19,481	2587	110	6	66	28	2534	119	10	60	30	53	4
Economically disadvantaged	276,353	2503	125	22	69	9	2437	125	31	61	8	66	9
Not econ. disadvantaged	164,606	2579	114	7	67	26	2522	121	12	62	26	57	5
Migrant	3,747	2482	125	27	67	6	2411	122	40	55	5	71	13
Not migrant	437,212	2532	126	16	68	16	2469	130	24	61	15	63	8
Special education services	48,682	2420	129	48	49	4	2369	119	55	42	3	51	7
No special education services	392,277	2545	119	13	71	17	2481	126	20	64	16	64	7
Using designated supports	50,845	2434	129	43	53	4	2376	119	52	45	3	58	9
No designated supports	390,114	2544	120	13	70	17	2481	127	20	64	16	63	7
Using accommodations	14,869	2386	118	59	40	1	2339	107	65	34	1	47	6
No accommodations	426,090	2536	124	15	69	16	2473	129	23	62	15	63	8

Table 10.D.18 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Longitudinal Comparison: 2015–16 ELA Grade Six and 2014–15 ELA Grade Five

	2015–16 ELA Grade 6						2014–15 ELA Grade 5						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	441,430	2532	117	17	53	29	2502	114	21	53	27	30	4
Male	225,170	2516	119	21	55	25	2490	115	24	53	23	26	3
Female	216,260	2548	113	13	52	34	2515	110	17	52	30	33	4
American Indian or Alaska Native	2,320	2494	118	25	57	18	2467	114	30	53	17	27	5
Asian	40,436	2602	101	6	37	57	2567	103	8	41	51	35	2
Native Hawaiian or Other Pacific Islander	2,221	2519	115	19	56	25	2493	109	23	56	22	26	4
Filipino	11,251	2585	101	7	45	48	2551	101	9	48	43	34	2
Hispanic or Latino	240,576	2507	115	22	58	21	2476	110	27	56	18	31	5
Black or African American	24,285	2487	120	28	56	17	2461	113	32	53	15	26	4
White	104,981	2562	107	10	51	39	2538	105	12	51	38	24	2
Two or more races	15,360	2558	111	11	51	38	2534	108	13	49	37	24	2
English learner	75,097	2445	108	40	54	6	2408	98	50	47	3	37	10
English only	244,679	2542	115	15	53	33	2516	112	17	52	31	26	2
Reclassified fluent English proficient	102,141	2559	99	8	57	35	2527	94	11	60	30	32	3
Initially fluent English proficient	19,496	2592	101	6	43	51	2564	98	7	45	48	28	1
Economically disadvantaged	276,673	2504	116	23	57	20	2473	110	28	55	17	31	5
Not econ. disadvantaged	164,757	2579	103	7	47	46	2552	101	9	48	43	27	2
Migrant	3,752	2483	114	29	57	14	2445	111	37	52	11	38	8
Not migrant	437,678	2532	117	17	53	30	2503	114	21	53	27	29	4
Special education services	48,795	2430	114	48	46	6	2400	109	55	39	5	30	7
No special education services	392,635	2544	111	13	54	32	2515	108	16	54	29	29	3
Using designated supports	50,956	2444	115	42	50	8	2409	109	51	43	6	35	9
No designated supports	390,474	2543	112	14	54	32	2515	109	17	54	29	28	3
Using accommodations	14,907	2404	104	57	41	2	2373	99	66	32	2	31	9
No accommodations	426,523	2536	115	16	54	30	2507	112	19	53	28	29	3

Table 10.D.19 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Six

	2015–16 ELA Grade 7						2014–15 ELA Grade 6						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	437,141	2528	115	33	45	22	2486	115	37	47	16	42	4
Male	222,890	2515	116	38	43	19	2475	116	42	44	14	40	4
Female	214,251	2541	112	28	47	25	2498	112	33	49	18	43	5
American Indian or Alaska Native	2,302	2499	111	42	44	14	2461	110	46	44	10	38	4
Asian	40,302	2601	107	14	40	46	2554	110	17	47	36	47	3
Native Hawaiian or Other Pacific Islander	2,107	2510	110	39	45	16	2471	108	42	47	11	39	3
Filipino	11,881	2572	105	18	49	33	2529	106	22	53	25	43	4
Hispanic or Latino	236,346	2498	107	42	45	13	2457	107	47	45	8	41	5
Black or African American	24,165	2486	108	48	41	11	2446	108	52	40	8	40	4
White	105,725	2568	109	20	47	33	2526	110	24	51	25	42	4
Two or more races	14,313	2561	113	23	46	31	2517	114	27	49	24	44	4
English learner	59,167	2427	83	73	26	1	2386	85	78	21	1	41	5
English only	240,392	2544	114	28	46	26	2502	114	32	49	20	42	4
Reclassified fluent English proficient	116,679	2535	103	27	53	20	2493	101	32	55	13	42	5
Initially fluent English proficient	20,878	2587	109	16	44	40	2544	110	19	49	32	43	3
Economically disadvantaged	269,903	2495	107	43	44	12	2454	107	48	44	8	41	5
Not econ. disadvantaged	167,238	2580	108	17	46	37	2537	109	20	51	29	43	3
Migrant	3,466	2472	100	53	40	7	2428	104	58	37	5	44	5
Not migrant	433,675	2528	115	33	45	22	2486	115	37	47	16	42	4
Special education services	46,207	2435	97	70	26	4	2395	97	74	23	3	40	4
No special education services	390,934	2539	112	29	47	24	2497	112	33	49	18	42	4
Using designated supports	42,289	2443	98	66	29	5	2401	99	71	26	3	42	5
No designated supports	394,852	2537	113	30	47	24	2495	112	34	49	17	42	4
Using accommodations	15,345	2416	83	78	21	1	2375	85	82	17	1	41	4
No accommodations	421,796	2532	114	32	46	23	2490	113	36	48	17	42	4

Table 10.D.20 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Six

	N Valid Scores	2015–16 ELA Grade 7					2014–15 ELA Grade 6					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	435,623	2550	109	26	47	27	2516	100	32	48	20	34	6
Male	222,098	2531	110	32	46	22	2500	101	38	46	16	31	6
Female	213,525	2569	104	20	47	33	2533	97	26	49	25	36	6
American Indian or Alaska Native	2,289	2517	107	37	46	17	2485	100	44	45	11	32	7
Asian	40,253	2625	97	9	33	58	2583	96	12	41	47	42	3
Native Hawaiian or Other Pacific Islander	2,097	2546	100	25	51	24	2512	97	31	51	18	34	6
Filipino	11,857	2604	95	10	43	46	2565	89	15	49	37	39	5
Hispanic or Latino	235,334	2521	103	33	50	16	2490	93	41	48	11	31	8
Black or African American	24,029	2505	110	41	45	15	2477	100	47	43	11	28	6
White	105,482	2586	100	15	45	40	2548	94	20	50	30	38	5
Two or more races	14,282	2580	106	18	43	39	2544	99	23	47	30	36	5
English learner	58,876	2448	92	63	35	2	2421	83	73	26	1	27	10
English only	239,623	2563	108	22	46	32	2529	99	27	48	24	34	5
Reclassified fluent English proficient	116,291	2562	91	18	56	26	2527	82	24	57	19	35	6
Initially fluent English proficient	20,808	2608	98	11	40	49	2569	93	15	46	39	39	4
Economically disadvantaged	268,735	2518	104	35	49	16	2487	94	42	47	11	31	7
Not econ. disadvantaged	166,888	2601	98	12	42	46	2562	93	16	48	36	39	4
Migrant	3,452	2496	99	41	49	10	2463	92	52	42	6	33	11
Not migrant	432,171	2550	109	26	47	28	2516	100	32	48	21	34	6
Special education services	45,879	2438	102	68	28	4	2413	94	75	22	3	25	7
No special education services	389,744	2563	102	21	49	30	2528	94	27	51	22	35	6
Using designated supports	42,041	2453	104	62	33	6	2424	95	71	26	3	29	9
No designated supports	393,582	2560	104	22	48	30	2526	96	28	50	22	34	6
Using accommodations	15,212	2412	90	78	21	1	2389	85	85	14	1	23	7
No accommodations	420,411	2555	106	24	48	28	2520	98	30	49	21	35	6

Table 10.D.21 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Six

	N Valid Scores	2015–16 ELA Grade 7					2014–15 ELA Grade 6					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	437,323	2544	124	20	65	15	2521	127	19	68	14	23	-1
Male	222,970	2537	125	21	64	14	2511	129	21	67	12	26	0
Female	214,353	2550	122	18	66	16	2532	123	16	69	15	18	-2
American Indian or Alaska Native	2,306	2519	124	26	63	11	2495	128	25	65	9	24	-1
Asian	40,316	2604	112	8	63	29	2580	116	8	65	27	24	0
Native Hawaiian or Other Pacific Islander	2,107	2524	120	23	66	10	2512	122	19	70	11	12	-4
Filipino	11,891	2577	111	10	70	20	2559	113	9	72	19	18	-1
Hispanic or Latino	236,438	2515	121	25	65	9	2495	124	24	68	8	20	-1
Black or African American	24,184	2502	124	30	61	9	2482	129	28	64	7	20	-2
White	105,757	2586	115	10	66	24	2559	118	10	69	20	27	0
Two or more races	14,324	2575	119	13	65	22	2550	122	13	68	19	25	0
English learner	59,196	2440	105	49	49	2	2411	114	50	49	1	29	1
English only	240,478	2560	122	16	65	19	2537	124	15	69	16	23	-1
Reclassified fluent English proficient	116,734	2553	111	14	72	14	2534	111	12	75	12	19	-2
Initially fluent English proficient	20,890	2596	112	8	65	27	2576	113	8	67	25	20	0
Economically disadvantaged	270,032	2513	120	26	65	9	2492	125	25	67	8	21	-1
Not econ. disadvantaged	167,291	2593	113	9	65	26	2568	115	9	69	23	25	0
Migrant	3,465	2489	119	34	60	6	2464	127	34	61	5	25	0
Not migrant	433,858	2544	124	19	65	15	2522	127	19	68	14	22	0
Special education services	46,230	2443	116	50	47	3	2408	125	53	45	3	35	3
No special education services	391,093	2555	119	16	67	17	2535	120	15	71	15	20	-1
Using designated supports	42,304	2452	118	46	50	4	2419	126	48	49	3	33	2
No designated supports	395,019	2553	121	17	67	17	2532	122	16	70	15	21	-1
Using accommodations	15,353	2417	105	58	40	1	2378	114	62	37	1	39	4
No accommodations	421,970	2548	122	18	66	16	2526	124	17	69	14	22	-1

Table 10.D.22 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Longitudinal Comparison: 2015–16 ELA Grade Seven and 2014–15 ELA Grade Six

	N Valid Scores	2015–16 ELA Grade 7					2014–15 ELA Grade 6					SS Difference	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	437,569	2536	123	24	51	26	2517	113	19	59	23	19	-5
Male	223,102	2519	125	28	50	22	2503	114	22	59	19	16	-6
Female	214,467	2553	119	19	51	30	2531	110	15	58	27	22	-4
American Indian or Alaska Native	2,307	2502	120	33	51	16	2489	109	26	60	14	13	-7
Asian	40,341	2614	106	8	39	53	2583	103	7	46	47	31	-1
Native Hawaiian or Other Pacific Islander	2,108	2521	120	26	53	21	2508	110	20	62	18	13	-6
Filipino	11,901	2588	107	10	49	41	2562	102	9	54	37	26	-1
Hispanic or Latino	236,576	2509	120	30	53	17	2493	110	24	62	15	16	-6
Black or African American	24,213	2487	123	38	49	14	2479	112	28	59	12	8	-10
White	105,789	2570	114	14	51	35	2548	104	11	58	32	22	-3
Two or more races	14,334	2564	120	17	49	35	2544	107	12	57	31	20	-5
English learner	59,224	2432	103	58	40	3	2421	99	48	50	2	11	-10
English only	240,593	2548	121	20	51	29	2529	110	15	59	26	19	-5
Reclassified fluent English proficient	116,818	2553	110	16	57	27	2531	100	12	65	23	22	-4
Initially fluent English proficient	20,909	2596	112	10	44	46	2571	103	8	51	41	25	-2
Economically disadvantaged	270,192	2505	120	31	52	16	2489	110	25	61	14	16	-6
Not econ. disadvantaged	167,377	2586	111	11	48	41	2562	102	9	54	37	24	-2
Migrant	3,468	2486	118	37	51	11	2468	111	31	60	9	18	-6
Not migrant	434,101	2536	123	23	51	26	2517	113	19	59	23	19	-4
Special education services	46,275	2430	111	60	35	5	2422	106	49	47	4	8	-11
No special education services	391,294	2549	118	19	53	28	2528	108	15	60	25	21	-4
Using designated supports	42,334	2442	114	55	39	6	2430	108	46	49	5	12	-9
No designated supports	395,235	2546	120	20	52	28	2526	109	16	60	25	20	-4
Using accommodations	15,368	2408	98	68	30	2	2401	97	57	41	1	7	-11
No accommodations	422,201	2541	121	22	51	27	2521	111	17	59	23	20	-5

Table 10.D.23 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Seven

	N Valid Scores	2015–16 ELA Grade 8					2014–15 ELA Grade 7					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	430,822	2553	110	30	45	25	2519	111	37	45	18	34	7
Male	219,103	2540	111	35	43	22	2508	112	41	43	16	32	6
Female	211,719	2566	106	26	47	28	2530	108	32	48	20	36	6
American Indian or Alaska Native	2,398	2528	107	38	45	17	2494	108	45	42	12	34	7
Asian	39,288	2623	101	12	38	50	2588	106	16	44	40	35	4
Native Hawaiian or Other Pacific Islander	2,190	2538	103	35	46	19	2503	103	41	46	12	35	6
Filipino	11,952	2596	98	16	47	37	2560	101	21	51	28	36	5
Hispanic or Latino	232,697	2525	103	39	46	15	2490	102	47	43	10	35	8
Black or African American	24,666	2511	106	45	42	13	2481	103	51	40	9	30	6
White	104,576	2589	104	19	45	36	2560	105	22	49	29	29	3
Two or more races	13,055	2581	108	21	45	34	2551	109	25	48	27	30	4
English learner	50,024	2449	82	72	27	1	2410	77	82	17	1	39	10
English only	234,461	2567	109	26	45	29	2536	109	30	47	22	31	4
Reclassified fluent English proficient	126,279	2559	97	25	53	22	2521	98	33	52	15	38	8
Initially fluent English proficient	20,039	2607	103	15	42	43	2575	105	18	47	34	32	3
Economically disadvantaged	264,137	2523	104	40	46	15	2488	103	48	43	10	35	8
Not econ. disadvantaged	166,685	2599	103	16	44	40	2569	104	19	49	32	30	3
Migrant	3,549	2501	100	49	41	11	2456	99	60	36	5	45	11
Not migrant	427,273	2553	110	30	45	25	2520	110	36	45	18	33	6
Special education services	43,619	2456	95	69	27	4	2424	93	76	21	3	32	7
No special education services	387,203	2563	106	26	47	27	2530	107	32	48	20	33	6
Using designated supports	38,591	2466	98	64	30	6	2431	94	73	24	3	35	9
No designated supports	392,231	2561	107	27	46	26	2528	108	33	47	20	33	6
Using accommodations	13,272	2436	84	77	21	2	2404	80	84	15	1	32	7
No accommodations	417,550	2556	108	29	46	25	2523	109	35	46	19	33	6

Table 10.D.24 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Seven

	N Valid Scores	2015–16 ELA Grade 8					2014–15 ELA Grade 7					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	429,436	2565	110	27	48	25	2541	107	30	46	24	24	3
Male	218,360	2544	111	34	47	19	2523	108	36	45	19	21	2
Female	211,076	2587	105	20	48	32	2560	103	23	48	29	27	3
American Indian or Alaska Native	2,389	2532	108	36	48	16	2508	106	41	44	15	24	5
Asian	39,259	2642	100	9	37	54	2615	98	11	36	53	27	2
Native Hawaiian or Other Pacific Islander	2,179	2558	102	28	52	21	2538	99	28	53	20	20	0
Filipino	11,935	2617	96	11	47	42	2594	93	13	45	42	23	2
Hispanic or Latino	231,761	2538	103	34	50	15	2513	100	38	48	14	25	4
Black or African American	24,533	2521	110	42	44	14	2499	104	44	44	12	22	2
White	104,361	2599	105	17	47	37	2576	100	18	46	36	23	1
Two or more races	13,019	2593	108	19	46	35	2570	104	20	45	34	23	1
English learner	49,764	2458	89	68	31	2	2431	86	74	25	1	27	6
English only	233,763	2578	110	23	47	30	2555	105	25	46	29	23	2
Reclassified fluent English proficient	125,897	2575	94	20	56	23	2548	90	24	55	21	27	4
Initially fluent English proficient	19,995	2622	101	12	43	45	2597	97	13	43	43	25	1
Economically disadvantaged	263,017	2535	104	36	49	15	2510	101	39	48	13	25	3
Not econ. disadvantaged	166,419	2613	102	13	45	42	2590	98	15	45	41	23	2
Migrant	3,536	2512	101	44	47	9	2483	100	49	44	7	29	5
Not migrant	425,900	2566	110	27	48	26	2541	107	29	46	24	25	2
Special education services	43,303	2450	99	71	26	4	2431	96	73	24	3	19	2
No special education services	386,133	2578	104	22	50	28	2553	101	25	49	26	25	3
Using designated supports	38,350	2466	105	64	30	6	2444	100	68	28	4	22	4
No designated supports	391,086	2575	106	23	49	27	2550	103	26	48	26	25	3
Using accommodations	13,155	2424	88	81	18	1	2406	86	83	16	1	18	2
No accommodations	416,281	2570	108	25	49	26	2545	105	28	47	25	25	3

Table 10.D.25 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Seven

	N Valid Scores	2015–16 ELA Grade 8					2014–15 ELA Grade 7					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	431,143	2562	119	18	67	15	2530	123	24	64	12	32	6
Male	219,253	2551	122	22	65	13	2524	124	25	63	12	27	3
Female	211,890	2574	115	15	69	16	2536	121	22	65	13	38	7
American Indian or Alaska Native	2,399	2540	120	23	66	11	2504	120	30	63	7	36	7
Asian	39,307	2623	109	7	63	30	2589	114	10	65	24	34	3
Native Hawaiian or Other Pacific Islander	2,195	2546	114	20	70	10	2511	115	27	65	8	35	7
Filipino	11,964	2599	106	8	71	21	2563	113	13	71	16	36	5
Hispanic or Latino	232,889	2537	115	23	68	9	2502	119	30	63	7	35	7
Black or African American	24,691	2525	120	28	63	9	2491	120	34	59	6	34	6
White	104,635	2598	113	10	67	22	2572	116	13	67	20	26	3
Two or more races	13,063	2590	116	12	67	21	2560	121	16	66	18	30	4
English learner	50,058	2458	102	50	49	1	2419	97	59	40	1	39	9
English only	234,624	2576	118	15	67	18	2547	122	19	66	15	29	4
Reclassified fluent English proficient	126,389	2569	105	13	75	13	2534	112	19	71	10	35	6
Initially fluent English proficient	20,053	2614	108	7	66	27	2583	113	11	67	22	31	4
Economically disadvantaged	264,360	2534	115	24	67	8	2500	118	31	62	7	34	7
Not econ. disadvantaged	166,783	2607	111	9	67	25	2578	115	12	67	21	29	3
Migrant	3,552	2512	114	31	63	6	2471	117	41	55	5	41	10
Not migrant	427,591	2563	119	18	67	15	2530	123	23	64	12	33	5
Special education services	43,664	2462	113	50	47	3	2431	111	56	42	2	31	6
No special education services	387,479	2574	114	15	69	16	2541	119	20	67	14	33	5
Using designated supports	38,619	2473	115	46	50	4	2439	113	52	45	3	34	6
No designated supports	392,524	2571	115	15	69	16	2539	120	21	66	13	32	6
Using accommodations	13,282	2437	103	59	39	1	2407	100	64	35	1	30	5
No accommodations	417,861	2566	117	17	68	15	2534	122	22	65	13	32	5

Table 10.D.26 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 4, Longitudinal Comparison: 2015–16 ELA Grade Eight and 2014–15 ELA Grade Seven

	N Valid Scores	2015–16 ELA Grade 8					2014–15 ELA Grade 7					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	430,668	2555	123	23	51	26	2526	120	25	54	22	29	2
Male	219,029	2536	125	28	51	21	2510	122	29	52	18	26	1
Female	211,639	2574	118	18	52	30	2543	116	20	55	25	31	2
American Indian or Alaska Native	2,396	2522	121	31	52	17	2494	118	32	55	13	28	1
Asian	39,281	2633	107	8	40	52	2601	108	9	43	47	32	1
Native Hawaiian or Other Pacific Islander	2,192	2538	120	27	54	19	2516	113	25	59	16	22	-2
Filipino	11,950	2608	108	10	49	41	2577	105	11	54	36	31	1
Hispanic or Latino	232,603	2529	119	29	54	17	2499	115	31	55	13	30	2
Black or African American	24,648	2508	122	36	50	14	2484	117	37	52	11	24	1
White	104,546	2585	117	15	51	34	2560	113	15	54	31	25	0
Two or more races	13,052	2581	120	16	50	34	2554	117	17	52	30	27	1
English learner	49,992	2449	100	58	40	3	2420	95	61	37	1	29	3
English only	234,389	2565	123	20	51	29	2539	118	21	54	25	26	1
Reclassified fluent English proficient	126,236	2568	112	17	57	26	2536	110	19	60	21	32	2
Initially fluent English proficient	20,032	2613	112	10	46	44	2583	112	12	49	40	30	2
Economically disadvantaged	264,021	2526	120	30	53	17	2496	116	32	54	13	30	2
Not econ. disadvantaged	166,647	2601	114	12	49	40	2574	111	12	52	36	27	0
Migrant	3,547	2505	119	36	51	13	2472	114	40	51	9	33	4
Not migrant	427,121	2555	123	23	51	26	2527	120	25	54	22	28	2
Special education services	43,596	2448	107	59	37	5	2428	104	59	37	3	20	0
No special education services	387,072	2567	119	19	53	28	2537	117	21	55	24	30	2
Using designated supports	38,576	2463	113	53	40	7	2437	107	55	40	4	26	2
No designated supports	392,092	2564	121	20	53	28	2535	118	22	55	24	29	2
Using accommodations	13,267	2427	95	68	31	2	2407	93	67	32	1	20	-1
No accommodations	417,401	2559	122	22	52	26	2530	119	23	54	22	29	1

Table 10.D.27 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Three

	N Valid Scores	2015–16 Mathematics Grade 4					2014–15 Mathematics Grade 3					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	455,405	2463	87	43	32	24	2419	83	40	36	25	44	-3
Male	232,464	2466	91	42	32	26	2419	87	39	35	26	47	-3
Female	222,941	2461	83	45	33	22	2418	80	40	36	24	43	-5
American Indian or Alaska Native	2,332	2438	83	53	33	14	2394	82	51	33	16	44	-2
Asian	39,780	2536	84	15	27	58	2483	81	14	30	56	53	-1
Native Hawaiian or Other Pacific Islander	2,074	2458	79	44	36	20	2415	76	39	39	22	43	-5
Filipino	10,281	2508	77	21	36	43	2458	72	19	39	42	50	-2
Hispanic or Latino	255,754	2439	78	54	32	14	2397	76	50	36	15	42	-4
Black or African American	24,400	2423	82	62	27	11	2382	80	56	32	11	41	-6
White	103,414	2496	82	27	36	37	2448	79	24	38	38	48	-3
Two or more races	17,370	2491	88	30	33	37	2444	84	28	36	36	47	-2
English learner	118,770	2415	73	68	25	7	2373	71	64	29	7	42	-4
English only	258,015	2473	87	38	34	28	2428	83	34	37	29	45	-4
Reclassified fluent English proficient	60,916	2497	72	25	41	34	2451	66	20	45	35	46	-5
Initially fluent English proficient	17,673	2523	83	19	31	50	2476	79	16	33	51	47	-3
Economically disadvantaged	292,671	2437	79	55	31	13	2395	77	51	35	14	42	-4
Not econ. disadvantaged	162,734	2510	82	22	34	44	2461	78	20	36	44	49	-2
Migrant	4,459	2421	72	65	27	7	2379	72	59	32	9	42	-6
Not migrant	450,946	2464	87	43	32	25	2419	83	39	36	25	45	-4
Special education services	50,072	2392	93	74	17	9	2347	91	72	19	9	45	-2
No special education services	405,333	2472	82	40	34	26	2427	78	36	38	27	45	-4
Using designated supports	67,210	2402	84	71	21	7	2358	83	69	24	7	44	-2
No designated supports	388,195	2474	83	39	34	27	2429	79	34	38	28	45	-5
Using accommodations	14,776	2356	75	89	10	2	2310	77	87	11	2	46	-2
No accommodations	440,629	2467	85	42	33	25	2422	81	38	36	26	45	-4

Table 10.D.28 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Three

	N Valid Scores	2015–16 Mathematics Grade 4					2014–15 Mathematics Grade 3					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	455,495	2448	102	36	46	19	2406	93	37	42	20	42	1
Male	232,510	2449	105	36	45	20	2407	95	37	42	21	42	1
Female	222,985	2447	100	36	47	17	2404	91	38	43	19	43	2
American Indian or Alaska Native	2,332	2425	99	44	44	12	2385	89	46	41	13	40	2
Asian	39,783	2519	94	13	41	46	2469	89	15	38	47	50	2
Native Hawaiian or Other Pacific Islander	2,075	2439	97	39	47	14	2397	89	40	44	16	42	1
Filipino	10,283	2492	87	18	51	31	2446	81	19	48	33	46	1
Hispanic or Latino	255,806	2422	96	45	45	10	2381	87	47	42	11	41	2
Black or African American	24,408	2404	99	54	39	7	2366	89	55	37	8	38	1
White	103,436	2486	94	21	49	30	2442	87	21	46	33	44	0
Two or more races	17,372	2480	99	25	47	29	2436	92	25	43	32	44	0
English learner	118,788	2392	94	59	37	4	2352	81	63	33	4	40	4
English only	258,078	2460	101	31	47	22	2419	92	32	44	24	41	1
Reclassified fluent English proficient	60,924	2486	80	18	57	25	2439	74	19	54	27	47	1
Initially fluent English proficient	17,674	2513	90	14	45	41	2466	85	15	41	44	47	1
Economically disadvantaged	292,738	2420	97	46	45	9	2379	87	48	41	11	41	2
Not econ. disadvantaged	162,757	2498	92	17	48	35	2453	85	18	44	38	45	1
Migrant	4,459	2402	95	54	40	5	2361	84	58	36	6	41	4
Not migrant	451,036	2448	102	36	46	19	2406	93	37	42	20	42	1
Special education services	50,084	2377	106	66	27	7	2337	95	69	24	7	40	3
No special education services	405,411	2457	98	32	48	20	2414	90	34	45	22	43	2
Using designated supports	67,229	2384	100	61	34	5	2344	89	65	29	6	40	4
No designated supports	388,266	2459	99	31	48	21	2416	90	33	45	23	43	2
Using accommodations	14,782	2345	92	79	19	1	2306	80	83	15	2	39	4
No accommodations	440,713	2451	101	34	47	19	2409	92	36	43	21	42	2

Table 10.D.29 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 Mathematics Grade Four and 2014–15 Mathematics Grade Three

	N Valid Scores	2015–16 Mathematics Grade 4					2014–15 Mathematics Grade 3					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	455,268	2455	95	34	45	21	2409	95	27	52	20	46	-7
Male	232,400	2455	98	34	43	22	2407	97	29	51	21	48	-5
Female	222,868	2455	93	33	46	20	2411	93	26	54	20	44	-7
American Indian or Alaska Native	2,332	2430	89	44	44	12	2385	91	36	51	13	45	-8
Asian	39,770	2527	90	12	36	52	2474	92	10	42	48	53	-2
Native Hawaiian or Other Pacific Islander	2,074	2447	89	37	47	17	2401	89	29	55	16	46	-8
Filipino	10,279	2500	85	16	47	38	2450	86	13	52	35	50	-3
Hispanic or Latino	255,684	2431	88	42	46	12	2386	88	34	55	11	45	-8
Black or African American	24,392	2415	89	51	40	9	2373	89	42	49	9	42	-9
White	103,374	2488	90	21	46	33	2441	90	17	52	32	47	-4
Two or more races	17,363	2484	95	24	44	32	2436	95	19	50	31	48	-5
English learner	118,733	2406	83	55	40	5	2359	83	45	50	5	47	-10
English only	257,926	2465	95	30	45	25	2420	94	24	52	24	45	-6
Reclassified fluent English proficient	60,908	2490	81	17	53	30	2443	80	12	60	28	47	-5
Initially fluent English proficient	17,670	2516	91	14	40	46	2469	90	10	45	45	47	-4
Economically disadvantaged	292,591	2429	88	44	45	11	2384	88	35	54	11	45	-9
Not econ. disadvantaged	162,677	2502	89	16	44	39	2454	90	13	49	37	48	-3
Migrant	4,458	2413	85	50	43	7	2368	86	41	53	7	45	-9
Not migrant	450,810	2455	95	34	45	22	2410	95	27	52	21	45	-7
Special education services	50,049	2393	93	63	29	8	2347	92	55	38	7	46	-8
No special education services	405,219	2463	93	30	47	23	2417	92	24	54	22	46	-6
Using designated supports	67,189	2397	89	59	34	6	2352	88	49	45	6	45	-10
No designated supports	388,079	2465	93	30	46	24	2419	92	24	53	23	46	-6
Using accommodations	14,768	2364	77	77	22	1	2320	78	67	31	2	44	-10
No accommodations	440,500	2458	94	32	45	22	2412	94	26	53	21	46	-6

Table 10.D.30 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Four

	N Valid Scores	2015–16 Mathematics Grade 5					2014–15 Mathematics Grade 4					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	447,763	2489	96	49	29	22	2456	85	47	32	21	33	-2
Male	227,669	2490	101	48	28	24	2457	89	46	31	23	33	-2
Female	220,094	2487	92	50	30	20	2454	80	48	33	19	33	-2
American Indian or Alaska Native	2,285	2462	94	59	27	14	2435	81	56	31	13	27	-3
Asian	40,178	2569	92	18	27	55	2526	83	17	29	54	43	-1
Native Hawaiian or Other Pacific Islander	2,175	2478	88	53	30	17	2447	76	50	34	16	31	-3
Filipino	10,704	2534	85	27	36	37	2495	75	25	39	36	39	-2
Hispanic or Latino	248,233	2462	86	61	27	11	2432	75	59	30	11	30	-2
Black or African American	24,166	2442	90	69	22	9	2419	79	64	27	8	23	-5
White	104,046	2525	91	32	33	35	2487	79	30	37	33	38	-2
Two or more races	15,976	2519	97	35	31	34	2484	85	32	35	33	35	-3
English learner	93,451	2426	79	78	18	4	2397	69	79	18	3	29	1
English only	250,149	2499	97	44	30	26	2466	84	41	34	25	33	-3
Reclassified fluent English proficient	86,410	2513	81	37	37	26	2478	70	34	41	24	35	-3
Initially fluent English proficient	17,729	2552	93	24	30	46	2513	83	22	33	45	39	-2
Economically disadvantaged	284,250	2460	87	62	27	11	2430	76	59	30	11	30	-3
Not econ. disadvantaged	163,513	2539	91	27	32	41	2501	80	25	36	39	38	-2
Migrant	4,347	2445	83	69	24	7	2413	72	69	25	6	32	0
Not migrant	443,416	2489	96	49	29	22	2456	85	47	32	21	33	-2
Special education services	51,316	2408	96	80	13	7	2382	87	79	14	6	26	-1
No special education services	396,447	2499	92	45	31	24	2465	79	43	34	23	34	-2
Using designated supports	62,731	2417	89	78	16	5	2390	81	77	18	5	27	-1
No designated supports	385,032	2500	92	44	31	25	2467	80	42	35	24	33	-2
Using accommodations	18,136	2375	79	92	7	1	2350	73	92	7	1	25	0
No accommodations	429,627	2494	94	47	30	23	2460	82	45	33	22	34	-2

Table 10.D.31 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Four

	N Valid Scores	2015–16 Mathematics Grade 5					2014–15 Mathematics Grade 4					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	447,870	2465	122	45	37	18	2441	102	39	45	16	24	-6
Male	227,724	2464	125	45	36	18	2441	105	39	44	17	23	-6
Female	220,146	2467	118	45	38	17	2442	99	38	46	15	25	-7
American Indian or Alaska Native	2,287	2438	121	54	36	10	2420	102	46	43	11	18	-8
Asian	40,181	2550	106	18	36	46	2511	95	15	42	43	39	-3
Native Hawaiian or Other Pacific Islander	2,176	2451	116	51	38	12	2428	96	43	45	11	23	-8
Filipino	10,705	2518	102	25	46	30	2481	89	21	53	26	37	-4
Hispanic or Latino	248,286	2434	116	57	34	9	2415	96	49	43	8	19	-8
Black or African American	24,177	2410	119	65	29	6	2398	99	57	38	6	12	-8
White	104,077	2511	108	27	44	29	2480	93	23	51	27	31	-4
Two or more races	15,981	2504	115	31	41	28	2474	99	26	48	27	30	-5
English learner	93,462	2382	111	78	20	2	2370	91	70	28	2	12	-8
English only	250,230	2481	119	39	40	21	2455	100	33	47	20	26	-6
Reclassified fluent English proficient	86,424	2496	99	33	47	20	2467	82	26	57	18	29	-7
Initially fluent English proficient	17,730	2540	105	21	40	40	2505	92	17	46	37	35	-4
Economically disadvantaged	284,318	2431	117	58	34	8	2413	96	50	43	8	18	-8
Not econ. disadvantaged	163,552	2525	105	23	43	34	2492	92	19	49	32	33	-4
Migrant	4,349	2411	114	66	29	5	2393	94	59	37	4	18	-7
Not migrant	443,521	2466	121	45	37	18	2442	102	38	45	16	24	-7
Special education services	51,341	2372	124	77	18	5	2364	104	72	24	5	8	-5
No special education services	396,529	2477	116	41	39	19	2452	97	34	48	18	25	-7
Using designated supports	62,750	2379	120	76	20	4	2370	99	68	28	4	9	-8
No designated supports	385,120	2479	116	40	40	20	2453	98	34	48	18	26	-6
Using accommodations	18,150	2338	108	89	11	1	2335	91	83	16	1	3	-6
No accommodations	429,720	2471	119	44	38	18	2446	100	37	46	17	25	-7

Table 10.D.32 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 Mathematics Grade Five and 2014–15 Mathematics Grade Four

	N Valid Scores	2015–16 Mathematics Grade 5					2014–15 Mathematics Grade 4					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	447,616	2475	109	40	44	16	2448	92	39	43	18	27	–1
Male	227,600	2474	112	40	43	17	2448	95	39	42	19	26	–1
Female	220,016	2476	107	39	45	16	2448	90	38	44	18	28	–1
American Indian or Alaska Native	2,284	2450	105	49	41	10	2428	89	48	40	12	22	–1
Asian	40,172	2556	102	15	42	44	2517	89	14	38	47	39	–1
Native Hawaiian or Other Pacific Islander	2,175	2461	103	44	45	11	2436	85	43	45	13	25	–1
Filipino	10,701	2523	98	21	52	27	2487	84	21	49	31	36	0
Hispanic or Latino	248,163	2446	101	50	43	8	2424	84	48	43	9	22	–2
Black or African American	24,159	2428	102	58	37	6	2410	85	56	37	7	18	–2
White	103,996	2513	104	25	49	26	2480	88	24	47	29	33	–1
Two or more races	15,966	2508	109	28	46	26	2476	93	27	44	29	32	–1
English learner	93,422	2407	92	67	30	2	2389	77	67	31	2	18	0
English only	250,059	2487	109	35	46	19	2458	92	34	44	22	29	–1
Reclassified fluent English proficient	86,389	2500	96	28	54	18	2469	81	26	53	21	31	–2
Initially fluent English proficient	17,722	2542	104	18	45	37	2507	89	17	42	41	35	–1
Economically disadvantaged	284,169	2444	101	51	42	7	2422	85	49	42	9	22	–2
Not econ. disadvantaged	163,447	2528	103	21	48	31	2493	88	20	45	35	35	–1
Migrant	4,347	2426	97	58	37	4	2405	82	57	38	5	21	–1
Not migrant	443,269	2475	110	40	44	16	2448	92	38	43	18	27	–2
Special education services	51,291	2400	103	71	25	4	2384	87	69	25	5	16	–2
No special education services	396,325	2484	107	36	47	18	2456	90	35	45	20	28	–1
Using designated supports	62,712	2405	99	67	29	3	2387	84	67	29	4	18	0
No designated supports	384,904	2486	107	35	47	18	2458	90	34	46	21	28	–1
Using accommodations	18,127	2373	88	82	17	1	2358	74	81	18	1	15	–1
No accommodations	429,489	2479	108	38	45	17	2452	91	37	44	19	27	–1

Table 10.D.33 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Five

	2015–16 Mathematics Grade 6						2014–15 Mathematics Grade 5						% Near Std or Above Std Diff
	N Valid Scores	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std	SS Diff	
All Students	441,709	2512	114	46	32	23	2483	94	51	30	19	29	5
Male	225,252	2507	119	47	30	22	2484	98	50	29	21	23	3
Female	216,457	2517	109	44	33	23	2483	89	52	31	18	34	8
American Indian or Alaska Native	2,310	2470	110	61	27	12	2454	89	64	26	10	16	3
Asian	40,826	2608	104	16	27	57	2560	91	20	30	50	48	4
Native Hawaiian or Other Pacific Islander	2,219	2501	104	50	34	16	2472	87	55	31	13	29	5
Filipino	11,264	2567	98	24	37	39	2525	83	30	38	32	42	6
Hispanic or Latino	240,873	2480	104	58	30	12	2456	83	63	27	9	24	5
Black or African American	24,117	2457	110	65	25	9	2439	88	70	23	7	18	5
White	104,767	2552	104	29	37	34	2517	88	34	36	30	35	5
Two or more races	15,333	2546	110	33	34	33	2512	94	37	33	30	34	4
English learner	76,413	2422	96	81	15	3	2412	74	84	13	2	10	3
English only	243,782	2525	113	40	34	26	2494	93	45	32	23	31	5
Reclassified fluent English proficient	102,009	2536	95	37	39	24	2500	80	44	36	20	36	7
Initially fluent English proficient	19,487	2580	107	24	32	44	2538	92	29	32	39	42	5
Economically disadvantaged	277,042	2478	106	59	29	12	2455	84	64	27	9	23	5
Not econ. disadvantaged	164,667	2570	104	24	35	41	2531	89	29	35	36	39	5
Migrant	3,827	2457	101	68	25	7	2435	80	73	22	5	22	5
Not migrant	437,882	2513	114	46	32	23	2484	94	51	30	19	29	5
Special education services	48,491	2398	110	83	12	4	2398	88	85	11	4	0	2
No special education services	393,218	2526	106	41	34	25	2494	89	47	32	21	32	6
Using designated supports	54,125	2413	107	80	16	5	2408	86	82	14	4	5	2
No designated supports	387,584	2526	108	41	34	25	2494	90	47	32	21	32	6
Using accommodations	17,429	2363	91	93	6	1	2371	75	94	6	1	-8	1
No accommodations	424,280	2518	111	44	33	23	2488	91	49	31	20	30	5

Table 10.D.34 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Five

	N Valid Scores	2015–16 Mathematics Grade 6					2014–15 Mathematics Grade 5					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	442,030	2495	125	40	43	18	2459	121	46	38	15	36	6
Male	225,428	2493	129	40	42	18	2457	125	47	37	16	36	7
Female	216,602	2496	122	39	44	17	2461	118	46	39	15	35	7
American Indian or Alaska Native	2,311	2453	124	53	38	9	2429	117	57	36	7	24	4
Asian	40,838	2588	111	14	38	48	2541	110	20	38	42	47	6
Native Hawaiian or Other Pacific Islander	2,221	2479	116	44	45	11	2442	115	52	38	10	37	8
Filipino	11,270	2548	106	21	50	29	2507	105	27	47	26	41	6
Hispanic or Latino	241,039	2462	118	50	42	8	2426	115	59	34	7	36	9
Black or African American	24,154	2434	124	59	34	6	2408	117	65	29	5	26	6
White	104,850	2538	113	24	48	28	2505	108	28	47	25	33	4
Two or more races	15,347	2529	121	29	44	27	2496	115	32	44	24	33	3
English learner	76,482	2398	114	74	24	2	2364	106	83	16	1	34	9
English only	243,974	2509	123	35	44	21	2475	118	40	41	19	34	5
Reclassified fluent English proficient	102,059	2520	103	30	52	18	2478	105	39	46	15	42	9
Initially fluent English proficient	19,497	2565	112	19	43	37	2525	109	24	42	34	40	5
Economically disadvantaged	277,266	2459	119	51	41	8	2424	116	59	34	7	35	8
Not econ. disadvantaged	164,764	2555	111	20	46	33	2517	107	25	45	30	38	5
Migrant	3,830	2437	117	58	37	5	2396	113	70	27	3	41	12
Not migrant	438,200	2495	125	39	43	18	2460	121	46	38	16	35	7
Special education services	48,555	2375	124	78	19	3	2361	116	81	16	3	14	3
No special education services	393,475	2509	117	35	46	19	2471	116	42	41	17	38	7
Using designated supports	54,192	2389	124	73	24	3	2368	115	79	19	3	21	6
No designated supports	387,838	2509	118	35	45	20	2472	117	42	41	17	37	7
Using accommodations	17,454	2338	107	88	11	1	2335	103	90	10	1	3	2
No accommodations	424,576	2501	122	38	44	18	2464	119	45	39	16	37	7

Table 10.D.35 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 Mathematics Grade Six and 2014–15 Mathematics Grade Five

	N Valid Scores	2015–16 Mathematics Grade 6					2014–15 Mathematics Grade 5					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	441,806	2503	117	31	51	18	2468	108	41	45	14	35	10
Male	225,309	2499	120	32	50	18	2466	111	42	44	14	33	10
Female	216,497	2506	114	29	53	18	2470	106	40	46	14	36	11
American Indian or Alaska Native	2,308	2469	110	41	51	9	2439	103	52	40	7	30	11
Asian	40,827	2591	110	11	42	48	2546	103	16	45	39	45	5
Native Hawaiian or Other Pacific Islander	2,218	2491	107	33	54	12	2454	102	45	47	8	37	12
Filipino	11,268	2552	106	16	54	30	2511	100	24	52	24	41	8
Hispanic or Latino	240,917	2472	107	39	52	9	2439	99	52	42	6	33	13
Black or African American	24,140	2455	109	46	47	7	2426	100	57	38	5	29	11
White	104,793	2542	111	19	53	28	2506	103	26	51	23	36	7
Two or more races	15,335	2535	117	22	51	27	2500	108	29	48	22	35	7
English learner	76,431	2421	97	58	40	2	2391	89	73	26	1	30	15
English only	243,846	2516	117	27	52	21	2481	107	36	48	17	35	9
Reclassified fluent English proficient	102,024	2520	105	23	59	18	2483	97	33	53	14	37	10
Initially fluent English proficient	19,487	2567	113	15	47	38	2527	105	21	47	31	40	6
Economically disadvantaged	277,112	2470	108	40	52	9	2438	100	52	42	6	32	12
Not econ. disadvantaged	164,694	2558	111	16	51	34	2519	103	22	50	27	39	6
Migrant	3,829	2449	104	47	49	4	2415	96	61	36	3	34	14
Not migrant	437,977	2503	117	31	51	18	2468	108	41	45	14	35	10
Special education services	48,512	2411	105	64	32	3	2391	97	74	24	3	20	10
No special education services	393,294	2514	113	27	54	20	2477	106	37	48	15	37	10
Using designated supports	54,145	2421	105	58	39	3	2396	96	71	27	2	25	13
No designated supports	387,661	2514	114	27	53	20	2478	106	37	48	16	36	10
Using accommodations	17,437	2386	92	74	26	1	2372	85	82	17	0	14	8
No accommodations	424,369	2508	115	29	52	19	2472	107	39	46	14	36	10

Table 10.D.36 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Six

	N Valid Scores	2015–16 Mathematics Grade 7					2014–15 Mathematics Grade 6					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	438,090	2530	115	44	32	24	2509	108	47	33	20	21	3
Male	223,346	2527	119	45	31	24	2504	112	49	31	20	23	4
Female	214,744	2533	111	43	33	24	2514	104	45	34	21	19	2
American Indian or Alaska Native	2,292	2499	111	54	32	14	2479	104	59	29	12	20	5
Asian	40,729	2632	107	14	25	61	2598	101	17	30	53	34	3
Native Hawaiian or Other Pacific Islander	2,115	2521	104	46	35	19	2502	99	49	35	15	19	3
Filipino	11,941	2584	99	23	37	40	2557	94	27	40	34	27	4
Hispanic or Latino	236,903	2495	104	56	31	12	2478	99	59	31	10	17	3
Black or African American	24,162	2476	108	64	26	10	2460	104	65	27	8	16	1
White	105,725	2572	104	27	37	36	2546	99	31	39	30	26	4
Two or more races	14,223	2563	112	32	34	35	2538	105	35	36	29	25	3
English learner	60,449	2425	95	84	13	3	2409	90	86	12	2	16	2
English only	240,001	2544	113	38	34	28	2522	107	41	35	24	22	3
Reclassified fluent English proficient	116,709	2545	98	39	38	23	2523	90	43	38	19	22	4
Initially fluent English proficient	20,903	2597	111	23	31	45	2571	103	26	34	40	26	3
Economically disadvantaged	270,787	2494	106	57	30	13	2476	100	60	30	10	18	3
Not econ. disadvantaged	167,303	2588	106	23	34	42	2562	99	26	37	36	26	3
Migrant	3,561	2473	103	65	27	8	2455	98	69	26	6	18	4
Not migrant	434,529	2531	115	44	32	24	2509	108	47	33	20	22	3
Special education services	46,000	2413	107	83	12	5	2395	103	86	11	4	18	3
No special education services	392,090	2544	108	39	34	26	2522	101	43	35	22	22	4
Using designated supports	45,188	2428	107	80	15	5	2407	103	83	14	4	21	3
No designated supports	392,902	2542	110	40	34	26	2520	103	43	35	22	22	3
Using accommodations	15,270	2382	88	93	6	1	2363	87	94	5	0	19	1
No accommodations	422,820	2536	113	42	33	25	2514	105	45	34	21	22	3

Table 10.D.37 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Six

	N Valid Scores	2015–16 Mathematics Grade 7					2014–15 Mathematics Grade 6					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	438,996	2506	132	37	43	20	2485	125	39	46	15	21	2
Male	223,841	2505	133	37	42	20	2483	129	40	45	15	22	3
Female	215,155	2507	131	36	44	20	2488	121	38	48	15	19	2
American Indian or Alaska Native	2,301	2480	125	44	44	12	2456	122	49	43	9	24	5
Asian	40,778	2610	120	12	34	53	2575	114	15	42	43	35	3
Native Hawaiian or Other Pacific Islander	2,119	2488	126	41	44	15	2472	120	43	46	11	16	2
Filipino	11,959	2562	118	19	47	34	2535	108	21	54	24	27	2
Hispanic or Latino	237,439	2468	122	47	43	10	2452	118	49	45	6	16	2
Black or African American	24,248	2446	123	56	37	7	2431	122	57	38	5	15	1
White	105,896	2556	119	21	47	32	2529	113	24	52	24	27	3
Two or more races	14,256	2544	127	26	44	30	2519	120	28	49	23	25	2
English learner	60,611	2394	109	75	23	2	2376	110	76	23	1	18	1
English only	240,462	2523	129	31	45	24	2501	122	34	48	18	22	3
Reclassified fluent English proficient	116,955	2517	118	31	50	18	2498	107	33	54	13	19	2
Initially fluent English proficient	20,940	2578	126	19	41	41	2552	115	20	48	33	26	1
Economically disadvantaged	271,425	2467	123	48	42	10	2450	119	50	44	6	17	2
Not econ. disadvantaged	167,571	2570	121	19	44	37	2543	113	21	50	29	27	2
Migrant	3,567	2443	119	55	39	6	2426	118	58	39	3	17	3
Not migrant	435,429	2507	132	37	43	20	2486	125	39	46	15	21	2
Special education services	46,172	2391	118	75	21	4	2368	120	77	20	3	23	2
No special education services	392,824	2520	127	32	46	22	2499	118	34	49	16	21	2
Using designated supports	45,334	2405	119	71	25	4	2380	121	73	25	2	25	2
No designated supports	393,662	2518	129	33	45	22	2498	120	35	49	16	20	2
Using accommodations	15,328	2363	100	85	14	1	2338	105	86	13	1	25	1
No accommodations	423,668	2511	130	35	44	21	2491	122	37	47	16	20	2

Table 10.D.38 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 Mathematics Grade Seven and 2014–15 Mathematics Grade Six

	N Valid Scores	2015–16 Mathematics Grade 7					2014–15 Mathematics Grade 6					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	438,706	2520	125	28	51	21	2499	115	34	50	16	21	6
Male	223,683	2513	128	31	49	20	2494	118	36	48	16	19	5
Female	215,023	2526	121	25	54	21	2503	111	32	52	16	23	7
American Indian or Alaska Native	2,298	2489	122	36	51	12	2473	108	43	48	9	16	7
Asian	40,769	2620	112	8	38	54	2583	110	13	43	44	37	5
Native Hawaiian or Other Pacific Islander	2,117	2511	115	29	55	16	2489	107	37	51	12	22	8
Filipino	11,953	2575	109	13	53	35	2543	104	19	55	27	32	6
Hispanic or Latino	237,269	2485	115	36	54	10	2468	105	43	50	7	17	7
Black or African American	24,216	2468	118	43	48	8	2454	107	49	45	6	14	6
White	105,838	2559	116	17	52	31	2536	109	21	54	25	23	4
Two or more races	14,246	2552	122	20	51	30	2529	114	25	51	24	23	5
English learner	60,570	2420	106	59	39	2	2408	93	67	32	1	12	8
English only	240,298	2533	123	25	51	24	2512	114	29	51	19	21	4
Reclassified fluent English proficient	116,881	2532	112	22	59	19	2507	103	29	57	14	25	7
Initially fluent English proficient	20,929	2586	120	14	46	41	2559	113	18	48	34	27	4
Economically disadvantaged	271,220	2484	117	37	53	10	2467	106	44	49	7	17	7
Not econ. disadvantaged	167,486	2577	116	14	49	37	2551	109	18	52	30	26	4
Migrant	3,565	2464	112	43	52	6	2445	100	51	45	4	19	8
Not migrant	435,141	2520	125	28	51	21	2499	115	34	50	16	21	6
Special education services	46,119	2411	112	65	31	4	2405	101	70	28	3	6	5
No special education services	392,587	2532	120	24	54	23	2510	111	30	53	18	22	6
Using designated supports	45,282	2425	114	57	39	4	2412	102	65	32	3	13	8
No designated supports	393,424	2530	121	25	53	22	2509	112	30	52	18	21	5
Using accommodations	15,310	2383	95	75	24	1	2382	89	79	21	0	1	4
No accommodations	423,396	2524	123	26	52	21	2503	113	32	51	17	21	6

Table 10.D.39 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 1, Longitudinal Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Seven

	N Valid Scores	2015–16 Mathematics Grade 8					2014–15 Mathematics Grade 7					SS Difference	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	431,318	2545	126	44	31	25	2523	114	45	33	22	22	1
Male	219,339	2540	130	47	29	24	2520	118	46	31	22	20	-1
Female	211,979	2551	122	42	32	26	2525	110	44	34	21	26	2
American Indian or Alaska Native	2,400	2508	117	55	30	15	2493	107	55	33	12	15	0
Asian	39,736	2658	119	14	24	62	2623	107	15	27	58	35	1
Native Hawaiian or Other Pacific Islander	2,187	2534	115	45	36	19	2512	104	48	37	16	22	3
Filipino	11,994	2604	113	24	35	41	2573	100	25	38	36	31	1
Hispanic or Latino	233,055	2509	113	56	30	14	2489	103	58	32	11	20	2
Black or African American	24,640	2484	114	65	25	10	2470	106	64	28	8	14	-1
White	104,277	2587	118	29	34	36	2564	104	29	38	33	23	0
Two or more races	13,029	2576	124	34	33	33	2555	111	33	35	32	21	-1
English learner	51,415	2437	102	82	14	4	2413	94	86	11	2	24	4
English only	233,744	2558	125	40	32	28	2537	112	39	35	25	21	-1
Reclassified fluent English proficient	126,120	2555	114	41	35	24	2531	100	43	37	20	24	2
Initially fluent English proficient	20,015	2614	126	26	29	45	2587	110	25	33	42	27	-1
Economically disadvantaged	264,737	2508	115	56	30	14	2488	105	58	31	11	20	2
Not econ. disadvantaged	166,581	2604	121	26	32	42	2577	107	26	36	39	27	0
Migrant	3,645	2495	111	60	29	11	2466	103	66	27	7	29	6
Not migrant	427,673	2546	127	44	31	25	2523	114	45	33	22	23	1
Special education services	43,475	2426	106	83	13	4	2407	103	85	12	4	19	2
No special education services	387,843	2559	121	40	33	27	2536	108	41	35	24	23	1
Using designated supports	41,765	2442	110	78	16	5	2421	106	80	15	4	21	2
No designated supports	389,553	2556	123	41	32	27	2533	110	42	35	24	23	1
Using accommodations	13,313	2398	88	92	7	1	2378	87	93	6	1	20	1
No accommodations	418,005	2550	125	43	31	26	2527	112	44	34	22	23	1

Table 10.D.40 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 2, Longitudinal Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Seven

	N Valid Scores	2015–16 Mathematics Grade 8					2014–15 Mathematics Grade 7					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	432,529	2508	155	31	49	20	2492	141	34	48	18	16	3
Male	219,949	2506	157	32	48	20	2491	142	35	48	18	15	3
Female	212,580	2510	153	29	51	20	2493	139	34	49	17	17	5
American Indian or Alaska Native	2,404	2476	144	37	53	11	2459	134	41	50	9	17	4
Asian	39,781	2624	144	11	36	53	2597	128	12	39	49	27	1
Native Hawaiian or Other Pacific Islander	2,193	2488	146	33	54	13	2478	133	36	52	12	10	3
Filipino	12,021	2565	144	17	50	32	2546	127	19	52	29	19	2
Hispanic or Latino	233,844	2468	144	39	52	10	2453	131	44	48	8	15	5
Black or African American	24,736	2446	141	45	48	7	2433	131	50	44	6	13	5
White	104,477	2560	147	19	50	31	2542	129	20	52	28	18	1
Two or more races	13,073	2549	151	22	49	29	2530	136	24	50	26	19	2
English learner	51,622	2390	126	62	36	2	2374	117	70	28	1	16	8
English only	234,324	2526	153	27	50	23	2509	138	29	50	21	17	2
Reclassified fluent English proficient	126,497	2512	147	28	55	18	2496	130	31	54	15	16	3
Initially fluent English proficient	20,062	2584	151	16	45	39	2563	134	19	45	36	21	3
Economically disadvantaged	265,621	2467	145	39	51	10	2452	132	44	48	8	15	5
Not econ. disadvantaged	166,908	2574	148	17	47	36	2554	131	18	49	33	20	1
Migrant	3,659	2448	141	43	51	6	2431	128	50	46	4	17	7
Not migrant	428,870	2509	155	30	49	20	2492	141	34	48	18	17	4
Special education services	43,686	2391	130	62	35	3	2376	123	70	28	3	15	8
No special education services	388,843	2521	152	27	51	22	2505	136	30	51	19	16	3
Using designated supports	41,898	2401	136	59	37	4	2388	126	65	31	3	13	6
No designated supports	390,631	2520	153	28	51	22	2503	138	31	50	19	17	3
Using accommodations	13,367	2365	114	70	29	1	2350	107	77	22	1	15	7
No accommodations	419,162	2513	154	29	50	21	2496	139	33	49	18	17	4

Table 10.D.41 Summary Statistics and Percentage of Performance Levels for Selected Groups Across 2015–16 and 2014–15 on Claim 3, Longitudinal Comparison: 2015–16 Mathematics Grade Eight and 2014–15 Mathematics Grade Seven

	N Valid Scores	2015–16 Mathematics Grade 8					2014–15 Mathematics Grade 7					SS Diff	% Near Std or Above Std Diff
		SS Mean	SS SD	Below Std	Near Std	Above Std	SS Mean	SS SD	Below Std	Near Std	Above Std		
All Students	431,977	2537	132	28	53	19	2507	132	19	64	17	30	-9
Male	219,655	2529	136	31	51	18	2500	136	21	62	17	29	-10
Female	212,322	2546	128	25	55	20	2514	128	16	66	17	32	-9
American Indian or Alaska Native	2,403	2497	125	39	51	10	2475	127	25	66	9	22	-14
Asian	39,761	2647	124	9	38	53	2607	122	6	46	48	40	-3
Native Hawaiian or Other Pacific Islander	2,192	2525	124	30	55	14	2498	124	19	69	12	27	-11
Filipino	12,010	2593	120	14	54	32	2557	118	9	63	28	36	-5
Hispanic or Latino	233,483	2503	121	35	55	10	2473	123	23	69	8	30	-12
Black or African American	24,692	2482	121	43	50	7	2458	124	27	66	6	24	-16
White	104,386	2577	127	18	53	29	2546	126	12	62	27	31	-6
Two or more races	13,050	2568	131	21	52	27	2538	132	14	61	25	30	-7
English learner	51,527	2436	111	57	41	2	2410	111	39	59	1	26	-18
English only	234,067	2549	131	25	53	22	2520	131	16	63	20	29	-9
Reclassified fluent English proficient	126,317	2546	122	24	58	18	2511	123	16	69	15	35	-8
Initially fluent English proficient	20,042	2605	132	15	47	38	2573	129	9	56	35	32	-6
Economically disadvantaged	265,211	2502	122	36	54	10	2473	124	24	68	8	29	-12
Not econ. disadvantaged	166,766	2594	128	15	50	34	2561	127	10	58	31	33	-5
Migrant	3,651	2489	118	38	55	7	2455	117	26	69	5	34	-12
Not migrant	428,326	2538	132	28	53	19	2507	132	18	64	17	31	-10
Special education services	43,591	2426	115	63	34	3	2407	116	41	56	3	19	-22
No special education services	388,386	2550	128	24	55	21	2518	129	16	65	19	32	-8
Using designated supports	41,835	2440	119	54	43	4	2419	118	38	59	3	21	-16
No designated supports	390,142	2548	129	25	54	21	2516	130	17	65	19	32	-8
Using accommodations	13,342	2401	101	71	29	1	2386	105	47	53	0	15	-24
No accommodations	418,635	2542	131	27	54	20	2511	131	18	65	18	31	-9

Appendix 10.E Comparisons of Test Characteristics

Table 10.E.1 Marginal Reliability and Standard Error of the Measurement (SEM) Across 2014–15 and 2015–16

Content Area	Grade	Reliability		SEM	
		2014–15	2015–16	2014–15	2015–16
English Language Arts/ Literacy (ELA)	3	0.92	0.92	0.29	0.29
	4	0.92	0.92	0.31	0.31
	5	0.92	0.92	0.30	0.30
	6	0.91	0.92	0.32	0.32
	7	0.91	0.92	0.32	0.33
	8	0.91	0.92	0.32	0.32
	11	0.91	0.91	0.36	0.37
Mathematics	3	0.94	0.94	0.24	0.25
	4	0.94	0.94	0.25	0.25
	5	0.92	0.93	0.30	0.29
	6	0.92	0.93	0.34	0.33
	7	0.91	0.94	0.40	0.34
	8	0.91	0.91	0.41	0.41
	11	0.89	0.92	0.49	0.43

Table 10.E.2 Marginal Reliability and Standard Error of the Measurement (SEM) on Claims Across 2014–15 and 2015–16

Content Area	Grade	Claim 1		Claim 2		Claim 3		Claim 4									
		Reliability		SEM		Reliability		SEM									
		2014–15	2015–16	2014–15	2015–16	2014–15	2015–16	2014–15	2015–16								
ELA	3	0.75	0.72	0.54	0.57	0.76	0.78	0.55	0.54	0.50	0.47	0.81	0.81	0.61	0.65	0.73	0.72
	4	0.73	0.76	0.60	0.57	0.76	0.77	0.55	0.55	0.51	0.44	0.87	0.96	0.61	0.64	0.78	0.76
	5	0.76	0.75	0.57	0.59	0.79	0.80	0.53	0.53	0.47	0.48	0.97	0.96	0.64	0.64	0.68	0.67
	6	0.68	0.69	0.71	0.69	0.77	0.79	0.53	0.53	0.40	0.38	0.97	0.98	0.56	0.62	0.77	0.75
	7	0.72	0.72	0.63	0.66	0.76	0.76	0.56	0.57	0.42	0.41	0.95	0.96	0.60	0.66	0.80	0.76
	8	0.73	0.75	0.61	0.60	0.74	0.76	0.57	0.58	0.44	0.42	0.93	0.93	0.60	0.65	0.80	0.77
	11	0.71	0.68	0.66	0.71	0.74	0.74	0.66	0.67	0.44	0.43	1.03	1.01	0.60	0.61	0.85	0.83
Mathematics	3	0.89	0.89	0.33	0.34	0.75	0.71	0.51	0.53	0.63	0.64	0.63	0.62				
	4	0.89	0.89	0.34	0.34	0.69	0.70	0.56	0.56	0.71	0.71	0.58	0.59				
	5	0.87	0.88	0.41	0.40	0.67	0.70	0.60	0.57	0.60	0.65	0.73	0.69				
	6	0.87	0.89	0.46	0.45	0.63	0.70	0.70	0.62	0.62	0.61	0.79	0.80				
	7	0.85	0.89	0.52	0.45	0.59	0.70	0.76	0.74	0.44	0.67	0.93	0.82				
	8	0.84	0.86	0.57	0.55	0.55	0.55	0.86	0.84	0.64	0.59	0.87	0.90				
	11	0.82	0.88	0.65	0.54	0.47	0.52	1.05	1.04	0.50	0.52	1.10	1.09				

Chapter 11: Paper-Pencil Versions of Smarter Balanced Summative Assessments

11.1. Background

Paper-pencil versions of the Smarter Balanced Summative Assessments are made available to local educational agencies (LEAs) that either do not have the necessary computer network infrastructure to administer the online tests or do not include computers as a part of their curricula. The paper-pencil versions contain a fixed set of questions that includes components of the online assessment such as constructed-response (CR) items and performance tasks. Paper-pencil versions exist for all grade levels and content areas assessed by Smarter Balanced and were administered to approximately 2,141 students across California in 2015–16. There were more than 600 students who took the English language arts/literacy (ELA) and mathematics paper-pencil tests in grades three and four. For all other tests, there were fewer.

Paper-pencil versions were available only with prior permission from the California Department of Education (CDE).

11.2. Test Window

The window for 2015–16 testing was the same as for the online tests: approximately February 18 through June 15, 2016. Specific test administration schedules within that window were determined locally pursuant to the *California Code of Regulations*, Title 5 (5 CCR), Sections 855 (b) (1) and 855 (b) (2) and proposed emergency regulations 5 CCR, Sections 855 (a) (1), 855 (a) (2), 855 (b), and 855 (c).

11.3. Test Assembly

Paper-pencil test versions are composed of performance task (PT) items, which are based on an optional classroom-based activity (refer to section 1.3.2 *Performance Tasks* for more details), and items that are not based on performance tasks (non-PTs).

During the test development process, efforts were made to ensure that paper-pencil test items and online test items were comparable to the greatest extent possible. The paper-pencil test development involved evaluating the test blueprint and identifying which items can be successfully assessed in paper-pencil format. The paper-pencil item development process starts with looking at each technology-enhanced item that needs a replacement or modification.

A preliminary calibration report provided by the National Center for Research on Evaluation, Standards, & Student Testing (CRESST) found that no more than three items per grade level and content area from the online test item pool that appeared on paper-pencil tests without modifications were identified as functioning differently across the two modes (CRESST, 2015).

11.4. Test Administration

The *2015–16 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Paper-Pencil Test Administration Manuals* (CDE, 2016a) provide an overview of the summative assessment administration and supplement the *2015–16 CAASPP Smarter Balanced Online Test Administration Manual* (CDE, 2016b). This manual,

available for each grade, is intended to familiarize test administrators with general rules for testing, how to prepare for the assessment, and what students experience in participating in the assessment.

The *2015–16 CAASPP Paper-Pencil Testing Test Administration Manual* (CDE, 2016c) provides additional information about the responsibilities of LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators. See subsection *5.4 Procedures to Maintain Standardization* on page 120 for additional information about the staff involved with administering CAASPP assessments.

Test preparation, administration, and security procedures must be followed so that all students will have an equal opportunity to demonstrate their academic achievement. See *Chapter 5: Test Administration*, which starts on page 112, for more information on procedures followed in 2015–16.

11.5. Universal Tools, Designated Supports, and Accommodations

Consistent with the online tests, designated supports, accommodations (subsection *2.5 Universal Tools, Designated Supports and Accommodations* on page 15) and unlisted resources (subsection *2.5.3 Unlisted Resources* on page 17) are assigned to individual students based on student needs. Appendix 11.A, which starts on page 685, presents counts and percentages of students using designated supports, accommodations, or unlisted resources. Note that “N/A” indicates that the designated support/accommodation/unlisted resource is not available for that test. The majority of students do not use any designated supports, accommodations, or unlisted resources.

11.6. Calibration and Scaling

Post-test calibration, equating, and scaling of the Smarter Balanced paper-pencil summative tests are conducted by CRESST by using data from paper-pencil tests administered by two member states of the Smarter Balanced Assessment Consortium. To produce scores for the paper-pencil tests that are on the same scale as the online tests, separate calibrations of the paper-pencil response data were conducted and then scaled to the online item bank. The “new” calibrations for the paper-pencil versions were established by calibrating samples of item response data from the paper-pencil administration; the “reference” calibrations were based on the CAASPP Smarter Balanced Online summative assessment item bank which was established during the field test.

For the purpose of linking the paper-pencil forms to the official reporting scale which was derived from the online test mode, the paper-pencil test item parameter estimates are placed on the reference scale by using a set of anchor items that were not modified. Specifically, these unmodified items indicate these items may appear in either test delivery mode as-is without it altering the construct; that is, the items parameter estimates should be invariant across the delivery mode.

The procedure used for equating the Smarter Balanced paper-pencil summative tests involves three parts: initial item calibration, anchor item evaluation, and final item calibration. Each of those procedures, as described below, is applied to all tests. The calibrations were performed with the flexMIRT® item response modeling software (Cai, 2015).

11.6.1 Initial Calibration

The following steps are involved in the initial calibration to obtain item parameter estimates and model goodness-of-fit indices. The generalized partial credit (GPC) model was applied to both multiple-choice items and polytomously scored items. Refer to subsection 7.4.1 *Total Test Scores* on page 146 of *Chapter 7: Scoring and Reporting* of this report for the mathematical formula of the GPC model.

1. The parameters of all unmodified items are fixed to the parameter values obtained from the online item pool;
2. The parameters of all modified items are freely estimated; and
3. The latent variable density is estimated as an empirical histogram (see, e.g., Woods, 2007; Houts & Cai, 2013) with estimated mean and variance from the “all” student population, including students taking online tests.

11.6.2 Anchor Item Evaluation

The purpose of anchor item evaluation is to select items that function similarly across both online and paper-pencil modes as anchors. By linking tests through these anchor items, paper-pencil test results are placed onto the online test scale, and scores from the two modes should be comparable.

A series of calibrations identical to the “initial” calibration are performed but with the parameters of one unmodified item at a time freely estimated. The parameters of all other unmodified items are fixed to their prior estimates from the online item pool. As in the initial calibration, the parameters of all modified items are freely estimated, along with the population distribution’s mean, variance, and shape.

To decide whether each unmodified item should be retained or rejected as an anchor in the final calibration for the paper-pencil forms, the parameter estimates from the online item pool administration and the parameter estimates from the initial calibration are used to compute the expected score functions for the two modes of test administration. The two expected score functions—for the computer-based and paper-pencil administrations—are plotted, and differences in item functioning across the two modes are quantified by computing a weighted Area Between the Curves (wABC; see Hansen, Cai, Stucky, Tucker, Shadel, & Edelen, 2014). Any items with a wABC value greater than 0.150 were rejected as anchors.

11.6.3 Final Calibration

For tests in which any unmodified item is rejected as an anchor, a final calibration is conducted using the approach described in subsection 11.6.1, except that the parameters of all rejected anchor items are freely estimated. Parameters of the modified items also are freely estimated. The latent variable density is estimated as an empirical histogram. The parameter estimates from this final calibration are used in scoring the paper-pencil forms. In this way, paper-pencil version scores are placed on the online test scale.

11.7. Scoring

Like the CAASPP Smarter Balanced online assessments, student item responses in the paper-pencil forms are scored and individual student scores are calculated (i.e., overall scale scores and claims/subscores) based on the scored item responses. The same scoring specifications and procedures as in the online assessments are followed except that all the CR items in the paper-pencil versions are human-scored; no artificial intelligence machine

scoring is used. However, due to the small student sample sizes in the upper grades and certain subgroups, caution should be taken when interpreting some of the summary statistics.

11.7.1 Total Score Distributions and Achievement Levels

Summary statistics that describe student performance on each test are presented in Table 11.1. Included in the table are the number of students administered each test and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. Only students with valid scores are included in this table. “Valid score” means the student records were not flagged as “not scored” or the students were enrolled in the same grade as they were tested.

Table 11.1 Mean and Standard Deviation of Total Theta and Scale Scores for CAASPP Smarter Balanced Paper-pencil Summative Assessments

Content Area	Grade	No. of Students	Scale Score		Theta Score	
			Mean	Std Dev.	Mean	SD
ELA	3	627	2428	84	-0.93	0.98
	4	607	2473	91	-0.41	1.06
	5	479	2520	81	0.13	0.95
	6	203	2524	95	0.18	1.11
	7	72	2551	105	0.50	1.22
	8	71	2577	97	0.81	1.13
	11	34	2566	96	0.67	1.12
Mathematics	3	621	2417	71	-1.24	0.90
	4	609	2468	66	-0.59	0.84
	5	474	2491	67	-0.30	0.85
	6	198	2536	83	0.27	1.04
	7	67	2548	79	0.42	0.99
	8	70	2565	111	0.63	1.40
	11	35	2462	105	-0.67	1.32

The number and the percentage of students in each achievement level and the numbers and the percentages which meet or exceed the standard are shown in Table 11.2.

Table 11.2 Percentages and Counts of Students in Achievement Levels for CAASPP Smarter Balanced Paper-pencil Summative Assessments

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded*	
		N	%	N	%	N	%	N	%	N	%
ELA	3	156	25%	158	25%	143	23%	170	27%	313	50%
	4	163	27%	112	18%	172	28%	160	26%	332	55%
	5	77	16%	120	25%	165	34%	117	24%	282	59%
	6	51	25%	55	27%	69	34%	28	14%	97	48%
	7	19	26%	13	18%	28	39%	12	17%	40	56%
	8	16	23%	15	21%	26	37%	14	20%	40	56%
	11	8	24%	11	32%	12	35%	3	9%	15	44%

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded*	
		N	%	N	%	N	%	N	%	N	%
Mathematics	3	168	27%	198	32%	198	32%	57	9%	255	41%
	4	121	20%	259	43%	157	26%	72	12%	229	38%
	5	126	27%	217	46%	86	18%	45	9%	131	28%
	6	38	19%	74	37%	51	26%	35	18%	86	43%
	7	15	22%	21	31%	25	37%	6	9%	31	46%
	8	20	29%	20	29%	13	19%	17	24%	30	43%
	11	29	83%	3	9%	2	6%	1	3%	3	9%

* May not exactly match the sum of percent Standard Met and percent Standard Exceeded due to rounding

Detailed score distribution information is available in Appendix 11.B, which starts on page 699. Table 11.B.1 and Table 11.B.2 show the estimated distributions of theta scores for each test. Table 11.B.3 and Table 11.B.4 present selected percentiles of the ELA and mathematics scale score distributions. Table 11.B.5 through Table 11.B.18 present frequency distributions of scale scores for each test.

11.7.2 Claim Score Distributions and Performance Levels

Table 11.C.1 through Table 11.C.4 in Appendix 11.C starting on page 727 show the range of the number of items presented within each claim, number of students with valid scores in each claim, and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. The number of students in each claim performance level as well as the percentage of students in that claim performance level are reported in Table 11.C.5 through Table 11.C.8. Note that the percentage is shown as a hyphen when there are no students in a performance level for a claim.

11.7.3 Group Scores

Statistics summarizing student performance by content area and grade for selected demographic groups of students are provided in Appendix 11.D starting on page 731 in Table 11.D.1 through Table 11.D.14 for each test, and for each test claim in Table 11.D.15 through Table 11.D.28. Note that statistics are reported only for samples that are comprised of 11 or more students; statistics are presented in the tables as hyphens for samples fewer than 11. The percentage is shown as hyphen when there are no students in a performance level for a claim.

11.8. Analyses

This section summarizes the item-parameter values, reliability and conditional standard error of measurement (CSEM) and correlations between content areas calculated for the Smarter Balanced paper-pencil Summative Assessments. Note that statistics should be interpreted with caution due to small numbers of students in some tests and student groups. Due to small sample sizes in paper-pencil tests, some analyses that were reported in online summative tests are not implemented for paper-pencil tests. These analyses include but are not limited to reliability of performance classifications and interrater reliability and agreement.

11.8.1 IRT Parameter Values

Parameter estimates for the 2015–16 CAASPP Smarter Balanced operational items of the paper-pencil versions were obtained using the procedure described in subsection 11.6 *Calibration and Scaling*. Summary statistics of these parameter estimates are calculated to show the difficulty and discrimination of the overall test, as well as the difficulty and discrimination of claims; distributions of *b*-value and *a*-value parameter estimates are created to provide more detail. The step parameters for all polytomous items are also provided.

Table 11.E.1 through Table 11.E.14 in Appendix 11.E (which starts on page 787) present univariate statistics (mean, standard deviation, minimum, and maximum) of the scaled item response theory (IRT) *a*-values. For each test, the results are presented for all items in the test and for the items in each claim. Table 11.E.15 through Table 11.E.28 present the univariate statistics of the IRT *b*-values for all items in the test and for the items in each claim.

Table 11.E.29 and Table 11.E.30 show the distributions of *a*-values of non-PT items in each test across 10 intervals. Table 11.E.31 and Table 11.E.32 present the distributions of non-PT items across 16 intervals of *b*-values. The mode of each distribution is highlighted. Table 11.E.33 and Table 11.E.34 show the distribution of *a*-values for the PT items. Table 11.E.35 and Table 11.E.36 show the distribution of *b*-values for the PT items. Parameter values of all PT items are presented in Table 11.E.37 through Table 11.E.50.

11.8.2 Reliability Analyses

This subsection presents results of the reliability analyses of test scores and claim scores for the population as a whole and for selected subgroups. Refer to subsection 8.5.2 *Marginal Reliability* on page 312 for the description and calculation of reliability. Similar to the reliability analyses conducted for the CAASPP online test, students assigned to the lowest or highest obtainable scale score were excluded.

Table 11.3 gives the total score reliability for theta, the mean, standard deviation, and standard error of measurement (SEM) for the theta and scale scores for each of the 14 tests. Only students with complete records were included in this table. A student's record for the test is not considered complete unless the student completed at least 10 non-PT items and at least one PT item.

Table 11.3 Summary Statistics for Scale Scores and Theta Scores, Reliabilities, and SEMs

Content Area	Grade	No. of Students	Reliab	Scale Score			Theta Score		
				Mean	SD	SEM	Mean	SD	SEM
ELA	3	624	0.91	2428	83	24.49	−0.94	0.97	0.29
	4	598	0.91	2471	88	26.37	−0.44	1.02	0.31
	5	478	0.89	2519	81	26.43	0.13	0.94	0.31
	6	199	0.90	2520	92	28.58	0.14	1.07	0.33
	7	69	0.91	2550	95	28.82	0.49	1.11	0.34
	8	71	0.91	2577	97	28.39	0.81	1.13	0.33
	11	33	0.88	2559	89	30.72	0.59	1.03	0.36

Content Area	Grade	No. of Students	Reliab	Scale Score			Theta Score		
				Mean	SD	SEM	Mean	SD	SEM
Mathematics	3	616	0.91	2416	69	20.90	-1.25	0.87	0.26
	4	606	0.88	2467	65	22.23	-0.60	0.82	0.28
	5	473	0.85	2491	66	25.36	-0.30	0.84	0.32
	6	197	0.88	2535	82	28.02	0.25	1.03	0.35
	7	67	0.86	2548	79	29.67	0.42	0.99	0.37
	8	69	0.86	2561	108	39.86	0.59	1.36	0.50
	11	34	0.67	2467	102	58.49	-0.60	1.28	0.74

Intercorrelations, reliability estimates and theta-based SEMs for the claims are presented in Table 11.F.1 through Table 11.F.14 in Appendix 11.F starting on page 798. The reliability estimates across claims vary significantly according to the number of items as well as the types of content standards that are included in each claim.

Reliabilities and theta-based SEMs for the total test scores and the claim scores are reported for each subgroup analysis. Table 11.F.15 through Table 11.F.23 present the overall test reliabilities for subgroups defined by student gender, economic status, special education services status, English-language fluency, primary ethnicity, and migrant status. Table 11.F.24 through Table 11.F.29 present the reliabilities for the subgroups based on primary ethnicity within economic status.

The next set of tables, Table 11.F.30 through Table 11.F.99, present the claim-level reliabilities for the subgroups. Table 11.F.30 through Table 11.F.43 present the claim-level reliabilities for the subgroups based on gender, economic status, and migrant status. Table 11.F.44 through Table 11.F.57 show the same analyses for the subgroups based on special education services status and English-language fluency. Table 11.F.58 through Table 11.F.71 present results for the subgroups based on primary ethnicity of the students. The last set of tables, Table 11.F.72 through Table 11.F.99, present the claim-level reliabilities for the subgroups based on primary ethnicity within economic status.

Note that the reliabilities are reported only for samples that are comprised of 11 or more students. In cases where the sample size is smaller than 11, reliabilities are presented in the tables as hyphens. The reliability estimates for some of the subgroups are negative due to small variation in scale scores and large CSEMs for extreme score values. These negative reliabilities and their associated SEMs are presented as “N/A.”

11.8.3 CSEM Distributions

This subsection presents CSEM distributions for the total test scores and the mean CSEM for each achievement level. Table 11.4 presents the scale score CSEMs at the lowest score required for a student to be classified in the *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded* achievement levels for each test. The CSEM is presented as “N/A” if there are no students at the cut point for a certain achievement level.

Table 11.4 Scale Score CSEM at Achievement-level Cut Points

Content Area	Grade	Standard Nearly Met		Standard Met		Standard Exceeded	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
ELA	3	2367	24	N/A	N/A	2490	23
	4	2416	25	2473	24	2533	25
	5	2442	24	2502	24	2582	25
	6	N/A	N/A	N/A	N/A	N/A	N/A
	7	N/A	N/A	N/A	N/A	N/A	N/A
	8	N/A	N/A	N/A	N/A	2668	27
	11	N/A	N/A	N/A	N/A	N/A	N/A
Mathematics	3	N/A	N/A	2436	17	2501	17
	4	2411	20	2485	17	N/A	N/A
	5	2455	23	2528	19	2579	18
	6	N/A	N/A	2552	21	2610	20
	7	N/A	N/A	N/A	N/A	2635	20
	8	N/A	N/A	N/A	N/A	N/A	N/A
	11	N/A	N/A	N/A	N/A	N/A	N/A

Table 11.5 presents the average CSEMs in each achievement level by content area and grade level. The average CSEM is presented as “N/A” in the achievement levels where there are no students.

Table 11.5 Average CSEM of Scale Scores in Each Achievement Level

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	27	23	22	24
	4	28	25	24	26
	5	27	24	25	26
	6	31	26	26	28
	7	31	26	26	28
	8	30	26	26	28
	11	35	31	28	30
Mathematics	3	22	18	17	18
	4	22	18	17	17
	5	27	21	18	18
	6	31	23	21	20
	7	36	26	21	20
	8	40	29	24	22
	11	52	31	24	22

Scale score CSEM distributions are shown in Table 11.G.1 through Table 11.G.14 of Appendix 11.G starting on page 828. The plots of the CSEMs conditional for scale scores are also presented in this appendix, in Figure 11.G.1 through Figure 11.G.14 which start on page 832. In the figures, the vertical axis is defined as the CSEMs and the horizontal axis is designated as scale scores, which is a common metric for tests within the same content area. Each data point represents an individual student.

11.8.4 Correlations between Content Area Test Scores

Table 11.6 provides the correlations between scores on the 2015–16 ELA and mathematics paper-pencil tests and the numbers of students on which these correlations are based. Sample sizes for individual tests are shown on the left; the numbers of students on which the correlations are based are shown on the lower right in bold font. The correlations are provided in the upper right. Results are based on all students with valid scale scores and are provided by grade. In general, students' ELA scores correlated moderately with their mathematics scores. Due to very small test volumes in many demographic groups, the correlations are not presented between content areas for subgroups.

Table 11.6 Correlations between Content Areas for All Students with Paper-pencil Tests

Grade	Content Area	Sample Size	R and Sample Size
3	ELA	627	0.72
	Mathematics	621	607
4	ELA	607	0.69
	Mathematics	609	597
5	ELA	479	0.67
	Mathematics	474	463
6	ELA	203	0.73
	Mathematics	198	196
7	ELA	72	0.68
	Mathematics	67	66
8	ELA	71	0.78
	Mathematics	70	69
11	ELA	34	0.49
	Mathematics	35	33

Notes:

- Numbers in **bold** font are the sample sizes to calculate the correlations.
- R denotes the correlation coefficient.

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Appendix 11.A: Special Services Summaries for Paper-Pencil Tests

Table 11.A.1 Special Services Summary for ELA Paper-pencil Tests (PPTs): Grades Three through Six—All Tested

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	2	0.42	0	0.00
Braille	6	0.96	8	1.32	7	1.46	6	2.96
Large Print	1	0.16	1	0.16	0	0.00	1	0.49
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	1	0.21	0	0.00
Read Aloud	31	4.94	36	5.93	20	4.18	11	5.42
Scribe	4	0.64	7	1.15	9	1.88	1	0.49
Separate Setting	11	1.75	14	2.31	13	2.71	3	1.48
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	24	3.83	38	6.26	25	5.22	15	7.39
Designated support or accommodation is in Section 504 plan	0	0.00	2	0.33	2	0.42	0	0.00

Table 11.A.2 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—All Tested

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	5	6.94	9	12.68	5	14.71
Large Print	0	0.00	1	1.41	3	8.82
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	1	1.39	1	1.41	0	0.00
Separate Setting	1	1.39	0	0.00	1	2.94
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	6	8.33	10	14.08	8	23.53
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.3 Special Services Summary for ELA PPTs: Grades Three through Six—Students with No Special Education Services

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	0	0.00	1	0.19	2	0.48	0	0.00
Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Read Aloud	13	2.34	6	1.16	2	0.48	3	1.75
Scribe	0	0.00	0	0.00	2	0.48	1	0.58
Separate Setting	5	0.90	2	0.39	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	1	0.19	2	0.48	0	0.00

Table 11.A.4 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—Students with No Special Education Services

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	0	0.00	1	1.89	0	0.00
Large Print	0	0.00	0	0.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.5 Special Services Summary for ELA PPTs: Grades Three through Six—Students with Special Education Services

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	2	3.03	0	0.00
Braille	6	8.45	7	7.69	5	7.58	6	18.75
Large Print	1	1.41	1	1.10	0	0.00	1	3.13
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	1	1.52	0	0.00
Read Aloud	18	25.35	30	32.97	18	27.27	8	25.00
Scribe	4	5.63	7	7.69	7	10.61	0	0.00
Separate Setting	6	8.45	12	13.19	13	19.70	3	9.38
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	24	33.80	38	41.76	25	37.88	15	46.88
Designated support or accommodation is in Section 504 plan	0	0.00	1	1.10	0	0.00	0	0.00

Table 11.A.6 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—Students with Special Education Services

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	5	29.41	8	44.44	5	45.45
Large Print	0	0.00	1	5.56	3	27.27
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	1	5.88	1	5.56	0	0.00
Separate Setting	1	5.88	0	0.00	1	9.09
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	6	35.29	10	55.56	8	72.73
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.7 Special Services Summary for ELA PPTs: Grades Three through Six—English-Only Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	1	0.26	0	0.00
Braille	2	0.39	5	0.99	3	0.79	3	2.10
Large Print	1	0.19	0	0.00	0	0.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	1	0.26	0	0.00
Read Aloud	27	5.21	28	5.52	13	3.44	3	2.10
Scribe	4	0.77	6	1.18	8	2.12	1	0.70
Separate Setting	10	1.93	11	2.17	12	3.17	1	0.70
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	16	3.09	30	5.92	17	4.50	6	4.20
Designated support or accommodation is in Section 504 plan	0	0.00	2	0.39	2	0.53	0	0.00

Table 11.A.8 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—English-Only Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	3	4.48	2	3.33	2	15.38
Large Print	0	0.00	0	0.00	2	15.38
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	1	1.49	1	1.67	0	0.00
Separate Setting	1	1.49	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	4	5.97	3	5.00	4	30.77
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.9 Special Services Summary for ELA PPTs: Grades Three through Six—Initially Fluent English Proficient (IFEP) Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	1	8.33	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	8.33	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 11.A.10 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—IFEP Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	0	0.00	2	100.00	1	25.00
Large Print	0	0.00	0	0.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	2	100.00	1	25.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.11 Special Services Summary for ELA PPTs: Grades Three through Six—English Learner (EL) Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	1	2.63	0	0.00
Braille	2	3.08	3	5.45	1	2.63	0	0.00
Large Print	0	0.00	1	1.82	0	0.00	1	4.17
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Read Aloud	4	6.15	8	14.55	6	15.79	6	25.00
Scribe	0	0.00	1	1.82	0	0.00	0	0.00
Separate Setting	1	1.54	3	5.45	0	0.00	1	4.17
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	6	9.23	8	14.55	6	15.79	4	16.67
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 11.A.12 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—EL Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	0	0.00	2	50.00	1	33.33
Large Print	0	0.00	1	25.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	3	75.00	1	33.33
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.13 Special Services Summary for ELA PPTs: Grades Three through Six—Reclassified Fluent English Proficient (RFEP) Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	1	3.23	0	0.00	3	7.32	3	10.71
Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Speech-to-Text	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	1	2.44	2	7.14
Scribe	0	0.00	0	0.00	1	2.44	0	0.00
Separate Setting	0	0.00	0	0.00	1	2.44	1	3.57
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	3.23	0	0.00	2	4.88	5	17.86
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 11.A.14 Special Services Summary for ELA PPTs: Grades Seven, Eight, and Eleven—RFEP Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	2	50.00	3	60.00	1	25.00
Large Print	0	0.00	0	0.00	1	25.00
Speech-to-Text	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	1	25.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	2	50.00	2	40.00	2	50.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.15 Special Services Summary for Mathematics PPTs: Grades Three through Six—All Tested

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	1	0.16	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	1	0.21	0	0.00
Braille	7	1.13	7	1.15	10	2.11	7	3.54
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	1	0.16	1	0.16	0	0.00	1	0.51
Multiplication Table	0	0.00	3	0.49	1	0.21	0	0.00
Non-Embedded Designated Supports								
Read Aloud	36	5.80	33	5.42	20	4.22	10	5.05
Scribe	6	0.97	6	0.99	7	1.48	1	0.51
Separate Setting	17	2.74	13	2.13	17	3.59	3	1.52
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	1	0.16	2	0.42	2	1.01
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	27	4.35	33	5.42	27	5.70	15	7.58
Designated support or accommodation is in Section 504 plan	1	0.16	1	0.16	1	0.21	0	0.00

Table 11.A.16 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—All Tested

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	6	8.96	9	12.86	6	17.14
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	1	1.43	2	5.71
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	1	1.49	1	1.43	0	0.00
Separate Setting	1	1.49	0	0.00	1	2.86
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	7	10.45	10	14.29	8	22.86
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.17 Special Services Summary for Mathematics PPTs: Grades Three through Six—Students with No Special Education Services

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	0	0.00	1	0.19	2	0.49	0	0.00
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Multiplication Table	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Read Aloud	15	2.74	6	1.16	2	0.49	3	1.79
Scribe	1	0.18	0	0.00	1	0.24	1	0.60
Separate Setting	8	1.46	3	0.58	2	0.49	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	2	0.49	2	1.19
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	1	0.24	0	0.00

Table 11.A.18 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—Students with No Special Education Services

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	0	0.00	1	1.96	0	0.00
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	0	0.00
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.19 Special Services Summary for Mathematics PPTs: Grades Three through Six—Students with Special Education Services

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	1	1.09	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	1	1.56	0	0.00
Braille	7	9.46	6	6.52	8	12.50	7	23.33
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	1	1.35	1	1.09	0	0.00	1	3.33
Multiplication Table	0	0.00	3	3.26	1	1.56	0	0.00
Non-Embedded Designated Supports								
Read Aloud	21	28.38	27	29.35	18	28.13	7	23.33
Scribe	5	6.76	6	6.52	6	9.38	0	0.00
Separate Setting	9	12.16	10	10.87	15	23.44	3	10.00
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	1	1.09	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	27	36.49	33	35.87	27	42.19	15	50.00
Designated support or accommodation is in Section 504 plan	1	1.35	1	1.09	0	0.00	0	0.00

Table 11.A.20 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—Students with Special Education Services

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	6	37.50	8	42.11	6	54.55
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	1	5.26	2	18.18
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	1	6.25	1	5.26	0	0.00
Separate Setting	1	6.25	0	0.00	1	9.09
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	7	43.75	10	52.63	8	72.73
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.21 Special Services Summary for Mathematics PPTs: Grades Three through Six—English-Only Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	1	0.27	0	0.00
Braille	3	0.59	5	0.98	4	1.07	4	2.90
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	1	0.20	0	0.00	0	0.00	0	0.00
Multiplication Table	0	0.00	2	0.39	1	0.27	0	0.00
Non-Embedded Designated Supports								
Read Aloud	30	5.86	24	4.72	15	4.01	3	2.17
Scribe	5	0.98	5	0.98	6	1.60	1	0.72
Separate Setting	14	2.73	11	2.17	16	4.28	1	0.72
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	18	3.52	26	5.12	20	5.35	7	5.07
Designated support or accommodation is in Section 504 plan	1	0.20	1	0.20	1	0.27	0	0.00

Table 11.A.22 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—English-Only Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	3	4.84	2	3.45	2	15.38
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	1	7.69
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	1	1.61	1	1.72	0	0.00
Separate Setting	1	1.61	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	4	6.45	3	5.17	3	23.08
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.23 Special Services Summary for Mathematics PPTs: Grades Three through Six—IFEP Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	1	7.69	0	0.00	0	0.00	0	0.00
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Multiplication Table	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	7.69	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 11.A.24 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—IFEP Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	0	0.00	2	100.00	1	25.00
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	0	0.00
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	2	100.00	1	25.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.25 Special Services Summary for Mathematics PPTs: Grades Three through Six—EL Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	1	1.82	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	2	3.13	2	3.64	3	8.33	0	0.00
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	1	1.82	0	0.00	1	4.17
Multiplication Table	0	0.00	1	1.82	0	0.00	0	0.00
Non-Embedded Designated Supports								
Read Aloud	6	9.38	9	16.36	4	11.11	6	25.00
Scribe	0	0.00	1	1.82	0	0.00	0	0.00
Separate Setting	3	4.69	2	3.64	0	0.00	1	4.17
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	1	1.82	2	5.56	2	8.33
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	7	10.94	7	12.73	5	13.89	4	16.67
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 11.A.26 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—EL Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	1	100.00	2	50.00	1	33.33
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	1	25.00	0	0.00
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	0	0.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	100.00	3	75.00	1	33.33
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 11.A.27 Special Services Summary for Mathematics PPTs: Grades Three through Six—RFEP Students

	Grade 3	Pct of Total	Grade 4	Pct of Total	Grade 5	Pct of Total	Grade 6	Pct of Total
Non-Embedded Accommodations								
Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Braille	1	3.23	0	0.00	3	7.14	3	10.71
Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Multiplication Table	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports								
Read Aloud	0	0.00	0	0.00	1	2.38	1	3.57
Scribe	1	3.23	0	0.00	1	2.38	0	0.00
Separate Setting	0	0.00	0	0.00	1	2.38	1	3.57
Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Other								
Unlisted Resources	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	3.23	0	0.00	2	4.76	4	14.29
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 11.A.28 Special Services Summary for Mathematics PPTs: Grades Seven, Eight, and Eleven—RFEP Students

	Grade 7	Pct of Total	Grade 8	Pct of Total	Grade 11	Pct of Total
Non-Embedded Accommodations						
Abacus	0	0.00	0	0.00	0	0.00
Alternate Response Options	0	0.00	0	0.00	0	0.00
Braille	2	50.00	3	50.00	2	40.00
Calculator	0	0.00	0	0.00	0	0.00
Large Print	0	0.00	0	0.00	1	20.00
Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Designated Supports						
Read Aloud	0	0.00	0	0.00	0	0.00
Scribe	0	0.00	0	0.00	0	0.00
Separate Setting	0	0.00	0	0.00	1	20.00
Translated Test Directions	0	0.00	0	0.00	0	0.00
Translations (glossary)	0	0.00	0	0.00	0	0.00
Other						
Unlisted Resources	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	2	50.00	2	33.33	3	60.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Appendix 11.B: Score Distributions for Paper-Pencil Tests

Note: An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 11.B.1 Frequency Distribution of Theta for Overall Scores—ELA

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-4.5,-4.0]		1					
(-4.0,-3.5]	1	1					
(-3.5,-3.0]	4	2					
(-3.0,-2.5]	28	10	1		1		
(-2.5,-2.0]	75	37	9	4	1		
(-2.0,-1.5]	76	61	15	11	2		
(-1.5,-1.0]	103	56	31	14	5	4	2
(-1.0,-0.5]	124	87	67	26	10	10	2
(-0.5,0.0]	96	127	83	32	4	4	7
(0.0,0.5]	75	108	90	32	9	9	5
(0.5,1.0]	34	64	95	39	11	10	3
(1.0,1.5]	11	33	57	22	14	13	6
(1.5,2.0]		20	27	10	8	11	6
(2.0,2.5]			4	8	5	4	
(2.5,3.0]				5	2	6	2
(3.0,3.5]							1

Table 11.B.2 Frequency Distribution of Theta for Overall Scores—Mathematics

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-4.5,-4.0]	2						
(-4.0,-3.5]	4						
(-3.5,-3.0]	16	1	1			1	
(-3.0,-2.5]	35	4	4	1	1		1
(-2.5,-2.0]	52	22	6	4		2	4
(-2.0,-1.5]	114	56	24	7	1	2	4
(-1.5,-1.0]	143	114	54	14	4	4	5
(-1.0,-0.5]	144	150	100	15	6	5	11
(-0.5,0.0]	72	120	125	27	8	8	1
(0.0,0.5]	21	79	81	49	11	9	3
(0.5,1.0]	14	46	48	31	12	10	2
(1.0,1.5]	4	11	24	30	18	11	1
(1.5,2.0]		6	5	11	4	5	1
(2.0,2.5]			2	7	2	7	1
(2.5,3.0]				2		4	1
(3.0,3.5]						1	
(3.5,4.0]						1	

Table 11.B.3 Percentiles of Scale Scores for Paper-Pencil Tests—ELA

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2253	2275	2315	2304	2258	2382	2406
p10	2312	2348	2408	2402	2410	2446	2443
p20	2346	2390	2451	2440	2455	2475	2482
p30	2383	2431	2475	2477	2499	2535	2502
p40	2408	2458	2499	2501	2531	2560	2521
p50	2431	2484	2528	2523	2569	2587	2561
p60	2453	2502	2549	2553	2602	2611	2597
p70	2479	2525	2569	2580	2620	2637	2611
p80	2506	2548	2589	2605	2639	2667	2648
p90	2537	2584	2624	2642	2674	2708	2676
p99	2616	2663	2676	2724	2745	2759	2795

Table 11.B.4 Percentiles of Scale Scores for Paper-Pencil Tests—Mathematics

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2250	2319	2311	2331	2306	2274	2280
p10	2321	2388	2407	2411	2441	2422	2346
p20	2363	2411	2439	2474	2477	2473	2380
p30	2386	2429	2461	2503	2517	2506	2407
p40	2404	2452	2476	2529	2539	2551	2436
p50	2418	2467	2491	2542	2564	2566	2447
p60	2437	2480	2504	2557	2583	2597	2460
p70	2454	2501	2523	2582	2601	2622	2472
p80	2472	2526	2545	2605	2614	2660	2533
p90	2496	2556	2574	2637	2631	2706	2606
p99	2588	2627	2664	2719	2690	2802	2750

Table 11.B.5 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2114, 2119]	—	—	—	—
[2120, 2129]	—	—	—	—
[2130, 2139]	—	—	—	—
[2140, 2149]	—	—	—	—
[2150, 2159]	—	—	—	—
[2160, 2169]	—	—	—	—
[2170, 2179]	—	—	—	—
[2180, 2189]	—	—	—	—
[2190, 2199]	1	1	0%	0%
[2200, 2209]	—	—	—	—
[2210, 2219]	—	—	—	—
[2220, 2229]	1	2	0%	0%
[2230, 2239]	3	5	0%	1%
[2240, 2249]	—	—	—	—
[2250, 2259]	5	10	1%	2%
[2260, 2269]	4	14	1%	2%
[2270, 2279]	5	19	1%	3%
[2280, 2289]	10	29	2%	5%
[2290, 2299]	14	43	2%	7%
[2300, 2309]	17	60	3%	10%
[2310, 2319]	11	71	2%	11%
[2320, 2329]	17	88	3%	14%
[2330, 2339]	27	115	4%	18%
[2340, 2349]	16	131	3%	21%
[2350, 2359]	13	144	2%	23%
[2360, 2369]	21	165	3%	26%
[2370, 2379]	19	184	3%	29%
[2380, 2389]	22	206	4%	33%
[2390, 2399]	22	228	4%	36%
[2400, 2409]	24	252	4%	40%
[2410, 2419]	27	279	4%	44%
[2420, 2429]	30	309	5%	49%
[2430, 2439]	30	339	5%	54%
[2440, 2449]	23	362	4%	58%
[2450, 2459]	34	396	5%	63%
[2460, 2469]	23	419	4%	67%
[2470, 2479]	21	440	3%	70%
[2480, 2489]	17	457	3%	73%
[2490, 2499]	25	482	4%	77%
[2500, 2509]	27	509	4%	81%
[2510, 2519]	20	529	3%	84%
[2520, 2529]	28	557	4%	89%
[2530, 2539]	16	573	3%	91%
[2540, 2549]	8	581	1%	93%
[2550, 2559]	14	595	2%	95%
[2560, 2569]	9	604	1%	96%
[2570, 2579]	8	612	1%	98%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2580, 2589]	3	615	0%	98%
[2590, 2599]	2	617	0%	98%
[2600, 2609]	3	620	0%	99%
[2610, 2619]	3	623	0%	99%
[2620, 2623]	4	627	1%	100%

Table 11.B.6 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2131, 2139]	1	1	0%	0%
[2140, 2149]	–	–	–	–
[2150, 2159]	–	–	–	–
[2160, 2169]	–	–	–	–
[2170, 2179]	–	–	–	–
[2180, 2189]	–	–	–	–
[2190, 2199]	–	–	–	–
[2200, 2209]	1	2	0%	0%
[2210, 2219]	–	–	–	–
[2220, 2229]	–	–	–	–
[2230, 2239]	2	4	0%	1%
[2240, 2249]	–	–	–	–
[2250, 2259]	1	5	0%	1%
[2260, 2269]	1	6	0%	1%
[2270, 2279]	2	8	0%	1%
[2280, 2289]	3	11	0%	2%
[2290, 2299]	4	15	1%	2%
[2300, 2309]	8	23	1%	4%
[2310, 2319]	11	34	2%	6%
[2320, 2329]	11	45	2%	7%
[2330, 2339]	9	54	1%	9%
[2340, 2349]	10	64	2%	11%
[2350, 2359]	13	77	2%	13%
[2360, 2369]	19	96	3%	16%
[2370, 2379]	16	112	3%	18%
[2380, 2389]	9	121	1%	20%
[2390, 2399]	20	141	3%	23%
[2400, 2409]	15	156	2%	26%
[2410, 2419]	10	166	2%	27%
[2420, 2429]	13	179	2%	29%
[2430, 2439]	26	205	4%	34%
[2440, 2449]	18	223	3%	37%
[2450, 2459]	23	246	4%	41%
[2460, 2469]	21	267	3%	44%
[2470, 2479]	26	293	4%	48%
[2480, 2489]	30	323	5%	53%
[2490, 2499]	30	353	5%	58%
[2500, 2509]	32	385	5%	63%
[2510, 2519]	26	411	4%	68%
[2520, 2529]	24	435	4%	72%
[2530, 2539]	33	468	5%	77%
[2540, 2549]	18	486	3%	80%
[2550, 2559]	25	511	4%	84%
[2560, 2569]	16	527	3%	87%
[2570, 2579]	14	541	2%	89%
[2580, 2589]	9	550	1%	91%
[2590, 2599]	14	564	2%	93%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2600, 2609]	8	572	1%	94%
[2610, 2619]	9	581	1%	96%
[2620, 2629]	4	585	1%	96%
[2630, 2639]	4	589	1%	97%
[2640, 2649]	7	596	1%	98%
[2650, 2659]	2	598	0%	99%
[2660, 2663]	9	607	1%	100%

Table 11.B.7 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2201, 2209]	—	—	—	—
[2210, 2219]	—	—	—	—
[2220, 2229]	—	—	—	—
[2230, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	—	—	—	—
[2290, 2299]	3	3	1%	1%
[2300, 2309]	1	4	0%	1%
[2310, 2319]	1	5	0%	1%
[2320, 2329]	1	6	0%	1%
[2330, 2339]	5	11	1%	2%
[2340, 2349]	4	15	1%	3%
[2350, 2359]	3	18	1%	4%
[2360, 2369]	1	19	0%	4%
[2370, 2379]	6	25	1%	5%
[2380, 2389]	6	31	1%	6%
[2390, 2399]	8	39	2%	8%
[2400, 2409]	12	51	3%	11%
[2410, 2419]	4	55	1%	11%
[2420, 2429]	8	63	2%	13%
[2430, 2439]	12	75	3%	16%
[2440, 2449]	20	95	4%	20%
[2450, 2459]	20	115	4%	24%
[2460, 2469]	17	132	4%	28%
[2470, 2479]	15	147	3%	31%
[2480, 2489]	19	166	4%	35%
[2490, 2499]	26	192	5%	40%
[2500, 2509]	18	210	4%	44%
[2510, 2519]	15	225	3%	47%
[2520, 2529]	20	245	4%	51%
[2530, 2539]	15	260	3%	54%
[2540, 2549]	32	292	7%	61%
[2550, 2559]	22	314	5%	66%
[2560, 2569]	25	339	5%	71%
[2570, 2579]	21	360	4%	75%
[2580, 2589]	24	384	5%	80%
[2590, 2599]	13	397	3%	83%
[2600, 2609]	18	415	4%	87%
[2610, 2619]	12	427	3%	89%
[2620, 2629]	14	441	3%	92%
[2630, 2639]	8	449	2%	94%
[2640, 2649]	13	462	3%	96%
[2650, 2659]	4	466	1%	97%
[2660, 2669]	4	470	1%	98%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2670, 2679]	5	475	1%	99%
[2680, 2689]	2	477	0%	100%
[2690, 2699]	1	478	0%	100%
[2700, 2701]	1	479	0%	100%

Table 11.B.8 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2210, 2219]	—	—	—	—
[2220, 2229]	—	—	—	—
[2230, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	—	—	—	—
[2290, 2299]	1	1	0%	0%
[2300, 2309]	2	3	1%	1%
[2310, 2319]	1	4	0%	2%
[2320, 2329]	—	—	—	—
[2330, 2339]	1	5	0%	2%
[2340, 2349]	3	8	1%	4%
[2350, 2359]	2	10	1%	5%
[2360, 2369]	2	12	1%	6%
[2370, 2379]	3	15	1%	7%
[2380, 2389]	2	17	1%	8%
[2390, 2399]	2	19	1%	9%
[2400, 2409]	5	24	2%	12%
[2410, 2419]	5	29	2%	14%
[2420, 2429]	4	33	2%	16%
[2430, 2439]	7	40	3%	20%
[2440, 2449]	7	47	3%	23%
[2450, 2459]	5	52	2%	26%
[2460, 2469]	6	58	3%	29%
[2470, 2479]	4	62	2%	31%
[2480, 2489]	7	69	3%	34%
[2490, 2499]	11	80	5%	39%
[2500, 2509]	7	87	3%	43%
[2510, 2519]	12	99	6%	49%
[2520, 2529]	7	106	3%	52%
[2530, 2539]	6	112	3%	55%
[2540, 2549]	7	119	3%	59%
[2550, 2559]	13	132	6%	65%
[2560, 2569]	4	136	2%	67%
[2570, 2579]	6	142	3%	70%
[2580, 2589]	12	154	6%	76%
[2590, 2599]	6	160	3%	79%
[2600, 2609]	8	168	4%	83%
[2610, 2619]	8	176	4%	87%
[2620, 2629]	1	177	0%	87%
[2630, 2639]	5	182	2%	90%
[2640, 2649]	3	185	1%	91%
[2650, 2659]	2	187	1%	92%
[2660, 2669]	2	189	1%	93%
[2670, 2679]	1	190	0%	94%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2680, 2689]	2	192	1%	95%
[2690, 2699]	—	—	—	—
[2700, 2709]	4	196	2%	97%
[2710, 2719]	1	197	0%	97%
[2720, 2724]	6	203	3%	100%

Table 11.B.9 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2258, 2259]	1	1	1%	1%
[2260, 2269]	–	–	–	–
[2270, 2279]	–	–	–	–
[2280, 2289]	–	–	–	–
[2290, 2299]	–	–	–	–
[2300, 2309]	–	–	–	–
[2310, 2319]	–	–	–	–
[2320, 2329]	–	–	–	–
[2330, 2339]	1	2	1%	3%
[2340, 2349]	1	3	1%	4%
[2350, 2359]	–	–	–	–
[2360, 2369]	–	–	–	–
[2370, 2379]	1	4	1%	6%
[2380, 2389]	2	6	3%	8%
[2390, 2399]	–	–	–	–
[2400, 2409]	1	7	1%	10%
[2410, 2419]	2	9	3%	13%
[2420, 2429]	1	10	1%	14%
[2430, 2439]	1	11	1%	15%
[2440, 2449]	–	–	–	–
[2450, 2459]	5	16	7%	22%
[2460, 2469]	3	19	4%	26%
[2470, 2479]	–	–	–	–
[2480, 2489]	2	21	3%	29%
[2490, 2499]	1	22	1%	31%
[2500, 2509]	2	24	3%	33%
[2510, 2519]	2	26	3%	36%
[2520, 2529]	2	28	3%	39%
[2530, 2539]	2	30	3%	42%
[2540, 2549]	2	32	3%	44%
[2550, 2559]	1	33	1%	46%
[2560, 2569]	3	36	4%	50%
[2570, 2579]	3	39	4%	54%
[2580, 2589]	3	42	4%	58%
[2590, 2599]	1	43	1%	60%
[2600, 2609]	4	47	6%	65%
[2610, 2619]	3	50	4%	69%
[2620, 2629]	5	55	7%	76%
[2630, 2639]	4	59	6%	82%
[2640, 2649]	1	60	1%	83%
[2650, 2659]	2	62	3%	86%
[2660, 2669]	1	63	1%	88%
[2670, 2679]	2	65	3%	90%
[2680, 2689]	1	66	1%	92%
[2690, 2699]	4	70	6%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2700, 2709]	—	—	—	—
[2710, 2719]	—	—	—	—
[2720, 2729]	—	—	—	—
[2730, 2739]	—	—	—	—
[2740, 2745]	2	72	3%	100%

Table 11.B.10 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2288, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	—	—	—	—
[2340, 2349]	—	—	—	—
[2350, 2359]	—	—	—	—
[2360, 2369]	—	—	—	—
[2370, 2379]	—	—	—	—
[2380, 2389]	1	1	1%	1%
[2390, 2399]	—	—	—	—
[2400, 2409]	2	3	3%	4%
[2410, 2419]	1	4	1%	6%
[2420, 2429]	1	5	1%	7%
[2430, 2439]	2	7	3%	10%
[2440, 2449]	2	9	3%	13%
[2450, 2459]	4	13	6%	18%
[2460, 2469]	1	14	1%	20%
[2470, 2479]	1	15	1%	21%
[2480, 2489]	1	16	1%	23%
[2490, 2499]	—	—	—	—
[2500, 2509]	2	18	3%	25%
[2510, 2519]	2	20	3%	28%
[2520, 2529]	1	21	1%	30%
[2530, 2539]	1	22	1%	31%
[2540, 2549]	3	25	4%	35%
[2550, 2559]	3	28	4%	39%
[2560, 2569]	3	31	4%	44%
[2570, 2579]	3	34	4%	48%
[2580, 2589]	2	36	3%	51%
[2590, 2599]	3	39	4%	55%
[2600, 2609]	2	41	3%	58%
[2610, 2619]	6	47	8%	66%
[2620, 2629]	2	49	3%	69%
[2630, 2639]	2	51	3%	72%
[2640, 2649]	2	53	3%	75%
[2650, 2659]	2	55	3%	77%
[2660, 2669]	4	59	6%	83%
[2670, 2679]	2	61	3%	86%
[2680, 2689]	2	63	3%	89%
[2690, 2699]	—	—	—	—
[2700, 2709]	1	64	1%	90%
[2710, 2719]	—	—	—	—
[2720, 2729]	3	67	4%	94%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2730, 2739]	2	69	3%	97%
[2740, 2749]	1	70	1%	99%
[2750, 2759]	1	71	1%	100%
[2760, 2769]	–	–	–	–

Table 11.B.11 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2299, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	—	—	—	—
[2340, 2349]	—	—	—	—
[2350, 2359]	—	—	—	—
[2360, 2369]	—	—	—	—
[2370, 2379]	—	—	—	—
[2380, 2389]	—	—	—	—
[2390, 2399]	—	—	—	—
[2400, 2409]	1	1	3%	3%
[2410, 2419]	1	2	3%	6%
[2420, 2429]	—	—	—	—
[2430, 2439]	1	3	3%	9%
[2440, 2449]	1	4	3%	12%
[2450, 2459]	—	—	—	—
[2460, 2469]	—	—	—	—
[2470, 2479]	2	6	6%	18%
[2480, 2489]	1	7	3%	21%
[2490, 2499]	3	10	9%	29%
[2500, 2509]	2	12	6%	35%
[2510, 2519]	1	13	3%	38%
[2520, 2529]	1	14	3%	41%
[2530, 2539]	1	15	3%	44%
[2540, 2549]	1	16	3%	47%
[2550, 2559]	1	17	3%	50%
[2560, 2569]	—	—	—	—
[2570, 2579]	2	19	6%	56%
[2580, 2589]	—	—	—	—
[2590, 2599]	3	22	9%	65%
[2600, 2609]	1	23	3%	68%
[2610, 2619]	2	25	6%	74%
[2620, 2629]	—	—	—	—
[2630, 2639]	—	—	—	—
[2640, 2649]	3	28	9%	82%
[2650, 2659]	2	30	6%	88%
[2660, 2669]	—	—	—	—
[2670, 2679]	1	31	3%	91%
[2680, 2689]	—	—	—	—
[2690, 2699]	—	—	—	—
[2700, 2709]	—	—	—	—
[2710, 2719]	—	—	—	—
[2720, 2729]	—	—	—	—
[2730, 2739]	—	—	—	—
[2740, 2749]	2	33	6%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2750, 2759]	–	–	–	–
[2760, 2769]	–	–	–	–
[2770, 2779]	–	–	–	–
[2780, 2789]	–	–	–	–
[2790, 2795]	1	34	3%	100%

Table 11.B.12 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2189, 2189]	1	1	0%	0%
[2190, 2199]	1	2	0%	0%
[2200, 2209]	1	3	0%	0%
[2210, 2219]	1	4	0%	1%
[2220, 2229]	1	5	0%	1%
[2230, 2239]	1	6	0%	1%
[2240, 2249]	—	—	—	—
[2250, 2259]	6	12	1%	2%
[2260, 2269]	4	16	1%	3%
[2270, 2279]	8	24	1%	4%
[2280, 2289]	7	31	1%	5%
[2290, 2299]	12	43	2%	7%
[2300, 2309]	6	49	1%	8%
[2310, 2319]	9	58	1%	9%
[2320, 2329]	14	72	2%	12%
[2330, 2339]	9	81	1%	13%
[2340, 2349]	20	101	3%	16%
[2350, 2359]	14	115	2%	19%
[2360, 2369]	26	141	4%	23%
[2370, 2379]	25	166	4%	27%
[2380, 2389]	31	197	5%	32%
[2390, 2399]	36	233	6%	38%
[2400, 2409]	33	266	5%	43%
[2410, 2419]	50	316	8%	51%
[2420, 2429]	34	350	5%	56%
[2430, 2439]	30	380	5%	61%
[2440, 2449]	41	421	7%	68%
[2450, 2459]	27	448	4%	72%
[2460, 2469]	36	484	6%	78%
[2470, 2479]	39	523	6%	84%
[2480, 2489]	22	545	4%	88%
[2490, 2499]	18	563	3%	91%
[2500, 2509]	13	576	2%	93%
[2510, 2519]	8	584	1%	94%
[2520, 2529]	6	590	1%	95%
[2530, 2539]	6	596	1%	96%
[2540, 2549]	5	601	1%	97%
[2550, 2559]	5	606	1%	98%
[2560, 2569]	3	609	0%	98%
[2570, 2579]	1	610	0%	98%
[2580, 2589]	5	615	1%	99%
[2590, 2599]	2	617	0%	99%
[2600, 2609]	—	—	—	—
[2610, 2619]	—	—	—	—
[2620, 2621]	4	621	1%	100%

Table 11.B.13 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2204, 2209]	—	—	—	—
[2210, 2219]	—	—	—	—
[2220, 2229]	—	—	—	—
[2230, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	1	1	0%	0%
[2280, 2289]	1	2	0%	0%
[2290, 2299]	1	3	0%	0%
[2300, 2309]	2	5	0%	1%
[2310, 2319]	2	7	0%	1%
[2320, 2329]	2	9	0%	1%
[2330, 2339]	2	11	0%	2%
[2340, 2349]	8	19	1%	3%
[2350, 2359]	8	27	1%	4%
[2360, 2369]	9	36	1%	6%
[2370, 2379]	12	48	2%	8%
[2380, 2389]	21	69	3%	11%
[2390, 2399]	25	94	4%	15%
[2400, 2409]	22	116	4%	19%
[2410, 2419]	36	152	6%	25%
[2420, 2429]	31	183	5%	30%
[2430, 2439]	22	205	4%	34%
[2440, 2449]	33	238	5%	39%
[2450, 2459]	33	271	5%	44%
[2460, 2469]	43	314	7%	52%
[2470, 2479]	48	362	8%	59%
[2480, 2489]	29	391	5%	64%
[2490, 2499]	31	422	5%	69%
[2500, 2509]	26	448	4%	74%
[2510, 2519]	28	476	5%	78%
[2520, 2529]	19	495	3%	81%
[2530, 2539]	23	518	4%	85%
[2540, 2549]	19	537	3%	88%
[2550, 2559]	14	551	2%	90%
[2560, 2569]	8	559	1%	92%
[2570, 2579]	16	575	3%	94%
[2580, 2589]	11	586	2%	96%
[2590, 2599]	11	597	2%	98%
[2600, 2609]	4	601	1%	99%
[2610, 2619]	—	—	—	—
[2620, 2629]	2	603	0%	99%
[2630, 2639]	1	604	0%	99%
[2640, 2649]	1	605	0%	99%
[2650, 2659]	4	609	1%	100%

Table 11.B.14 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2219, 2219]	—	—	—	—
[2220, 2229]	—	—	—	—
[2230, 2239]	—	—	—	—
[2240, 2249]	1	1	0%	0%
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	1	2	0%	0%
[2290, 2299]	1	3	0%	1%
[2300, 2309]	1	4	0%	1%
[2310, 2319]	1	5	0%	1%
[2320, 2329]	1	6	0%	1%
[2330, 2339]	—	—	—	—
[2340, 2349]	4	10	1%	2%
[2350, 2359]	3	13	1%	3%
[2360, 2369]	7	20	1%	4%
[2370, 2379]	3	23	1%	5%
[2380, 2389]	5	28	1%	6%
[2390, 2399]	9	37	2%	8%
[2400, 2409]	13	50	3%	11%
[2410, 2419]	13	63	3%	13%
[2420, 2429]	11	74	2%	16%
[2430, 2439]	23	97	5%	20%
[2440, 2449]	16	113	3%	24%
[2450, 2459]	26	139	5%	29%
[2460, 2469]	32	171	7%	36%
[2470, 2479]	28	199	6%	42%
[2480, 2489]	33	232	7%	49%
[2490, 2499]	34	266	7%	56%
[2500, 2509]	31	297	7%	63%
[2510, 2519]	28	325	6%	69%
[2520, 2529]	23	348	5%	73%
[2530, 2539]	24	372	5%	78%
[2540, 2549]	15	387	3%	82%
[2550, 2559]	14	401	3%	85%
[2560, 2569]	17	418	4%	88%
[2570, 2579]	12	430	3%	91%
[2580, 2589]	10	440	2%	93%
[2590, 2599]	7	447	1%	94%
[2600, 2609]	8	455	2%	96%
[2610, 2619]	7	462	1%	97%
[2620, 2629]	4	466	1%	98%
[2630, 2639]	1	467	0%	99%
[2640, 2649]	—	—	—	—
[2650, 2659]	2	469	0%	99%
[2660, 2669]	2	471	0%	99%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2670, 2679]	1	472	0%	100%
[2680, 2689]	—	—	—	—
[2690, 2699]	1	473	0%	100%
[2700, 2700]	1	474	0%	100%

Table 11.B.15 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2235, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	1	1	1%	1%
[2320, 2329]	—	—	—	—
[2330, 2339]	3	4	2%	2%
[2340, 2349]	1	5	1%	3%
[2350, 2359]	1	6	1%	3%
[2360, 2369]	2	8	1%	4%
[2370, 2379]	3	11	2%	6%
[2380, 2389]	—	—	—	—
[2390, 2399]	1	12	1%	6%
[2400, 2409]	4	16	2%	8%
[2410, 2419]	6	22	3%	11%
[2420, 2429]	1	23	1%	12%
[2430, 2439]	3	26	2%	13%
[2440, 2449]	5	31	3%	16%
[2450, 2459]	4	35	2%	18%
[2460, 2469]	3	38	2%	19%
[2470, 2479]	5	43	3%	22%
[2480, 2489]	7	50	4%	25%
[2490, 2499]	7	57	4%	29%
[2500, 2509]	9	66	5%	33%
[2510, 2519]	6	72	3%	36%
[2520, 2529]	8	80	4%	40%
[2530, 2539]	12	92	6%	46%
[2540, 2549]	19	111	10%	56%
[2550, 2559]	10	121	5%	61%
[2560, 2569]	6	127	3%	64%
[2570, 2579]	10	137	5%	69%
[2580, 2589]	7	144	4%	73%
[2590, 2599]	9	153	5%	77%
[2600, 2609]	10	163	5%	82%
[2610, 2619]	9	172	5%	87%
[2620, 2629]	3	175	2%	88%
[2630, 2639]	7	182	4%	92%
[2640, 2649]	5	187	3%	94%
[2650, 2659]	2	189	1%	95%
[2660, 2669]	—	—	—	—
[2670, 2679]	1	190	1%	96%
[2680, 2689]	3	193	2%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2690, 2699]	2	195	1%	98%
[2700, 2709]	1	196	1%	99%
[2710, 2719]	1	197	1%	99%
[2720, 2729]	–	–	–	–
[2730, 2739]	–	–	–	–
[2740, 2748]	1	198	1%	100%

Table 11.B.16 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	1	1	1%	1%
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	—	—	—	—
[2340, 2349]	—	—	—	—
[2350, 2359]	—	—	—	—
[2360, 2369]	—	—	—	—
[2370, 2379]	1	2	1%	3%
[2380, 2389]	—	—	—	—
[2390, 2399]	—	—	—	—
[2400, 2409]	1	3	1%	4%
[2410, 2419]	3	6	4%	9%
[2420, 2429]	—	—	—	—
[2430, 2439]	—	—	—	—
[2440, 2449]	2	8	3%	12%
[2450, 2459]	1	9	1%	13%
[2460, 2469]	3	12	4%	18%
[2470, 2479]	2	14	3%	21%
[2480, 2489]	2	16	3%	24%
[2490, 2499]	3	19	4%	28%
[2500, 2509]	1	20	1%	30%
[2510, 2519]	1	21	1%	31%
[2520, 2529]	3	24	4%	36%
[2530, 2539]	4	28	6%	42%
[2540, 2549]	2	30	3%	45%
[2550, 2559]	2	32	3%	48%
[2560, 2569]	4	36	6%	54%
[2570, 2579]	3	39	4%	58%
[2580, 2589]	2	41	3%	61%
[2590, 2599]	3	44	4%	66%
[2600, 2609]	7	51	10%	76%
[2610, 2619]	7	58	10%	87%
[2620, 2629]	2	60	3%	90%
[2630, 2639]	2	62	3%	93%
[2640, 2649]	1	63	1%	94%
[2650, 2659]	1	64	1%	96%
[2660, 2669]	1	65	1%	97%
[2670, 2679]	1	66	1%	99%
[2680, 2689]	—	—	—	—
[2690, 2699]	1	67	1%	100%
[2700, 2709]	—	—	—	—

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2710, 2719]	—	—	—	—
[2720, 2729]	—	—	—	—
[2730, 2739]	—	—	—	—
[2740, 2749]	—	—	—	—
[2750, 2759]	—	—	—	—
[2760, 2769]	—	—	—	—
[2770, 2778]	—	—	—	—

Table 11.B.17 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2265, 2269]	—	—	—	—
[2270, 2279]	1	1	1%	1%
[2280, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	1	2	1%	3%
[2340, 2349]	1	3	1%	4%
[2350, 2359]	—	—	—	—
[2360, 2369]	—	—	—	—
[2370, 2379]	1	4	1%	6%
[2380, 2389]	1	5	1%	7%
[2390, 2399]	—	—	—	—
[2400, 2409]	1	6	1%	9%
[2410, 2419]	1	7	1%	10%
[2420, 2429]	1	8	1%	11%
[2430, 2439]	2	10	3%	14%
[2440, 2449]	1	11	1%	16%
[2450, 2459]	1	12	1%	17%
[2460, 2469]	2	14	3%	20%
[2470, 2479]	—	—	—	—
[2480, 2489]	4	18	6%	26%
[2490, 2499]	2	20	3%	29%
[2500, 2509]	2	22	3%	31%
[2510, 2519]	—	—	—	—
[2520, 2529]	2	24	3%	34%
[2530, 2539]	2	26	3%	37%
[2540, 2549]	1	27	1%	39%
[2550, 2559]	5	32	7%	46%
[2560, 2569]	5	37	7%	53%
[2570, 2579]	2	39	3%	56%
[2580, 2589]	2	41	3%	59%
[2590, 2599]	2	43	3%	61%
[2600, 2609]	2	45	3%	64%
[2610, 2619]	4	49	6%	70%
[2620, 2629]	2	51	3%	73%
[2630, 2639]	1	52	1%	74%
[2640, 2649]	—	—	—	—
[2650, 2659]	4	56	6%	80%
[2660, 2669]	1	57	1%	81%
[2670, 2679]	1	58	1%	83%
[2680, 2689]	1	59	1%	84%
[2690, 2699]	1	60	1%	86%
[2700, 2709]	4	64	6%	91%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2710, 2719]	1	65	1%	93%
[2720, 2729]	1	66	1%	94%
[2730, 2739]	1	67	1%	96%
[2740, 2749]	1	68	1%	97%
[2750, 2759]	1	69	1%	99%
[2760, 2769]	–	–	–	–
[2770, 2779]	–	–	–	–
[2780, 2789]	–	–	–	–
[2790, 2799]	–	–	–	–
[2800, 2802]	1	70	1%	100%

Table 11.B.18 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2280, 2289]	1	1	3%	3%
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	1	2	3%	6%
[2330, 2339]	1	3	3%	9%
[2340, 2349]	1	4	3%	11%
[2350, 2359]	1	5	3%	14%
[2360, 2369]	—	—	—	—
[2370, 2379]	2	7	6%	20%
[2380, 2389]	1	8	3%	23%
[2390, 2399]	2	10	6%	29%
[2400, 2409]	1	11	3%	31%
[2410, 2419]	1	12	3%	34%
[2420, 2429]	—	—	—	—
[2430, 2439]	4	16	11%	46%
[2440, 2449]	3	19	9%	54%
[2450, 2459]	2	21	6%	60%
[2460, 2469]	2	23	6%	66%
[2470, 2479]	2	25	6%	71%
[2480, 2489]	1	26	3%	74%
[2490, 2499]	—	—	—	—
[2500, 2509]	—	—	—	—
[2510, 2519]	—	—	—	—
[2520, 2529]	1	27	3%	77%
[2530, 2539]	2	29	6%	83%
[2540, 2549]	—	—	—	—
[2550, 2559]	—	—	—	—
[2560, 2569]	1	30	3%	86%
[2570, 2579]	—	—	—	—
[2580, 2589]	1	31	3%	89%
[2590, 2599]	—	—	—	—
[2600, 2609]	1	32	3%	91%
[2610, 2619]	—	—	—	—
[2620, 2629]	—	—	—	—
[2630, 2639]	—	—	—	—
[2640, 2649]	—	—	—	—
[2650, 2659]	—	—	—	—
[2660, 2669]	—	—	—	—
[2670, 2679]	1	33	3%	94%
[2680, 2689]	—	—	—	—
[2690, 2699]	1	34	3%	97%
[2700, 2709]	—	—	—	—
[2710, 2719]	—	—	—	—
[2720, 2729]	—	—	—	—
[2730, 2739]	—	—	—	—

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2740, 2749]	–	–	–	–
[2750, 2759]	1	35	3%	100%
[2760, 2769]	–	–	–	–
[2770, 2779]	–	–	–	–
[2780, 2789]	–	–	–	–
[2790, 2799]	–	–	–	–
[2800, 2809]	–	–	–	–
[2810, 2819]	–	–	–	–
[2820, 2829]	–	–	–	–
[2830, 2839]	–	–	–	–
[2840, 2849]	–	–	–	–
[2850, 2859]	–	–	–	–
[2860, 2862]	–	–	–	–

Appendix 11.C: Claim Scores for Paper-Pencil Tests

Table 11.C.1 Mean and Standard Deviation of Theta and Scale Scores for Claim 1 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	19	626	2435	88	-0.85	1.03
	4	20	583	2482	88	-0.31	1.03
	5	19	479	2531	86	0.27	1.01
	6	21	201	2528	100	0.24	1.17
	7	20	71	2562	97	0.62	1.13
	8	21	71	2581	101	0.85	1.18
	11	19	34	2572	92	0.75	1.08
Mathematics	3	20	615	2408	74	-1.35	0.93
	4	21	607	2461	69	-0.68	0.87
	5	20	471	2478	74	-0.47	0.94
	6	19	197	2547	91	0.41	1.15
	7	20	65	2548	75	0.42	0.95
	8	20	70	2573	127	0.74	1.61
	11	21	35	2434	120	-1.02	1.51

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 11.C.2 Mean and Standard Deviation of Theta and Scale Scores for Claim 2 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	12	625	2407	111	-1.18	1.30
	4	12	578	2466	108	-0.49	1.26
	5	12	477	2509	96	0.01	1.12
	6	12	194	2522	122	0.16	1.42
	7	12	68	2556	123	0.56	1.43
	8	12	71	2572	124	0.74	1.44
	11	12	34	2566	133	0.67	1.55
Mathematics	3	12	617	2426	82	-1.12	1.03
	4	10	608	2484	84	-0.39	1.05
	5	11	472	2500	91	-0.18	1.15
	6	11	194	2499	145	-0.21	1.83
	7	11	65	2529	129	0.17	1.63
	8	10	70	2528	157	0.16	1.98
	11	11	35	2494	115	-0.27	1.45

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 11.C.3 Mean and Standard Deviation of Theta and Scale Scores for Claim 3 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	9	627	2431	120	-0.90	1.40
	4	9	603	2496	110	-0.15	1.28
	5	9	476	2538	98	0.34	1.15
	6	8	199	2552	110	0.52	1.28
	7	9	71	2538	118	0.35	1.37
	8	9	71	2566	134	0.68	1.56
	11	9	34	2566	144	0.67	1.67
Mathematics	3	9	617	2415	98	-1.26	1.24
	4	10	607	2466	94	-0.61	1.19
	5	10	471	2495	92	-0.25	1.16
	6	10	197	2496	138	-0.24	1.75
	7	10	65	2540	120	0.32	1.51
	8	9	70	2540	135	0.32	1.70
	11	10	35	2487	157	-0.35	1.98

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 11.C.4 Mean and Standard Deviation of Theta and Scale Scores for Claim 4 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	11	620	2424	119	-0.98	1.38
	4	9	573	2476	122	-0.38	1.42
	5	11	471	2507	112	-0.02	1.31
	6	11	185	2527	114	0.22	1.32
	7	10	66	2572	123	0.75	1.43
	8	10	71	2580	114	0.84	1.33
	11	10	34	2538	131	0.35	1.53

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 11.C.5 Percentages of Examinees in Performance Levels for Claim 1 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	166	27%	286	46%	174	28%
	4	136	23%	257	44%	190	33%
	5	74	15%	228	48%	177	37%
	6	55	27%	90	45%	56	28%
	7	14	20%	35	49%	22	31%
	8	13	18%	31	44%	27	38%
	11	8	24%	18	53%	8	24%
Mathematics	3	256	42%	306	50%	53	9%
	4	252	42%	255	42%	100	16%
	5	243	52%	192	41%	36	8%
	6	57	29%	87	44%	53	27%
	7	19	29%	31	48%	15	23%
	8	25	36%	26	37%	19	27%
	11	31	89%	2	6%	2	6%

Table 11.C.6 Percentages of Examinees in Performance Levels for Claim 2 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	195	31%	296	47%	134	21%
	4	162	28%	311	54%	105	18%
	5	98	21%	271	57%	108	23%
	6	48	25%	108	56%	38	20%
	7	15	22%	35	51%	18	26%
	8	20	28%	32	45%	19	27%
	11	11	32%	14	41%	9	26%
Mathematics	3	181	29%	308	50%	128	21%
	4	118	19%	389	64%	101	17%
	5	134	28%	266	56%	72	15%
	6	57	29%	90	46%	47	24%
	7	9	14%	35	54%	21	32%
	8	15	21%	40	57%	15	21%
	11	5	14%	29	83%	1	3%

Table 11.C.7 Percentages of Examinees in Performance Levels for Claim 3 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	62	10%	429	68%	136	22%
	4	60	10%	398	66%	145	24%
	5	40	8%	340	71%	96	20%
	6	25	13%	157	79%	17	9%
	7	15	21%	51	72%	5	7%
	8	8	11%	48	68%	15	21%
	11	9	26%	23	68%	2	6%
Mathematics	3	62	10%	449	73%	106	17%
	4	124	20%	375	62%	108	18%
	5	90	19%	329	70%	52	11%
	6	37	19%	124	63%	36	18%
	7	7	11%	49	75%	9	14%
	8	8	11%	53	76%	9	13%
	11	11	31%	21	60%	3	9%

Table 11.C.8 Percentages of Examinees in Performance Levels for Claim 4 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	160	26%	295	48%	165	27%
	4	97	17%	331	58%	145	25%
	5	89	19%	266	56%	116	25%
	6	34	18%	105	57%	46	25%
	7	6	9%	39	59%	21	32%
	8	11	15%	41	58%	19	27%
	11	9	26%	19	56%	6	18%

Appendix 11.D: Demographic Summary for Paper-Pencil Tests

Table 11.D.1 Demographic Summary for Paper-pencil Tests—ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	627	2428	84	25%	25%	23%	27%	50%
Male	309	2420	82	28%	25%	24%	23%	46%
Female	318	2437	86	21%	25%	22%	31%	53%
American Indian or Alaska Native	3	–	–	–	–	–	–	–
Asian	13	2440	69	15%	38%	23%	23%	46%
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–
Hispanic or Latino	169	2414	83	27%	35%	17%	21%	38%
Black or African American	47	2400	82	45%	21%	15%	19%	34%
White	337	2440	83	21%	20%	27%	31%	58%
Two or more races	52	2439	86	17%	29%	21%	33%	54%
English only	518	2430	86	25%	24%	22%	29%	51%
Initially fluent English proficient	12	2421	36	8%	58%	33%	–	33%
English learner	65	2391	61	38%	32%	22%	8%	29%
Reclassified fluent English proficient	31	2484	72	–	26%	29%	45%	74%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–
No special education services	556	2434	82	23%	25%	24%	28%	52%
Special education services	71	2388	90	42%	24%	17%	17%	34%
Not economically disadvantaged	301	2442	85	22%	21%	24%	34%	57%
Economically disadvantaged	326	2416	82	28%	29%	22%	21%	43%
Migrant	0	–	–	–	–	–	–	–
Not migrant	627	2428	84	25%	25%	23%	27%	50%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	3	–	–	–	–	–	–	–
Asian	9	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–
Hispanic or Latino	32	2419	91	28%	34%	3%	34%	38%
Black or African American	15	2421	83	40%	13%	13%	33%	47%
White	211	2448	83	19%	18%	29%	34%	63%
Two or more races	28	2445	94	18%	25%	14%	43%	57%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	0	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—
Hispanic or Latino	137	2413	82	27%	35%	20%	18%	38%
Black or African American	32	2390	81	47%	25%	16%	13%	28%
White	126	2425	82	25%	23%	25%	27%	52%
Two or more races	24	2432	77	17%	33%	29%	21%	50%

Table 11.D.2 Demographic Summary for Paper-pencil Tests—ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	607	2473	91	27%	18%	28%	26%	55%	
Male	323	2459	87	31%	20%	28%	21%	50%	
Female	284	2489	92	22%	17%	29%	32%	61%	
American Indian or Alaska Native	7	—	—	—	—	—	—	—	
Asian	13	2476	79	15%	31%	31%	23%	54%	
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	2	—	—	—	—	—	—	—	
Hispanic or Latino	168	2438	97	41%	19%	21%	18%	40%	
Black or African American	42	2434	76	38%	29%	21%	12%	33%	
White	329	2492	83	19%	18%	31%	32%	64%	
Two or more races	46	2498	85	24%	11%	37%	28%	65%	
English only	507	2483	88	23%	18%	29%	29%	59%	
Initially fluent English proficient	9	—	—	—	—	—	—	—	
English learner	55	2391	82	65%	13%	18%	4%	22%	
Reclassified fluent English proficient	36	2447	86	31%	25%	25%	19%	44%	
To be determined	0	—	—	—	—	—	—	—	
English proficiency unknown	0	—	—	—	—	—	—	—	
No special education services	516	2479	91	23%	19%	29%	29%	58%	
Special education services	91	2435	82	46%	16%	24%	13%	37%	
Not economically disadvantaged	357	2494	83	18%	19%	30%	33%	63%	
Economically disadvantaged	250	2443	93	39%	18%	26%	17%	43%	
Migrant	0	—	—	—	—	—	—	—	
Not migrant	607	2473	91	27%	18%	28%	26%	55%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	3	—	—	—	—	—	—	—	
Asian	10	—	—	—	—	—	—	—	
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	
Hispanic or Latino	55	2478	81	22%	22%	31%	25%	56%	
Black or African American	19	2456	66	26%	42%	11%	21%	32%	
White	249	2500	81	16%	17%	31%	36%	67%	
Two or more races	21	2510	103	29%	10%	29%	33%	62%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	4	—	—	—	—	—	—	—	—
Asian	3	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—
Hispanic or Latino	113	2418	99	50%	18%	17%	15%	32%	
Black or African American	23	2416	81	48%	17%	30%	4%	35%	
White	80	2467	86	28%	20%	33%	20%	53%	
Two or more races	25	2487	66	20%	12%	44%	24%	68%	

Table 11.D.3 Demographic Summary for Paper-pencil Tests—ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	479	2520	81	16%	25%	34%	24%	59%	
Male	222	2508	77	17%	30%	37%	16%	53%	
Female	257	2530	84	15%	21%	32%	32%	64%	
American Indian or Alaska Native	1	–	–	–	–	–	–	–	
Asian	15	2522	77	13%	13%	60%	13%	73%	
Native Hawaiian or Other Pacific Islander	3	–	–	–	–	–	–	–	
Filipino	2	–	–	–	–	–	–	–	
Hispanic or Latino	143	2505	78	20%	31%	31%	19%	50%	
Black or African American	39	2470	75	31%	44%	18%	8%	26%	
White	242	2533	83	13%	21%	33%	32%	66%	
Two or more races	34	2545	55	3%	18%	65%	15%	79%	
English only	378	2524	81	14%	25%	34%	26%	61%	
Initially Fluent English Proficient	19	2526	69	16%	32%	26%	26%	53%	
English learner	38	2442	67	47%	34%	18%	–	18%	
Reclassified fluent English proficient	41	2542	60	7%	12%	56%	24%	80%	
To be determined	1	–	–	–	–	–	–	–	
English proficiency unknown	2	–	–	–	–	–	–	–	
No special education services	413	2528	77	13%	25%	35%	27%	62%	
Special education services	66	2469	90	33%	27%	30%	9%	39%	
Not economically disadvantaged	260	2534	78	11%	23%	37%	29%	66%	
Economically disadvantaged	219	2503	83	22%	28%	31%	19%	50%	
Migrant	0	–	–	–	–	–	–	–	
Not migrant	479	2520	81	16%	25%	34%	24%	59%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	0	–	–	–	–	–	–	–	
Asian	11	2512	78	18%	9%	73%	–	73%	
Native Hawaiian or Other Pacific Islander	3	–	–	–	–	–	–	–	
Filipino	1	–	–	–	–	–	–	–	
Hispanic or Latino	47	2513	79	17%	26%	34%	23%	57%	
Black or African American	13	2496	80	15%	38%	31%	15%	46%	
White	167	2543	77	10%	23%	33%	35%	68%	
Two or more races	18	2553	55	–	17%	67%	17%	83%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—
Hispanic or Latino	96	2501	78	21%	33%	29%	17%	46%
Black or African American	26	2457	70	38%	46%	12%	4%	15%
White	75	2511	92	21%	17%	35%	27%	61%
Two or more races	16	2536	56	6%	19%	63%	13%	75%

Table 11.D.4 Demographic Summary for Paper-pencil Tests—ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	203	2524	95	25%	27%	34%	14%	48%	
Male	89	2511	95	29%	27%	36%	8%	44%	
Female	114	2534	95	22%	27%	32%	18%	51%	
American Indian or Alaska Native	3	—	—	—	—	—	—	—	
Asian	2	—	—	—	—	—	—	—	
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	
Filipino	2	—	—	—	—	—	—	—	
Hispanic or Latino	83	2504	87	28%	34%	33%	6%	39%	
Black or African American	33	2484	96	52%	24%	15%	9%	24%	
White	72	2571	85	10%	21%	43%	26%	69%	
Two or more races	7	—	—	—	—	—	—	—	
English only	143	2538	94	22%	25%	36%	17%	53%	
Initially fluent English proficient	6	—	—	—	—	—	—	—	
English learner	24	2435	68	58%	38%	4%	—	4%	
Reclassified fluent English proficient	28	2517	83	21%	25%	46%	7%	54%	
To be determined	0	—	—	—	—	—	—	—	
English proficiency unknown	2	—	—	—	—	—	—	—	
No special education services	171	2533	89	20%	29%	37%	14%	51%	
Special education services	32	2473	113	53%	19%	16%	13%	28%	
Not economically disadvantaged	65	2556	92	15%	18%	43%	23%	66%	
Economically disadvantaged	138	2509	93	30%	31%	30%	9%	39%	
Migrant	2	—	—	—	—	—	—	—	
Not migrant	201	2525	95	25%	27%	34%	14%	48%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	2	—	—	—	—	—	—	—	
Asian	0	—	—	—	—	—	—	—	
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	2	—	—	—	—	—	—	—	
Hispanic or Latino	5	—	—	—	—	—	—	—	
Black or African American	10	—	—	—	—	—	—	—	
White	43	2568	85	9%	19%	47%	26%	72%	
Two or more races	3	—	—	—	—	—	—	—	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—
Hispanic or Latino	78	2505	86	27%	35%	33%	5%	38%	
Black or African American	23	2449	62	65%	26%	9%	—	9%	
White	29	2576	85	10%	24%	38%	28%	66%	
Two or more races	4	—	—	—	—	—	—	—	

Table 11.D.5 Demographic Summary for Paper-pencil Tests—ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	72	2551	105	26%	18%	39%	17%	56%
Male	42	2557	86	21%	21%	43%	14%	57%
Female	30	2543	127	33%	13%	33%	20%	53%
American Indian or Alaska Native	3	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic or Latino	12	2519	127	33%	33%	8%	25%	33%
Black or African American	11	2494	122	55%	18%	9%	18%	27%
White	45	2577	90	18%	11%	56%	16%	71%
Two or more races	1	—	—	—	—	—	—	—
English only	67	2561	98	24%	16%	42%	18%	60%
Initially fluent English proficient	0	—	—	—	—	—	—	—
English learner	1	—	—	—	—	—	—	—
Reclassified fluent English proficient	4	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—
No special education services	55	2570	97	18%	18%	44%	20%	64%
Special education services	17	2489	107	53%	18%	24%	6%	29%
Not economically disadvantaged	26	2547	108	31%	15%	35%	19%	54%
Economically disadvantaged	46	2554	104	24%	20%	41%	15%	57%
Migrant	0	—	—	—	—	—	—	—
Not migrant	72	2551	105	26%	18%	39%	17%	56%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	1	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic or Latino	2	—	—	—	—	—	—	—
Black or African American	1	—	—	—	—	—	—	—
White	22	2556	107	27%	14%	41%	18%	59%
Two or more races	0	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	2	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic or Latino	10	—	—	—	—	—	—	—
Black or African American	10	—	—	—	—	—	—	—
White	23	2597	66	9%	9%	70%	13%	83%
Two or more races	1	—	—	—	—	—	—	—

Table 11.D.6 Demographic Summary for Paper-pencil Tests—ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	71	2577	97	23%	21%	37%	20%	56%
Male	37	2558	97	35%	14%	38%	14%	51%
Female	34	2599	93	9%	29%	35%	26%	62%
American Indian or Alaska Native	1	–	–	–	–	–	–	–
Asian	3	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic or Latino	9	–	–	–	–	–	–	–
Black or African American	11	2542	94	36%	36%	18%	9%	27%
White	46	2592	96	17%	20%	39%	24%	63%
Two or more races	0	–	–	–	–	–	–	–
English only	60	2579	96	22%	23%	35%	20%	55%
Initially fluent English proficient	2	–	–	–	–	–	–	–
English learner	4	–	–	–	–	–	–	–
Reclassified fluent English proficient	5	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–
No special education services	53	2587	99	21%	23%	32%	25%	57%
Special education services	18	2549	86	28%	17%	50%	6%	56%
Not economically disadvantaged	37	2590	106	22%	22%	27%	30%	57%
Economically disadvantaged	34	2563	85	24%	21%	47%	9%	56%
Migrant	0	–	–	–	–	–	–	–
Not migrant	71	2577	97	23%	21%	37%	20%	56%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	0	–	–	–	–	–	–	–
Asian	3	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic or Latino	1	–	–	–	–	–	–	–
Black or African American	7	–	–	–	–	–	–	–
White	26	2607	106	15%	19%	31%	35%	65%
Two or more races	0	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1	–	–	–	–	–	–	–
Asian	0	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic or Latino	8	–	–	–	–	–	–	–
Black or African American	4	–	–	–	–	–	–	–
White	20	2572	78	20%	20%	50%	10%	60%
Two or more races	0	–	–	–	–	–	–	–

Table 11.D.7 Demographic Summary for Paper-pencil Tests—ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	34	2566	96	24%	32%	35%	9%	44%	
Male	18	2542	100	33%	39%	22%	6%	28%	
Female	16	2593	87	13%	25%	50%	13%	63%	
American Indian or Alaska Native	0	–	–	–	–	–	–	–	
Asian	2	–	–	–	–	–	–	–	
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	
Hispanic or Latino	15	2509	75	47%	27%	27%	–	27%	
Black or African American	5	–	–	–	–	–	–	–	
White	8	–	–	–	–	–	–	–	
Two or more races	4	–	–	–	–	–	–	–	
English only	13	2614	116	15%	23%	38%	23%	62%	
Initially Fluent English Proficient	4	–	–	–	–	–	–	–	
English learner	3	–	–	–	–	–	–	–	
Reclassified fluent English proficient	4	–	–	–	–	–	–	–	
To be determined	0	–	–	–	–	–	–	–	
English proficiency unknown	10	–	–	–	–	–	–	–	
No special education services	23	2561	89	26%	26%	43%	4%	48%	
Special education services	11	2576	113	18%	45%	18%	18%	36%	
Not economically disadvantaged	11	2587	90	9%	36%	45%	9%	55%	
Economically disadvantaged	23	2556	99	30%	30%	30%	9%	39%	
Migrant	0	–	–	–	–	–	–	–	
Not migrant	34	2566	96	24%	32%	35%	9%	44%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	0	–	–	–	–	–	–	–	
Asian	0	–	–	–	–	–	–	–	
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	
Hispanic or Latino	4	–	–	–	–	–	–	–	
Black or African American	0	–	–	–	–	–	–	–	
White	4	–	–	–	–	–	–	–	
Two or more races	3	–	–	–	–	–	–	–	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—
Hispanic or Latino	11	2507	75	55%	18%	27%	—	27%	
Black or African American	5	—	—	—	—	—	—	—	
White	4	—	—	—	—	—	—	—	
Two or more races	1	—	—	—	—	—	—	—	

Table 11.D.8 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	621	2417	71	27%	32%	32%	9%	41%
Male	301	2419	69	27%	30%	34%	9%	43%
Female	320	2414	73	28%	33%	30%	9%	39%
American Indian or Alaska Native	3	–	–	–	–	–	–	–
Asian	13	2437	58	15%	38%	31%	15%	46%
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–
Hispanic or Latino	168	2406	64	29%	36%	32%	4%	36%
Black or African American	43	2408	60	33%	33%	30%	5%	35%
White	336	2424	74	25%	29%	34%	12%	46%
Two or more races	52	2414	77	29%	37%	25%	10%	35%
English only	512	2416	74	28%	31%	31%	10%	41%
Initially fluent English proficient	13	2419	57	23%	46%	23%	8%	31%
English learner	64	2400	50	36%	34%	27%	3%	30%
Reclassified fluent English proficient	31	2455	45	3%	26%	58%	13%	71%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–
No special education services	547	2423	68	24%	33%	33%	10%	43%
Special education services	74	2370	77	51%	23%	24%	1%	26%
Not economically disadvantaged	298	2427	73	22%	31%	34%	13%	47%
Economically disadvantaged	323	2407	68	32%	33%	30%	6%	36%
Migrant	0	–	–	–	–	–	–	–
Not migrant	621	2417	71	27%	32%	32%	9%	41%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	3	–	–	–	–	–	–	–
Asian	9	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–
Hispanic or Latino	31	2413	68	26%	29%	42%	3%	45%
Black or African American	15	2421	60	20%	40%	33%	7%	40%
White	208	2430	74	22%	29%	35%	14%	49%
Two or more races	29	2430	76	21%	34%	31%	14%	45%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—
Hispanic or Latino	137	2405	63	29%	37%	30%	4%	34%	
Black or African American	28	2401	60	39%	29%	29%	4%	32%	
White	128	2414	72	31%	27%	33%	9%	41%	
Two or more races	23	2392	74	39%	39%	17%	4%	22%	

Table 11.D.9 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	609	2468	66	20%	43%	26%	12%	38%	
Male	324	2466	67	21%	42%	27%	10%	37%	
Female	285	2471	66	19%	44%	24%	14%	38%	
American Indian or Alaska Native	7	—	—	—	—	—	—	—	
Asian	13	2457	72	38%	31%	15%	15%	31%	
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	2	—	—	—	—	—	—	—	
Hispanic or Latino	170	2449	61	25%	51%	19%	5%	25%	
Black or African American	37	2454	74	30%	32%	30%	8%	38%	
White	332	2478	65	16%	40%	30%	14%	44%	
Two or more races	48	2485	66	13%	48%	23%	17%	40%	
English only	508	2474	67	19%	40%	28%	13%	41%	
Initially fluent English proficient	9	—	—	—	—	—	—	—	
English learner	55	2413	46	42%	55%	4%	—	4%	
Reclassified fluent English proficient	36	2474	56	8%	58%	22%	11%	33%	
To be determined	1	—	—	—	—	—	—	—	
English proficiency unknown	0	—	—	—	—	—	—	—	
No special education services	517	2472	66	17%	43%	28%	12%	40%	
Special education services	92	2445	67	34%	42%	14%	10%	24%	
Not economically disadvantaged	359	2479	66	16%	41%	28%	15%	43%	
Economically disadvantaged	250	2453	64	26%	45%	22%	7%	29%	
Migrant	0	—	—	—	—	—	—	—	
Not migrant	609	2468	66	20%	43%	26%	12%	38%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	3	—	—	—	—	—	—	—	
Asian	10	—	—	—	—	—	—	—	
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	
Hispanic or Latino	56	2461	55	16%	52%	27%	5%	32%	
Black or African American	17	2468	74	18%	41%	29%	12%	41%	
White	251	2483	66	15%	39%	30%	16%	47%	
Two or more races	22	2503	72	9%	41%	23%	27%	50%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	4	—	—	—	—	—	—	—
Asian	3	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—
Hispanic or Latino	114	2443	64	29%	50%	16%	5%	21%
Black or African American	20	2443	74	40%	25%	30%	5%	35%
White	81	2462	61	20%	44%	27%	9%	36%
Two or more races	26	2470	58	15%	54%	23%	8%	31%

Table 11.D.10 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	474	2491	67	27%	46%	18%	9%	28%	
Male	216	2490	68	28%	47%	16%	10%	25%	
Female	258	2493	66	26%	45%	20%	9%	29%	
American Indian or Alaska Native	1	–	–	–	–	–	–	–	
Asian	15	2494	77	27%	40%	20%	13%	33%	
Native Hawaiian or Other Pacific Islander	3	–	–	–	–	–	–	–	
Filipino	2	–	–	–	–	–	–	–	
Hispanic or Latino	140	2480	65	30%	49%	16%	5%	21%	
Black or African American	34	2449	66	53%	35%	12%	–	12%	
White	246	2501	65	22%	46%	19%	12%	31%	
Two or more races	33	2510	59	15%	45%	27%	12%	39%	
English only	374	2494	67	25%	45%	19%	10%	29%	
Initially fluent English proficient	19	2480	61	32%	47%	21%	–	21%	
English learner	36	2439	65	61%	33%	3%	3%	6%	
Reclassified fluent English proficient	42	2516	52	5%	64%	21%	10%	31%	
To be determined	1	–	–	–	–	–	–	–	
English proficiency unknown	2	–	–	–	–	–	–	–	
No special education services	410	2499	65	22%	47%	20%	11%	30%	
Special education services	64	2444	61	55%	36%	9%	–	9%	
Not economically disadvantaged	262	2502	63	21%	45%	23%	11%	33%	
Economically disadvantaged	212	2478	69	33%	46%	13%	8%	21%	
Migrant	0	–	–	–	–	–	–	–	
Not migrant	474	2491	67	27%	46%	18%	9%	28%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	0	–	–	–	–	–	–	–	
Asian	11	2484	77	27%	45%	18%	9%	27%	
Native Hawaiian or Other Pacific Islander	3	–	–	–	–	–	–	–	
Filipino	1	–	–	–	–	–	–	–	
Hispanic or Latino	45	2485	72	29%	42%	24%	4%	29%	
Black or African American	14	2476	61	43%	36%	21%	–	21%	
White	170	2508	60	18%	48%	22%	12%	34%	
Two or more races	18	2519	57	11%	44%	28%	17%	44%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—
Hispanic or Latino	95	2478	62	31%	53%	12%	5%	17%
Black or African American	20	2430	63	60%	35%	5%	—	5%
White	76	2483	74	32%	43%	13%	12%	25%
Two or more races	15	2499	60	20%	47%	27%	7%	33%

Table 11.D.11 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	198	2536	83	19%	37%	26%	18%	43%
Male	83	2528	89	24%	34%	24%	18%	42%
Female	115	2542	78	16%	40%	27%	17%	44%
American Indian or Alaska Native	3	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—
Hispanic or Latino	82	2530	73	21%	41%	24%	13%	38%
Black or African American	31	2485	84	42%	39%	10%	10%	19%
White	69	2574	75	6%	33%	30%	30%	61%
Two or more races	8	—	—	—	—	—	—	—
English only	138	2544	86	17%	36%	27%	21%	48%
Initially fluent English proficient	6	—	—	—	—	—	—	—
English learner	24	2472	72	50%	42%	8%	—	8%
Reclassified fluent English proficient	28	2539	59	11%	46%	29%	14%	43%
To be determined	0	—	—	—	—	—	—	—
English proficiency unknown	2	—	—	—	—	—	—	—
No special education services	168	2544	77	15%	38%	29%	18%	46%
Special education services	30	2491	98	40%	33%	10%	17%	27%
Not economically disadvantaged	63	2550	83	13%	37%	32%	19%	51%
Economically disadvantaged	135	2530	82	22%	38%	23%	17%	40%
Migrant	2	—	—	—	—	—	—	—
Not migrant	196	2537	83	19%	37%	26%	18%	44%
Primary Ethnicity—Not Economically Disadvantaged								
American Indian or Alaska Native	2	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—
Hispanic or Latino	5	—	—	—	—	—	—	—
Black or African American	10	—	—	—	—	—	—	—
White	41	2565	77	7%	37%	34%	22%	56%
Two or more races	3	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	1	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic or Latino	77	2532	73	19%	42%	25%	14%	39%
Black or African American	21	2451	66	57%	38%	5%	—	5%
White	28	2587	71	4%	29%	25%	43%	68%
Two or more races	5	—	—	—	—	—	—	—

Table 11.D.12 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	67	2548	79	22%	31%	37%	9%	46%	
Male	39	2565	67	18%	23%	49%	10%	59%	
Female	28	2524	88	29%	43%	21%	7%	29%	
American Indian or Alaska Native	2	–	–	–	–	–	–	–	
Asian	0	–	–	–	–	–	–	–	
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	
Hispanic or Latino	12	2546	90	17%	33%	33%	17%	50%	
Black or African American	10	–	–	–	–	–	–	–	
White	42	2560	75	17%	29%	48%	7%	55%	
Two or more races	1	–	–	–	–	–	–	–	
English only	62	2551	78	23%	31%	37%	10%	47%	
Initially fluent English proficient	0	–	–	–	–	–	–	–	
English learner	1	–	–	–	–	–	–	–	
Reclassified fluent English proficient	4	–	–	–	–	–	–	–	
To be determined	0	–	–	–	–	–	–	–	
English proficiency unknown	0	–	–	–	–	–	–	–	
No special education services	51	2562	72	20%	25%	43%	12%	55%	
Special education services	16	2502	85	31%	50%	19%	–	19%	
Not economically disadvantaged	24	2546	86	21%	38%	33%	8%	42%	
Economically disadvantaged	43	2549	75	23%	28%	40%	9%	49%	
Migrant	0	–	–	–	–	–	–	–	
Not migrant	67	2548	79	22%	31%	37%	9%	46%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	1	–	–	–	–	–	–	–	
Asian	0	–	–	–	–	–	–	–	
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	
Hispanic or Latino	2	–	–	–	–	–	–	–	
Black or African American	1	–	–	–	–	–	–	–	
White	20	2546	92	20%	35%	35%	10%	45%	
Two or more races	0	–	–	–	–	–	–	–	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—
Hispanic or Latino	10	—	—	—	—	—	—	—	—
Black or African American	9	—	—	—	—	—	—	—	—
White	22	2573	53	14%	23%	59%	5%	64%	
Two or more races	1	—	—	—	—	—	—	—	

Table 11.D.13 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	70	2565	111	29%	29%	19%	24%	43%	
Male	36	2554	116	33%	25%	14%	28%	42%	
Female	34	2576	106	24%	32%	24%	21%	44%	
American Indian or Alaska Native	1	—	—	—	—	—	—	—	
Asian	3	—	—	—	—	—	—	—	
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	
Hispanic or Latino	10	—	—	—	—	—	—	—	
Black or African American	11	2496	113	55%	27%	9%	9%	18%	
White	44	2596	101	18%	32%	16%	34%	50%	
Two or more races	0	—	—	—	—	—	—	—	
English only	58	2567	114	28%	31%	17%	24%	41%	
Initially fluent English proficient	2	—	—	—	—	—	—	—	
English learner	4	—	—	—	—	—	—	—	
Reclassified fluent English proficient	6	—	—	—	—	—	—	—	
To be determined	0	—	—	—	—	—	—	—	
English proficiency unknown	0	—	—	—	—	—	—	—	
No special education services	51	2575	114	25%	29%	18%	27%	45%	
Special education services	19	2537	99	37%	26%	21%	16%	37%	
Not economically disadvantaged	36	2589	124	22%	25%	14%	39%	53%	
Economically disadvantaged	34	2539	90	35%	32%	24%	9%	32%	
Migrant	0	—	—	—	—	—	—	—	
Not migrant	70	2565	111	29%	29%	19%	24%	43%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	0	—	—	—	—	—	—	—	
Asian	3	—	—	—	—	—	—	—	
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	
Hispanic or Latino	1	—	—	—	—	—	—	—	
Black or African American	7	—	—	—	—	—	—	—	
White	25	2625	102	12%	28%	12%	48%	60%	
Two or more races	0	—	—	—	—	—	—	—	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—
Hispanic or Latino	9	—	—	—	—	—	—	—	—
Black or African American	4	—	—	—	—	—	—	—	—
White	19	2557	88	26%	37%	21%	16%	37%	—
Two or more races	0	—	—	—	—	—	—	—	—

Table 11.D.14 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
All valid scores	35	2462	105	83%	9%	6%	3%	9%	
Male	18	2457	93	83%	11%	6%	–	6%	
Female	17	2467	119	82%	6%	6%	6%	12%	
American Indian or Alaska Native	0	–	–	–	–	–	–	–	
Asian	2	–	–	–	–	–	–	–	
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	
Hispanic or Latino	16	2438	91	94%	–	6%	–	6%	
Black or African American	5	–	–	–	–	–	–	–	
White	8	–	–	–	–	–	–	–	
Two or more races	4	–	–	–	–	–	–	–	
English only	13	2486	130	77%	8%	8%	8%	15%	
Initially fluent English proficient	4	–	–	–	–	–	–	–	
English learner	3	–	–	–	–	–	–	–	
Reclassified fluent English proficient	5	–	–	–	–	–	–	–	
To be determined	0	–	–	–	–	–	–	–	
English proficiency unknown	10	–	–	–	–	–	–	–	
No special education services	24	2461	99	83%	8%	8%	–	8%	
Special education services	11	2465	122	82%	9%	–	9%	9%	
Not economically disadvantaged	12	2443	102	83%	8%	8%	–	8%	
Economically disadvantaged	23	2472	107	83%	9%	4%	4%	9%	
Migrant	0	–	–	–	–	–	–	–	
Not migrant	35	2462	105	83%	9%	6%	3%	9%	
Primary Ethnicity—Not Economically Disadvantaged									
American Indian or Alaska Native	0	–	–	–	–	–	–	–	
Asian	0	–	–	–	–	–	–	–	
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	
Hispanic or Latino	5	–	–	–	–	–	–	–	
Black or African American	0	–	–	–	–	–	–	–	
White	4	–	–	–	–	–	–	–	
Two or more races	3	–	–	–	–	–	–	–	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Achievement Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian or Alaska Native	0	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic or Latino	11	2453	105	91%	—	9%	—	9%
Black or African American	5	—	—	—	—	—	—	—
White	4	—	—	—	—	—	—	—
Two or more races	1	—	—	—	—	—	—	—

Table 11.D.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	627	2428	84	27%	46%	28%	31%	47%	21%	10%	68%	22%	26%	48%	27%
Male	309	2420	82	30%	45%	25%	37%	45%	17%	12%	68%	20%	30%	48%	22%
Female	318	2437	86	23%	47%	31%	25%	49%	25%	8%	69%	23%	21%	47%	31%
American Indian or Alaska Native	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian	13	2440	69	15%	62%	23%	15%	69%	15%	–	69%	31%	31%	46%	23%
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	169	2414	83	30%	50%	20%	31%	50%	19%	13%	73%	14%	28%	49%	23%
Black or African American	47	2400	82	38%	40%	21%	43%	38%	19%	17%	74%	9%	43%	43%	15%
White	337	2440	83	24%	43%	33%	30%	46%	23%	7%	66%	26%	21%	48%	31%
Two or more races	52	2439	86	19%	48%	33%	25%	52%	23%	10%	62%	29%	25%	49%	25%
English only	518	2430	86	26%	44%	30%	33%	46%	22%	9%	67%	23%	26%	46%	27%
Initially fluent English proficient	12	2421	36	18%	64%	18%	–	100%	–	–	100%	–	18%	73%	9%
English learner	65	2391	61	40%	52%	8%	38%	54%	8%	20%	75%	5%	37%	52%	11%
Reclassified fluent English proficient	31	2484	72	6%	55%	39%	6%	45%	48%	3%	61%	35%	–	45%	55%
To be determined	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No special education services	556	2434	82	24%	47%	29%	29%	49%	22%	9%	68%	23%	23%	49%	28%
Special education services	71	2388	90	46%	37%	17%	52%	34%	14%	18%	73%	8%	46%	37%	17%
Not economically disadvantaged	301	2442	85	24%	42%	34%	26%	47%	27%	8%	63%	30%	24%	43%	32%
Economically disadvantaged	326	2416	82	29%	49%	22%	36%	48%	16%	12%	74%	14%	27%	51%	22%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	627	2428	84	27%	46%	28%	31%	47%	21%	10%	68%	22%	26%	48%	27%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	32	2419	91	31%	38%	31%	28%	53%	19%	9%	66%	25%	31%	41%	28%
Black or African American	15	2421	83	33%	33%	33%	40%	33%	27%	20%	60%	20%	47%	27%	27%
White	211	2448	83	22%	43%	35%	26%	46%	28%	6%	64%	30%	20%	46%	34%
Two or more races	28	2445	94	18%	43%	39%	21%	46%	32%	7%	57%	36%	32%	36%	32%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	137	2413	82	30%	53%	17%	32%	50%	19%	14%	75%	11%	27%	51%	22%
Black or African American	32	2390	81	41%	44%	16%	44%	41%	16%	16%	81%	3%	41%	50%	9%
White	126	2425	82	27%	44%	29%	38%	46%	16%	9%	71%	20%	24%	50%	26%
Two or more races	24	2432	77	21%	54%	25%	29%	58%	13%	13%	67%	21%	17%	65%	17%

Table 11.D.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	607	2473	91	23%	44%	33%	28%	54%	18%	10%	66%	24%	17%	58%	25%
Male	323	2459	87	26%	49%	25%	34%	54%	12%	12%	66%	23%	19%	58%	23%
Female	284	2489	92	20%	39%	41%	21%	54%	26%	8%	67%	26%	14%	57%	28%
American Indian or Alaska Native	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	13	2476	79	46%	31%	23%	23%	69%	8%	15%	54%	31%	8%	77%	15%
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	168	2438	97	31%	43%	26%	38%	42%	21%	16%	69%	15%	20%	61%	19%
Black or African American	42	2434	76	36%	50%	14%	36%	52%	12%	14%	71%	14%	38%	55%	7%
White	329	2492	83	18%	44%	38%	24%	58%	17%	6%	64%	30%	14%	56%	30%
Two or more races	46	2498	85	17%	48%	35%	18%	58%	24%	11%	67%	22%	13%	53%	33%
English only	507	2483	88	21%	43%	36%	26%	55%	19%	8%	65%	27%	17%	56%	27%
Initially fluent English proficient	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English learner	55	2391	82	52%	43%	4%	58%	38%	4%	28%	67%	6%	27%	64%	9%
Reclassified fluent English proficient	36	2447	86	14%	61%	25%	15%	63%	22%	8%	75%	17%	12%	65%	23%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	516	2479	91	19%	45%	35%	24%	56%	20%	9%	66%	26%	15%	58%	27%
Special education services	91	2435	82	45%	37%	18%	49%	44%	7%	18%	67%	16%	26%	57%	17%
Not economically disadvantaged	357	2494	83	18%	43%	39%	23%	58%	19%	7%	63%	30%	14%	57%	29%
Economically disadvantaged	250	2443	93	32%	45%	23%	37%	47%	17%	14%	70%	16%	22%	59%	19%
Migrant	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not migrant	607	2473	91	23%	44%	33%	28%	54%	18%	10%	66%	24%	17%	58%	25%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	55	2478	81	21%	42%	38%	30%	49%	21%	11%	67%	22%	13%	64%	23%
Black or African American	19	2456	66	32%	58%	11%	26%	47%	26%	11%	74%	16%	26%	63%	11%
White	249	2500	81	15%	43%	42%	21%	61%	17%	5%	62%	33%	12%	56%	32%
Two or more races	21	2510	103	14%	43%	43%	14%	48%	38%	10%	67%	24%	19%	43%	38%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	113	2418	99	36%	44%	20%	42%	38%	20%	18%	71%	12%	24%	60%	16%
Black or African American	23	2416	81	39%	43%	17%	43%	57%	–	17%	70%	13%	48%	48%	4%
White	80	2467	86	28%	46%	26%	34%	49%	18%	8%	72%	20%	19%	58%	22%
Two or more races	25	2487	66	20%	52%	28%	21%	67%	13%	12%	68%	20%	8%	63%	29%

Table 11.D.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	479	2520	81	15%	48%	37%	21%	57%	23%	8%	71%	20%	19%	56%	25%
Male	222	2508	77	18%	51%	31%	25%	57%	17%	9%	71%	20%	19%	62%	19%
Female	257	2530	84	14%	44%	42%	16%	56%	27%	8%	71%	20%	19%	52%	30%
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	15	2522	77	13%	47%	40%	20%	47%	33%	20%	67%	13%	13%	60%	27%
Native Hawaiian or Other Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	143	2505	78	19%	50%	31%	23%	61%	16%	10%	70%	20%	24%	57%	19%
Black or African American	39	2470	75	31%	64%	5%	29%	61%	11%	21%	72%	8%	31%	57%	11%
White	242	2533	83	13%	43%	44%	18%	55%	27%	6%	70%	24%	16%	54%	30%
Two or more races	34	2545	55	3%	47%	50%	18%	59%	24%	—	88%	12%	9%	68%	24%
English only	378	2524	81	14%	47%	39%	20%	57%	24%	8%	71%	21%	17%	56%	28%
Initially fluent English proficient	19	2526	69	16%	53%	32%	11%	68%	21%	—	89%	11%	37%	47%	16%
English learner	38	2442	67	37%	55%	8%	49%	49%	3%	19%	76%	5%	32%	62%	6%
Reclassified fluent English proficient	41	2542	60	7%	44%	49%	10%	61%	29%	5%	63%	33%	17%	63%	20%
To be determined	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	413	2528	77	12%	48%	40%	18%	58%	24%	5%	73%	22%	18%	56%	27%
Special education services	66	2469	90	35%	45%	20%	37%	49%	14%	28%	62%	11%	27%	61%	13%
Not economically disadvantaged	260	2534	78	12%	46%	42%	19%	55%	26%	5%	71%	24%	14%	58%	28%
Economically disadvantaged	219	2503	83	20%	49%	31%	23%	59%	18%	12%	72%	16%	25%	55%	21%
Migrant	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not migrant	479	2520	81	15%	48%	37%	21%	57%	23%	8%	71%	20%	19%	56%	25%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	11	2512	78	18%	45%	36%	18%	55%	27%	18%	64%	18%	18%	64%	18%
Native Hawaiian or Other Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	47	2513	79	19%	47%	34%	21%	64%	15%	7%	70%	24%	17%	57%	26%
Black or African American	13	2496	80	8%	85%	8%	17%	58%	25%	8%	85%	8%	17%	75%	8%
White	167	2543	77	10%	45%	46%	17%	54%	29%	4%	70%	26%	14%	54%	31%
Two or more races	18	2553	55	6%	33%	61%	28%	50%	22%	—	78%	22%	—	78%	22%
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	96	2501	78	19%	52%	29%	24%	59%	17%	12%	71%	18%	28%	57%	15%
Black or African American	26	2457	70	42%	54%	4%	35%	62%	4%	27%	65%	8%	39%	48%	13%
White	75	2511	92	20%	40%	40%	22%	57%	22%	9%	71%	20%	19%	53%	28%
Two or more races	16	2536	56	—	63%	38%	6%	69%	25%	—	100%	—	19%	56%	25%

Table 11.D.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	203	2524	95	27%	45%	28%	25%	56%	20%	13%	79%	9%	18%	57%	25%
Male	89	2511	95	32%	42%	26%	31%	56%	14%	17%	76%	7%	26%	55%	19%
Female	114	2534	95	24%	47%	29%	20%	56%	25%	9%	81%	10%	12%	58%	30%
American Indian or Alaska Native	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	83	2504	87	36%	44%	20%	29%	57%	14%	12%	84%	4%	17%	58%	25%
Black or African American	33	2484	96	48%	39%	12%	42%	42%	16%	24%	67%	9%	30%	53%	17%
White	72	2571	85	6%	50%	44%	11%	60%	29%	3%	81%	16%	13%	56%	31%
Two or more races	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English only	143	2538	94	20%	46%	34%	22%	57%	22%	11%	77%	12%	18%	56%	27%
Initially fluent English proficient	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English learner	24	2435	68	67%	33%	—	59%	41%	—	29%	71%	—	33%	62%	5%
Reclassified fluent English proficient	28	2517	83	33%	44%	22%	16%	64%	20%	11%	89%	—	14%	57%	29%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	171	2533	89	24%	47%	29%	20%	60%	20%	9%	81%	9%	15%	58%	28%
Special education services	32	2473	113	44%	34%	22%	48%	35%	16%	30%	67%	3%	38%	52%	10%
Not economically disadvantaged	65	2556	92	17%	40%	43%	17%	54%	29%	6%	80%	14%	17%	60%	23%
Economically disadvantaged	138	2509	93	32%	47%	21%	29%	57%	15%	16%	79%	6%	19%	55%	26%
Migrant	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not migrant	201	2525	95	27%	45%	28%	24%	56%	20%	12%	79%	9%	18%	57%	25%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black or African American	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	43	2568	85	9%	44%	47%	14%	56%	30%	2%	81%	17%	16%	63%	21%
Two or more races	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	78	2505	86	34%	47%	18%	30%	56%	14%	13%	83%	4%	16%	59%	25%
Black or African American	23	2449	62	61%	39%	—	52%	48%	—	30%	65%	4%	45%	50%	5%
White	29	2576	85	—	59%	41%	7%	66%	28%	4%	82%	14%	7%	46%	46%
Two or more races	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	72	2551	105	20%	49%	31%	22%	51%	26%	21%	72%	7%	9%	59%	32%
Male	42	2557	86	17%	55%	29%	17%	59%	24%	21%	74%	5%	8%	62%	31%
Female	30	2543	127	24%	41%	34%	30%	41%	30%	21%	69%	10%	11%	56%	33%
American Indian or Alaska Native	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	12	2519	127	27%	36%	36%	27%	55%	18%	25%	67%	8%	33%	33%	33%
Black or African American	11	2494	122	55%	18%	27%	50%	38%	13%	30%	70%	—	—	63%	38%
White	45	2577	90	11%	56%	33%	16%	51%	33%	18%	73%	9%	7%	60%	33%
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English only	67	2561	98	18%	49%	33%	22%	50%	28%	18%	74%	8%	5%	62%	33%
Initially fluent English proficient	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English learner	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Reclassified fluent English proficient	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	55	2570	97	13%	52%	35%	10%	59%	31%	15%	80%	6%	4%	58%	38%
Special education services	17	2489	107	41%	41%	18%	59%	29%	12%	41%	47%	12%	25%	63%	13%
Not economically disadvantaged	26	2547	108	23%	50%	27%	27%	46%	27%	23%	73%	4%	12%	48%	40%
Economically disadvantaged	46	2554	104	18%	49%	33%	19%	55%	26%	20%	71%	9%	7%	66%	27%
Migrant	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not migrant	72	2551	105	20%	49%	31%	22%	51%	26%	21%	72%	7%	9%	59%	32%

			Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
	Number Tested	Mean Scale Score	SD of Scale Scores	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black or African American	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	22	2556	107	23%	50%	27%	23%	45%	32%	18%	77%	5%	14%	45%	41%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black or African American	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	23	2597	66	—	61%	39%	9%	57%	35%	17%	70%	13%	—	74%	26%
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	71	2577	97	18%	44%	38%	28%	45%	27%	11%	68%	21%	15%	58%	27%
Male	37	2558	97	24%	38%	38%	38%	43%	19%	16%	65%	19%	19%	57%	24%
Female	34	2599	93	12%	50%	38%	18%	47%	35%	6%	71%	24%	12%	59%	29%
American Indian or Alaska Native	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Black or African American	11	2542	94	27%	45%	27%	36%	45%	18%	18%	64%	18%	18%	55%	27%
White	46	2592	96	15%	41%	43%	24%	46%	30%	11%	67%	22%	11%	61%	28%
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English only	60	2579	96	18%	40%	42%	27%	48%	25%	13%	63%	23%	13%	62%	25%
Initially fluent English proficient	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English learner	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Reclassified fluent English proficient	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No special education services	53	2587	99	13%	42%	45%	26%	45%	28%	11%	62%	26%	15%	58%	26%
Special education services	18	2549	86	33%	50%	17%	33%	44%	22%	11%	83%	6%	17%	56%	28%
Not economically disadvantaged	37	2590	106	19%	35%	46%	27%	32%	41%	11%	70%	19%	14%	57%	30%
Economically disadvantaged	34	2563	85	18%	53%	29%	29%	59%	12%	12%	65%	24%	18%	59%	24%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	71	2577	97	18%	44%	38%	28%	45%	27%	11%	68%	21%	15%	58%	27%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black or African American	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	26	2607	106	15%	31%	54%	23%	31%	46%	8%	73%	19%	8%	62%	31%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black or African American	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	20	2572	78	15%	55%	30%	25%	65%	10%	15%	60%	25%	15%	60%	25%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	34	2566	96	24%	53%	24%	32%	41%	26%	26%	68%	6%	26%	56%	18%
Male	18	2542	100	28%	61%	11%	39%	39%	22%	33%	56%	11%	33%	50%	17%
Female	16	2593	87	19%	44%	38%	25%	44%	31%	19%	81%	–	19%	63%	19%
American Indian or Alaska Native	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	15	2509	75	47%	40%	13%	47%	40%	13%	53%	47%	–	47%	53%	–
Black or African American	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
White	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Two or more races	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English only	13	2614	116	15%	46%	38%	15%	46%	38%	15%	69%	15%	15%	46%	38%
Initially fluent English proficient	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English learner	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Reclassified fluent English proficient	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No special education services	23	2561	89	17%	61%	22%	39%	35%	26%	22%	74%	4%	26%	57%	17%
Special education services	11	2576	113	36%	36%	27%	18%	55%	27%	36%	55%	9%	27%	55%	18%
Not economically disadvantaged	11	2587	90	18%	55%	27%	27%	36%	36%	18%	82%	–	18%	64%	18%
Economically disadvantaged	23	2556	99	26%	52%	22%	35%	43%	22%	30%	61%	9%	30%	52%	17%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	34	2566	96	24%	53%	24%	32%	41%	26%	26%	68%	6%	26%	56%	18%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged															
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black or African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged															
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	11	2507	75	45%	36%	18%	45%	45%	9%	55%	45%	—	45%	55%	—
Black or African American	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	621	2417	71	42%	50%	9%	29%	50%	21%	10%	73%	17%
Male	301	2419	69	38%	53%	10%	29%	47%	24%	9%	72%	19%
Female	320	2414	73	45%	47%	8%	29%	53%	18%	11%	74%	16%
American Indian or Alaska Native	3	–	–	–	–	–	–	–	–	–	–	–
Asian	13	2437	58	23%	69%	8%	15%	62%	23%	15%	62%	23%
Native Hawaiian or Other Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	168	2406	64	44%	52%	4%	33%	57%	10%	10%	77%	14%
Black or African American	43	2408	60	35%	63%	2%	42%	37%	21%	9%	79%	12%
White	336	2424	74	40%	47%	12%	26%	47%	26%	9%	72%	19%
Two or more races	52	2414	77	48%	48%	4%	27%	50%	23%	19%	62%	19%
English only	512	2416	74	42%	49%	9%	29%	48%	23%	11%	72%	17%
Initially fluent English proficient	13	2419	57	31%	54%	15%	31%	62%	8%	15%	69%	15%
English learner	64	2400	50	51%	46%	3%	43%	54%	3%	3%	87%	10%
Reclassified fluent English proficient	31	2455	45	23%	68%	10%	–	74%	26%	3%	61%	35%
To be determined	0	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–	–	–	–	–
No special education services	547	2423	68	38%	53%	9%	26%	53%	21%	9%	72%	19%
Special education services	74	2370	77	68%	29%	3%	54%	30%	16%	19%	76%	5%
Not economically disadvantaged	298	2427	73	36%	53%	12%	24%	49%	27%	9%	69%	22%
Economically disadvantaged	323	2407	68	47%	47%	6%	34%	51%	15%	11%	76%	13%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–
Not migrant	621	2417	71	42%	50%	9%	29%	50%	21%	10%	73%	17%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Standard			Standard			Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	3	—	—	—	—	—	—	—	—	—	—	—	—
Asian	9	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	31	2413	68	39%	55%	6%	29%	52%	19%	10%	71%	19%	
Black or African American	15	2421	60	20%	73%	7%	27%	47%	27%	—	87%	13%	
White	208	2430	74	37%	49%	14%	24%	48%	28%	7%	72%	21%	
Two or more races	29	2430	76	38%	59%	3%	24%	45%	31%	24%	45%	31%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	137	2405	63	46%	51%	4%	34%	59%	7%	10%	78%	13%	
Black or African American	28	2401	60	43%	57%	—	50%	32%	18%	14%	75%	11%	
White	128	2414	72	46%	44%	10%	31%	46%	24%	12%	72%	16%	
Two or more races	23	2392	74	61%	35%	4%	30%	57%	13%	13%	83%	4%	

Table 11.D.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	609	2468	66	42%	42%	16%	19%	64%	17%	20%	62%	18%
Male	324	2466	67	42%	42%	16%	20%	65%	15%	23%	60%	17%
Female	285	2471	66	41%	42%	16%	19%	62%	18%	18%	64%	19%
American Indian or Alaska Native	7	—	—	—	—	—	—	—	—	—	—	—
Asian	13	2457	72	54%	38%	8%	8%	85%	8%	31%	54%	15%
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	170	2449	61	52%	38%	10%	30%	63%	7%	24%	65%	11%
Black or African American	37	2454	74	41%	41%	19%	30%	62%	8%	30%	59%	11%
White	332	2478	65	37%	45%	18%	14%	64%	22%	19%	61%	20%
Two or more races	48	2485	66	35%	44%	21%	15%	65%	21%	8%	60%	31%
English only	508	2474	67	39%	43%	18%	16%	65%	19%	19%	61%	20%
Initially fluent English proficient	9	—	—	—	—	—	—	—	—	—	—	—
English learner	55	2413	46	76%	22%	2%	55%	45%	—	41%	59%	—
Reclassified fluent English proficient	36	2474	56	31%	51%	17%	11%	77%	11%	6%	77%	17%
To be determined	1	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—
No special education services	517	2472	66	39%	43%	18%	17%	66%	17%	18%	64%	18%
Special education services	92	2445	67	56%	34%	10%	33%	55%	12%	33%	52%	15%
Not economically disadvantaged	359	2479	66	38%	43%	20%	15%	64%	21%	19%	60%	21%
Economically disadvantaged	250	2453	64	47%	41%	12%	26%	64%	10%	23%	64%	13%
Migrant	0	—	—	—	—	—	—	—	—	—	—	—
Not migrant	609	2468	66	42%	42%	16%	19%	64%	17%	20%	62%	18%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Standard			Standard			Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian or Alaska Native	3	—	—	—	—	—	—	—	—	—	—	—	—
Asian	10	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	56	2461	55	54%	34%	13%	20%	71%	9%	20%	66%	14%	
Black or African American	17	2468	74	41%	35%	24%	29%	59%	12%	24%	65%	12%	
White	251	2483	66	33%	46%	21%	13%	63%	24%	19%	60%	22%	
Two or more races	22	2503	72	32%	41%	27%	14%	50%	36%	5%	50%	45%	
Primary Ethnicity—Economically Disadvantaged													
American Indian or Alaska Native	4	—	—	—	—	—	—	—	—	—	—	—	—
Asian	3	—	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	114	2443	64	51%	40%	9%	35%	58%	6%	27%	64%	9%	
Black or African American	20	2443	74	40%	45%	15%	30%	65%	5%	35%	55%	10%	
White	81	2462	61	48%	42%	10%	16%	67%	17%	19%	67%	15%	
Two or more races	26	2470	58	38%	46%	15%	15%	77%	8%	12%	69%	19%	

Table 11.D.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	474	2491	67	52%	41%	8%	28%	56%	15%	19%	70%	11%
Male	216	2490	68	53%	40%	7%	28%	55%	17%	20%	69%	11%
Female	258	2493	66	51%	42%	8%	29%	57%	14%	18%	71%	11%
American Indian or Alaska Native	1	–	–	–	–	–	–	–	–	–	–	–
Asian	15	2494	77	53%	33%	13%	20%	73%	7%	20%	73%	7%
Native Hawaiian or Other Pacific Islander	3	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	140	2480	65	51%	43%	6%	41%	50%	9%	22%	71%	7%
Black or African American	34	2449	66	65%	32%	3%	65%	35%	–	29%	71%	–
White	246	2501	65	52%	40%	7%	18%	61%	21%	17%	69%	14%
Two or more races	33	2510	59	39%	45%	15%	15%	67%	18%	12%	73%	15%
English only	374	2494	67	53%	39%	8%	24%	59%	17%	18%	71%	12%
Initially fluent English proficient	19	2480	61	47%	53%	–	47%	53%	–	21%	74%	5%
English learner	36	2439	65	69%	28%	3%	75%	25%	–	42%	56%	3%
Reclassified fluent English proficient	42	2516	52	26%	62%	12%	17%	67%	17%	14%	74%	12%
To be determined	1	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	2	–	–	–	–	–	–	–	–	–	–	–
No special education services	410	2499	65	47%	44%	9%	25%	58%	17%	16%	72%	13%
Special education services	64	2444	61	81%	19%	–	48%	46%	6%	40%	59%	2%
Not economically disadvantaged	262	2502	63	47%	44%	8%	19%	62%	18%	15%	73%	12%
Economically disadvantaged	212	2478	69	57%	36%	7%	40%	49%	11%	24%	66%	10%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–
Not migrant	474	2491	67	52%	41%	8%	28%	56%	15%	19%	70%	11%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged												
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—
Asian	11	2484	77	55%	36%	9%	27%	73%	—	18%	82%	—
Native Hawaiian or Other Pacific Islander	3	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	45	2485	72	51%	40%	9%	29%	62%	9%	22%	71%	7%
Black or African American	14	2476	61	57%	36%	7%	43%	57%	—	14%	86%	—
White	170	2508	60	47%	46%	7%	16%	61%	23%	13%	72%	15%
Two or more races	18	2519	57	33%	44%	22%	6%	72%	22%	22%	67%	11%
Primary Ethnicity—Economically Disadvantaged												
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—
Asian	4	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	95	2478	62	51%	44%	5%	47%	44%	8%	22%	71%	7%
Black or African American	20	2430	63	70%	30%	—	80%	20%	—	40%	60%	—
White	76	2483	74	64%	28%	8%	24%	60%	16%	25%	63%	12%
Two or more races	15	2499	60	47%	47%	7%	27%	60%	13%	—	80%	20%

Table 11.D.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	198	2536	83	29%	44%	27%	29%	46%	24%	19%	63%	18%
Male	83	2528	89	31%	40%	29%	33%	45%	22%	23%	57%	20%
Female	115	2542	78	27%	47%	25%	27%	47%	26%	16%	68%	17%
American Indian or Alaska Native	3	—	—	—	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	82	2530	73	30%	52%	17%	35%	43%	22%	24%	59%	17%
Black or African American	31	2485	84	55%	32%	13%	59%	24%	17%	32%	58%	10%
White	69	2574	75	13%	41%	46%	9%	59%	32%	4%	68%	28%
Two or more races	8	—	—	—	—	—	—	—	—	—	—	—
English only	138	2544	86	26%	40%	34%	26%	48%	26%	16%	64%	20%
Initially fluent English proficient	6	—	—	—	—	—	—	—	—	—	—	—
English learner	24	2472	72	63%	38%	—	63%	33%	4%	46%	46%	8%
Reclassified fluent English proficient	28	2539	59	25%	61%	14%	22%	48%	30%	14%	68%	18%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	2	—	—	—	—	—	—	—	—	—	—	—
No special education services	168	2544	77	24%	47%	29%	26%	49%	26%	17%	65%	19%
Special education services	30	2491	98	57%	27%	17%	50%	33%	17%	30%	53%	17%
Not economically disadvantaged	63	2550	83	19%	42%	39%	16%	60%	24%	18%	61%	21%
Economically disadvantaged	135	2530	82	33%	45%	21%	36%	40%	24%	19%	64%	17%
Migrant	2	—	—	—	—	—	—	—	—	—	—	—
Not migrant	196	2537	83	29%	44%	27%	30%	46%	24%	18%	63%	18%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged												
American Indian or Alaska Native	2	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	5	—	—	—	—	—	—	—	—	—	—	—
Black or African American	10	—	—	—	—	—	—	—	—	—	—	—
White	41	2565	77	13%	45%	43%	8%	65%	28%	5%	70%	25%
Two or more races	3	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged												
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—
Asian	2	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	77	2532	73	29%	55%	17%	34%	42%	24%	22%	60%	18%
Black or African American	21	2451	66	76%	19%	5%	79%	16%	5%	33%	67%	—
White	28	2587	71	14%	36%	50%	11%	50%	39%	4%	64%	32%
Two or more races	5	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	67	2548	79	29%	48%	23%	14%	54%	32%	11%	75%	14%
Male	39	2565	67	23%	51%	26%	10%	54%	36%	8%	77%	15%
Female	28	2524	88	38%	42%	19%	19%	54%	27%	15%	73%	12%
American Indian or Alaska Native	2	–	–	–	–	–	–	–	–	–	–	–
Asian	0	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	12	2546	90	25%	58%	17%	8%	67%	25%	8%	75%	17%
Black or African American	10	–	–	–	–	–	–	–	–	–	–	–
White	42	2560	75	24%	49%	27%	15%	46%	39%	7%	83%	10%
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–
English only	62	2551	78	30%	45%	25%	15%	50%	35%	12%	73%	15%
Initially fluent English proficient	0	–	–	–	–	–	–	–	–	–	–	–
English learner	1	–	–	–	–	–	–	–	–	–	–	–
Reclassified fluent English proficient	4	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–	–	–	–	–
No special education services	51	2562	72	26%	44%	30%	14%	48%	38%	8%	74%	18%
Special education services	16	2502	85	40%	60%	–	13%	73%	13%	20%	80%	–
Not economically disadvantaged	24	2546	86	35%	39%	26%	17%	52%	30%	4%	87%	9%
Economically disadvantaged	43	2549	75	26%	52%	21%	12%	55%	33%	14%	69%	17%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–
Not migrant	67	2548	79	29%	48%	23%	14%	54%	32%	11%	75%	14%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged												
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	2	—	—	—	—	—	—	—	—	—	—	—
Black or African American	1	—	—	—	—	—	—	—	—	—	—	—
White	20	2546	92	37%	32%	32%	21%	47%	32%	5%	84%	11%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged												
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	10	—	—	—	—	—	—	—	—	—	—	—
Black or African American	9	—	—	—	—	—	—	—	—	—	—	—
White	22	2573	53	14%	64%	23%	9%	45%	45%	9%	82%	9%
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	70	2565	111	36%	37%	27%	21%	57%	21%	11%	76%	13%
Male	36	2554	116	42%	33%	25%	28%	53%	19%	17%	72%	11%
Female	34	2576	106	29%	41%	29%	15%	62%	24%	6%	79%	15%
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—
Asian	3	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	10	—	—	—	—	—	—	—	—	—	—	—
Black or African American	11	2496	113	64%	27%	9%	18%	73%	9%	27%	73%	—
White	44	2596	101	25%	39%	36%	23%	45%	32%	11%	70%	18%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—
English only	58	2567	114	34%	36%	29%	24%	52%	24%	14%	76%	10%
Initially fluent English proficient	2	—	—	—	—	—	—	—	—	—	—	—
English learner	4	—	—	—	—	—	—	—	—	—	—	—
Reclassified fluent English proficient	6	—	—	—	—	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—
No special education services	51	2575	114	33%	35%	31%	20%	53%	27%	12%	76%	12%
Special education services	19	2537	99	42%	42%	16%	26%	68%	5%	11%	74%	16%
Not economically disadvantaged	36	2589	124	33%	25%	42%	17%	44%	39%	6%	75%	19%
Economically disadvantaged	34	2539	90	38%	50%	12%	26%	71%	3%	18%	76%	6%
Migrant	0	—	—	—	—	—	—	—	—	—	—	—
Not migrant	70	2565	111	36%	37%	27%	21%	57%	21%	11%	76%	13%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged												
American Indian or Alaska Native	0	—	—	—	—	—	—	—	—	—	—	—
Asian	3	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	1	—	—	—	—	—	—	—	—	—	—	—
Black or African American	7	—	—	—	—	—	—	—	—	—	—	—
White	25	2625	102	24%	24%	52%	16%	32%	52%	4%	68%	28%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—
Primary Ethnicity—Economically Disadvantaged												
American Indian or Alaska Native	1	—	—	—	—	—	—	—	—	—	—	—
Asian	0	—	—	—	—	—	—	—	—	—	—	—
Native Hawaiian or Other Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic or Latino	9	—	—	—	—	—	—	—	—	—	—	—
Black or African American	4	—	—	—	—	—	—	—	—	—	—	—
White	19	2557	88	26%	58%	16%	32%	63%	5%	21%	74%	5%
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—

Table 11.D.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	35	2462	105	89%	6%	6%	14%	83%	3%	31%	60%	9%
Male	18	2457	93	89%	6%	6%	11%	89%	–	33%	67%	–
Female	17	2467	119	88%	6%	6%	18%	76%	6%	29%	53%	18%
American Indian or Alaska Native	0	–	–	–	–	–	–	–	–	–	–	–
Asian	2	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	16	2438	91	94%	–	6%	25%	75%	–	38%	63%	–
Black or African American	5	–	–	–	–	–	–	–	–	–	–	–
White	8	–	–	–	–	–	–	–	–	–	–	–
Two or more races	4	–	–	–	–	–	–	–	–	–	–	–
English only	13	2486	130	85%	8%	8%	15%	77%	8%	23%	54%	23%
Initially fluent English proficient	4	–	–	–	–	–	–	–	–	–	–	–
English learner	3	–	–	–	–	–	–	–	–	–	–	–
Reclassified fluent English proficient	5	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	10	–	–	–	–	–	–	–	–	–	–	–
No special education services	24	2461	99	92%	4%	4%	13%	88%	–	25%	67%	8%
Special education services	11	2465	122	82%	9%	9%	18%	73%	9%	45%	45%	9%
Not economically disadvantaged	12	2443	102	92%	8%	–	17%	83%	–	33%	50%	17%
Economically disadvantaged	23	2472	107	87%	4%	9%	13%	83%	4%	30%	65%	4%
Migrant	0	–	–	–	–	–	–	–	–	–	–	–
Not migrant	35	2462	105	89%	6%	6%	14%	83%	3%	31%	60%	9%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Not Economically Disadvantaged												
American Indian or Alaska Native	0	–	–	–	–	–	–	–	–	–	–	–
Asian	0	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	5	–	–	–	–	–	–	–	–	–	–	–
Black or African American	0	–	–	–	–	–	–	–	–	–	–	–
White	4	–	–	–	–	–	–	–	–	–	–	–
Two or more races	3	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged												
American Indian or Alaska Native	0	–	–	–	–	–	–	–	–	–	–	–
Asian	2	–	–	–	–	–	–	–	–	–	–	–
Native Hawaiian or Other Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic or Latino	11	2453	105	91%	–	9%	27%	73%	–	18%	82%	–
Black or African American	5	–	–	–	–	–	–	–	–	–	–	–
White	4	–	–	–	–	–	–	–	–	–	–	–
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–

Appendix 11.E: IRT Parameter Estimates

Table 11.E.1 IRT a -values for ELA, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.73	0.25	0.32	1.13
Claim 2	12	0.62	0.20	0.28	0.99
Claim 3	9	0.58	0.17	0.36	0.85
Claim 4	11	0.67	0.22	0.31	1.09
All items	51	0.67	0.22	0.28	1.13

Table 11.E.2 IRT a -values for ELA, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.69	0.30	0.24	1.41
Claim 2	12	0.55	0.22	0.25	1.06
Claim 3	9	0.58	0.21	0.27	0.81
Claim 4	9	0.59	0.06	0.44	0.64
All items	50	0.62	0.24	0.24	1.41

Table 11.E.3 IRT a -values for ELA, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.65	0.24	0.28	1.16
Claim 2	12	0.72	0.18	0.53	1.06
Claim 3	9	0.55	0.16	0.31	0.76
Claim 4	11	0.54	0.18	0.32	0.89
All items	51	0.63	0.21	0.28	1.16

Table 11.E.4 IRT a -values for ELA, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.60	0.20	0.27	1.00
Claim 2	12	0.55	0.12	0.30	0.71
Claim 3	8	0.54	0.20	0.22	0.85
Claim 4	11	0.51	0.18	0.24	0.79
All items	52	0.56	0.18	0.22	1.00

Table 11.E.5 IRT a -values for ELA, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.55	0.18	0.21	0.80
Claim 2	12	0.51	0.20	0.22	0.90
Claim 3	9	0.53	0.22	0.18	0.82
Claim 4	10	0.47	0.14	0.19	0.68
All items	51	0.52	0.18	0.18	0.90

Table 11.E.6 IRT a -values for ELA, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.56	0.21	0.15	0.85
Claim 2	12	0.60	0.27	0.15	1.24
Claim 3	9	0.40	0.15	0.18	0.61
Claim 4	10	0.57	0.25	0.23	1.01
All items	52	0.54	0.23	0.15	1.24

Table 11.E.7 IRT a -values for ELA, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.54	0.20	0.17	0.90
Claim 2	12	0.46	0.15	0.19	0.69
Claim 3	9	0.43	0.18	0.23	0.78
Claim 4	10	0.50	0.23	0.12	0.79
All items	50	0.49	0.19	0.12	0.90

Table 11.E.8 IRT a -values for Mathematics, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.91	0.28	0.48	1.38
Claim 2	12	0.87	0.26	0.41	1.26
Claim 3	9	0.81	0.34	0.35	1.28
All items	41	0.87	0.29	0.35	1.38

Table 11.E.9 IRT a -values for Mathematics, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.83	0.22	0.35	1.39
Claim 2	10	0.64	0.24	0.30	1.03
Claim 3	10	0.74	0.29	0.41	1.37
All items	41	0.76	0.25	0.30	1.39

Table 11.E.10 IRT a -values for Mathematics, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.70	0.28	0.37	1.34
Claim 2	11	0.59	0.22	0.27	1.02
Claim 3	10	0.62	0.25	0.26	1.05
All items	41	0.65	0.25	0.26	1.34

Table 11.E.11 IRT a -values for Mathematics, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.79	0.30	0.22	1.33
Claim 2	11	0.96	0.21	0.59	1.31
Claim 3	10	0.75	0.29	0.18	1.25
All items	40	0.83	0.28	0.18	1.33

Table 11.E.12 IRT a -values for Mathematics, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.77	0.29	0.25	1.27
Claim 2	11	0.93	0.26	0.52	1.46
Claim 3	10	0.69	0.42	0.14	1.68
All items	41	0.80	0.32	0.14	1.68

Table 11.E.13 IRT a -values for Mathematics, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.56	0.26	0.12	1.08
Claim 2	10	0.57	0.22	0.25	0.86
Claim 3	9	0.45	0.16	0.18	0.66
All items	39	0.54	0.23	0.12	1.08

Table 11.E.14 IRT a -values for Mathematics, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.46	0.22	0.11	0.89
Claim 2	11	0.47	0.18	0.10	0.69
Claim 3	10	0.48	0.28	0.15	1.09
All items	42	0.47	0.22	0.10	1.09

Table 11.E.15 IRT b -values for ELA, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	-0.74	1.09	-2.08	1.35
Claim 2	12	-1.01	0.63	-2.02	-0.03
Claim 3	9	-0.27	0.52	-0.83	0.51
Claim 4	11	-0.74	0.89	-2.03	0.86
All items	51	-0.72	0.88	-2.08	1.35

Table 11.E.16 IRT b -values for ELA, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	-0.12	1.23	-1.73	2.64
Claim 2	12	-0.99	0.98	-2.32	1.17
Claim 3	9	-0.00	1.42	-1.68	2.87
Claim 4	9	-0.45	0.91	-1.74	0.91
All items	50	-0.37	1.19	-2.32	2.87

Table 11.E.17 IRT b -values for ELA, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.47	1.23	-1.58	3.85
Claim 2	12	-0.63	1.22	-2.10	1.62
Claim 3	9	0.31	1.31	-1.12	2.55
Claim 4	11	0.59	1.49	-1.30	4.14
All items	51	0.21	1.35	-2.10	4.14

Table 11.E.18 IRT *b*-values for ELA, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.57	1.49	-1.05	4.69
Claim 2	12	-0.22	0.94	-1.38	1.68
Claim 3	8	-0.04	0.70	-0.82	1.38
Claim 4	11	0.32	0.70	-0.93	1.66
All items	52	0.24	1.15	-1.38	4.69

Table 11.E.19 IRT *b*-values for ELA, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.69	1.30	-1.84	3.83
Claim 2	12	1.20	1.51	-0.34	5.35
Claim 3	9	0.54	1.26	-1.02	2.32
Claim 4	10	1.78	0.98	0.52	3.57
All items	51	1.00	1.33	-1.84	5.35

Table 11.E.20 IRT *b*-values for ELA, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.94	1.02	-0.54	2.69
Claim 2	12	0.42	1.61	-3.01	2.34
Claim 3	9	1.32	1.13	-0.01	3.33
Claim 4	10	1.24	1.21	-0.45	3.57
All items	52	0.94	1.24	-3.01	3.57

Table 11.E.21 IRT *b*-values for ELA, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	1.92	2.01	-0.39	7.25
Claim 2	12	1.67	1.15	0.06	4.24
Claim 3	9	1.28	1.89	-0.93	4.30
Claim 4	10	1.24	1.00	0.33	3.64
All items	50	1.61	1.62	-0.93	7.25

Table 11.E.22 IRT *b*-values for Mathematics, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	-1.96	0.74	-3.15	-0.07
Claim 2	12	-1.28	0.99	-2.68	0.72
Claim 3	9	-0.09	0.99	-1.08	2.32
All items	41	-1.35	1.13	-3.15	2.32

Table 11.E.23 IRT *b*-values for Mathematics, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	-0.67	0.87	-2.69	0.67
Claim 2	10	-0.32	1.36	-1.51	2.66
Claim 3	10	-0.25	0.57	-1.17	0.38
All items	41	-0.48	0.95	-2.69	2.66

Table 11.E.24 IRT *b*-values for Mathematics, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	-0.20	0.69	-1.99	0.82
Claim 2	11	0.23	0.90	-1.14	2.04
Claim 3	10	0.70	1.15	-1.22	2.20
All items	41	0.14	0.93	-1.99	2.20

Table 11.E.25 IRT *b*-values for Mathematics, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.78	0.76	-0.31	2.83
Claim 2	11	1.24	0.88	-0.18	2.44
Claim 3	10	1.76	0.82	0.18	3.37
All items	40	1.15	0.89	-0.31	3.37

Table 11.E.26 IRT *b*-values for Mathematics, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	1.14	1.07	-2.24	2.72
Claim 2	11	1.61	0.76	0.31	2.57
Claim 3	10	2.34	2.48	-0.00	8.70
All items	41	1.56	1.52	-2.24	8.70

Table 11.E.27 IRT *b*-values for Mathematics, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	1.27	1.23	-0.42	4.70
Claim 2	10	2.61	1.06	1.14	4.78
Claim 3	9	2.39	1.45	0.51	5.44
All items	39	1.87	1.36	-0.42	5.44

Table 11.E.28 IRT *b*-values for Mathematics, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	2.24	2.40	-1.78	7.22
Claim 2	11	3.47	2.71	0.65	11.00
Claim 3	10	3.55	1.32	1.77	5.89
All items	42	2.88	2.32	-1.78	11.00

Table 11.E.29 Distribution of IRT a -values for Non-PT Items—ELA, All Grades

IRT a -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 < 0.2					2	3	3
0.2 < 0.4	8	11	9	9	11	9	16
0.4 < 0.6	10	12	13	18	20	16	14
0.6 < 0.8	13	14	15	15	13	15	10
0.8 < 1.0	12	5	6	4	1	3	3
1.0 < 1.2	3	3	3	1		1	
1.2 < 1.4						1	
1.4 < 1.6		1					
1.6 < 1.8							
1.8 < 2.0							

Note: The mode of the distribution is highlighted.

Table 11.E.30 Distribution of IRT a -values for Non-PT Items—Mathematics, All Grades

IRT a -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 < 0.2				1	1	2	5
0.2 < 0.4	1	2	5	2	3	9	11
0.4 < 0.6	6	6	14	5	7	14	9
0.6 < 0.8	10	11	7	6	7	6	10
0.8 < 1.0	7	10	4	10	9	1	1
1.0 < 1.2	4	4	4	5	6	2	
1.2 < 1.4	7	2	1	5	1		
1.4 < 1.6					1		
1.6 < 1.8							
1.8 < 2.0							

Note: The mode of the distribution is highlighted.

Table 11.E.31 Distribution of IRT b -values for Non-PT Items—ELA, All Grades

IRT b -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5							
-3.5 < -3.0						1	
-3.0 < -2.5							
-2.5 < -2.0	3	2	2				
-2.0 < -1.5	6	5	3		1		
-1.5 < -1.0	10	9	4	3	1		
-1.0 < -0.5	12	10	7	11	5	2	2
-0.5 < 0	8	3	6	12	4	10	2
0 < 0.5	3	9	4	6	5	6	8
0.5 < 1.0	2	2	10	5	9	6	10
1.0 < 1.5	2	3	4	4	5	7	8
1.5 < 2.0			3	3	8	5	1
2.0 < 2.5			1	1	4	8	2
2.5 < 3.0		3	1	1	2	2	4
3.0 < 3.5						1	2
≥ 3.5			1	1	3		7

Note: The mode of the distribution is highlighted.

Table 11.E.32 Distribution of IRT *b*-values for Non-PT Items—Mathematics, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5							
-3.5 <-< -3.0	1						
-3.0 <-< -2.5	5	1					
-2.5 <-< -2.0	7	1			1		
-2.0 <-< -1.5	9	2	1				1
-1.5 <-< -1.0	2	9	2				
-1.0 <-< -0.5	2	8	7		1		1
-0.5 <-< 0	6	6	8	3	1	4	1
0 <-< 0.5	1	6	9	6	2	1	2
0.5 <-< 1.0	1	2	5	4	4	3	3
1.0 <-< 1.5			1	10	10	7	5
1.5 <-< 2.0			1	6	7	4	3
2.0 <-< 2.5	1		1	3	5	7	2
2.5 <-< 3.0				1	3	3	3
3.0 <-< 3.5				1			3
>= 3.5					1	5	12

Note: The mode of the distribution is highlighted.

Table 11.E.33 Distribution of IRT *a*-values for PT Items—ELA, All Grades

IRT <i>a</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 <-< 0.2							
0.2 <-< 0.4							
0.4 <-< 0.6	3	3	3	4	1	1	2
0.6 <-< 0.8	2	1	2	1	1	3	2
0.8 <-< 1.0					2		
1.0 <-< 1.2							
1.2 <-< 1.4							
1.4 <-< 1.6							
1.6 <-< 1.8							
1.8 <-< 2.0							

Note: The mode of the distribution is highlighted.

Table 11.E.34 Distribution of IRT *a*-values for PT Items—Mathematics, All Grades

IRT <i>a</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 <-< 0.2							
0.2 <-< 0.4		1	1				2
0.4 <-< 0.6	1	1	4	1	1	1	
0.6 <-< 0.8		2		3	1	3	3
0.8 <-< 1.0	2	2	1	2	3	1	
1.0 <-< 1.2	1						1
1.2 <-< 1.4	2						
1.4 <-< 1.6							
1.6 <-< 1.8					1		
1.8 <-< 2.0							

Note: The mode of the distribution is highlighted.

Table 11.E.35 Distribution of IRT b -values for PT Items—ELA, All Grades

IRT b -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5							
-3.5 < -3.0							
-3.0 < -2.5							
-2.5 < -2.0							
-2.0 < -1.5							
-1.5 < -1.0	1	1	1				
-1.0 < -0.5	1	1		1		1	
-0.5 < 0	1		1	1	1		
0 < 0.5				1	1		
0.5 < 1.0	2	2	2	1	1	1	
1.0 < 1.5					1		2
1.5 < 2.0				1		1	1
2.0 < 2.5							1
2.5 < 3.0							
3.0 < 3.5							
≥ 3.5			1			1	

Note: The mode of the distribution is highlighted.

Table 11.E.36 Distribution of IRT b -values for PT Items—Mathematics, All Grades

IRT b -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5							
-3.5 < -3.0							
-3.0 < -2.5							
-2.5 < -2.0							
-2.0 < -1.5	2						
-1.5 < -1.0	2	1	1				
-1.0 < -0.5							
-0.5 < 0	1			1			
0 < 0.5	1	3		1	1		
0.5 < 1.0		1	3	1		1	
1.0 < 1.5				2	1	1	
1.5 < 2.0					1		
2.0 < 2.5			2	1	1	2	
2.5 < 3.0		1			1	1	2
3.0 < 3.5							2
≥ 3.5					1		2

Note: The mode of the distribution is highlighted.

Table 11.E.37 PT Item Statistics—ELA, Grade Three

Item ID	Score			
	Points	A	B	D
VH314036	2	0.69	0.86	0.74, -0.74
VH314060	2	0.55	0.80	-0.04, 0.04
VH314074	1	0.49	-0.80	
VH315611	4	0.52	-0.39	2.59, 0.69, -0.73, -2.55
VH315632	2	0.67	-1.04	0.85, -0.85

Table 11.E.38 PT Item Statistics—ELA, Grade Four

Item ID	Score			
	Points	A	B	D
VH295954	2	0.59	0.91	0.2, -0.2
VH295959	2	0.61	0.53	0.55, -0.55
VH295957	3	0.55	-0.96	2.1, 0.11, -2.21
VH295958	2	0.56	-1.42	0.35, -0.35

Table 11.E.39 PT Item Statistics—ELA, Grade Five

Item ID	Score			
	Points	A	B	D
VH303290	1	0.48	4.14	
VH295807	2	0.62	0.58	1, -1
VH295808	2	0.57	0.76	0.32, -0.32
VH295811	4	0.59	-0.48	1.61, 2.05, -0.51, -3.15
VH295812	2	0.68	-1.08	1.12, -1.12

Table 11.E.40 PT Item Statistics—ELA, Grade Six

Item ID	Score			
	Points	A	B	D
VH295934	2	0.48	0.54	0.57, -0.57
VH303079	1	0.65	-0.42	
VH295935	2	0.50	1.66	0.36, -0.36
VH295937	4	0.52	0.33	2.86, 1.36, -1.14, -3.08
VH295938	2	0.41	-0.78	-0.06, 0.06

Table 11.E.41 PT Item Statistics—ELA, Grade Seven

Item ID	Score			
	Points	A	B	D
VH295397	2	0.64	0.86	1.09, -1.09
VH295401	2	0.53	1.14	0.51, -0.51
VH295399	3	0.90	0.35	1.91, -0.13, -1.79
VH295400	2	0.82	-0.34	0.24, -0.24

Table 11.E.42 PT Item Statistics—ELA, Grade Eight

Item ID	Score Points	Score		
		A	B	D
VH295291	2	0.69	1.74	0.88, -0.88
VH295293	1	0.51	3.57	
VH295295	4	0.69	0.71	2.39, 1.15, -1.01, -2.53
VH295296	2	0.73	-0.98	0.11, -0.11

Table 11.E.43 PT Item Statistics—ELA, Grade Eleven

Item ID	Score Points	Score		
		A	B	D
VH295615	2	0.64	2.12	0.27, -0.27
VH295620	2	0.41	1.40	0.04, -0.04
VH295618	4	0.56	1.72	2.2, 0.84, -0.99, -2.04
VH295619	2	0.61	1.13	0.09, -0.09

Table 11.E.44 PT Item Statistics—Mathematics, Grade Three

Item ID	Score Points	Score		
		A	B	D
VH310918	1	1.26	-1.58	
VH310926	1	1.14	-1.15	
VH299378	2	0.89	-0.30	-0.44, 0.44
VH299379	3	0.55	-1.54	-0.63, 0.61, 0.02
VH299380	1	1.28	-1.08	
VH299381	2	0.93	0.09	0.1, -0.1

Table 11.E.45 PT Item Statistics—Mathematics, Grade Four

Item ID	Score Points	Score		
		A	B	D
VH303281	1	0.71	-1.46	
VH299400	1	0.98	0.27	
VH299402	1	0.32	2.66	
VH299403	2	0.69	0.35	-0.67, 0.67
VH299405	2	0.82	0.04	-1.44, 1.44
VH310718	2	0.43	0.92	-2.59, 2.59

Table 11.E.46 PT Item Statistics—Mathematics, Grade Five

Item ID	Score Points	Score		
		A	B	D
VH299850	1	0.56	-1.14	
VH303289	2	0.51	0.63	-2.79, 2.79
VH299855	2	0.87	2.02	-0.3, 0.3
VH299857	2	0.39	0.95	-0.53, 0.53
VH299860	1	0.53	2.20	
VH299861	2	0.54	0.92	-0.79, 0.79

Table 11.E.47 PT Item Statistics—Mathematics, Grade Six

Item ID	Score			D
	Points	A	B	
VH303296	1	0.79	0.65	
VH310938	1	0.89	-0.18	
VH300153	2	0.59	2.14	-0.84, 0.84
VH300155	2	0.73	1.36	-0.25, 0.25
VH310939	1	0.96	0.25	
VH300163	2	0.71	1.47	-0.74, 0.74

Table 11.E.48 PT Item Statistics—Mathematics, Grade Seven

Item ID	Score			D
	Points	A	B	
VH310947	1	0.83	0.31	
VH310950	1	0.96	1.12	
VH299212	1	1.68	2.54	
VH303301	2	0.77	2.42	0.1, -0.1
VH303302	1	0.99	1.73	
VH299227	2	0.53	3.75	1.14, -1.14

Table 11.E.49 PT Item Statistics—Mathematics, Grade Eight

Item ID	Score			D
	Points	A	B	
VH303305	1	0.75	2.14	
VH303306	1	0.86	2.31	
VH300085	2	0.47	0.51	-0.32, 0.32
VH300080	1	0.70	1.14	
VH300081	2	0.78	2.95	-0.02, 0.02

Table 11.E.50 PT Item Statistics—Mathematics, Grade Eleven

Item ID	Score			D
	Points	A	B	
VH311067	1	0.31	11.00	
VH299905	1	1.09	3.26	
VH303311	2	0.61	3.61	-1.27, 1.27
VH299910	2	0.39	2.77	-1.54, 1.54
VH299912	3	0.67	3.08	-1.04, 0.57, 0.48
VH303312	3	0.60	2.82	0.68, -2.65, 1.98

Appendix 11.F: Reliability Analyses for Paper-Pencil Tests

Table 11.F.1 Reliabilities of Claims and Intercorrelations for ELA, Grade Three

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	19	1.00	.	.	.	0.76	0.47
Claim 2	12	0.70	1.00	.	.	0.74	0.62
Claim 3	9	0.62	0.53	1.00	.	0.41	0.80
Claim 4	11	0.72	0.72	0.61	1.00	0.67	0.66

Table 11.F.2 Reliabilities of Claims and Intercorrelations for ELA, Grade Four

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	20	1.00	.	.	.	0.76	0.50
Claim 2	12	0.70	1.00	.	.	0.66	0.68
Claim 3	9	0.61	0.49	1.00	.	0.42	0.81
Claim 4	9	0.68	0.61	0.54	1.00	0.58	0.85

Table 11.F.3 Reliabilities of Claims and Intercorrelations for ELA, Grade Five

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	19	1.00	.	.	.	0.74	0.50
Claim 2	12	0.71	1.00	.	.	0.70	0.60
Claim 3	9	0.57	0.53	1.00	.	0.33	0.86
Claim 4	11	0.64	0.64	0.49	1.00	0.58	0.79

Table 11.F.4 Reliabilities of Claims and Intercorrelations for ELA, Grade Six

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	21	1.00	.	.	.	0.77	0.51
Claim 2	12	0.72	1.00	.	.	0.66	0.75
Claim 3	8	0.66	0.61	1.00	.	0.27	0.95
Claim 4	11	0.67	0.67	0.58	1.00	0.53	0.91

Table 11.F.5 Reliabilities of Claims and Intercorrelations for ELA, Grade Seven

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	20	1.00	.	.	.	0.72	0.61
Claim 2	12	0.74	1.00	.	.	0.66	0.71
Claim 3	9	0.55	0.60	1.00	.	0.45	0.91
Claim 4	10	0.70	0.71	0.63	1.00	0.51	1.03

Table 11.F.6 Reliabilities of Claims and Intercorrelations for ELA, Grade Eight

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	21	1.00	.	.	.	0.77	0.53
Claim 2	12	0.68	1.00	.	.	0.78	0.63
Claim 3	9	0.61	0.52	1.00	.	0.24	1.12
Claim 4	10	0.68	0.71	0.52	1.00	0.59	0.78

Table 11.F.7 Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	19	1.00	.	.	.	0.66	0.58
Claim 2	12	0.59	1.00	.	.	0.71	0.76
Claim 3	9	0.72	0.47	1.00	.	0.39	1.11
Claim 4	10	0.65	0.61	0.47	1.00	0.58	0.91

Table 11.F.8 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.77	0.40
Claim 2	12	0.74	1.00	.	0.76	0.46
Claim 3	9	0.58	0.64	1.00	0.34	0.64

Table 11.F.9 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	21	1.00	.	.	0.80	0.39
Claim 2	10	0.68	1.00	.	0.55	0.65
Claim 3	10	0.69	0.62	1.00	0.55	0.65

Table 11.F.10 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.72	0.47
Claim 2	11	0.56	1.00	.	0.65	0.60
Claim 3	10	0.58	0.57	1.00	0.42	0.78

Table 11.F.11 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	19	1.00	.	.	0.79	0.45
Claim 2	11	0.75	1.00	.	0.62	0.63
Claim 3	10	0.57	0.64	1.00	0.29	0.67

Table 11.F.12 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.71	0.52
Claim 2	11	0.60	1.00	.	0.59	0.72
Claim 3	10	0.54	0.46	1.00	0.34	0.87

Table 11.F.13 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.78	0.63
Claim 2	10	0.61	1.00	.	0.25	0.87
Claim 3	9	0.62	0.56	1.00	0.26	0.96

Table 11.F.14 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	21	1.00	.	.	0.55	0.95
Claim 2	11	0.52	1.00	.	N/A	N/A
Claim 3	10	0.48	0.37	1.00	N/A	N/A

Table 11.F.15 Reliabilities and SEMs for Paper-pencil Tests by Gender

Content Area	Grade	Male			Female		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	308	0.91	0.28	316	0.92	0.29
	4	322	0.91	0.30	276	0.91	0.31
	5	222	0.88	0.30	256	0.90	0.31
	6	87	0.90	0.33	112	0.90	0.33
	7	42	0.89	0.33	27	0.93	0.34
	8	37	0.91	0.33	34	0.91	0.33
	11	17	0.84	0.37	16	0.88	0.35
Mathematics	3	298	0.90	0.26	318	0.91	0.27
	4	322	0.88	0.28	284	0.88	0.28
	5	216	0.86	0.32	257	0.85	0.32
	6	83	0.88	0.39	114	0.89	0.32
	7	39	0.86	0.32	28	0.85	0.43
	8	36	0.87	0.53	33	0.86	0.47
	11	18	0.58	0.76	16	0.75	0.72

Table 11.F.16 Reliabilities and SEMs for Paper-pencil Tests by Economic Status

Content Area	Grade	Not Econ. Disadvantaged			Econ. Disadvantaged		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	299	0.92	0.29	325	0.91	0.29
	4	350	0.90	0.30	248	0.91	0.32
	5	259	0.88	0.31	219	0.90	0.31
	6	62	0.89	0.33	137	0.90	0.33
	7	25	0.92	0.34	44	0.90	0.33
	8	37	0.93	0.33	34	0.89	0.33
	11	11	0.89	0.35	22	0.87	0.36
Mathematics	3	294	0.91	0.27	322	0.90	0.26
	4	356	0.88	0.28	250	0.88	0.28
	5	262	0.85	0.31	211	0.85	0.33
	6	63	0.89	0.35	134	0.88	0.36
	7	24	0.86	0.41	43	0.86	0.36
	8	35	0.89	0.50	34	0.81	0.50
	11	12	0.61	0.80	22	0.70	0.70

Table 11.F.17 Reliabilities and SEMs for Paper-pencil Tests by Special Education Services Status

Content Area	Grade	No Special Education Services			With Special Education Services		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	553	0.91	0.28	71	0.92	0.30
	4	507	0.91	0.31	91	0.90	0.30
	5	412	0.88	0.31	66	0.91	0.31
	6	167	0.89	0.33	32	0.93	0.35
	7	53	0.89	0.33	16	0.88	0.35
	8	53	0.92	0.33	18	0.89	0.33
	11	23	0.88	0.36	10	–	–
Mathematics	3	542	0.90	0.26	74	0.92	0.28
	4	514	0.88	0.28	92	0.88	0.29
	5	409	0.85	0.31	64	0.78	0.36
	6	167	0.88	0.33	30	0.85	0.47
	7	51	0.87	0.33	16	0.79	0.49
	8	50	0.87	0.50	19	0.83	0.51
	11	23	0.62	0.72	11	0.75	0.77

Table 11.F.18 Reliabilities and SEMs for Paper-pencil Tests by English–Language Fluency

Content Area	Grade	English Only			Initially Desig. Fluent		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	516	0.92	0.29	12	0.62	0.26
	4	498	0.90	0.30	9	–	–
	5	377	0.89	0.31	19	0.86	0.30
	6	139	0.90	0.33	6	–	–
	7	65	0.91	0.34	0	–	–
	8	60	0.91	0.33	2	–	–
	11	12	0.91	0.37	4	–	–
Mathematics	3	507	0.91	0.27	13	0.88	0.25
	4	505	0.88	0.28	9	–	–
	5	373	0.85	0.32	19	0.83	0.32
	6	137	0.89	0.35	6	–	–
	7	62	0.86	0.37	0	–	–
	8	57	0.87	0.51	2	–	–
	11	13	0.80	0.74	4	–	–

Table 11.F.19 Reliabilities and SEMs for Paper-pencil Tests by English–Language Fluency (continued)

Content Area	Grade	English Learner			Reclassified Fluent		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	65	0.85	0.28	30	0.87	0.28
	4	55	0.87	0.35	36	0.90	0.32
	5	38	0.85	0.30	41	0.81	0.31
	6	24	0.82	0.34	28	0.88	0.33
	7	1	–	–	3	–	–
	8	4	–	–	5	–	–
	11	3	–	–	4	–	–
Mathematics	3	64	0.85	0.24	31	0.79	0.26
	4	55	0.74	0.30	36	0.85	0.27
	5	36	0.79	0.37	42	0.80	0.29
	6	24	0.74	0.46	28	0.86	0.28
	7	1	–	–	4	–	–
	8	4	–	–	6	–	–
	11	3	–	–	5	–	–

Table 11.F.20 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity

Content Area	Grade	American Indian or Alaska Native			Asian		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	3	–	–	13	0.89	0.27
	4	7	–	–	13	0.90	0.30
	5	1	–	–	15	0.88	0.31
	6	3	–	–	2	–	–
	7	3	–	–	0	–	–
	8	1	–	–	3	–	–
	11	0	–	–	2	–	–
Mathematics	3	3	–	–	13	0.88	0.25
	4	7	–	–	13	0.90	0.29
	5	1	–	–	15	0.88	0.34
	6	3	–	–	2	–	–
	7	2	–	–	0	–	–
	8	1	–	–	3	–	–
	11	0	–	–	2	–	–

Table 11.F.21 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (Continued)

Content Area	Grade	Native Hawaiian or Other Pacific Islander			Filipino		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	1	–	–	5	–	–
	4	0	–	–	2	–	–
	5	3	–	–	2	–	–
	6	1	–	–	2	–	–
	7	0	–	–	0	–	–
	8	1	–	–	0	–	–
	11	0	–	–	0	–	–
Mathematics	3	1	–	–	5	–	–
	4	0	–	–	2	–	–
	5	3	–	–	2	–	–
	6	1	–	–	2	–	–
	7	0	–	–	0	–	–
	8	1	–	–	0	–	–
	11	0	–	–	0	–	–

Table 11.F.22 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (Continued)

Content Area	Grade	Hispanic or Latino			Black or African American			White		
		N	Reliab	SEM	N	Reliab	SEM	N	Reliab	SEM
ELA	3	168	0.91	0.29	47	0.91	0.29	335	0.91	0.28
	4	166	0.91	0.32	42	0.89	0.30	324	0.90	0.30
	5	143	0.89	0.30	39	0.88	0.30	241	0.89	0.31
	6	83	0.89	0.33	33	0.91	0.33	68	0.87	0.33
	7	11	0.92	0.34	11	0.94	0.35	43	0.88	0.33
	8	9	–	–	11	0.91	0.33	46	0.91	0.33
	11	15	0.82	0.37	5	–	–	7	–	–
Mathematics	3	167	0.89	0.26	43	0.89	0.25	333	0.91	0.27
	4	170	0.87	0.28	37	0.90	0.29	330	0.88	0.28
	5	140	0.84	0.33	34	0.81	0.36	245	0.85	0.31
	6	82	0.86	0.34	31	0.83	0.43	68	0.90	0.29
	7	12	0.88	0.39	10	–	–	42	0.85	0.36
	8	10	–	–	11	0.81	0.61	43	0.87	0.44
	11	15	0.49	0.76	5	–	–	8	–	–

Table 11.F.23 Reliabilities and SEMs for Paper-pencil Tests by Migrant Status

Content Area	Grade	Migrant			Non-migrant		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	0	–	–	624	0.91	0.29
	4	0	–	–	598	0.91	0.31
	5	0	–	–	478	0.89	0.31
	6	2	–	–	197	0.90	0.33
	7	0	–	–	69	0.91	0.34
	8	0	–	–	71	0.91	0.33
	11	0	–	–	33	0.88	0.36
Mathematics	3	0	–	–	616	0.91	0.26
	4	0	–	–	606	0.88	0.28
	5	0	–	–	473	0.85	0.32
	6	2	–	–	195	0.88	0.35
	7	0	–	–	67	0.86	0.37
	8	0	–	–	69	0.86	0.50
	11	0	–	–	34	0.67	0.74

Table 11.F.24 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged

Content Area	Grade	American Indian or Alaska Native			Asian		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	3	–	–	9	–	–
	4	3	–	–	10	–	–
	5	0	–	–	11	0.89	0.30
	6	2	–	–	0	–	–
	7	1	–	–	0	–	–
	8	0	–	–	3	–	–
	11	0	–	–	0	–	–
Mathematics	3	3	–	–	9	–	–
	4	3	–	–	10	–	–
	5	0	–	–	11	0.87	0.35
	6	2	–	–	0	–	–
	7	1	–	–	0	–	–
	8	0	–	–	3	–	–
	11	0	–	–	0	–	–

Table 11.F.25 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued)

Content Area	Grade	Native Hawaiian or Other Pacific Islander			Filipino		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	1	–	–	2	–	–
	4	0	–	–	0	–	–
	5	3	–	–	1	–	–
	6	0	–	–	2	–	–
	7	0	–	–	0	–	–
	8	0	–	–	0	–	–
	11	0	–	–	0	–	–
Mathematics	3	1	–	–	2	–	–
	4	0	–	–	0	–	–
	5	3	–	–	1	–	–
	6	0	–	–	2	–	–
	7	0	–	–	0	–	–
	8	0	–	–	0	–	–
	11	0	–	–	0	–	–

Table 11.F.26 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued)

Content Area	Grade	Hispanic or Latino			Black or African American			White		
		N	Reliab	SEM	N	Reliab	SEM	N	Reliab	SEM
ELA	3	32	0.92	0.29	15	0.92	0.28	209	0.91	0.28
	4	54	0.89	0.30	19	0.86	0.29	245	0.89	0.30
	5	47	0.89	0.31	13	0.89	0.31	166	0.88	0.31
	6	5	–	–	10	–	–	40	0.86	0.33
	7	2	–	–	1	–	–	21	0.92	0.34
	8	1	–	–	7	–	–	26	0.93	0.34
	11	4	–	–	0	–	–	4	–	–
Mathematics	3	31	0.91	0.26	15	0.89	0.25	205	0.91	0.27
	4	56	0.85	0.27	17	0.91	0.28	249	0.88	0.28
	5	45	0.86	0.34	14	0.83	0.32	170	0.84	0.30
	6	5	–	–	10	–	–	41	0.90	0.30
	7	2	–	–	1	–	–	20	0.87	0.42
	8	1	–	–	7	–	–	24	0.89	0.41
	11	5	–	–	0	–	–	4	–	–

Table 11.F.27 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged

Content Area	Grade	American Indian or Alaska Native			Asian		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	0	–	–	4	–	–
	4	4	–	–	3	–	–
	5	1	–	–	4	–	–
	6	1	–	–	2	–	–
	7	2	–	–	0	–	–
	8	1	–	–	0	–	–
	11	0	–	–	2	–	–
Mathematics	3	0	–	–	4	–	–
	4	4	–	–	3	–	–
	5	1	–	–	4	–	–
	6	1	–	–	2	–	–
	7	1	–	–	0	–	–
	8	1	–	–	0	–	–
	11	0	–	–	2	–	–

Table 11.F.28 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued)

Content Area	Grade	Native Hawaiian or Other Pacific Islander			Filipino		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	0	–	–	3	–	–
	4	0	–	–	2	–	–
	5	0	–	–	1	–	–
	6	1	–	–	0	–	–
	7	0	–	–	0	–	–
	8	1	–	–	0	–	–
	11	0	–	–	0	–	–
Mathematics	3	0	–	–	3	–	–
	4	0	–	–	2	–	–
	5	0	–	–	1	–	–
	6	1	–	–	0	–	–
	7	0	–	–	0	–	–
	8	1	–	–	0	–	–
	11	0	–	–	0	–	–

Table 11.F.29 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued)

Content Area	Grade	Hispanic or Latino			Black or African American			White		
		N	Reliab	SEM	N	Reliab	SEM	N	Reliab	SEM
ELA	3	136	0.91	0.29	32	0.90	0.29	126	0.91	0.29
	4	112	0.91	0.34	23	0.89	0.31	79	0.90	0.30
	5	96	0.89	0.30	26	0.87	0.30	75	0.92	0.31
	6	78	0.89	0.33	23	0.80	0.33	28	0.87	0.33
	7	9	–	–	10	–	–	22	0.78	0.32
	8	8	–	–	4	–	–	20	0.88	0.32
	11	11	0.82	0.37	5	–	–	3	–	–
Mathematics	3	136	0.89	0.26	28	0.89	0.25	128	0.91	0.27
	4	114	0.87	0.29	20	0.90	0.30	81	0.87	0.28
	5	95	0.83	0.32	20	0.76	0.39	75	0.86	0.33
	6	77	0.86	0.34	21	0.66	0.49	27	0.89	0.27
	7	10	–	–	9	–	–	22	0.80	0.30
	8	9	–	–	4	–	–	19	0.82	0.47
	11	10	–	–	5	–	–	4	–	–

Table 11.F.30 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Three

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.76	0.47	0.75	0.47	0.76	0.48	0.75	0.46	–	–	0.76	0.47
Claim 2	12	0.73	0.61	0.75	0.63	0.75	0.59	0.73	0.65	–	–	0.74	0.62
Claim 3	9	0.39	0.80	0.43	0.80	0.42	0.79	0.39	0.81	–	–	0.41	0.80
Claim 4	11	0.67	0.65	0.67	0.67	0.68	0.67	0.65	0.65	–	–	0.67	0.66

Table 11.F.31 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Four

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.75	0.49	0.77	0.50	0.78	0.46	0.72	0.54	–	–	0.76	0.50
Claim 2	12	0.64	0.68	0.65	0.67	0.62	0.65	0.67	0.71	–	–	0.66	0.68
Claim 3	9	0.42	0.81	0.40	0.82	0.35	0.81	0.44	0.82	–	–	0.42	0.81
Claim 4	9	0.58	0.85	0.57	0.86	0.58	0.75	0.56	0.97	–	–	0.58	0.85

Table 11.F.32 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Five

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.72	0.50	0.74	0.51	0.72	0.51	0.74	0.50	–	–	0.74	0.50
Claim 2	12	0.68	0.60	0.70	0.60	0.69	0.60	0.70	0.60	–	–	0.70	0.60
Claim 3	9	0.34	0.87	0.32	0.86	0.24	0.87	0.39	0.86	–	–	0.33	0.86
Claim 4	11	0.53	0.81	0.62	0.78	0.56	0.74	0.57	0.85	–	–	0.58	0.79

Table 11.F.33 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Six

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.79	0.53	0.74	0.50	0.77	0.53	0.76	0.51	–	–	0.77	0.52
Claim 2	12	0.70	0.73	0.61	0.76	0.65	0.73	0.66	0.75	–	–	0.65	0.74
Claim 3	8	0.33	0.94	0.20	0.96	0.24	0.97	0.28	0.94	–	–	0.25	0.95
Claim 4	11	0.52	0.88	0.52	0.93	0.55	0.73	0.52	0.98	–	–	0.53	0.91

Table 11.F.34 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Seven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.75	0.53	0.69	0.71	0.78	0.54	0.70	0.64	–	–	0.72	0.61
Claim 2	12	0.63	0.63	0.67	0.83	0.68	0.65	0.66	0.74	–	–	0.66	0.71
Claim 3	9	0.44	0.90	0.49	0.92	0.49	0.92	0.44	0.90	–	–	0.45	0.91
Claim 4	10	0.49	0.97	0.53	1.10	0.61	0.96	0.45	1.06	–	–	0.51	1.03

Table 11.F.35 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Eight

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.78	0.55	0.73	0.51	0.82	0.54	0.68	0.51	–	–	0.77	0.53
Claim 2	12	0.76	0.61	0.75	0.66	0.81	0.64	0.72	0.62	–	–	0.78	0.63
Claim 3	9	0.34	1.16	0.10	1.08	0.30	1.15	0.16	1.09	–	–	0.24	1.12
Claim 4	10	0.64	0.81	0.52	0.74	0.61	0.78	0.59	0.77	–	–	0.59	0.78

Table 11.F.36 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Eleven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.51	0.58	0.67	0.57	0.71	0.59	0.65	0.57	–	–	0.66	0.58
Claim 2	12	0.68	0.81	0.73	0.71	0.77	0.73	0.66	0.78	–	–	0.71	0.76
Claim 3	9	0.49	1.11	0.09	1.11	–	–	0.44	1.11	–	–	0.39	1.11
Claim 4	10	0.53	0.96	0.62	0.84	0.61	0.76	0.52	0.98	–	–	0.58	0.91

Table 11.F.37 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Three

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.76	0.40	0.78	0.40	0.75	0.41	0.78	0.40	–	–	0.77	0.40
Claim 2	12	0.76	0.46	0.76	0.46	0.76	0.45	0.75	0.46	–	–	0.76	0.46
Claim 3	9	0.37	0.67	0.30	0.61	0.40	0.64	0.26	0.63	–	–	0.34	0.64

Table 11.F.38 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Four

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.80	0.39	0.80	0.39	0.79	0.38	0.79	0.39	–	–	0.80	0.39
Claim 2	10	0.54	0.64	0.56	0.65	0.54	0.65	0.53	0.64	–	–	0.55	0.65
Claim 3	10	0.54	0.66	0.56	0.63	0.59	0.63	0.47	0.67	–	–	0.55	0.65

Table 11.F.39 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Five

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.73	0.48	0.72	0.46	0.72	0.45	0.71	0.48	–	–	0.72	0.47
Claim 2	11	0.66	0.60	0.65	0.60	0.62	0.57	0.64	0.63	–	–	0.65	0.60
Claim 3	10	0.40	0.79	0.44	0.78	0.41	0.76	0.42	0.81	–	–	0.42	0.78

Table 11.F.40 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Six

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.80	0.48	0.78	0.43	0.79	0.47	0.79	0.45	–	–	0.79	0.45
Claim 2	11	0.62	0.58	0.63	0.66	0.63	0.58	0.62	0.66	–	–	0.63	0.63
Claim 3	10	0.28	0.65	0.29	0.68	0.38	0.66	0.23	0.67	–	–	0.29	0.67

Table 11.F.41 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Seven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.71	0.45	0.69	0.59	0.73	0.53	0.70	0.51	–	–	0.71	0.52
Claim 2	11	0.58	0.54	0.56	0.94	0.60	0.78	0.60	0.69	–	–	0.59	0.72
Claim 3	10	0.23	0.74	0.37	1.04	0.27	0.88	0.39	0.86	–	–	0.34	0.87

Table 11.F.42 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Eight

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.79	0.65	0.77	0.62	0.82	0.65	0.68	0.62	–	–	0.78	0.63
Claim 2	10	0.08	0.83	0.35	0.90	0.44	0.83	N/A	N/A	–	–	0.25	0.87
Claim 3	9	0.13	0.97	0.36	0.94	0.32	0.91	0.10	1.02	–	–	0.26	0.96

Table 11.F.43 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Eleven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.52	0.95	0.61	0.96	–	–	0.65	0.96	–	–	0.55	0.95
Claim 2	11	N/A	N/A	0.05	1.22	–	–	N/A	N/A	–	–	N/A	N/A
Claim 3	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	–	–	N/A	N/A

Table 11.F.44 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Three

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.75	0.47	0.77	0.49	0.77	0.48	0.67	0.44	0.65	0.44	0.65	0.47
Claim 2	12	0.74	0.61	0.74	0.68	0.75	0.62	0.45	0.86	0.71	0.64	0.50	0.53
Claim 3	9	0.42	0.80	0.32	0.82	0.42	0.80	N/A	N/A	0.04	0.85	0.41	0.78
Claim 4	11	0.66	0.66	0.70	0.69	0.67	0.67	0.24	0.66	0.56	0.66	0.67	0.61

Table 11.F.45 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Four

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.75	0.50	0.78	0.48	0.78	0.48	–	–	0.52	0.65	0.59	0.51
Claim 2	12	0.64	0.69	0.62	0.62	0.65	0.66	–	–	0.57	0.77	0.55	0.72
Claim 3	9	0.40	0.81	0.44	0.82	0.39	0.81	–	–	0.40	0.83	0.39	0.80
Claim 4	9	0.57	0.85	0.59	0.85	0.59	0.78	–	–	0.40	1.14	0.55	1.19

Table 11.F.46 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Five

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.71	0.50	0.77	0.51	0.73	0.51	0.76	0.50	0.65	0.49	0.57	0.49
Claim 2	12	0.67	0.59	0.73	0.64	0.69	0.61	0.51	0.60	0.70	0.54	0.50	0.61
Claim 3	9	0.27	0.86	0.43	0.85	0.30	0.86	N/A	N/A	0.39	0.86	0.30	0.89
Claim 4	11	0.59	0.78	0.52	0.87	0.58	0.77	0.65	0.85	0.32	1.03	0.57	0.74

Table 11.F.47 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Six

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.73	0.50	0.83	0.59	0.75	0.51	–	–	0.63	0.58	0.72	0.50
Claim 2	12	0.59	0.74	0.78	0.76	0.65	0.74	–	–	0.65	0.72	0.55	0.78
Claim 3	8	0.25	0.96	0.32	0.91	0.26	0.96	–	–	0.29	0.88	0.15	0.93
Claim 4	11	0.50	0.88	0.41	1.06	0.58	0.84	–	–	0.26	0.94	0.34	1.19

Table 11.F.48 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Seven

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.69	0.62	0.73	0.55	0.76	0.53	–	–	–	–	–	–
Claim 2	12	0.51	0.71	0.75	0.75	0.67	0.64	–	–	–	–	–	–
Claim 3	9	0.35	0.90	0.62	0.95	0.45	0.91	–	–	–	–	–	–
Claim 4	10	0.52	1.03	0.19	1.02	0.51	0.97	–	–	–	–	–	–

Table 11.F.49 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Eight

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.78	0.52	0.69	0.55	0.78	0.53	–	–	–	–	–	–
Claim 2	12	0.78	0.64	0.77	0.61	0.77	0.63	–	–	–	–	–	–
Claim 3	9	0.29	1.13	N/A	N/A	0.31	1.14	–	–	–	–	–	–
Claim 4	10	0.59	0.77	0.62	0.78	0.58	0.77	–	–	–	–	–	–

Table 11.F.50 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—ELA, Grade Eleven

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.59	0.55	–	–	0.75	0.60	–	–	–	–	–	–
Claim 2	12	0.74	0.79	–	–	0.74	0.72	–	–	–	–	–	–
Claim 3	9	0.39	1.10	–	–	0.48	1.17	–	–	–	–	–	–
Claim 4	10	0.61	0.96	–	–	0.68	0.86	–	–	–	–	–	–

Table 11.F.51 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Three

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.75	0.40	0.83	0.40	0.78	0.40	0.73	0.41	0.69	0.36	0.60	0.45
Claim 2	12	0.75	0.45	0.79	0.50	0.77	0.46	0.77	0.48	0.66	0.44	0.52	0.43
Claim 3	9	0.36	0.64	N/A	N/A	0.36	0.64	0.27	0.58	0.15	0.71	0.05	0.52

Table 11.F.52 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Four

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.80	0.38	0.79	0.40	0.80	0.39	–	–	0.66	0.40	0.71	0.37
Claim 2	10	0.54	0.65	0.56	0.63	0.53	0.65	–	–	0.24	0.64	0.40	0.63
Claim 3	10	0.56	0.63	0.44	0.71	0.57	0.62	–	–	0.05	0.81	0.44	0.68

Table 11.F.53 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Five

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.73	0.46	0.44	0.50	0.72	0.47	0.64	0.43	0.70	0.50	0.66	0.42
Claim 2	11	0.65	0.59	0.51	0.66	0.65	0.58	0.60	0.65	0.24	0.74	0.58	0.56
Claim 3	10	0.43	0.76	0.08	0.90	0.42	0.78	0.45	0.84	0.14	0.86	0.45	0.75

Table 11.F.54 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Six

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.78	0.44	0.78	0.51	0.80	0.45	–	–	0.59	0.53	0.76	0.41
Claim 2	11	0.62	0.64	0.69	0.53	0.64	0.63	–	–	0.25	0.57	0.58	0.71
Claim 3	10	0.28	0.66	0.28	0.73	0.35	0.66	–	–	N/A	N/A	0.16	0.69

Table 11.F.55 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Seven

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.72	0.47	0.60	0.64	0.71	0.50	–	–	–	–	–	–
Claim 2	11	0.62	0.65	0.43	0.92	0.61	0.73	–	–	–	–	–	–
Claim 3	10	0.35	0.80	0.18	1.07	0.38	0.87	–	–	–	–	–	–

Table 11.F.56 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Eight

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.79	0.62	0.75	0.67	0.78	0.63	–	–	–	–	–	–
Claim 2	10	0.35	0.85	N/A	N/A	0.31	0.85	–	–	–	–	–	–
Claim 3	9	0.22	0.91	0.31	1.07	0.23	0.95	–	–	–	–	–	–

Table 11.F.57 Claim Reliabilities and SEM for Paper-pencil Tests by Special Education Services Status/English Fluency—Mathematics, Grade Eleven

Claim	N of Items	No Special Education Services		With Special Education Services		English Only		IFEP		English Learner		RFEP	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.45	0.97	–	–	0.68	0.84	–	–	–	–	–	–
Claim 2	11	N/A	N/A	–	–	0.16	1.24	–	–	–	–	–	–
Claim 3	10	N/A	N/A	–	–	–	–	–	–	–	–	–	–

Table 11.F.58 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Three

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	0.67	0.45	–	–	–	–	0.74	0.46	0.75	0.46	0.76	0.48
Claim 2	12	–	–	0.66	0.53	–	–	–	–	0.74	0.68	0.73	0.60	0.75	0.59
Claim 3	9	–	–	0.31	0.74	–	–	–	–	0.34	0.81	0.38	0.83	0.41	0.79
Claim 4	11	–	–	0.70	0.67	–	–	–	–	0.66	0.66	0.61	0.66	0.67	0.66

Table 11.F.59 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Four

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.81	0.45	–	–	–	–	0.71	0.59	0.74	0.45	0.78	0.46
Claim 2	12	–	–	0.56	0.64	–	–	–	–	0.64	0.74	0.71	0.64	0.64	0.65
Claim 3	9	–	–	0.32	0.79	–	–	–	–	0.44	0.82	0.45	0.81	0.33	0.81
Claim 4	9	–	–	0.14	0.68	–	–	–	–	0.53	1.07	0.59	0.78	0.59	0.75

Table 11.F.60 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Five

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	0.78	0.51	–	–	–	–	0.74	0.51	0.60	0.49	0.73	0.50
Claim 2	12	–	–	0.71	0.60	–	–	–	–	0.70	0.58	0.70	0.56	0.69	0.62
Claim 3	9	–	–	0.50	0.86	–	–	–	–	0.41	0.87	0.42	0.86	0.24	0.86
Claim 4	11	–	–	0.59	0.71	–	–	–	–	0.58	0.81	0.43	1.02	0.60	0.76

Table 11.F.61 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Six

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	0.76	0.52	0.76	0.52	0.64	0.50
Claim 2	12	–	–	–	–	–	–	–	–	0.64	0.77	0.69	0.71	0.63	0.75
Claim 3	8	–	–	–	–	–	–	–	–	0.21	0.92	0.44	0.94	N/A	N/A
Claim 4	11	–	–	–	–	–	–	–	–	0.46	1.02	0.54	0.90	0.57	0.78

Table 11.F.62 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Seven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.65	0.88	0.82	0.58	0.70	0.53
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	0.67	0.64
Claim 3	9	–	–	–	–	–	–	–	–	0.26	0.87	0.53	0.90	0.47	0.93
Claim 4	10	–	–	–	–	–	–	–	–	0.54	1.24	–	–	0.52	0.87

Table 11.F.63 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eight

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	–	–	0.72	0.54	0.79	0.53
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	0.78	0.64
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	0.19	1.11
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	0.58	0.76

Table 11.F.64 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eleven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.64	0.60	–	–	–	–
Claim 2	12	–	–	–	–	–	–	–	–	0.67	0.85	–	–	–	–
Claim 3	9	–	–	–	–	–	–	–	–	0.43	1.09	–	–	–	–
Claim 4	10	–	–	–	–	–	–	–	–	0.29	0.95	–	–	–	–

Table 11.F.65 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Three

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.68	0.40	–	–	–	–	0.75	0.39	0.75	0.38	0.78	0.41
Claim 2	12	–	–	0.70	0.43	–	–	–	–	0.74	0.46	0.75	0.44	0.77	0.46
Claim 3	9	–	–	–	–	–	–	–	–	0.24	0.64	0.13	0.64	0.40	0.64

Table 11.F.66 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Four

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	0.77	0.39	–	–	–	–	0.77	0.39	0.84	0.42	0.79	0.38
Claim 2	10	–	–	0.19	0.61	–	–	–	–	0.52	0.64	0.59	0.66	0.51	0.65
Claim 3	10	–	–	0.65	0.75	–	–	–	–	0.44	0.71	0.55	0.68	0.57	0.62

Table 11.F.67 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Five

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.74	0.44	–	–	–	–	0.70	0.46	0.71	0.54	0.72	0.46
Claim 2	11	–	–	0.57	0.59	–	–	–	–	0.62	0.64	0.43	0.72	0.62	0.56
Claim 3	10	–	–	0.48	0.79	–	–	–	–	0.38	0.80	0.02	0.83	0.44	0.77

Table 11.F.68 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Six

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.77	0.44	0.78	0.48	0.76	0.44
Claim 2	11	–	–	–	–	–	–	–	–	0.58	0.60	0.58	0.95	0.66	0.56
Claim 3	10	–	–	–	–	–	–	–	–	0.14	0.66	N/A	N/A	0.45	0.63

Table 11.F.69 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Seven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.78	0.56	–	–	0.66	0.48
Claim 2	11	–	–	–	–	–	–	–	–	0.62	0.62	–	–	0.62	0.65
Claim 3	10	–	–	–	–	–	–	–	–	0.35	0.78	–	–	0.26	0.83

Table 11.F.70 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eight

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	0.77	0.60
Claim 2	10	–	–	–	–	–	–	–	–	–	–	–	–	0.39	0.82
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	0.35	0.93

Table 11.F.71 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eleven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	0.54	1.01	–	–	–	–
Claim 2	11	–	–	–	–	–	–	–	–	N/A	N/A	–	–	–	–
Claim 3	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 11.F.72 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.82	0.51	0.73	0.45	0.75	0.48
Claim 2	12	–	–	–	–	–	–	–	–	0.75	0.62	0.77	0.59	0.75	0.59
Claim 3	9	–	–	–	–	–	–	–	–	0.49	0.82	0.56	0.82	0.39	0.78
Claim 4	11	–	–	–	–	–	–	–	–	0.69	0.62	0.70	0.69	0.67	0.68

Table 11.F.73 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.77	0.47	0.72	0.45	0.77	0.46
Claim 2	12	–	–	–	–	–	–	–	–	0.64	0.66	0.69	0.66	0.61	0.65
Claim 3	9	–	–	–	–	–	–	–	–	0.44	0.82	0.41	0.80	0.30	0.82
Claim 4	9	–	–	–	–	–	–	–	–	0.56	0.86	0.67	0.79	0.57	0.73

Table 11.F.74 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	0.74	0.49	–	–	–	–	0.75	0.53	0.60	0.49	0.68	0.50
Claim 2	12	–	–	0.72	0.59	–	–	–	–	0.70	0.58	0.76	0.60	0.68	0.60
Claim 3	9	–	–	0.51	0.87	–	–	–	–	0.37	0.87	0.18	0.81	0.17	0.87
Claim 4	11	–	–	0.53	0.71	–	–	–	–	0.61	0.74	0.51	0.98	0.58	0.73

Table 11.F.75 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	–	–	–	–	0.66	0.51
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	0.62	0.73
Claim 3	8	–	–	–	–	–	–	–	–	–	–	–	–	0.06	1.02
Claim 4	11	–	–	–	–	–	–	–	–	–	–	–	–	0.54	0.73

Table 11.F.76 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	0.79	0.54
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	0.70	0.65
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	0.41	0.91
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	0.62	0.95

Table 11.F.77 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	21	–	–	–	–	–	–	–	–	–	–	–	–	–	0.83	0.55
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	–	0.82	0.65
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	–	0.20	1.11
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	–	0.57	0.76

Table 11.F.78 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	19	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 11.F.79 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.76	0.39	0.75	0.40	0.76	0.41
Claim 2	12	–	–	–	–	–	–	–	–	0.79	0.47	0.73	0.42	0.76	0.46
Claim 3	9	–	–	–	–	–	–	–	–	0.30	0.58	N/A	N/A	0.43	0.66

Table 11.F.80 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	0.74	0.37	0.84	0.40	0.79	0.38
Claim 2	10	–	–	–	–	–	–	–	–	0.52	0.64	0.58	0.64	0.52	0.65
Claim 3	10	–	–	–	–	–	–	–	–	0.50	0.61	0.58	0.65	0.60	0.63

Table 11.F.81 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.73	0.46	0.74	0.47	0.70	0.45
Claim 2	11	–	–	0.51	0.60	–	–	–	–	0.66	0.60	0.55	0.63	0.60	0.56
Claim 3	10	–	–	–	–	–	–	–	–	0.41	0.84	N/A	N/A	0.39	0.74

Table 11.F.82 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	–	–	–	–	0.76	0.43
Claim 2	11	–	–	–	–	–	–	–	–	–	–	–	–	0.64	0.61
Claim 3	10	–	–	–	–	–	–	–	–	–	–	–	–	0.42	0.65

Table 11.F.83 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	0.73	0.54
Claim 2	11	–	–	–	–	–	–	–	–	–	–	–	–	0.63	0.80
Claim 3	10	–	–	–	–	–	–	–	–	–	–	–	–	0.33	0.92

Table 11.F.84 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	–	0.79	0.59
Claim 2	10	–	–	–	–	–	–	–	–	–	–	–	–	–	0.47	0.77
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	–	0.40	0.88

Table 11.F.85 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eleven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	21	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 2	11	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 3	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 11.F.86 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.71	0.45	0.74	0.47	0.77	0.47
Claim 2	12	–	–	–	–	–	–	–	–	0.74	0.70	0.71	0.61	0.73	0.60
Claim 3	9	–	–	–	–	–	–	–	–	0.29	0.81	0.19	0.84	0.44	0.81
Claim 4	11	–	–	–	–	–	–	–	–	0.65	0.67	0.56	0.65	0.66	0.63

Table 11.F.87 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.67	0.64	0.77	0.46	0.79	0.46
Claim 2	12	–	–	–	–	–	–	–	–	0.62	0.78	0.66	0.63	0.71	0.65
Claim 3	9	–	–	–	–	–	–	–	–	0.43	0.82	0.48	0.82	0.34	0.80
Claim 4	9	–	–	–	–	–	–	–	–	0.50	1.16	0.42	0.77	0.63	0.80

Table 11.F.88 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.73	0.50	0.56	0.49	0.77	0.50
Claim 2	12	–	–	–	–	–	–	–	–	0.70	0.58	0.65	0.54	0.70	0.65
Claim 3	9	–	–	–	–	–	–	–	–	0.43	0.87	0.50	0.88	0.33	0.85
Claim 4	11	–	–	–	–	–	–	–	–	0.55	0.85	0.37	1.05	0.62	0.81

Table 11.F.89 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	0.75	0.52	0.32	0.49	0.60	0.49
Claim 2	12	–	–	–	–	–	–	–	–	0.64	0.77	0.49	0.66	0.63	0.77
Claim 3	8	–	–	–	–	–	–	–	–	0.22	0.93	0.49	0.96	N/A	N/A
Claim 4	11	–	–	–	–	–	–	–	–	0.46	1.03	0.42	0.96	0.61	0.87

Table 11.F.90 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	–	0.27	0.51
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	–	0.58	0.63
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	–	0.53	0.95
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	–	0.23	0.79

Table 11.F.91 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	21	–	–	–	–	–	–	–	–	–	–	–	–	–	0.68	0.51
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	–	0.72	0.63
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	–	0.19	1.11
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	–	0.61	0.76

Table 11.F.92 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.65	0.58	–	–	–	–
Claim 2	12	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 4	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 11.F.93 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.75	0.40	0.75	0.38	0.80	0.41
Claim 2	12	–	–	–	–	–	–	–	–	0.73	0.46	0.76	0.45	0.77	0.46
Claim 3	9	–	–	–	–	–	–	–	–	0.22	0.66	0.23	0.66	0.34	0.60

Table 11.F.94 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	0.78	0.39	0.83	0.44	0.77	0.38
Claim 2	10	–	–	–	–	–	–	–	–	0.52	0.64	0.60	0.67	0.47	0.63
Claim 3	10	–	–	–	–	–	–	–	–	0.41	0.75	0.54	0.71	0.45	0.56

Table 11.F.95 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	0.68	0.46	0.67	0.58	0.73	0.49
Claim 2	11	–	–	–	–	–	–	–	–	0.59	0.65	0.18	0.78	0.65	0.58
Claim 3	10	–	–	–	–	–	–	–	–	0.36	0.78	N/A	N/A	0.45	0.85

Table 11.F.96 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.76	0.44	0.53	0.47	0.76	0.45
Claim 2	11	–	–	–	–	–	–	–	–	0.59	0.60	–	–	0.71	0.49
Claim 3	10	–	–	–	–	–	–	–	–	0.14	0.65	N/A	N/A	0.51	0.62

Table 11.F.97 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	0.52	0.43
Claim 2	11	–	–	–	–	–	–	–	–	–	–	–	–	0.59	0.50
Claim 3	10	–	–	–	–	–	–	–	–	–	–	–	–	0.17	0.75

Table 11.F.98 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	20	–	–	–	–	–	–	–	–	–	–	–	–	–	0.70	0.61
Claim 2	10	–	–	–	–	–	–	–	–	–	–	–	–	–	0.02	0.89
Claim 3	9	–	–	–	–	–	–	–	–	–	–	–	–	0.09	1.00	

Table 11.F.99 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven

Claim	N of Items	American Indian or Alaska Native		Asian		Hawaiian Native or Other Pacific Islander		Filipino		Hispanic or Latino		Black or African American		White		
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	
Claim 1	21	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 2	11	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Claim 3	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Appendix 11.G: Scale Score CSEM Distribution for Paper-Pencil Tests

Note: An expression that opens with a bracket and closes with a parenthesis indicates that a value is greater than the first number and is less than or equal to the second number. For example, “[20, 25)” indicates a value greater than or equal to 20 but less than 25.

Table 11.G.1 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Three

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	472	472	75%	75%
[25, 30)	131	603	21%	96%
[30, 35)	19	622	3%	99%
[35, 40)	4	626	1%	100%
[45, 50)	1	627	0%	100%

Table 11.G.2 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Four

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	92	92	15%	15%
[25, 30)	465	557	77%	92%
[30, 35)	42	599	7%	99%
[35, 40)	4	603	1%	99%
[40, 45)	2	605	0%	100%
[45, 50)	1	606	0%	100%
[70, 75)	1	607	0%	100%

Table 11.G.3 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Five

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	183	183	38%	38%
[25, 30)	280	463	58%	97%
[30, 35)	12	475	3%	99%
[35, 40)	4	479	1%	100%

Table 11.G.4 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Six

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	169	169	83%	83%
[30, 35)	25	194	12%	96%
[35, 40)	5	199	2%	98%
[40, 45)	4	203	2%	100%

Table 11.G.5 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Seven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	60	60	83%	83%
[30, 35)	9	69	13%	96%
[35, 40)	1	70	1%	97%
[40, 45)	1	71	1%	99%
[60, 65)	1	72	1%	100%

Table 11.G.6 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eight

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	62	62	87%	87%
[30, 35)	9	71	13%	100%

Table 11.G.7 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eleven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	14	14	41%	41%
[30, 35)	16	30	47%	88%
[35, 40)	4	34	12%	100%

Table 11.G.8 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Three

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	477	477	77%	77%
[20, 25)	111	588	18%	95%
[25, 30)	27	615	4%	99%
[30, 35)	1	616	0%	99%
[35, 40)	3	619	0%	100%
[40, 45)	2	621	0%	100%

Table 11.G.9 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Four

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	474	474	78%	78%
[20, 25)	124	598	20%	98%
[25, 30)	8	606	1%	100%
[30, 35)	3	609	0%	100%

Table 11.G.10 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Five

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	159	159	34%	34%
[20, 25)	224	383	47%	81%
[25, 30)	66	449	14%	95%
[30, 35)	17	466	4%	98%
[35, 40)	3	469	1%	99%
[40, 45)	3	472	1%	100%
[45, 50)	1	473	0%	100%
[50, 55)	1	474	0%	100%

Table 11.G.11 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Six

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	151	151	76%	76%
[25, 30)	25	176	13%	89%
[30, 35)	13	189	7%	95%
[35, 40)	5	194	3%	98%
[40, 45)	3	197	2%	99%
[45, 50)	1	198	1%	100%

Table 11.G.12 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Seven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	37	37	55%	55%
[25, 30)	14	51	21%	76%
[30, 35)	10	61	15%	91%
[35, 40)	4	65	6%	97%
[45, 50)	1	66	1%	99%
[60, 65)	1	67	1%	100%

Table 11.G.13 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eight

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	24	24	34%	34%
[25, 30)	20	44	29%	63%
[30, 35)	12	56	17%	80%
[35, 40)	7	63	10%	90%
[40, 45)	4	67	6%	96%
[50, 55)	2	69	3%	99%
[70, 75)	1	70	1%	100%

Table 11.G.14 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eleven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	3	3	9%	9%
[25, 30)	1	4	3%	11%
[30, 35)	2	6	6%	17%
[35, 40)	3	9	9%	26%
[40, 45)	3	12	9%	34%
[45, 50)	8	20	23%	57%
[50, 55)	4	24	11%	69%
[55, 60)	3	27	9%	77%
[60, 65)	3	30	9%	86%
[65, 70)	2	32	6%	91%
[70, 75)	1	33	3%	94%
[75, 80)	1	34	3%	97%
[90, 95)	1	35	3%	100%

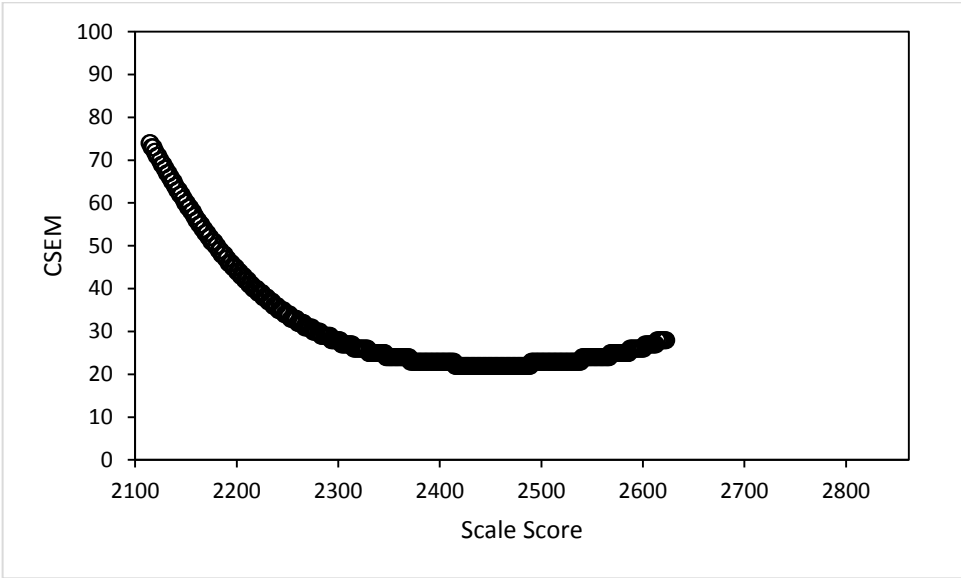


Figure 11.G.1 Scale Score CSEM Distribution Plots—ELA, Grade Three

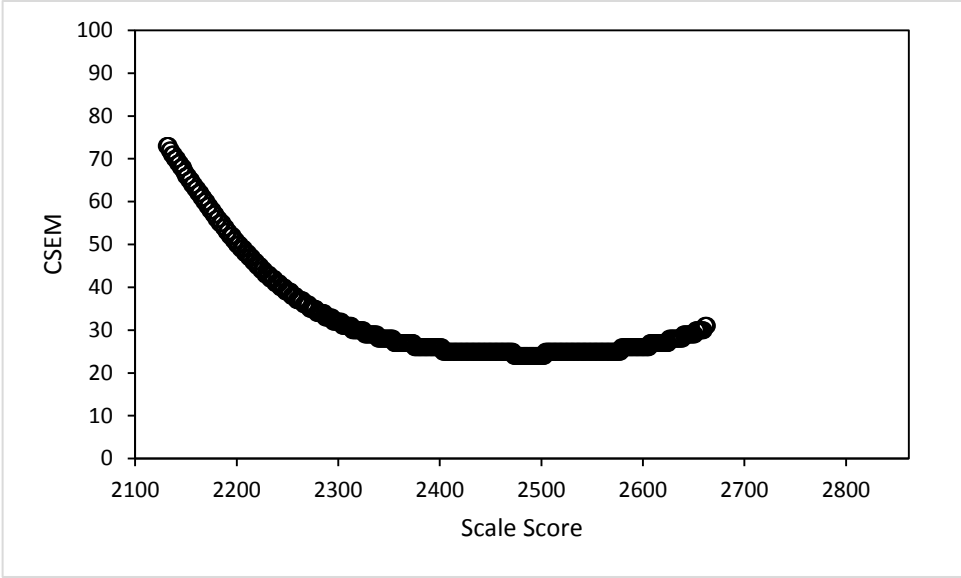


Figure 11.G.2 Scale Score CSEM Distribution Plots—ELA, Grade Four

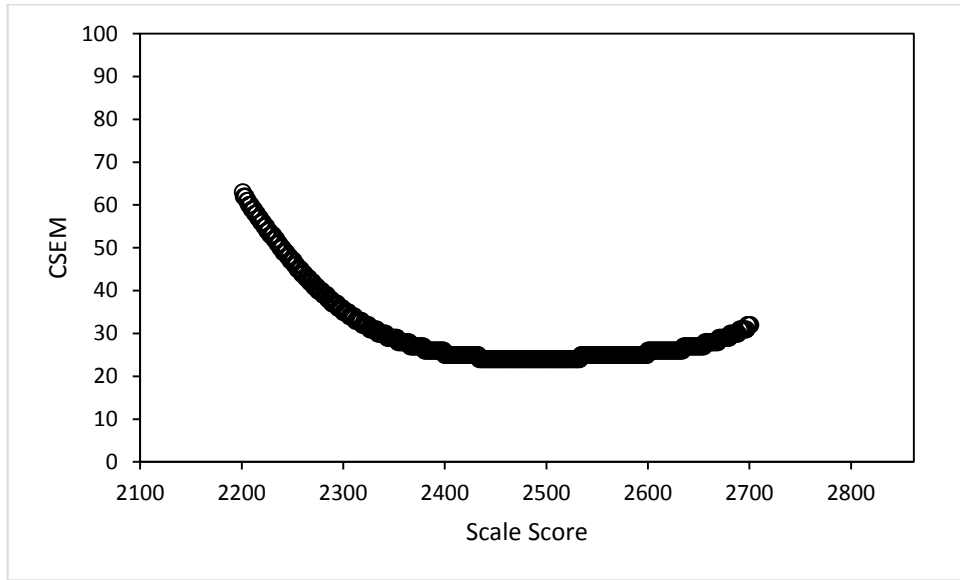


Figure 11.G.3 Scale Score CSEM Distribution Plots—ELA, Grade Five

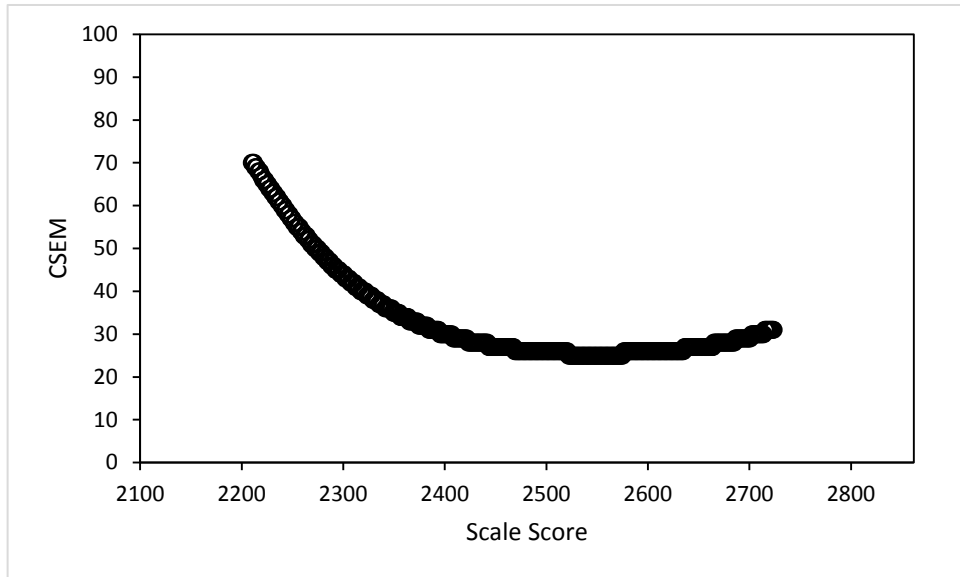


Figure 11.G.4 Scale Score CSEM Distribution Plots—ELA, Grade Six

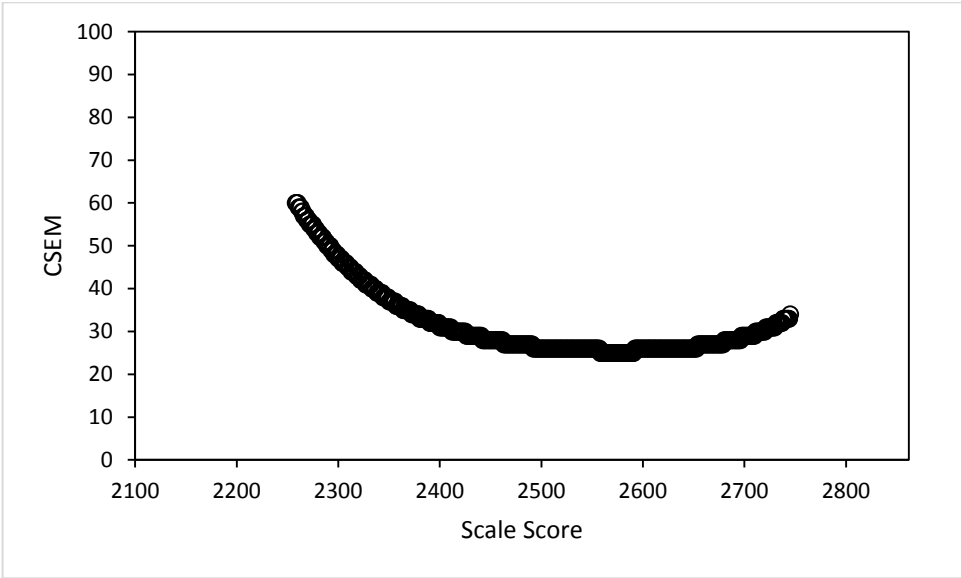


Figure 11.G.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven

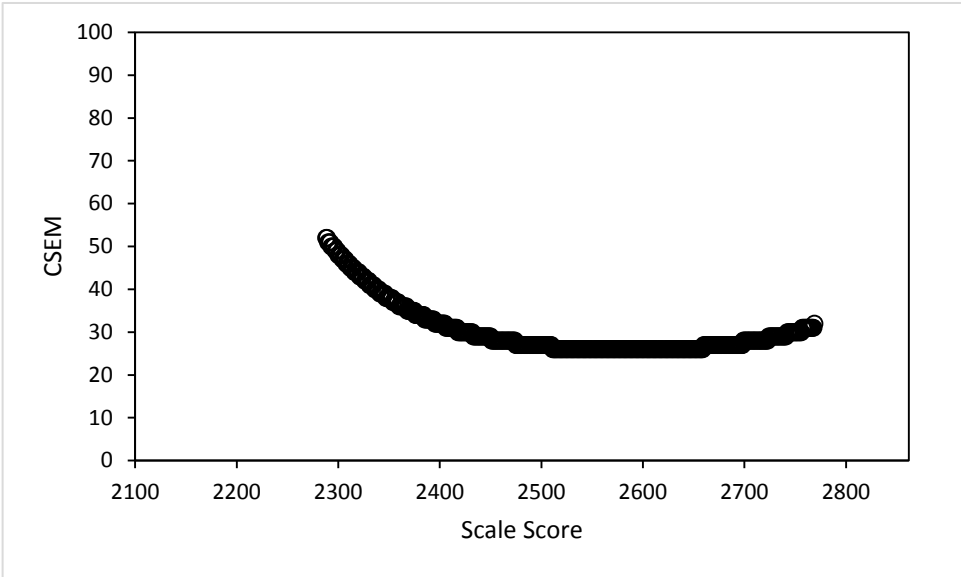


Figure 11.G.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight

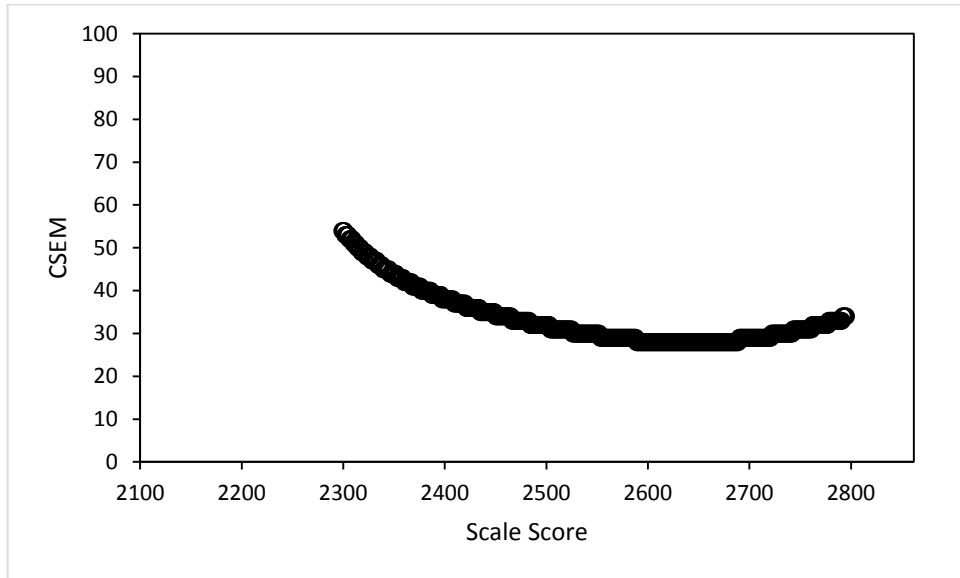


Figure 11.G.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven

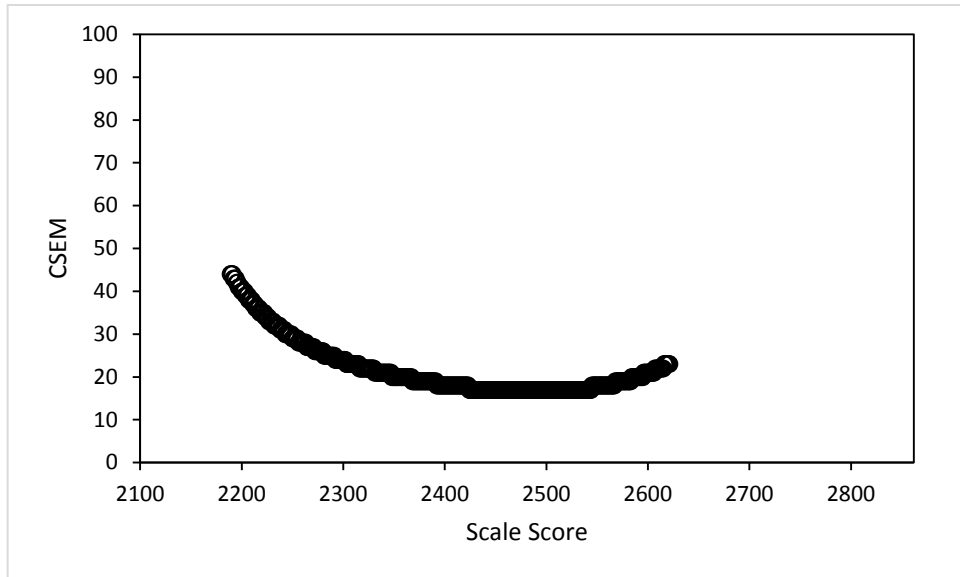


Figure 11.G.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three

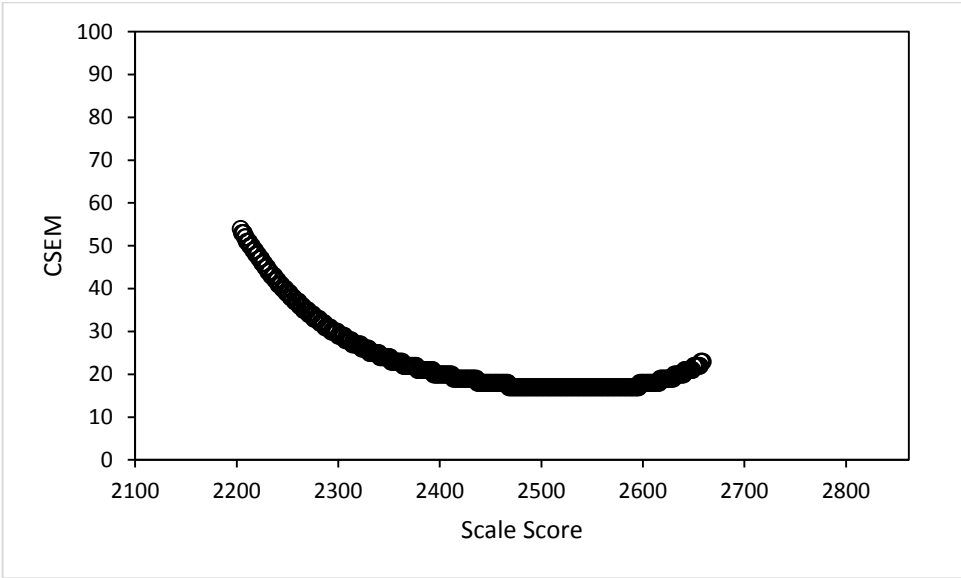


Figure 11.G.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four

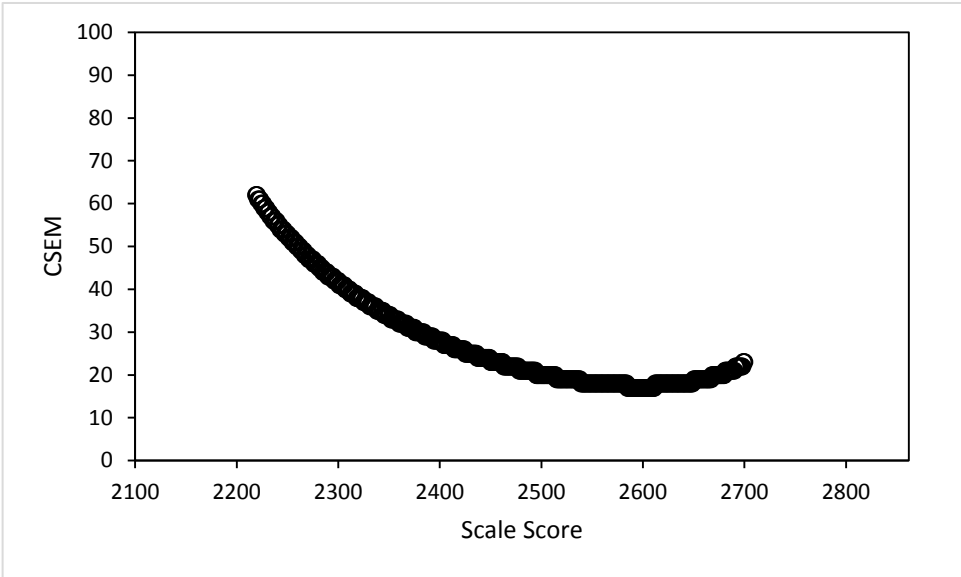


Figure 11.G.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five

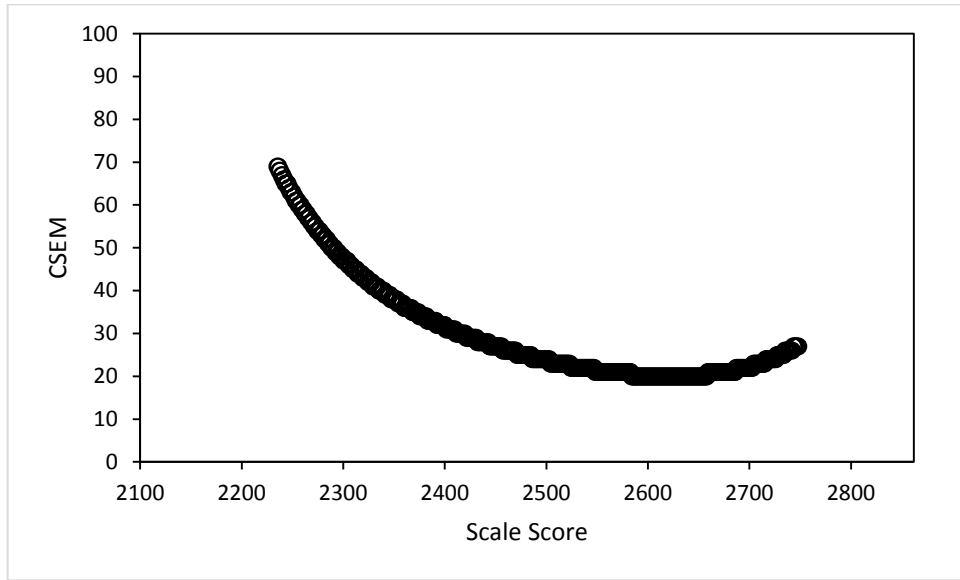


Figure 11.G.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six

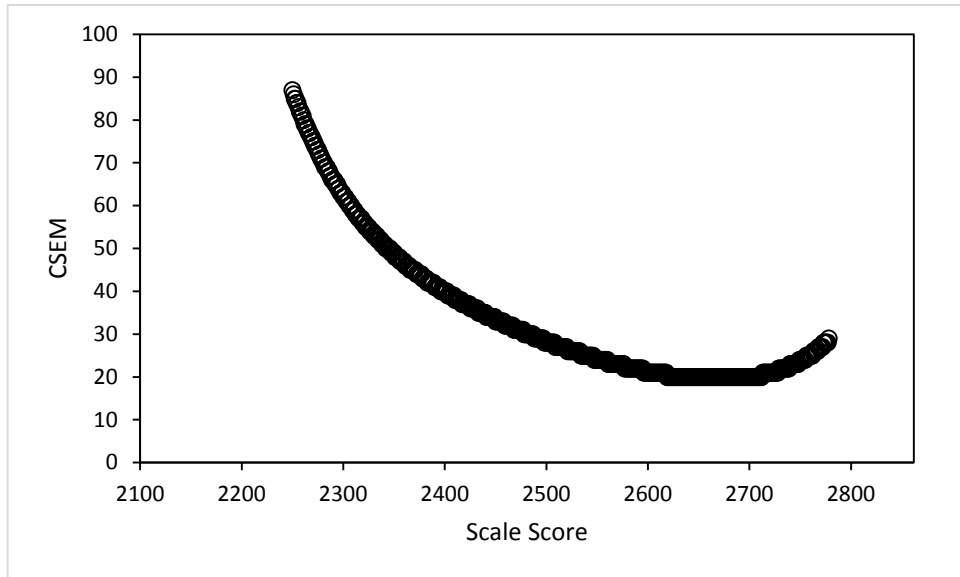


Figure 11.G.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven

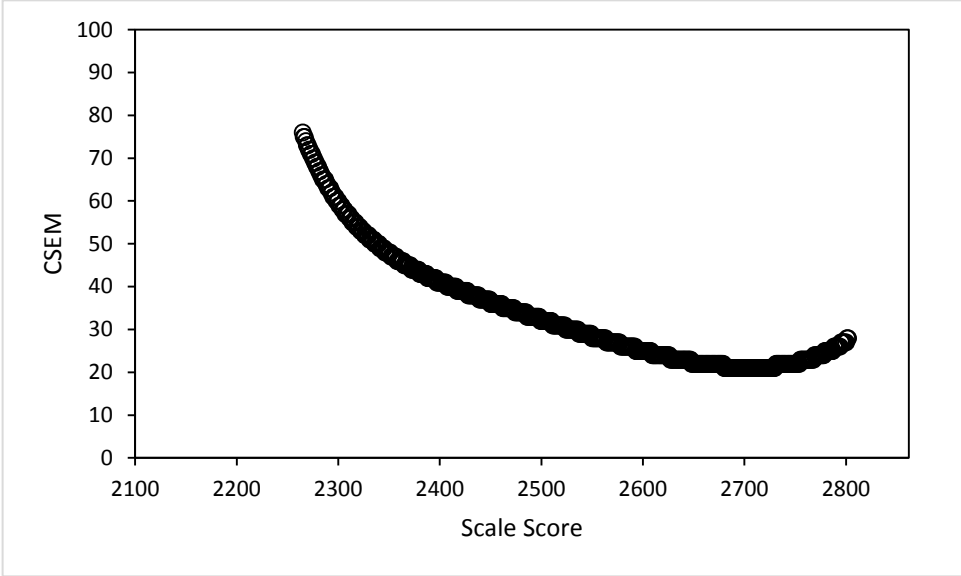


Figure 11.G.13 Scale Score CSEM Distribution Plots—Mathematics, Grade Eight

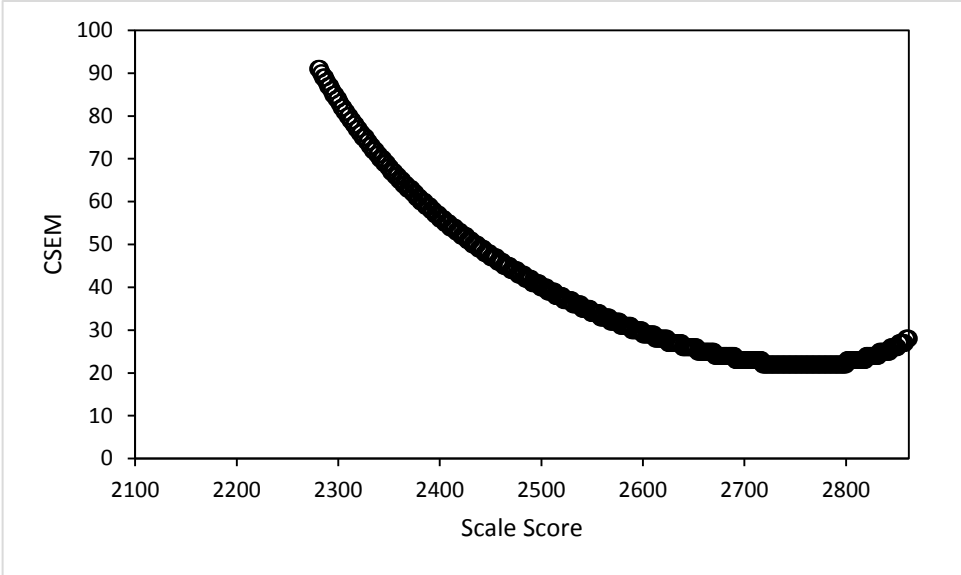


Figure 11.G.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven